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GEOLOGICAL SURVEY OF CANADA OPEN FILE 8011

Space Weather Bulletin - 2015

R.A.D. Fiori, L. Nikolic, H.-L. Lam, L. Trichtchenko, D. Danskin, L. McKee, D.H. Boteler, C. Blais

2016





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1. Introduction

Space weather refers to changes in the space environment resulting from solar disturbances that ultimately affect human activities on Earth and in space. These solar disturbances include the emission of electromagnetic radiation (solar flare) and the emission of electrically charged particles through coronal mass ejections (CME) and plasma streams (i.e., coronal holes). Whenever severe solar disturbances occur, they have the potential to impact the Earth's magnetic field, also called the geomagnetic field, triggering geomagnetic storms. Geomagnetic storms are variations in the geomagnetic field that can last for hours or days, and can directly affect activities that rely on the geomagnetic field. Geomagnetic field variations can also cause electric currents to flow in long conductors such as power systems and pipelines, potentially damaging those systems. Geomagnetic activity is strongest in bands called auroral ovals which surround the magnetic poles in both hemispheres. In the northern hemisphere the auroral oval extends across Canada. Due to Canada's location with respect to the north magnetic pole, Canada is the country most affected by space weather and geomagnetic disturbances. Space weather effects include (but are not limited to) geomagnetically induced currents in power systems and pipelines, azimuthal errors in directional drilling, disruptions to high frequency radio communication and GPS navigation, and failure or misoperation of satellites.

Government of Canada work on space weather and geomagnetic activity is undertaken by Natural Resources Canada scientists in the Canadian Space Weather Forecast Centre¹ (CSWFC). The CSWFC is responsible for researching, monitoring, forecasting, and reporting on space weather and its effects in an effort to reduce the vulnerability of Canadian infrastructure to space weather.

The Space Weather Bulletin is generated by the Canadian Space Weather Forecast Centre and provides recipients with a daily description of current conditions, a 24-hour prediction and a 24-hour review of solar, interplanetary, and geomagnetic conditions and observed events. The bulletin also lists possible impacts on technology. The main bulletin users are Government of Canada Departments and Emergency Management Organizations. 2015 represents year five of bulletin dissemination to these stakeholders²³⁴⁵. A Guide to the Space Weather Bulletin⁶ was published in order to provide a basic understanding of the daily Space Weather Bulletin including general information about space weather to the users.

This report describes the Space Weather Bulletin and documents bulletins issued in 2015. A list of typical statements is provided in Section 2 and possible impacts associated with varying levels of space weather activity are given in Section 3. Tables of values used to select descriptive statements used in the bulletin

¹ http://www.spaceweather.gc.ca

² Fiori, R.A.D., Lam, H.-L., Trichtchenko, L., McKee, L., Danskin, D., Nikolic, L., 2012. Space Weather Bulletin - 2011, Geological Survey of Canada, Open File 7197. doi:10.4095/291896

³ Fiori, R.A.D., Lam, H.-L., Trichtchenko, L., McKee, L., Danskin, D., Nikolic, L., 2013. Space Weather Bulletin – 2012, Geological Survey of Canada, Open File 7391. doi:10.4095/292881

⁴ Nikolic, L., Fiori, R.A.D., Danskin, D., Trichtchenko, L., McKee, L., Lam, H.-L., 2014. Space Weather Bulletin – 2013; Geological Survey of Canada, Open File 7656, 417 p. doi:10.4095/295178

⁵ Fiori, R.A.D., Nikolic, L., Lam, H.-L., Trichtchenko, L., Danskin, D., McKee, L., Boteler, D.H., and Blais, C., 2015. Space Weather Bulletin – 2014; Geological Survey of Canada, Open File 7837, 429 p. doi:10.4095/296567

⁶ Fiori, R.A.D., 2014. Guide to the Space Weather Bulletin, Geological Survey of Canada, Open File 7422. doi:10.4095/293873

are given in Section 4. Section 5 describes statements issued in a related Twitter feed, and Section 6 summarizes geomagnetic activity in 2015. Daily bulletins issued in 2015 are presented in Section 7.

2. Statements used in the 2015 daily space weather bulletin

This section provides a summary of the most recent (as of December 31, 2015) version of the *Space Weather Bulletin* in tabular format in both English and French. Tables are used to separate statements into common groupings. The descriptions below represent a fill-in-the-blank style template completed by the duty forecaster (DF).

Symbolic text, highlighted in red, represents dates and times. For example:

DD MMM YYYY	day month year	26 JUN 2012
HH:MM	hour:minute	08:19
XX	any number	5

In some instances the duty forecaster completing the form has a selection of terms. The words to be selected from are encased in brackets and highlighted in blue. Each possible term is separated by the '/' symbol. For example:

(Stormy / Major storm) conditions are possible within the next 24 hours.

Creates two possible sentences:

Stormy conditions are possible within the next 24 hours. Major storm conditions are possible within the next 24 hours.

In some instances the duty forecaster completing the form may pick any number of entries highlighted in blue. In these cases, the last entry in the list is preceded by 'and' and the user is expected to place 'and' wherever it is required in the list. For example:

Stormy conditions are possible in the (polar cap / auroral / and sub-auroral) (zone / zones).

Creates several possibilities, such as

Stormy conditions are possible in the auroral zone. Stormy conditions are possible in the polar cap and auroral zones. Stormy conditions are possible in the polar cap, auroral, and sub-auroral zones.

Note that in some situations the selection may be left blank.

2.1. Summary / Résumé

	A major storm WATCH is in effect for the	Une VEILLE d'orage majeur est en vigueur
	auroral zone / polar cap, auroral, and sub-	pour (la zone aurorale / les zones de la
	auroral zones) from DD MMM YYYY	calotte polaire, aurorale et sub-aurorale)
<u>ب</u>	HH:MM UT to DD MMM YYYY HH:MM UT.	du DD MMM YYYY HH:MM TU au DD
en		MMM YYYY HH:MM TU.
naj	A major storm WATCH is in effect for the	Une VEILLE d'orage majeur est en vigueur
Je r	(auroral zone / polar cap, auroral, and sub-	pour (la zone aurorale / les zones de la
Iraç	auroral zones), and is anticipated to end	calotte polaire, aurorale et sub-aurorale),
d'o	DD MMM YYYY HH:MM UT.	et devrait se terminer le DD MMM YYYY
ille		HH:MM TU.
vei	The major storm WATCH issued DD MMM	La VEILLE d'orage majeur émise le DD MMM
/ч	YYYY HH:MM UT for the (auroral zone /	YYYY HH:MM TU pour (la zone aurorale /
atc	polar cap, auroral, and sub-auroral zones)	les zones de la calotte polaire, aurorale et
ž.	has been extended to DD MMM YYYY HH:MM UT.	sub-aurorale) a été prolongée jusqu'au DD MMM YYYY HH:MM TU.
tor	The major storm WATCH issued DD MMM	La VEILLE d'orage majeur émise le DD MMM
ors	YYYY HH:MM UT for the (auroral zone /	YYYY HH:MM TU pour (la zone aurorale /
naj	polar cap, auroral, and sub-auroral zones)	les zones de la calotte polaire, aurorale et
~	ended DD MMM YYYY HH:MM UT.	sub-aurorale) s'est terminée le DD MMM
		YYYY HH:MM TU.
	There is currently no major storm watch in	Actuellement, aucune veille d'orage majeur
	effect.	n'est pas en vigueur.
	(Stormy / Major storm) conditions are possible	Des conditions (orageuses / d'orage majeur)
	in the (polar cap / auroral / and sub-	sont possibles dans (la zone / les zones)
	auroral) (zone / zones) within the next 24	(de la calotte polaire / aurorale / et sub-
es	nours.	aurorale) au cours des 24 prochaines
sne	(Stormy (Major storm) conditions are	Des conditions (organusos / d/orago majour)
age	(nossible / expected) from DD MMM VVVV	sont (nossibles / próvues) du DD MMM
or	HH-MM IIT to DD MMM VVVV HH-MM for	
ŝuo	the (polar cap / auroral / and sub-auroral)	HH·MM TU pour (la zone / les zones) (de
diti		la calotte polaire / aurorale / et sub-
ouo	2010(3).	aurorale)
/ 0	(Stormy / Major storm) conditions are	Des conditions (orageuses / d'orage maieur)
suo	currently observed in the (polar cap /	sont actuellement observées dans (la zone
liti	auroral / and sub-auroral) (zone / zones).	/ les zones) (de la calotte polaire /
onc		aurorale / et sub-aurorale).
Ŋс	(Stormy / Major storm) conditions expected	Les conditions (orageuses / d'orage majeur)
Jrn	from DD MMM YYYY HH:MM UT to DD	prévues du DD MMM YYYY HH:MM TU au
sto	MMM YYYY HH:MM UT for the (auroral	DD MMM YYYY HH:MM TU pour (la zone
	zone / polar cap, auroral, and sub-auroral	aurorale / les zones de la calotte polaire,
	zones) did not occur.	aurorale et sub-aurorale) ne sont pas
		survenues.

	(An ionospheric / A polar cap) absorption	Un épisode d'absorption (ionosphérique /
	event is currently in progress in the (polar	dans la calotte polaire) est en cours dans
	cap / auroral / and sub-auroral) (zone /	(la zone / les zones) (de la calotte polaire
	zones).	/ aurorale / et sub-aurorale).
	The (ionospheric / polar cap) absorption event	L'épisode d'absorption (ionosphérique / dans
	reported yesterday has ended.	la calotte polaire) signalé hier est
		terminé.
	(An ionospheric / A polar cap) absorption	Aucun épisode d'absorption (ionosphérique /
	event is currently not in effect.	dans la calotte polaire) n'est en cours
		actuellement.
	(An ionospheric / A polar cap) absorption	Un épisode d'absorption (ionosphérique /
	event is possible.	dans la calotte polaire) est possible.
	An (incomparies (palar can) absorption event	Un ápisada d'absorption (innosphárique /
	is currently in progress for the (polar can	dans la calotto polairo) on cours est
	(auroral / and sub auroral) zono(s) from	signaló pour (la zono / los zonos) (do la
	DD MMM VVVV HH-MM IIT to DD MMMM	calotte polaire / aurorale / et sub-
0		aurorale) du DD MMM YYYY HH·MM TU
lèr(au DD MMM YYYY HH·MM TH
sph	An (ionospheric / polar cap) absorption event	Un épisode d'absorption (ionosphérique /
ouo	is currently in progress for the (polar cap	dans la calotte polaire) en cours est
/ic	/ auroral / and sub-auroral) zone(s), and	signalé pour (la zone / les zones) (de la
ere	is anticipated to end at DD MMM YYYY	calotte polaire / aurorale / et sub-
bh∈	HH:MM UT.	aurorale) et devrait se terminer le DD
lool		MMM YYYY HH:MM TU.
ior	The (ionospheric / polar cap) absorption event	L'épisode d'absorption (ionosphérique / dans
	that began DD MMM YYYY HH:MM UT in	la calotte polaire) qui a commencé le DD
	the (polar cap / auroral / and sub-auroral)	MMM YYYY HH:MM TU dans (la zone /
	zone(s) has been extended to DD MMM	les zones) (de la calotte polaire / aurorale
	YYYY HH:MM UT.	/ et sub-aurorale) est perdurer jusqu'au
		DD MMM YYYY HH:MM TU.
	The (ionospheric / polar cap) absorption event	L'épisode d'absorption (ionosphérique / dans
	that began DD MMM YYYY HH:MM UT in	la calotte polaire) qui a commencé le DD
	the (polar cap / auroral / and sub-auroral)	MMM YYYY HH:MM TU dans (la zone /
	zone(s) ended DD MMM YYYY HH:MM	les zones) (de la calotte polaire / aurorale
	UI.	/ et sub-aurorale) s'est terminé le DD
		MMM YYYY HH:MM IU.
	ine (ionospheric / polar cap) absorption event	L'episode d'absorption (ionospherique / dans
	expected from DD MIMINI YYYY HH:MM	la calotte polaire) prevu du DD MIMIVI
	(potar cap / auroral / and sub-auroral)	HH: IVIIVI I U pour (la zone / les zones) (de
		a calotte polare / auforale / et sub-
		au oraie) ne s est pas produit.

	(An / A) (slow / moderate / fast) Earth-	Une EMC (lente / modérée / rapide) dirigée
	directed CME has erupted over the past	vers la Terre a eu lieu au cours des
	24 hours.	24 dernières heures.
	(Two / Three / Several) (slow / moderate /	(Deux / Trois / Plusieurs) EMC (lents /
ire	fast) Earth-directed CMEs have erupted	modérés / rapides) dirigées vers la Terre
olai	over the past 24 hours.	ont eu lieu au cours des 24 dernières
é S(heures.
vit	A (medium / large / medium to large) (long	Une éruption solaire (movenne / forte /
Icti	duration) solar x-ray flare has erupted	movenne à forte) (de longue durée) avec
/ a	over the past 24 hours	émission de rayons X a eu lieu au cours
ity		des 24 dernières heures
tiv	(Two / Three / Several) (medium / Jarge /	(Deux / Trois / Plusieurs) éruntions solaires
r ac	medium to large) (long duration) solar v-	(movennes / fortes / movennes à fortes)
olai	ray flares have crupted over the past 24	(de lengue durée) avec émission de
SC	hours	(de longue du ee) avec ennission de
	nours.	A demiànes haves
		24 dernieres neures.
	CIVIES may be associated with these flares.	Des EIVIC peuvent etre associees a ces
		eruptions.
	(Disturbed / Stormy / Major storm) conditions	Les conditions (perturbees / orageuses /
	observed DD IVIIVIIVI YYYY In the (polar cap	d'orage majeur) observees le DD MIMIN
	/ auroral / and sub-auroral) (zone / zones)	YYYY dans (la zone / les zones) (de la
	have ended.	calotte polaire / aurorale / et sub-
		aurorale) sont terminées.
	(An / A) (slow/moderate/fast) Earth-directed	Une EMC (lente / modérée / rapide) en
es	CME erupted on DD MMM YYYY HH:MM	direction de la Terre a eu lieu le DD
air	UT (and is expected to reach the Earth on	MMM YYYY à HH:MM TU (et devrait
sht	DD MMM YYYY)(, resulting in increased /	atteindre la Terre le DD MMM YYYY) (,
Ű	disturbed geomagnetic activity).	provoquant une augmentation /
plé		perturbation de l'activité
mo		géomagnétique).
SC	(Two / Three / Several) (slow / moderate /	(Deux/Trois/Plusieurs) EMC (lents / modérés /
ncé	fast) Earth-directed CMEs erupted on DD	rapides) en direction de la Terre ont eu
IOU	MMM YYYY at HH:MM UT, HH:MM UT,,	lieu le DD MMM YYYY à HH:MM TU,
/é	and HH:MM UT (and are expected to	HH:MM TU,, et HH:MM TU (et
nts	reach the Earth on DD MMM YYYY) (,	devraient atteindre la Terre le DD MMM
Jer	resulting in increased/disturbed	YYYY) (, provoquant une augmentation /
ten	geomagnetic activity).	perturbation de l'activité
sta		géomagnétique).
ն	A (slow/moderate/fast) CME was observed on	Une EMC (lente / modérée / rapide) a été
iki	DD MMM YYYY, and is expected to	observée le DD MMM YYYY, et devrait
÷	deliver a glancing blow to the Earth on DD	toucher la Terre obliquement le DD
	MMM YYYY (, resulting in	MMM YYYY (, provoquant une
	increased/disturbed geomagnetic	augmentation/perturbation de l'activité
	activity).	géomagnétique).
	(Two / Three / Several) (slow / moderate /	(Deux/Trois/Plusieurs) EMC (lents / modérés /
	fast) CMEs were observed on DD MMM	rapides) ont été observées le DD MMM
	YYYY, and are expected to deliver a	YYYY, et devraient toucher la Terre
linking statements / énoncés complém	 (Two / Three / Several) (slow / moderate / fast) Earth-directed CMEs erupted on DD MMM YYYY at HH:MM UT, HH:MM UT,, and HH:MM UT (and are expected to reach the Earth on DD MMM YYYY) (, resulting in increased/disturbed geomagnetic activity). A (slow/moderate/fast) CME was observed on DD MMM YYYY, and is expected to deliver a glancing blow to the Earth on DD MMM YYYY (, resulting in increased/disturbed geomagnetic activity). (Two / Three / Several) (slow / moderate / fast) CMEs were observed on DD MMM YYYY, and are expected to deliver a 	 provoquant une augmentation / perturbation de l'activité géomagnétique). (Deux/Trois/Plusieurs) EMC (lents / modérés / rapides) en direction de la Terre ont eu lieu le DD MMM YYYY à HH:MM TU, HH:MM TU,, et HH:MM TU (et devraient atteindre la Terre le DD MMM YYYY) (, provoquant une augmentation / perturbation de l'activité géomagnétique). Une EMC (lente / modérée / rapide) a été observée le DD MMM YYYY, et devrait toucher la Terre obliquement le DD MMM YYYY (, provoquant une augmentation/perturbation de l'activité géomagnétique). (Deux/Trois/Plusieurs) EMC (lents / modérés / rapides) ont été observées le DD MMM YYYY, et devraient toucher la Terre

	glancing blow to the Earth on DD MMM YYYY (, resulting in increased / disturbed geomagnetic activity).	obliquement le DD MMM YYYY (, provoquant une augmentation/perturbation de l'activité géomagnétique).
autre	Possibility of impacts to (power systems / radio systems / satellites / aeromagnetic surveys / and directional drilling.	Possibilité de répercussions sur les (réseaux d'électricité / systèmes radio / satellites / levés aéromagnétiques / et forages dirigés).
other \	See our website for current geomagnetic conditions: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)	Veuillez consulter notre site Web pour connaître les conditions géomagnétiques actuelles : <u>http://www.spaceweather.gc.ca</u> (actualisées toutes les 15 minutes)

2.2. Current conditions (HH:MM UT) / Conditions actuelles (HH:MM TU)

2.2.1. Geomagnetic activity / activité géomagnétique

polar cap zone: (quiet / unsettled / active /	calotte polaire : (calme / agitée / active /
stormy / major storm / unavailable)	orageuse / orage majeur / non disponible)
auroral zone: (quiet / unsettled / active / stormy	zone aurorale : (calme / agitée / active /
/ major storm / unavailable)	orageuse / orage majeur / non disponible)
sub-auroral zone: (quiet / unsettled / active /	zone sub-aurorale : (calme / agitée / active /
stormy / major storm / unavailable)	orageuse / orage majeur / non disponible)

2.2.2. Environment at geostationary orbit / Environnement à l'orbite géostationnaire

energetic electron fluence at geostationary orbit:	fluence des électrons énergétiques en orbite
(low / normal / moderate / high / very high /	géostationnaire : (faible / normale /
unavailable)	modérée / élevée / très élevée / non
	disponible)

2.2.3. Possible impacts on technology / Effets possibles sur la technologie

Power Systems: (Possibility of weak voltage	Réseaux d'électricité : (Possibilité de faibles
fluctuations / Geomagnetically induced	variations de tension / Des courants induits
currents may cause misoperation of	géomagnétiquement peuvent entraîner un
protective relays and transformer heating) in	mauvais fonctionnement des relais de
the (polar cap / auroral / and sub-auroral)	protection et un échauffement des
zone(s).	, transformateurs) dans (la zone / les zones)
	(de la calotte polaire / aurorale / et sub-
	aurorale).
HE radio: Ionospheric and polar can absorption	Radiocommunications HE · Des énisodes
I in radio, ionospheric and polar cap absorption	Radiocommunications m - Des episodes
events may affect radio communications for	d'absorption ionosphérique et dans la

transpolar flights and other arctic	calotte glaciaire peuvent avoir des effets sur
operations.	les radiocommunications pour les vols
	transpolaires et d'autres opérations dans
	l'Arctique.
Geostationary satellites: (Moderate risk of	Satellites géostationnaires : (Risque modéré de
internal charging / High risk of internal	charge électrostatique interne / Risque élevé
charging / Very high risk of internal	de charge électrostatique interne / Risque trè
charging).	élevé de charge électrostatique interne).
Aeromagnetic surveys: (Potential for disruptions	Levés aéromagnétiques : (Possibilité de
/ Potential for significant disruptions /	perturbations / Possibilité de perturbations
Potential for severe disruptions) in the (polar	importantes / Possibilité de graves
cap / auroral / and sub-auroral) zone(s).	perturbations) dans (la zone / les zones) (de
	la calotte polaire / aurorale / et sub-
	aurorale).
Directional Drilling: (Potential for deviations /	Forages dirigés : (Possibilité de déviations /
Potential for significant deviations / Potential	Possibilité de perturbations déviations /
for sever deviations) in the (polar cap /	Possibilité de graves déviations) dans (la
auroral / and sub-auroral) zone(s).	zone / les zones) (de la calotte polaire /
	aurorale / et sub-aurorale).
Impacts are not expected.	Aucune répercussion n'est prévue.

2.3. 24 hour forecast / Prévisions de 24 heures

2.3.1. Geomagnetic activity / activité géomagnétique

polar cap zone: (quiet / unsettled / active /	zone de la calotte polaire : (calme / agitée / active
stormy / major storm / unavailable) (with	/ orageuse / orage majeur / non disponible)
quiet / unsettled / active / stormy / major	(avec des périodes calmes / agitées / actives
storm intervals)	/ orageuses / d'orage majeur)
auroral zone: (quiet / unsettled / active / stormy	zone aurorale : (calme / agitée / active / orageuse
/ major storm / unavailable) (with unsettled	/ orage majeur / non disponible) (avec des
/ active / stormy / major storm intervals)	périodes agitées / actives / orageuses /
	d'orage majeur)
sub-auroral zone: (quiet / unsettled / active /	zone sub-aurorale : (calme / agitée / active /
stormy / major storm / unavailable) (with	orageuse / orage majeur / non disponible)
unsettled / active / stormy / major storm	(avec des périodes agitées / actives /
intervals)	orageuses / d'orage majeur).

2.3.2. Environment at geostationary orbit / Environnement à l'orbite géostationnaire

energetic electron fluence at geostationary orbit:	fluence des électrons énergétiques en orbite
(Low / Normal / Moderate / High / Very High	géostationnaire : (faible / normale /
/ unavailable)	modérée / élevée / très élevée / non
	disponible)

2.3.3. Possible impacts on technology / Effets possibles sur la technologie

The choice of statements for the possible impacts on technology in the 24 hour forecast part of the bulletin are the same as in the section for the *current conditions* (see section 3.2).

2.4. Additional information / Information supplémentaire

Additional information at	Information supplémentaire à
http://www.spaceweather.gc.ca	http://www.spaceweather.gc.ca
Updated conditions and forecast; Background	Conditions et prévisions actualisées;
information; FAQ, Glossary of terms, and	Renseignements généraux; FAQ, Glossaire et
potential impacts.	effets possibles.

2.5. Detailed information / Information détaillée

2.5.1. Solar / Solaire

general / généralités	Solar activity has been (very low / low / moderate / high / very high). Data about solar conditions are currently unavailable.	L'activité solaire a été (très faible / faible / modérée / élevée / très élevée). Les données sur les conditions solaires ne sont pas disponibles à l'heure actuelle.				
active regions / régions actives	 (There is one active region / There are xx active regions / There are several active regions) visible on the solar disk. The active region located near the (east limb / central region / west limb) of the solar disk has produced a (solar x-ray flare / long duration solar x-ray flare) (and an associated CME) (and has the potential to produce subsequent solar eruptions). 	 (II y a une région active / II y a xx régions actives / II y a plusieurs régions actives) (visible / visibles) sur le disque solaire. La région active située près (du bord est / de la région centrale / du bord ouest) du disque solaire a produit une (éruption solaire avec émission de rayons X / éruption solaire de longue durée avec émission de rayons X) (et une EMC associée) (et pourrait produire des éruptions solaires subséquentes). 				

	(An / A) (slow/moderate/fast) Earth-directed	Une EMC (lente / modérée / rapide) en					
	CME erupted on DD MMM YYYY HH:MM	direction de la Terre a eu lieu le DD					
	UT (and is expected to reach the Earth on	MMM YYYY HH:MM TU (et devrait					
	DD MMM YYYY)(, resulting in	atteindre la Terre le DD MMM YYYY) (,					
	increased/disturbed geomagnetic	provoquant une					
	activity).	augmentation/perturbation de l'activité					
	5.	géomagnétique).					
	(Two/Three/Several) (slow/moderate/fast)	(Deux/Trois/Plusieurs) EMC (lents / modérés /					
	Earth-directed CMEs erupted on DD	rapides) en direction de la Terre ont eu					
	MMM YYYY at HH:MM UT, HH:MM UT,	lieu le DD MMM YYYY à HH:MM TU,					
	, and HH:MM UT (and are expected to	HH:MM TU,, et HH:MM TU (et					
	reach the Earth on DD MMM YYYY) (,	devraient atteindre la Terre le DD MMM					
	resulting in increased/disturbed	YYYY) (, provoguant une augmentation /					
	geomagnetic activity).	perturbation de l'activité					
		géomagnétique).					
	A (slow/moderate/fast) CME was observed on	Une EMC (lente / modérée / rapide) a été observée le DD MMM YYYY, et devrait					
	DD MMM YYYY, and is expected to	observée le DD MMM YYYY, et devrait					
	deliver a glancing blow to the Earth on	toucher la Terre obliquement le DD MMM YYYY (, provoquant une					
	DD MMM YYYY (, resulting in	MMM YYYY (, provoquant une					
	increased/disturbed geomagnetic	augmentation/perturbation de l'activité					
	activity).	géomagnétique).					
ပ	(Two / Three / Several) (slow / moderate /	(Deux/Trois/Plusieurs) EMC (lents / modérés /					
Ň	fast) CMEs were observed on DD MMM	rapides) ont été observées le DD MMM					
11	YYYY, and are expected to deliver a	YYYY, et devraient toucher la Terre					
ME	glancing blow to the Earth on DD MMM	obliquement le DD MMM YYYY (,					
S	YYYY (, resulting in increased/disturbed	provoquant une					
	geomagnetic activity).	augmentation/perturbation de l'activité					
		géomagnétique).					
	A (slow/moderate/fast) non-Earth-directed	Une EMC (lente / modérée / rapide) non					
	CME erupted on DD MMM YYYY HH:MM	dirigée vers la Terre a eu lieu le DD MMM					
	UT.	YYYYHH:MM TU.					
	(Two / Three / Several) (slow / moderate /	(Deux/Trois/Plusieurs) EMC (lents / modérés /					
	fast) non-Earth-directed CMEs erupted on	rapides) non dirigées vers la Terre ont eu					
	DD MMM YYYY at HH:MM UT, HH:MM	lieu le DD MMM YYYY à HH:MM TU,					
	UT,, and HH:MM UT.	HH:MM TU,, et HH:MM TU.					
	A (slow / moderate / fast) CME erupted on	Une EMC (lente / modérée / rapide) a eu lieu					
	DD MMM YYYY HH:MM UT. It is not yet	le DD MMM YYYY HH:MM TU. On ne sait					
	known if the CME will impact the Earth.	pas encore si l'EMC touchera la Terre.					
	(Two / Three / Several) (slow / moderate /	(Deux/Trois/Plusieurs) EMC (lents / modérés /					
	fast) CMEs erupted on DD MMM YYYY at	rapides) ont eu lieu le DD MMM YYYY à					
	HH:MM UT, HH:MM UT,, and HH:MM	HH:MM TU, HH:MM TU,, et HH:MM					
	UT. It is not yet known if the CMEs will	TU. On ne sait pas encore si les EMC					
	impact the Earth.	toucheront la Terre.					
	(A / An) (slow / moderate / fast) Earth-	Une EMC (lente / modérée / rapide) dirigée					
	directed CME has erupted over the past	vers la Terre a eu lieu au cours des 24					
	24 hours.	dernières heures.					

CME / EMC	(Two / three / several) (slow / moderate / fast) Earth-directed CMEs have erupted over the past 24 hours.	(Deux/Trois/Plusieurs) EMC (lents / modérés / rapides) dirigée vers la Terre ont eu lieu au cours des 24 dernières heures.				
coronal hole / trou coronal	One (small / medium / large) coronal hole (elongated in longitude) is located near the (centre / edge) of the solar disk. (Two / Three / Four / Five / Six) (small / medium / large) coronal holes (elongated in longitude) are located near the (centre / edge) of the solar disk.	Un (petit / moyen / grand) trou coronal (étendu en longitude) est situé près du (centre / bord) du disque solaire. (Deux / Trois / Quatre / Cinq / Six) (petits / moyens / grands) trous coronaux (étendus en longitude) sont situés près du (centre / bord) du disque solaire.				
solar flare / éruption solaire	 A (medium / large) solar x-ray flare erupted DD MMM YYYY HH:MM UT. A (medium / large) solar x-ray flare erupted DD MMM YYYY HH:MM UT near the (centre / edge) of the solar disk. A long duration (C (low) / M (medium) / X (large)) solar x-ray flare erupted at DD MMM YYYY HH:MM UT near the (centre / edge) of the solar disk. A (medium / large / medium to large) (long duration) solar x-ray flare has erupted over the past 24 hours. (Two / Three / Several) (medium / large / medium to large) (long duration) solar x- ray flare has erupted over the past 24 hours 	 Une éruption solaire (moyenne / forte) avec émission de rayons X a eu lieu le DD MMM YYYY HH:MM TU. Une éruption solaire (moyenne / forte) avec émission de rayons X a eu lieu le DD MMM YYYY HH:MM TU près du (centre / bord) du disque solaire. Une éruption solaire (C (faible) / M (moyenne) / X (forte)) de longue durée avec émission de rayons X a eu lieu le DD MMM YYYY HH:MM TU près du (centre / bord) du disque solaire. Une éruption solaire (moyenne / forte / moyenne à fortes) (de longue durée) avec émission de rayons X a eu lieu au cours des 24 24 dernières heures. (Deux / Trois / Plusieurs) éruptions solaires (moyennes / fortes / moyenne à fortes) avec émission de rayons X ont eu lieu au 				
	CMEs may be associated with these flares.	Des EMC peuvent être associées à ces éruptions.				

2.5.2. Interplanetary / Interplanétaire

general / généralités	Interplanetary activity has been (very low / low / moderate / high / very high). Data about interplanetary conditions are currently unavailable. The solar wind speed is currently (very slow (<400 km/s) / slow (400-500 km/s) / moderate (500-700 km/s) / fast 700-1000 km/s) / very fast (>1000 km/s)).	L'activité interplanétaire a été (très faible / faible / modérée / élevée / très élevée). Les données sur les conditions interplanétaires ne sont pas disponibles à l'heure actuelle. Le vent solaire est actuellement (très lent (<400 km/s) / lent (400 à 500 km/s) / modéré (500 à 700 km/s) / rapide (700 à 1000 km/s) / très rapide (>1000 km/s)).
solar wind speed / vitesse du vent solaire	 The solar wind speed has been (increasing / decreasing) over the last (hour / xx hours) (currently ~ xx km/s). (Moderate / fast) solar wind speeds are due to (high speed streams from coronal holes / a CME observed at DD MMM YYYY HH:MM UT). The solar wind speed has been at xx km/s since the passage of an interplanetary shock DD MMM YYYY at HH:MM UT. 	 La vitesse du vent solaire a (augmenté / diminué) au cours (de la dernière heure / des xx dernières heures) (actuellement ~ xx km/s). Les vitesses de vent solaire (modéré / rapide) sont attribuables à (des flux à grande vitesse provenant de trous coronaux / une EMC observée le DD MMM YYYY HH:MM TU). La vitesse du vent solaire se situait à xx km/s depuis le passage d'un choc interplanétaire le DD MMM YYYY à HH:MM TU.
IMF / CMI	The interplanetary magnetic field has been fluctuating at (very low ($ B_z < 2 \text{ nT}$) / low ($ B_z < 5 \text{ nT}$) / moderate ($ B_z < 10 \text{ nT}$) / high ($ B_z < 20 \text{ nT}$) / very high ($ B_z > 20$ nT)) levels. The interplanetary magnetic field has been primarily (positive / negative) at (very low ($ B_z < 2 \text{ nT}$) / low ($2 < B_z < 5 \text{ nT}$) / moderate ($5 < B_z < 10 \text{ nT}$) / high ($10 < B_z < 20 \text{ nT}$) / very high ($ B_z > 20 \text{ nT}$)) levels. The interplanetary magnetic field currently has $B_z=(+ / -) \text{ xx nT}$. Prolonged periods of negative interplanetary magnetic field are often associated with increased geomagnetic activity.	Le champ magnétique interplanétaire a fluctué à des niveaux (très faibles (B _z <2 nT) / faibles (B _z <5 nT) / modérés (B _z <10 nT) / élevés (B _z <20 nT) / très élevés (B _z >20 nT)). Le champ magnétique interplanétaire a été généralement (positif / négatif) à des niveaux (très faibles (B _z <2 nT) / faibles (2< B _z <5 nT) / modérés (5< B _z <10 nT) / élevés (10< B _z <20 nT) / très élevés (B _z >20 nT)). Actuellement, le champ magnétique interplanétaire a une valeur de B _z =(+ / -) xx nT. Les périodes prolongées de champ magnétique interplanétaire négatif sont souvent associées à une activité géomagnétique accrue.

shock / choc	An interplanetary shock has been observed on DD MMM YYYY HH:MM UT.	Un choc interplanétaire a été observé le DD MMM YYYY HH:MM TU.
proton events / épisodes de protons solaires	A solar energetic proton event started on DD MMM YYYY at HH:MM UT. Current levels are (normal / moderate / high / very high).	Un épisode de protons solaires de grande énergie a débuté le DD MMM YYYY à HH:MM TU. Les niveaux actuels sont (normaux / modérés / élevés / très élevés).

2.5.3. Environment at geostationary orbit / Environnement à l'orbite géostationnaire

	Energetic electron fluence at geostationary	La fluence des électrons énergétiques en			
	orbit was at a (low / normal / moderate /	orbite stationnaire était à un niveau			
	high / very high) level yesterday and is	(faible / normale / modéré / élevée / très			
	expected to be at a (low / normal /	élevée) hiers et devrait être à un niveau			
	moderate / high / very high) level	(faible / normale / modéré / élevée / très			
	tomorrow.	élevée) demain.			
	Energetic electron fluence at geostationary	La fluence des électrons énergétiques en			
ŝŝ	orbit for DD MMM YYYY is unavailable	orbite stationnaire pour le DD MMM YYYY n'est pas disponible mais devrait			
alite	but is expected to be at a (low / normal /	YYYY n'est pas disponible mais devrait			
iéra	moderate / high / very high) level	être à un niveaux faible demain.			
jén	tomorrow.				
1/6	The 5-minute integral energetic electron flux	Actuellement, le flux intégral d'électrons			
era	is currently high.	énergétiques sur une période de cinq			
en		minutes est élevé.			
g	Data about conditions in the environment at	Les données sur les conditions dans			
	geostationary orbit are currently	l'environnement à l'orbite			
	unavailable.	géostationnaire ne sont pas disponibles à			
		l'heure actuelle.			
	Visit <u>http://www.spaceweather.gc.ca/sffl-</u>	Consultez les prévisions sur la fluence des			
	eng.php for the electron forecast.	électrons à l'adresse			
		http://www.spaceweather.gc.ca/sffl-			
		<u>tra.php</u> .			

2.5.4. Geomagnetic / Géomagnétique

	Over the last 24 hours geomagnetic activity	Au cours des 24 dernières heures, l'activité				
	has been (quiet / unsettled / active /	géomagnétique était (calme / agitée /				
	stormy / major storm) (with unsettled /	active / orageuse / celle d'un orage				
	active / stormy / major storm intervals) in	majeur) (avec des périodes agitées /				
	the polar zone, (quiet / unsettled / active	actives / orageuses / d'orage majeur) dans				
	/ stormy / major storm) (with unsettled /	la zone polaire, (calme / agitée / active /				
	active / stormy / major storm intervals) in	orageuse / celle d'un orage majeur) (avec				
	the auroral zone, and (quiet / unsettled /	des périodes agitées / actives / orageuses				
	active / stormy / major storm) (with	/ d'orage majeur) dans la zone aurorale, et				
	unsettled / active / stormy / major storm	(calme / agitée / active / orageuse / celle				
	intervals) in the subauroral zone.	d'un orage majeur) (avec des périodes				
		agitées / actives / orageuses / d'orage				
		majeur) dans la zone sub-aurorale.				
	Over the next 24 hours geomagnetic activity is	Au cours des 24 prochaines heures, l'activité				
	forecast to be (quiet / unsettled / active /	Au cours des 24 dernières heures, l'activité géomagnétique était (calme / agitée / active / orageuse / celle d'un orage majeur) (avec des périodes agitées / actives / orageuses / d'orage majeur) dans la zone polaire, (calme / agitée / active / orageuse / celle d'un orage majeur) (avec des périodes agitées / actives / orageuses / d'orage majeur) dans la zone aurorale, et (calme / agitée / active / orageuses / d'orage majeur) dans la zone aurorale, et (calme / agitée / active / orageuses / d'orage majeur) dans la zone sub-aurorale. Au cours des 24 prochaines heures, l'activité géomagnétique devrait être (calme / agitée / active / orageuse / celle d'un orage majeur) (avec des périodes agitées / actives / orageuses / d'orage majeur) dans la zone polaire, (calme / agitée / active / orageuse / celle d'un orage majeur) dans la zone polaire, (calme / agitée / active / orageuse / celle d'un orage majeur) (avec des périodes agitées / actives / orageuses / d'orage majeur) dans la zone aurorale, et (calme / agitée / active / orageuses / d'orage majeur) dans la zone sub-aurorale. L'augmentation de l'activité géomagnétique (est / était) probablement liée à l'arrivée d'un EMC qui a fait éruption le DD MIMM YYYY à HH:MM TU et atteint la Terre le DD MMM YYYY à HH:MM TU. L'augmentation de l'activité géomagnétique (est / était) due à l'arrivée d'un flux à grande vitesse associée à des trous coronaux. Consultez les prévisions sur l'activité magnétique à l'adresse				
	stormy / major storm) (with unsettled /	agitée / active / orageuse / celle d'un				
és	active / stormy / major storm intervals) in	orage majeur) (avec des périodes agitées /				
alit	the polar zone, (quiet / unsettled / active /	actives / orageuses / d'orage majeur) dans				
léra	stormy / major storm) (with unsettled /	la zone polaire, (calme / agitée / active /				
gér	active / stormy / major storm intervals) in	orageuse / celle d'un orage majeur) (avec				
1/	the auroral zone, and (quiet / unsettled /	des périodes agitées / actives / orageuses				
era	active / stormy / major storm) (with	/ d'orage majeur) dans la zone aurorale, et				
Jen	unsettled / active / stormy / major storm	(calme / agitee / active / orageuse / celle				
0,	intervals) in the subauroral zone.	d'un orage majeur) (avec des periodes				
		agitees / actives / orageuses / d'orage				
	Enhanced recommentie estimity (in (1999) likely	majeur) dans la zone sub-aurorale.				
	Ennanced geomagnetic activity (IS / Was) likely	L'augmentation de l'activité geomagnetique				
	DD MMAA VVVV HUMMA UT which arrived	d'up EMC qui a fait éruption le DD MMM				
	at the Earth at DD MMM VVVV HH-MM IIT	VVVV à HH-MM TIL et atteint la Terre le DD				
		MMM YYYY à HH:MM TU.				
	Enhanced geomagnetic activity (is/was) likely	L'augmentation de l'activité géomagnétique				
	due to the arrival of a high speed stream	(est / était) due à l'arrivée d'un flux à				
	associated with coronal holes.	grande vitesse associée à des trous				
		coronaux.				
	Visit http://www.spaceweather.gc.ca/sfst-1-	Consultez les prévisions sur l'activité				
	eng.php for the magnetic forecast.	magnétique à l'adresse				
		http://www.spaceweather.gc.ca/sfst-1-				
		<u>tra.php</u> .				

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2.6. Signature

Name	Nom
Space weather scientist, Canadian Hazard	Spécialiste en météorologie spatiale, Service
Information Service	canadien d'information sur les risques
Natural Resources Canada / Government of	Ressources naturelles Canada / Gouvernement du
Canada	Canada
email address / Tel: (613) 837-xxxx	adresse courriel / Tél : 613-837-xxxx

3. Possible impacts on technology

Space weather may impact various ground-based and space-based technologies and infrastructure. This section lists possible impacts based on geomagnetic activity level, ionospheric conditions, and the geostationary satellite environment.

It is important to acknowledge that although impacts are possible, they are not guaranteed. Possible impacts listed in the tables below represent reasonable expectations based on current and forecasted conditions. However, system impacts may be felt at times other than those listed in the bulletin due to, for example, other system limitations unknown to the duty forecaster or spontaneous activity.

3.1. Geomagnetic activity level

Table	1:	Possible	impacts	to	power	systems,	aeromagnetic	surveys,	and	directional	drilling	based	on
geoma	gne	etic activit	ty levels.										

Activity Level	System	Possible Impact
	Power Systems:	Impacts are not expected
Duiet	Aeromagnetic surveys:	Impacts are not expected
U	Directional Drilling:	Impacts are not expected
p	Power Systems:	Impacts are not expected
ettle	Aeromagnetic surveys:	Impacts are not expected
Uns	Directional Drilling:	Impacts are not expected
0	Power Systems:	Impacts are not expected
ctive	Aeromagnetic surveys:	Potential for disruptions
A	Directional Drilling:	Potential for deviations
~	Power Systems:	Possibility of weak voltage fluctuations ⁷
tor	Aeromagnetic surveys:	Potential for significant disruptions
N.	Directional Drilling:	Potential for significant deviations
	Power Systems:	Geomagnetically induced currents may cause
5 6		misoperation of protective relays and
Aaj tori		transformer heating
2 05	Aeromagnetic surveys:	Potential for severe disruptions
	Directional Drilling:	Potential for severe deviations

⁷ Although these fluctuations are likely to be observed, they are in general within normal operating parameters and do not cause problems with the proper operation of the power system. It is possible that for some isolated cases, specific locations, or specific systems, fluctuations might move out of the range of what is acceptable.

3.2. lonosphere

Activity Level	GOES 10 MeV protons	Possible Impacts	
minor PCA event	above 10 pfu	(Statement used at discretion of DF)	
		Ionospheric and polar cap absorption	
		events may affect radio communications	
		for transpolar flights and other arctic	
		operations.	
PCA event	above 100 pfu	Ionospheric and polar cap absorption	
		events may affect radio communications	
		for transpolar flights and other arctic	
		operations.	

Table 2: Possible impacts to HF radio communication based on ionospheric conditions.

3.3. Environment at geostationary orbit

Activity Level	System	Possible Impact	
Low Geostationary satellites		No risk of internal charging	
Normal	Geostationary satellites:	No risk of internal charging	
Moderate Geostationary satellites:		Moderate risk of internal charging	
High	Geostationary satellites:	High risk of internal charging	
Very High	Geostationary satellites:	Very high risk of internal charging	

4. Tables of values – 2015

Various descriptive terms are used in the daily space weather bulletin to describe geomagnetic activity level, the environment at geostationary orbit, solar activity, and interplanetary conditions. This section describes these descriptive terms and the thresholds used to determine them.

4.1. Geomagnetic activity level

Geomagnetic activity is derived from measurements made at magnetic observatories located in the polar cap, auroral, and sub-auroral zones (see Figure 1). The data are processed to produce an hourly range index to characterize the range of magnetic field variations measured during one hour at ground level. Hourly range indices are divided into 5 activity levels: classified as *quiet*, *unsettled*, *active*, *stormy*, and *major storm⁸*. Hourly range values corresponding to different activity levels are listed in Table 4.

Table 4: Terminology and quantitative description of geomagnetic activity level based on the hourly range (nT) of the magnetic field.

	Hourly Range (nT)					
Zone	Quiet Unsettled Active Stormy Major					
Polar cap	0-50	50-100	100-180	180-600	600+	
Auroral	0-90	90-170	170-300	300-1000	1000+	
Sub-Auroral	0-30	30-50	50-90	90-300	300+	



Figure 1: Location of magnetometer stations used to calculate the hourly range of geomagnetic activity. Heavy curves delineate the polar cap, auroral, and sub-auroral zones.

4.2. Environment at geostationary orbit

Descriptors for the environment at geostationary orbit are based on electron fluence. Electron fluence refers to the total number of energetic electrons with energies >2 MeV passing through a given area in a day. Electron fluence is measured in units of electrons per square centimeter per steradian per day (electrons/cm²-sr-day). To determine electron fluence over 1 day, flux measurements made at a geosynchronous orbit of 6.6 Earth radii are taken at 5 minute intervals and summed over a 24 hour period. The fluence value of 5.0×10^7 electrons/cm²-sr-day is considered as a threshold level for possible adverse space weather conditions hazardous to geostationary satellites. Electron fluence levels for five different activity levels are listed in Table 5.

Space Environment	Low	Normal	Moderate	High	Very High
Electron Fluence (electrons / cm ² -sr-day)	10 ⁵ < f < 10 ⁶	$10^{6} < f < 5 \times 10^{7}$	5×10 ⁷ < f < 5×10 ⁸	5×10 ⁸ < f < 5×10 ⁹	5×10 ⁹ < f

4.3. Solar activity

Under the *Solar* section of *Detailed Information* descriptors are used to characterize solar activity as *very low, low, moderate, high,* or *very high.* These descriptors are based on three kinds of solar phenomenon: coronal mass ejections, coronal holes, and solar flares (see Table 6)⁹.

Table 6: (Criteria f	f <mark>or d</mark> esc	ribing sola	ar activity	level.
------------	------------	-------------------------	-------------	-------------	--------

Very low	Low	Moderate	High	Very high
no coronal holes,	coronal holes	coronal holes	coronal holes	coronal holes
flares, or CMEs	OR	OR	AND/OR	AND
detected	class A, B, C flares	class M flares	class M, X flares	class M, X flares
OR	OR	OR	AND/OR	AND
class A, B flares	CME activity	CME activity	CME activity	CME activity
	_	OR	OR	OR
		long duration	long duration	long duration
		events	events	events

4.4. Interplanetary conditions

Under the *Interplanetary* section of *Detailed Information* descriptors are used to characterize both the solar wind speed (v_{sw}) and the interplanetary magnetic field (IMF) *z*-component (B_z) as *very low*, *low*, *moderate*, *high*, or *very high*. These descriptors are based on the magnitude of v_{sw} and IMF B_z. Table 7 provides criteria for determining which descriptor to use for interplanetary conditions.

⁹ For a description of these solar phenomenon, see Fiori, R.A.D., Nikolic, L., Lam, H.-L., Trichtchenko, L., Danskin, D., McKee, L., Boteler, D.H., and Blais, C., 2015. Space Weather Bulletin – 2014; Geological Survey of Canada, Open File 7837, 429 p. doi:10.4095/296567.

	Very low	Low	Moderate	High	Very high			
<i>v_{sw}</i> (km/s)	<i>V_{sw}</i> < 400	$400 < v_{sw} < 500$	$500 < v_{sw} < 700$	$700 < v_{sw} < 1000$	<i>V_{sw}</i> > 1000			
B _z (nT)	$ B_z < 2$	$2 < B_z < 5$	$5 < B_z < 10$	$10 < B_z < 20$	$ B_z > 20$			

Table 7: Criteria for describing interplanetary conditions.

Descriptors under the same section are also used to characterize the level of solar energetic protons as being *normal*, *moderate*, *high*, or *very high* based on the flux of solar energetic protons. Table 8 provides criteria for determining which descriptors to use.

Table 8: Criteria for describing for characterizing solar energetic proton events.

	Normal	Moderate	High	Very High
Flux of >10 MeV	≤ 10	> 10	> 100	> 1000
solar energetic				
protons (pfu)				

5. Twitter

The CSWFC maintains an active Twitter account for the purpose of broadcasting high-level geomagnetic activity to interested members of the public. The Twitter account can be accessed in as follows:

https://twitter.com/SpaceWeatherCA (English) https://twitter.com/MeteoSpatialeCA (French)

In 2015, the Space Weather Canada (English) Twitter account gained 827 new followers, and sent out 1038 Tweets. The account has >2000 followers. The Météo Spatiale Canada (French) Twitter account has a smaller following with >350 followers.

The Twitter feed is automatically updated based on current and forecasted conditions. Table 9 lists possible Twitter statements issued in 2015 and conditions of issuance in tabular format in both English and French. Statements and criteria are identical to those originally developed in 2014.

Figure 2 shows a screen shot of the NRCan space weather Twitter feed.



Figure 2: Screen shot of the NRCan Space Weather Twitter feed.

	English	French	Criteria	Frequency and Evaluation
	Major geomagnetic storm WATCH in effect: auroral zone until 5 Apr 21:00 UT <u>http://goo.gl/UljKmW</u>	VEILLE d'orage géomagnétique majeur en vigueur: zone aurorale jusqu'au 5 AVR 21:00 TU <u>http://goo.gl/HS1WRU</u>	Forecast system issues a one zone storm watch, and a storm watch IS NOT already in effect.	Evaluate every 10 minutes. If a storm watch has been issued, then issue Twitter statement.
			A three zone storm watch becomes a one zone storm watch.	Once a Twitter statement has been issued, do not re-issue unless an extension or cancellation is required.
1 Zone Storm Watch	Major geomagnetic storm WATCH EXTENDED: auroral zone to 6 Apr 01:00 UT http://goo.gl/UljKmW	VEILLE d'orage géomagnétique majeur PROLONGÉE : zone aurorale jusqu'au 6 AVR 01:00 <u>TU</u> <u>http://goo.gl/HS1WRU</u>	Forecast system issues a one zone storm watch, and a one zone storm watch IS already in effect.	Evaluate every 10 minutes. If the end time for the initial major storm watch has NOT been exceeded and the end time for the most recent major storm watch is different from that of the initial major storm watch, then issue Twitter statement.
	Major geomagnetic storm WATCH ENDED : auroral zone <u>http://goo.gl/UljKmW</u>	VEILLE d'orage géomagnétique majeur TERMINÉE: zone aurorale <u>http://goo.gl/HS1WRU</u>	A one zone storm watch interval has ended and no other storm watch intervals are in effect	Evaluate every 10 minutes. If the end time of the most recent major storm watch has been exceeded, then issue Twitter statement.
				If a storm watch is manually cancelled, that action should also trigger the issuance of a Twitter

Table 9: Possible Twitter statements (English and French), criteria for issuance, and frequency of evaluation.

				statement.
	Major geomagnetic storm WATCH in effect: polar cap, auroral and sub- auroral zones until 16 Apr 21:00 UT http://goo.gl/UljKmW	VEILLE d'orage géomagnétique majeur: zones calotte polaire, aurorale et sub-aurorale jusqu'au 16 AVR 21:00 TU <u>http://goo.gl/HS1WRU</u>	Forecast system issues a three storm watch, and a storm watch IS NOT already in effect. A one zone storm watch becomes a three zone storm watch.	Evaluate every 10 minutes. If a storm watch has been issued, then issue Twitter statement. Once a Twitter statement has been issued, do not re-issue unless an extension or cancellation is required.
3 Zone Storm Watch	Major geomagnetic storm WATCH EXTENDED: polar cap, auroral and sub- auroral zones to 17 Apr 06:00 UT http://goo.gl/UljKmW	VEILLE d'orage géomagnétique majeur PROLONGÉE : zones calotte polaire, aurorale et sub- aurorale jusqu'au 17 AVR 06:00 TU http://goo.gl/HS1WRU	Forecast system issues a three zone storm watch, and a three zone storm watch IS already in effect.	Evaluate every 10 minutes. If the end time for the initial major storm watch has NOT been exceeded and the end time for the most recent major storm watch is different from that of the initial major storm watch, then issue Twitter statement.
	Major geomagnetic storm WATCH ENDED : polar cap, auroral and sub- auroral zones <u>http://goo.gl/UljKmW</u>	VEILLE d'orage géomagnétique majeur TERMINÉE : zones calotte polaire, aurorale et sub- aurorales <u>http://goo.gl/HS1WRU</u>	A three zone storm watch interval has ended and no other storm watch intervals are in effect	Evaluate every 10 minutes. If the end time of the most recent major storm watch has been exceeded, then issue Twitter statement. If a storm watch is manually cancelled, that action should also trigger the issuance of a Twitter

				statement.
	Stormy geomagnetic	Conditions orageuses -	The 6-hour forecast indicates	Evaluate for stormy / major storm
	activity possible: polar	activité géomagnétique	stormy or major storm conditions	conditions every 10 minutes. Once a
	cap zone - next 6 hours	possible : zone de la calotte	in any zone AND current	Twitter statement has been
	<u>http://goo.gl/UljKmW</u>	polaire - 6 prochaines	conditions are not stormy or	generated, do not re-issue until the 6-
		heures	major storm.	hour window has elapsed, unless
		http://goo.gl/HS1WRU		conditions are upgraded from stormy
	Stormy geomagnetic	Conditions oraceuses -		to major storm.
su	activity possible: auroral	activité géomagnétique	Stormy conditions are upgraded	
litic	zone - next 6 hours	possible : zone aurorale - 6	to major storm conditions.	
ouc	http://goo.gl/UljKmW	prochaines heures		Each zone is evaluated independently
ы С		http://goo.gl/HS1WRU		and messages are sent for each zone.
stor			***No need to issue stormy /	
or S	Stormy geomagnetic	Condition orageuses -	major storm conditions notices	
Maj	activity possible: sub-	activité géomagnétique	during a major storm watch.	Cancellation messages are not
pu	auroral zone - next 6	possible : zone sub-aurorale		necessary.
ny a	hours	- 6 prochaines heures		
torn	<u>http://goo.gi/UIJKmW</u>	nttp://goo.gl/HSTWRU		
St	Major storm geomagnetic	Orage majeur - activité		
	activity possible: polar	géomagnétique possible :		
	cap zone - next 6 hours	zone de la calotte polaire - 6		
	<u>http://goo.gl/UljKmW</u>	prochaines heures		
		http://goo.gl/HS1WRU		
	Major storm goomagnatia	Orago majour activitó		
		déomagnétique possible :		
	activity possible: autoral	geomagnetique possible :		

zone - next 6 hours	zone aurorale - 6 prochaines		
http://goo.gl/UljKmW	heures		
	http://goo.gl/HS1WRU		
Major storm geomagnetic	Orage majeur - activité		
activity possible: sub-	géomagnétique possible :		
auroral zone - next 6	zone sub-aurorale - 6		
hours	prochaines heures		
http://goo.gl/UljKmW			
STORMY geomagnetic	CONDITIONS ORAGEUSES -	Current conditions indicate	Evaluate current conditions every 10
activity currently	activité géomagnétique	stormy or major storm conditions	minutes. Once a Twitter statement
observed: polar cap zone	présentement observée :	in any zone AND the same	has been generated, do not re-issue
http://goo.gl/UljKmW	zone de la calotte polaire	message has NOT been issued in	until a 6-hour window has elapsed,
	http://goo.gl/HS1WRU	the last 6 hours.	unless conditions are upgraded from
			stormy to major storm.
STORMY geomagnetic	CONDITIONS ORAGEUSES -		, ,
activity currently	activité géomagnétique	Stormy conditions are ungraded	
observed: auroral zone	présentement observée :	to major storm conditions AND	Cancollation mossages are not
<u>http://goo.gl/UljKmW</u>	zone aurorale	the same mossage has NOT been	pocossary
	http://goo.gl/HS1WRU	issued in the last hour.	necessary.
STORMY geomagnetic	CONDITIONS ORAGEUSES -		
activity currently	activité géomagnétique		
observed: sub-auroral	présentement observée :	***No need to issue stormv /	
zone	zone sub-aurorale	major storm conditions notices	
http://goo.gl/UljKmW	http://goo.gl/HS1WRU	during a major storm watch.	
MAJOR STORM	ORAGE MAJEUR - activité		
geomagnetic activity	géomagnétique		

currently observed: the	présentement observée :
polar cap zone	zone de la calotte polaire
http://goo.gl/UljKmW	http://goo.gl/HS1WRU
MAJOR STORM	ORAGE MAJEUR - activité
geomagnetic activity	géomagnétique
currently observed:	présentement observée :
auroral zone	zone aurorale
http://goo.gl/UljKmW	http://goo.gl/HS1WRU
MAJOR STORM	ORAGE MAJEUR - activité
geomagnetic activity	géomagnétique
currently observed: sub-	présentement observée :
auroral zone	zone sub-aurorale
http://goo.gl/UljKmW	http://goo.gl/HS1WRU

6. Summary of activity

In this section we present a summary of the observed geomagnetic activity in 2015. Geomagnetic activity levels are classified as *quiet*, *unsettled*, *active*, *stormy*, and *major storm* based on the hourly range of the geomagnetic field. Hourly range is separately calculated for the polar cap, auroral, and sub-auroral zone every 15 minutes.

Figure 3 indicates the percent occurrence of *quiet*, *unsettled*, *active*, and *stormy* geomagnetic activity levels in the polar cap, auroral, and sub-auroral zones as reported by current conditions in 2015. Geomagnetic activity levels of *major storm* occurred $\leq 0.2\%$, and cannot be seen. Within each of the three zones, the percent occurrence is largest for quiet level activity, and drops off with increasing activity level. Overall activity is highest in the auroral zone and lowest in the sub-auroral zone. Examining data archived from 2004 to 2015 reveals that the percent occurrence of *quiet* level activity is lowest for all zones in 2015; i.e., the overall geomagnetic activity were observed in 2012 for the polar cap zone (59.9%), 2005 for the auroral zone (60.2%), and 2005 for the sub-auroral zone (82%). For comparison, the lowest level of geomagnetic activity (i.e., the highest occurrence of *quiet* level activity) was observed in 2009 with *quiet* activity levels occurring 83.4%, 86.6%, and 96.5% of the time in the polar cap, auroral, and sub-auroral regions, respectively.

Figure 4 plots the daily averaged geomagnetic activity levels for the polar cap, auroral and sub-auroral



Figure 3: Percent occurrence of *quiet*, *unsettled*, *active*, *stormy*, and *major storm* geomagnetic activity in the polar cap, auroral, and sub-auroral zones for 2015.



Figure 4: Observed geomagnetic activity for the polar cap, auroral and sub-auroral zones in 2015. The black symbols represent daily averaged geomagnetic activity while the blue symbols indicate maximum activity level for the day, as reported by current conditions. Pink bars indicate days on which a *major storm watch* was issued for the indicated zone.

zones (black symbols) and maximum activity level for the day as reported by current conditions (blue symbols). Geomagnetic activity was higher during the summer months in the polar cap zone, and more uniformly distributed in the auroral and sub-auroral zones. *Major storm* activity levels were observed in all zones, but infrequently.

In 2015, geomagnetic activity levels were at times high enough to warrant the issuance of a *major storm watch*¹⁰. Such incidences are listed in Table 10, and are shown by red lines in Figure 4.

¹⁰ For definition of a major storm watch and criteria for issuance, see Nikolic, L., Fiori, R.A.D., Danskin, D., Trichtchenko, L., McKee, L., Lam, H.-L., 2014. Space Weather Bulletin – 2013; Geological Survey of Canada, Open File 7656, 417 p. doi:10.4095/295178.

Start	End	Туре
2015-01-07 09:07 UT	2015-01-07 13:18 UT	3 zone
2015-03-17 1337 UT	2015-03-18 02:13 UT	3 zone
2015-03-19 12:22 UT	2015-03-19 14:38 UT	1 zone
2015-03-22 07:17 UT	2015-03-22 11:03 UT	1 zone
2015-06-11 04:02 UT	2015-06-11 06:13 UT	1 zone
2015-06-22 18:00 UT	2015-06-22 24:00 UT	3 zone
2015-06-23 03:27 UT	2015-06-22 08:02 UT	3 zone
2015-07-13 04:42 UT	2015-07-13 06:52 UT	1 zone
2015-07-13 07:17 UT	2015-07-13 09:27 UT	3 zone
2015-08-15 11:37 UT	2015-08-15 14:58 UT	3 zone
2015-08-16 08:17 UT	2015-08-16 10:42 UT	3 zone
2015-08-17 03:17 UT	2015-08-17 05:37 UT	1 zone
2015-08-27 03:22 UT	2015-08-27 06:13 UT	3 zone
2015-08-27 07:17 UT	2015-08-27 09:33 UT	3 zone
2015-09-09 06:57 UT	2015-09-09 13:27 UT	3 zone
2015-09-11 08:42 UT	2015-09-11 12:13 UT	1 zone
2015-10-05 10:22 UT	2015-10-05 12:27 UT	1 zone
2015-10-07 05:22 UT	2015-10-07 07:37 UT	3 zone
2015-10-08 05:32 UT	2105-10-08 08:17 UT	3 zone
2015-11-04 03:32 UT	2015-11-04 05:57 UT	1 zone
2015-11-04 07:37 UT	2015-11-04 09:47 UT	1 zone
2015-11-07 03:12 UT	2015-11-07 05:28 UT	1 zone
2015-11-07 07:52 UT	2015-11-07 10:28 UT	3 zone
2015-11-09 04:42 UT	2015-11-09 07:02 UT	1 zone
2105-11-10 11:52 UT	2015-11-10 15:22 UT	1 zone
2015-12-20 05:12 UT	2015-12-20 07:18 UT	1 zone

Table 10: Major storm watches issued in 2015.

6.1. Strong space weather event: 21-23 June 2015

The 2015 year-long interval included a strong space weather event taking place June 21-23 2015. The event began with the eruption of an M-class (moderate) long duration solar x-ray flare and subsequent Earth-directed CME on 21 June 2015. Arrival of the CME at the Earth was marked by a geomagnetic sudden impulse observed at 18:37 UT at all CANMOS stations. This marked the beginning of a period of strong magnetic activity, reaching major storm levels at stations in all zones.

AT 17:59 UT, arrival of the CME was observed by the ACE satellite. A strong shock was detected in the solar wind with velocity jumping from 440 km/s to 652 km/s and plasma density increasing from 11.3 cm⁻³ to 28.5 cm⁻³. The magnitude of the IMF enhanced from 10 to 33 nT, and the IMF B_z became strongly negative changing from -4.7 nT to -22.1 nT. IMF B_z continued to increase in magnitude reaching ~-40 nT for a 30 minute interval. Such a strongly negative value is rarely seen. Analysis of all IMF data for 2000-2014 shows that IMF B_z of <-30 nT is observed only 0.018% of the time, and IMF Bz<-20 nT is observed only 0.068% of the time. As is often the case, these long periods of largely negative IMF resulted in strong geomagnetic disturbances, and the issuance of a *major storm watch*.

Figure 5 plots the hourly range of the geomagnetic field for the polar cap, auroral, and sub-auroral zones. Geomagnetic activity levels met thresholds for issuing a 2 separate 3-zone *major storm watches*. Most notable is an hourly range of 766 nT observed at Ottawa in the 03-04 UT hour 23 June 2015 during the second *major storm watch*.

The 21-23 June 2015 space weather event included an ionospheric polar cap absorption event. Solar energetic particles were accelerated Earthward by the CME, penetrating deep into the high-latitude ionosphere, enhancing ionization causing absorption, which effects transmission of HF radio signals. Following eruption of the 21 June 2015 CME the >10 MeV solar proton flux observed by the GOES 15 satellite began to enhance eventually reaching a peak value of >1000 pfu between 18 and 19 UT on 22 June 2015. Such levels classify this event as strong, occurring roughly 10 times per solar cycle. The last time levels of this magnitude were observed 06-09 January 2014. Data from the Canadian riometer array indicate absorption reached high (>1 dB) for an extended period of time as a direct result.



Figure 5: Geomagnetic activity levels for 22-23 June 2015.

7. Daily Bulletins

This section provides a chronological listing of the daily space weather bulletin issued in 2015. To limit the length of the document, only the English version of the bulletin has been included.

Space Weather Bulletin - 2015-01-01 issued at 20:27 UT (15:27 EST) Summary There is currently no major storm watch in effect. See our website for current information: http://www.spaceweather.gc.ca (updated every 15 minutes) Current Conditions (20:15 UT) Geomagnetic Activity: polar cap zone: quiet auroral zone: quiet sub-auroral zone: quiet **Environment at Geostationary orbit:** energetic electron fluence at geostationary orbit: normal Possible Impacts on Technology: Impacts are not expected. 24 Hour Forecast Geomagnetic Activity: polar cap zone: quiet auroral zone: quiet sub-auroral zone: quiet **Environment at Geostationary orbit:** energetic electron fluence at geostationary orbit: normal Possible Impacts on Technology: Impacts are not expected. **Detailed Information** Solar Solar activity has been low. Interplanetary Interplanetary activity has been low. **Environment at Geostationary orbit** Energetic electron fluence at geostationary orbit was at a moderate level yesterday and is expected to be at a normal level tomorrow. Visit http://www.spaceweather.gc.ca/sffl-eng.php for the electron forecast. Geomagnetic Over the last 24 hours geomagnetic activity has been quiet with unsettled intervals in the polar zone, quiet with unsettled intervals in the auroral zone, and quiet in the sub-auroral zone. Over the next 24 hours geomagnetic activity is forecast to be quiet in the polar zone, quiet in the auroral zone, and quiet in the sub-auroral zone. Visit http://www.spaceweather.gc.ca/sfst-1-eng.php for the magnetic forecast.

Space Weather Bulletin - 2015-01-02 issued at 18:03 UT (13:03 EST)
Summary
There is currently no major storm watch in effect.
See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15
minutes)
Current Conditions (17:45 01)
Geomagnetic Activity:
polar cap zone: quiet
autoral zone: quiet
sub-autoral zone: quiet
Environment at Geostationary orbit:
energetic electron fluence at geostationary orbit: normal
Possible impacts on Technology:
Impacts are not expected.
24 Hour Forecast
Geomagnetic Activity:
polar cap zone: quiet
auroral zone: quiet with unsettled intervals
sub-auroral zone: quiet
Environment at Geostationary orbit:
energetic electron fluence at geostationary orbit: normal
Possible impacts on Technology:
Impacts are not expected.
Detailed Information
Solar
Solar activity has been low.
Interplanetary
The interplanetary magnetic field has been fluctuating at moderate (Bz <10 nT) levels.
Noderate solar wind speeds are due to high speed streams from coronal holes.
prolonged periods of negative interplanetary magnetic field are often associated with increased geomagnetic activity.
The solar wind speed is currently slow (400-500 km/s).
Environment at Geostationary orbit
Energetic electron fluence at geostationary orbit was at a normal level yesterday and is expected to be at a normal level tomorrow.
Visit http://www.spaceweather.gc.ca/sffl-eng.php for the electron forecast.
Geomagnetic
Over the last 24 hours geomagnetic activity has been quiet with unsettled intervals in the polar
zone, quiet with stormy intervals in the auroral zone, and quiet with unsettled intervals in the sub-auroral zone.
Over the next 24 hours geomagnetic activity is forecast to be quiet in the polar zone, quiet with unsettled intervals in the auroral zone, and quiet in the sub-auroral zone.
Visit <u>http://www.spaceweather.gc.ca/sfst-1-eng.php</u> for the magnetic forecast.
Space Weather Bulletin - 2015-01-03 issued at 21:18 UT (16:18 EST) Summary There is currently no major storm watch in effect. See our website for current information: http://www.spaceweather.gc.ca (updated every 15 minutes) **Current Conditions (21:00 UT) Geomagnetic Activity:** polar cap zone: quiet auroral zone: quiet sub-auroral zone: quiet **Environment at Geostationary orbit:** energetic electron fluence at geostationary orbit: normal Possible Impacts on Technology: Impacts are not expected. 24 Hour Forecast Geomagnetic Activity: polar cap zone: guiet with unsettled intervals auroral zone: quiet with active intervals sub-auroral zone: quiet with unsettled intervals **Environment at Geostationary orbit:** energetic electron fluence at geostationary orbit: normal Possible Impacts on Technology: Impacts are not expected. **Detailed Information** Solar Solar activity has been moderate. The active region located near the central region of the solar disk has produced solar x-ray flares and has the potential to produce subsequent solar eruptions. Interplanetary The solar wind speed is currently slow (400-500 km/s). The interplanetary magnetic field has been fluctuating at moderate (|Bz|<10 nT) levels. **Environment at Geostationary orbit** Energetic electron fluence at geostationary orbit was at a normal level yesterday and is expected to be at a normal level tomorrow. Visit http://www.spaceweather.gc.ca/sffl-eng.php for the electron forecast. Geomagnetic Over the last 24 hours geomagnetic activity has been guiet with active intervals in the polar zone, unsettled with stormy intervals in the auroral zone, and quiet with stormy intervals in the subauroral zone. Over the next 24 hours geomagnetic activity is forecast to be guiet with unsettled intervals in the polar zone, quiet with active intervals in the auroral zone, and quiet with unsettled intervals in the sub-auroral zone.

Visit <u>http://www.spaceweather.gc.ca/sfst-1-eng.php</u> for the magnetic forecast.

Space Weather Bulletin - 2015-01-04 issued at 19:28 UT (14:28 EST)

Summary

There is currently no major storm watch in effect.

See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (19:15 UT)

Geomagnetic Activity:

polar cap zone: unsettled auroral zone: active sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: low

Possible Impacts on Technology:

Aeromagnetic surveys: Potential for disruptions in the auroral zone.

Directional Drilling: Potential for deviations in the auroral zone.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: quiet with unsettled intervals auroral zone: unsettled with stormy intervals sub-auroral zone: quiet with unsettled intervals

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Aeromagnetic surveys: Potential for disruptions in the auroral zone.

Directional Drilling: Potential for deviations in the auroral zone.

Detailed Information

Solar

The active region located near the central region of the solar disk has produced a long duration solar x-ray flare and has the potential to produce subsequent solar eruptions. Solar activity has been moderate.

Interplanetary

The interplanetary magnetic field has been fluctuating at moderate (|Bz|<10 nT) levels.

The solar wind speed is currently slow (400-500 km/s).

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit was at a normal level yesterday and is expected to be at a normal level tomorrow.

Visit <u>http://www.spaceweather.gc.ca/sffl-eng.php</u> for the electron forecast.

Geomagnetic

Over the last 24 hours geomagnetic activity has been quiet with active intervals in the polar zone, quiet with stormy intervals in the auroral zone, and quiet with active intervals in the sub-auroral zone.

Over the next 24 hours geomagnetic activity is forecast to be quiet with unsettled intervals in the polar zone, unsettled with stormy intervals in the auroral zone, and quiet with unsettled intervals in the sub-auroral zone.

Visit <u>http://www.spaceweather.gc.ca/sfst-1-eng.php</u> for the magnetic forecast.

Space Weather Bulletin - 2015-01-05 issued at 20:48 UT (15:48 EST)

Summary

There is currently no major storm watch in effect.

See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (20:30 UT)

Geomagnetic Activity:

polar cap zone: unsettled auroral zone: active sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Aeromagnetic surveys: Potential for disruptions in the auroral zone.

Directional Drilling: Potential for deviations in the auroral zone.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: quiet with unsettled intervals auroral zone: unsettled with active intervals sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: moderate

Possible Impacts on Technology:

Geostationary satellites: moderate risk of internal charging.

Detailed Information

Solar

Solar activity has been moderate.

The active region located near the central region of the solar disk has produced solar x-ray flares and has the potential to produce subsequent solar eruptions.

Interplanetary

The solar wind speed is currently moderate (500-700 km/s).

The interplanetary magnetic field has been fluctuating at moderate (|Bz|<10 nT) levels.

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit was at a low level yesterday and is expected to be at a moderate level tomorrow.

Visit <u>http://www.spaceweather.gc.ca/sffl-eng.php</u> for the electron forecast.

Geomagnetic

Over the last 24 hours geomagnetic activity has been unsettled with active intervals in the polar zone, unsettled with stormy intervals in the auroral zone, and quiet with active intervals in the sub-auroral zone.

Over the next 24 hours geomagnetic activity is forecast to be quiet with unsettled intervals in the polar zone, unsettled with active intervals in the auroral zone, and quiet in the sub-auroral zone. Visit <u>http://www.spaceweather.gc.ca/sfst-1-eng.php</u> for the magnetic forecast.

Space Weather Bulletin - 2015-01-06 issued at 21:14 UT (16:14 EST)

Summary

There is currently no major storm watch in effect.

See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (21:00 UT)

Geomagnetic Activity:

polar cap zone: unsettled auroral zone: unsettled sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Impacts are not expected.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: unsettled auroral zone: unsettled with active intervals sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Aeromagnetic surveys: Potential for disruptions in the auroral zone.

Directional Drilling: Potential for deviations in the auroral zone.

Detailed Information

Solar

Solar activity has been low.

The active region located near the central region of the solar disk has produced solar x-ray flares and has the potential to produce subsequent solar eruptions.

Interplanetary

The interplanetary magnetic field has been fluctuating at moderate (|Bz|<10 nT) levels.

The solar wind speed is currently slow (400-500 km/s).

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit was at a normal level yesterday and is expected to be at a normal level tomorrow.

Visit <u>http://www.spaceweather.gc.ca/sffl-eng.php</u> for the electron forecast.

Geomagnetic

Over the last 24 hours geomagnetic activity has been unsettled with active intervals in the polar zone, unsettled with stormy intervals in the auroral zone, and quiet with active intervals in the sub-auroral zone.

Over the next 24 hours geomagnetic activity is forecast to be unsettled in the polar zone, unsettled with active intervals in the auroral zone, and quiet in the sub-auroral zone.

Visit <u>http://www.spaceweather.gc.ca/sfst-1-eng.php</u> for the magnetic forecast.

Space Weather Bulletin - 2015-01-07 issued at 20:10 UT (15:10 EST)

Summary

Major storm conditions observed 07 JAN 2015 in the auroral zone have ended.

The major storm WATCH issued 07 JAN 2015 09:07 UT for the polar cap, auroral, and sub-auroral zones ended 07 JAN 2015 13:18 UT.

There is currently no major storm watch in effect.

Stormy conditions are possible in the auroral zone within the next 24 hours.

The ionospheric absorption event that began 07 JAN 2015 08:45 UT in the auroral zone ended 07 JAN 2015 10:30 UT.

See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (20:00 UT)

Geomagnetic Activity:

polar cap zone: quiet auroral zone: quiet sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Impacts are not expected.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: quiet with active intervals auroral zone: active with stormy intervals

sub-auroral zone: unsettled with active intervals

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Aeromagnetic surveys: Potential for significant disruptions in the auroral zone. Directional Drilling: Potential for significant deviations in the auroral zone. Power Systems: possibility of weak voltage fluctuations in the auroral zone. Aeromagnetic surveys: Potential for disruptions in the polar cap and sub-auroral zones. Directional Drilling: Potential for deviations in the polar cap and sub-auroral zones.

Detailed Information

Solar

Solar activity has been low.

Interplanetary

An interplanetary shock has been observed on 07 JAN 2015 05:30 UT.

The interplanetary magnetic field has been fluctuating at high (|Bz|<20 nT) levels.

Prolonged periods of negative interplanetary magnetic field are often associated with increased geomagnetic activity.

The interplanetary magnetic field currently has Bz=-4 nT.

The solar wind speed is currently slow (400-500 km/s).

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit was at a normal level yesterday and is expected to be at a normal level tomorrow.

Visit <u>http://www.spaceweather.gc.ca/sffl-eng.php</u> for the electron forecast.

Geomagnetic

Over the last 24 hours geomagnetic activity has been quiet with stormy intervals in the polar zone, quiet with major storm intervals in the auroral zone, and quiet with stormy intervals in the subauroral zone.

Over the next 24 hours geomagnetic activity is forecast to be quiet with unsettled intervals in the polar zone, active in the auroral zone, and unsettled with active intervals in the sub-auroral zone. Enhanced geomagnetic activity was likely associated with the arrival of a CME that erupted 03 JAN 2015 and reached the Earth at 07 JAN 2015 05:30 UT.

Visit <u>http://www.spaceweather.gc.ca/sfst-1-eng.php</u> for the magnetic forecast.

Space Weather Bulletin - 2015-01-08 issued at 19:23 UT (14:23 EST) Summary

There is currently no major storm watch in effect.

See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (19:15 UT)

Geomagnetic Activity:

polar cap zone: quiet auroral zone: quiet sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Impacts are not expected.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: quiet with unsettled intervals auroral zone: unsettled with active intervals sub-auroral zone: quiet with unsettled intervals

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: moderate

Possible Impacts on Technology:

Geostationary satellites: moderate risk of internal charging. Aeromagnetic surveys: Potential for disruptions in the auroral zone. Directional Drilling: Potential for deviations in the auroral zone.

Detailed Information

Solar

Solar activity has been low.

Interplanetary

The solar wind speed is currently slow (400-500 km/s).

The interplanetary magnetic field has been fluctuating at low (|Bz|<5 nT) levels.

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit was at a normal level yesterday and is expected to be at a moderate level tomorrow.

Visit <u>http://www.spaceweather.gc.ca/sffl-eng.php</u> for the electron forecast.

Geomagnetic

Over the last 24 hours geomagnetic activity has been quiet with active intervals in the polar zone, unsettled with stormy intervals in the auroral zone, and quiet with stormy intervals in the subauroral zone.

Over the next 24 hours geomagnetic activity is forecast to be quiet with unsettled intervals in the polar zone, unsettled with active intervals in the auroral zone, and quiet with unsettled intervals in the sub-auroral zone.

Visit <u>http://www.spaceweather.gc.ca/sfst-1-eng.php</u> for the magnetic forecast.

Space Weather Bulletin - 2015-01-09 issued at 21:25 UT (16:25 EST)

Summary

There is currently no major storm watch in effect.

See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (21:15 UT)

Geomagnetic Activity:

polar cap zone: quiet auroral zone: quiet sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Impacts are not expected.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: quiet with unsettled intervals auroral zone: quiet with unsettled intervals sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Impacts are not expected.

Detailed Information

Solar

Solar activity has been low.

Interplanetary

The solar wind speed is currently slow (400-500 km/s).

The interplanetary magnetic field has been fluctuating at low (|Bz|<5 nT) levels.

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit was at a normal level yesterday and is expected to be at a normal level tomorrow.

Visit <u>http://www.spaceweather.gc.ca/sffl-eng.php</u> for the electron forecast.

Over the last 24 hours geomagnetic activity has been quiet with unsettled intervals in the polar zone, unsettled with active intervals in the auroral zone, and quiet with unsettled intervals in the sub-auroral zone.

Over the next 24 hours geomagnetic activity is forecast to be quiet with unsettled intervals in the polar zone, quiet with unsettled intervals in the auroral zone, and quiet in the sub-auroral zone. Visit <u>http://www.spaceweather.gc.ca/sfst-1-eng.php</u> for the magnetic forecast.

Space Weather Bulletin - 2015-01-10 issued at 18:29 UT (13:29 EST)

Summary

There is currently no major storm watch in effect.

See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (18:15 UT)

Geomagnetic Activity:

polar cap zone: unsettled

auroral zone: quiet

sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Impacts are not expected.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: quiet with unsettled intervals auroral zone: quiet with active intervals sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Aeromagnetic surveys: Potential for disruptions in the auroral zone.

Directional Drilling: Potential for deviations in the auroral zone.

Detailed Information

Solar

Solar activity has been low.

One coronal hole is located near the centre of the solar disk.

Interplanetary

The solar wind speed is currently slow (400-500 km/s).

The interplanetary magnetic field has been fluctuating at low (|Bz|<5 nT) levels.

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit was at a normal level yesterday and is expected to be at a normal level tomorrow.

Visit <u>http://www.spaceweather.gc.ca/sffl-eng.php</u> for the electron forecast.

Geomagnetic

Over the last 24 hours geomagnetic activity has been quiet with unsettled intervals in the polar zone, quiet with stormy intervals in the auroral zone, and quiet with active intervals in the sub-auroral zone.

Over the next 24 hours geomagnetic activity is forecast to be quiet with unsettled intervals in the polar zone, quiet with active intervals in the auroral zone, and quiet in the sub-auroral zone. Visit <u>http://www.spaceweather.gc.ca/sfst-1-eng.php</u> for the magnetic forecast.

Space Weather Bulletin - 2015-01-11 issued at 18:21 UT (13:21 EST) Summary

There is currently no major storm watch in effect.

See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (18:15 UT)

Geomagnetic Activity:

polar cap zone: quiet auroral zone: quiet sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Impacts are not expected.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: quiet with unsettled intervals auroral zone: unsettled with active intervals sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Aeromagnetic surveys: Potential for disruptions in the auroral zone.

Directional Drilling: Potential for deviations in the auroral zone.

Detailed Information

Solar

Solar activity has been low.

Interplanetary

The solar wind speed is currently moderate (500-700 km/s).

Moderate solar wind speeds are due to high speed streams from coronal holes.

The interplanetary magnetic field has been fluctuating at moderate (|Bz|<10 nT) levels.

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit was at a normal level yesterday and is expected to be at a normal level tomorrow.

Visit <u>http://www.spaceweather.gc.ca/sffl-eng.php</u> for the electron forecast.

Geomagnetic

Over the last 24 hours geomagnetic activity has been quiet with unsettled intervals in the polar zone, quiet with stormy intervals in the auroral zone, and quiet with active intervals in the sub-auroral zone.

Over the next 24 hours geomagnetic activity is forecast to be quiet with unsettled intervals in the polar zone, unsettled with active intervals in the auroral zone, and quiet in the sub-auroral zone.

Visit <u>http://www.spaceweather.gc.ca/sfst-1-eng.php</u> for the magnetic forecast.

Space Weather Bulletin - 2015-01-12 issued at 20:55 UT (15:55 EST)

Summary

There is currently no major storm watch in effect.

See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (20:45 UT)

Geomagnetic Activity:

polar cap zone: unsettled auroral zone: quiet

autoral zone. quiet

sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Impacts are not expected.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: quiet with unsettled intervals auroral zone: quiet with unsettled intervals sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Impacts are not expected.

Detailed Information

Solar

Solar activity has been moderate.

A CME erupted on 12 JAN 2014 15:00 UT. It is not yet known if the CME will impact the Earth. A long duration C (low) solar x-ray flare erupted at 12 JAN 2014 14:44 UT near the edge of the solar disk.

Interplanetary

The solar wind speed is currently slow (400-500 km/s).

The interplanetary magnetic field has been fluctuating at low (|Bz|<5 nT) levels.

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit was at a normal level yesterday and is expected to be at a normal level tomorrow.

Visit <u>http://www.spaceweather.gc.ca/sffl-eng.php</u> for the electron forecast.

Geomagnetic

Over the last 24 hours geomagnetic activity has been quiet with unsettled intervals in the polar zone, quiet with stormy intervals in the auroral zone, and quiet with unsettled intervals in the sub-auroral zone.

Over the next 24 hours geomagnetic activity is forecast to be quiet with unsettled intervals in the polar zone, quiet with unsettled intervals in the auroral zone, and quiet in the sub-auroral zone. Visit <u>http://www.spaceweather.gc.ca/sfst-1-eng.php</u> for the magnetic forecast.

Space Weather Bulletin - 2015-01-13 issued at 16:23 UT (11:23 EST) Summary

See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (16:15 UT)

Geomagnetic Activity:

polar cap zone: unsettled auroral zone: unsettled sub-auroral zone: guiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: quiet with unsettled intervals auroral zone: quiet with unsettled intervals sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Detailed Information

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit was at a normal level yesterday and is expected to be at a normal level tomorrow.

Visit <u>http://www.spaceweather.gc.ca/sffl-eng.php</u> for the electron forecast.

Geomagnetic

Over the last 24 hours geomagnetic activity has been quiet with active intervals in the polar zone, quiet with stormy intervals in the auroral zone, and quiet in the sub-auroral zone. Over the next 24 hours geomagnetic activity is forecast to be quiet with unsettled intervals in the polar zone, quiet with unsettled intervals in the auroral zone, and quiet in the sub-auroral zone. Visit http://www.spaceweather.gc.ca/sfst-1-eng.php for the magnetic forecast.

Space Weather Bulletin - 2015-01-13 issued at 19:06 UT (14:06 EST)

Summary

There is currently no major storm watch in effect.

A CME was observed on 12 JAN 2015, and is expected to deliver a glancing blow to the Earth on 14-15 JAN 2015, resulting in disturbed geomagnetic activity.

See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (18:45 UT)

Geomagnetic Activity:

polar cap zone: unsettled auroral zone: quiet

sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Impacts are not expected.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: quiet with unsettled intervals auroral zone: quiet with unsettled intervals sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Impacts are not expected.

Detailed Information

Solar

A CME was observed on 12 JAN 2015, and is expected to deliver a glancing blow to the Earth on 14-15 JAN 2015, resulting in disturbed geomagnetic activity.

One coronal hole is located near the centre of the solar disk.

Two medium solar x-ray flares have erupted over the past 24 hours.

Interplanetary

The solar wind speed is currently slow (400-500 km/s).

The interplanetary magnetic field has been fluctuating at low (|Bz|<5 nT) levels.

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit was at a normal level yesterday and is expected to be at a normal level tomorrow.

Visit <u>http://www.spaceweather.gc.ca/sffl-eng.php</u> for the electron forecast.

Geomagnetic

Over the last 24 hours geomagnetic activity has been quiet with active intervals in the polar zone, quiet with stormy intervals in the auroral zone, and quiet in the sub-auroral zone. Over the next 24 hours geomagnetic activity is forecast to be quiet with unsettled intervals in the polar zone, quiet with unsettled intervals in the auroral zone, and quiet in the sub-auroral zone. Visit http://www.spaceweather.gc.ca/sfst-1-eng.php for the magnetic forecast.

Space Weather Bulletin - 2015-01-14 issued at 17:43 UT (12:43 EST)

Summary

There is currently no major storm watch in effect.

A CME was observed on 12 JAN 2015, and is expected to deliver a glancing blow to the Earth on 14-15 JAN 2015, resulting in disturbed geomagnetic activity.

See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (17:30 UT)

Geomagnetic Activity:

polar cap zone: unsettled auroral zone: quiet

sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Impacts are not expected.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: quiet with unsettled intervals auroral zone: quiet with unsettled intervals sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Impacts are not expected.

Detailed Information

Solar

Solar activity has been moderate.

A CME was observed on 12 JAN 2015, and is expected to deliver a glancing blow to the Earth on 14-15 JAN 2015, resulting in disturbed geomagnetic activity.

Three coronal holes are located near the centre of the solar disk.

An M (medium) solar x-ray flare erupted 14 JAN 2015 12:53 UT near the edge of the solar disk.

Interplanetary

The solar wind speed is currently slow (400-500 km/s).

The interplanetary magnetic field has been fluctuating at low (|Bz|<5 nT) levels.

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit was at a normal level yesterday and is expected to be at a normal level tomorrow.

Visit http://www.spaceweather.gc.ca/sffl-eng.php for the electron forecast.

Geomagnetic

Over the last 24 hours geomagnetic activity has been quiet with active intervals in the polar zone, quiet with active intervals in the auroral zone, and quiet with unsettled intervals in the sub-auroral zone.

Over the next 24 hours geomagnetic activity is forecast to be guiet with unsettled intervals in the polar zone, quiet with unsettled intervals in the auroral zone, and quiet in the sub-auroral zone. Visit http://www.spaceweather.gc.ca/sfst-1-eng.php for the magnetic forecast.

Space Weather Bulletin - 2015-01-15 issued at 17:22 UT (12:22 EST) Summary

There is currently no major storm watch in effect.

See our website for current information: http://www.spaceweather.gc.ca (updated every 15 minutes)

Current Conditions (17:00 UT)

Geomagnetic Activity:

polar cap zone: quiet auroral zone: unsettled sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Impacts are not expected.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: quiet auroral zone: quiet with unsettled intervals sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Impacts are not expected.

Detailed Information

Solar

Solar activity has been low.

Three coronal holes are located near the centre of the solar disk.

Interplanetary

The solar wind speed is currently slow (400-500 km/s).

The interplanetary magnetic field has been fluctuating at low (|Bz|<5 nT) levels.

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit was at a normal level yesterday and is expected to be at a normal level tomorrow.

Visit <u>http://www.spaceweather.gc.ca/sffl-eng.php</u> for the electron forecast.

Geomagnetic

Over the last 24 hours geomagnetic activity has been quiet with unsettled intervals in the polar zone, quiet with active intervals in the auroral zone, and quiet with unsettled intervals in the sub-auroral zone.

Over the next 24 hours geomagnetic activity is forecast to be quiet in the polar zone, quiet with unsettled intervals in the auroral zone, and quiet in the sub-auroral zone.

Visit <u>http://www.spaceweather.gc.ca/sfst-1-eng.php</u> for the magnetic forecast.

Space Weather Bulletin - 2015-01-16 issued at 18:12 UT (13:12 EST) Summary

There is currently no major storm watch in effect.

See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (18:00 UT)

Geomagnetic Activity:

polar cap zone: quiet auroral zone: quiet sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Impacts are not expected.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: quiet

auroral zone: quiet with unsettled intervals

sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Impacts are not expected.

Detailed Information

Solar

Solar activity has been low.

A slow non-Earth-directed CME erupted on 15 JAN 2015 04:24 UT.

Three coronal holes are located near the centre of the solar disk.

Interplanetary

The solar wind speed is currently very slow (< 400 km/s).

The interplanetary magnetic field has been fluctuating at low (|Bz|<5 nT) levels.

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit was at a normal level yesterday and is expected to be at a normal level tomorrow.

Visit <u>http://www.spaceweather.gc.ca/sffl-eng.php</u> for the electron forecast.

Geomagnetic

Over the last 24 hours geomagnetic activity has been quiet with unsettled intervals in the polar zone, quiet with active intervals in the auroral zone, and quiet in the sub-auroral zone. Over the next 24 hours geomagnetic activity is forecast to be quiet in the polar zone, quiet with unsettled intervals in the auroral zone, and quiet in the sub-auroral zone. Visit http://www.spaceweather.gc.ca/sfst-1-eng.php for the magnetic forecast.

Space Weather Bulletin - 2015-01-17 issued at 17:16 UT (12:16 EST)

Summary

There is currently no major storm watch in effect.

See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (17:00 UT)

Geomagnetic Activity:

polar cap zone: quiet

auroral zone: quiet

sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Impacts are not expected.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: quiet

auroral zone: quiet with unsettled intervals

sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Impacts are not expected.

Detailed Information

Solar

Solar activity has been very low.

Three coronal holes are located near the centre of the solar disk.

Two coronal holes are located near the edge of the solar disk.

Interplanetary

The solar wind speed is currently very slow (< 400 km/s).

The interplanetary magnetic field has been fluctuating at low (|Bz|<5 nT) levels.

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit was at a normal level yesterday and is expected to be at a normal level tomorrow.

Visit <u>http://www.spaceweather.gc.ca/sffl-eng.php</u> for the electron forecast.

Geomagnetic

Over the last 24 hours geomagnetic activity has been quiet with unsettled intervals in the polar zone, quiet with active intervals in the auroral zone, and quiet with unsettled intervals in the sub-auroral zone.

Over the next 24 hours geomagnetic activity is forecast to be quiet in the polar zone, quiet with unsettled intervals in the auroral zone, and quiet in the sub-auroral zone.

Visit <u>http://www.spaceweather.gc.ca/sfst-1-eng.php</u> for the magnetic forecast.

Space Weather Bulletin - 2015-01-18 issued at 17:50 UT (12:50 EST)

Summary

There is currently no major storm watch in effect. See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (17:30 UT) Geomagnetic Activity:

polar cap zone: quiet auroral zone: quiet

sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal **Possible Impacts on Technology:**

Impacts are not expected.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: quiet auroral zone: quiet sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Impacts are not expected.

Detailed Information

Solar

Solar activity has been very low.

One coronal hole is located near the centre of the solar disk.

Three coronal holes are located near the edge of the solar disk.

Interplanetary

The solar wind speed is currently very slow (< 400 km/s).

The interplanetary magnetic field has been fluctuating at low (|Bz|<5 nT) levels.

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit was at a normal level yesterday and is expected to be at a normal level tomorrow.

Visit <u>http://www.spaceweather.gc.ca/sffl-eng.php</u> for the electron forecast.

Geomagnetic

Over the last 24 hours geomagnetic activity has been quiet in the polar zone, quiet in the auroral zone, and quiet in the sub-auroral zone.

Over the next 24 hours geomagnetic activity is forecast to be quiet in the polar zone, quiet in the auroral zone, and quiet in the sub-auroral zone.

Visit <u>http://www.spaceweather.gc.ca/sfst-1-eng.php</u> for the magnetic forecast.

Space Weather Bulletin - 2015-01-19 issued at 17:37 UT (12:37 EST)

Summary

There is currently no major storm watch in effect.

See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (17:30 UT)

Geomagnetic Activity:

polar cap zone: quiet auroral zone: quiet sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Impacts are not expected.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: quiet

auroral zone: quiet sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Impacts are not expected.

Detailed Information

Solar

Solar activity has been very low.

One coronal hole is located near the centre of the solar disk.

Three coronal holes are located near the edge of the solar disk.

Interplanetary

The solar wind speed is currently very slow (< 400 km/s).

The interplanetary magnetic field has been fluctuating at low (|Bz|<5 nT) levels.

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit was at a normal level yesterday and is expected to be at a normal level tomorrow.

Visit <u>http://www.spaceweather.gc.ca/sffl-eng.php</u> for the electron forecast.

Geomagnetic

Over the last 24 hours geomagnetic activity has been quiet with unsettled intervals in the polar zone, quiet with unsettled intervals in the auroral zone, and quiet with unsettled intervals in the sub-auroral zone.

Over the next 24 hours geomagnetic activity is forecast to be quiet in the polar zone, quiet in the auroral zone, and quiet in the sub-auroral zone.

Visit <u>http://www.spaceweather.gc.ca/sfst-1-eng.php</u> for the magnetic forecast.

Space Weather Bulletin - 2015-01-20 issued at 18:28 UT (13:28 EST)

Summary

There is currently no major storm watch in effect.

See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (18:15 UT)

Geomagnetic Activity:

polar cap zone: quiet auroral zone: quiet sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Impacts are not expected.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: quiet auroral zone: quiet sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Impacts are not expected.

Detailed Information

Solar

Solar activity has been very low.

One coronal hole is located near the centre of the solar disk.

Three coronal holes are located near the edge of the solar disk.

Interplanetary

The solar wind speed is currently very slow (< 400 km/s).

The interplanetary magnetic field has been primarily positive at low (|Bz|<5 nT) levels.

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit was at a normal level yesterday and is expected to be at a normal level tomorrow.

Visit <u>http://www.spaceweather.gc.ca/sffl-eng.php</u> for the electron forecast.

Geomagnetic

Over the last 24 hours geomagnetic activity has been quiet in the polar zone, quiet with active intervals in the auroral zone, and quiet with unsettled intervals in the sub-auroral zone. Over the next 24 hours geomagnetic activity is forecast to be quiet in the polar zone, quiet in the auroral zone, and quiet in the sub-auroral zone.

Visit <u>http://www.spaceweather.gc.ca/sfst-1-eng.php</u> for the magnetic forecast.

Space Weather Bulletin - 2015-01-21 issued at 17:50 UT (12:50 EST)

Summary

There is currently no major storm watch in effect.

Disturbed geomagnetic conditions are expected 21 JAN 2015 to 22 JAN 2015 due to high speed streams from coronal holes.

See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (17:30 UT)

Geomagnetic Activity:

polar cap zone: active

auroral zone: active

sub-auroral zone: unsettled

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Aeromagnetic surveys: Potential for disruptions in the polar cap and auroral zones. Directional Drilling: Potential for deviations in the polar cap and auroral zones.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: quiet with active intervals

auroral zone: quiet

sub-auroral zone: quiet with unsettled intervals

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Aeromagnetic surveys: Potential for disruptions in the polar cap zone.

Directional Drilling: Potential for deviations in the polar cap zone.

Detailed Information

Solar

Solar activity has been low.

One coronal hole is located near the centre of the solar disk.

Three coronal holes are located near the edge of the solar disk.

Interplanetary

The solar wind speed is currently moderate (500-700 km/s).

The interplanetary magnetic field has been fluctuating at high (|Bz|<20 nT) levels.

Moderate solar wind speeds are due to high speed streams from coronal holes.

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit was at a low level yesterday and is expected to be at a normal level tomorrow.

Visit <u>http://www.spaceweather.gc.ca/sffl-eng.php</u> for the electron forecast.

Geomagnetic

Over the last 24 hours geomagnetic activity has been quiet with unsettled intervals in the polar zone, quiet with unsettled intervals in the auroral zone, and quiet with unsettled intervals in the sub-auroral zone.

Over the next 24 hours geomagnetic activity is forecast to be quiet with active intervals in the polar zone, quiet in the auroral zone, and quiet with unsettled intervals in the sub-auroral zone. Visit <u>http://www.spaceweather.gc.ca/sfst-1-eng.php</u> for the magnetic forecast.

Space Weather Bulletin - 2015-01-22 issued at 17:42 UT (12:42 EST)

Summary

There is currently no major storm watch in effect.

See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (17:15 UT)

Geomagnetic Activity:

polar cap zone: quiet auroral zone: quiet sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: low

Possible Impacts on Technology:

Impacts are not expected.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: unsettled auroral zone: unsettled with active intervals sub-auroral zone: guiet with unsettled intervals

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Aeromagnetic surveys: Potential for disruptions in the auroral zone.

Directional Drilling: Potential for deviations in the auroral zone.

Detailed Information

Solar

Solar activity has been low.

One large coronal hole is located near the centre of the solar disk.

An M (medium) solar x-ray flare erupted 14 JAN 2015 12:53 UT.

Interplanetary

The solar wind speed is currently slow (400-500 km/s).

The interplanetary magnetic field has been fluctuating at low (|Bz|<5 nT) levels.

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit was at a normal level yesterday and is expected to be at a normal level tomorrow.

Visit <u>http://www.spaceweather.gc.ca/sffl-eng.php</u> for the electron forecast.

Geomagnetic

Over the last 24 hours geomagnetic activity has been unsettled with active intervals in the polar zone, unsettled with active intervals in the auroral zone, and quiet with active intervals in the sub-auroral zone.

Over the next 24 hours geomagnetic activity is forecast to be unsettled in the polar zone, unsettled with active intervals in the auroral zone, and quiet with unsettled intervals in the sub-auroral zone. Visit <u>http://www.spaceweather.gc.ca/sfst-1-eng.php</u> for the magnetic forecast.

Space Weather Bulletin - 2015-01-23 issued at 18:01 UT (13:01 EST)

Summary

There is currently no major storm watch in effect.

See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (17:45 UT)

Geomagnetic Activity:

polar cap zone: unsettled auroral zone: unsettled sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Impacts are not expected.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: quiet with unsettled intervals

auroral zone: unsettled

sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Impacts are not expected.

Detailed Information

Solar

Solar activity has been low.

One coronal hole is located near the centre of the solar disk.

One coronal hole is located near the centre of the solar disk.

Interplanetary

The solar wind speed is currently slow (400-500 km/s).

The interplanetary magnetic field has been fluctuating at low (|Bz|<5 nT) levels.

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit was at a low level yesterday and is expected to be at a normal level tomorrow.

Visit <u>http://www.spaceweather.gc.ca/sffl-eng.php</u> for the electron forecast.

Geomagnetic

Over the last 24 hours geomagnetic activity has been quiet with unsettled intervals in the polar zone, quiet with stormy intervals in the auroral zone, and quiet with unsettled intervals in the sub-auroral zone.

Over the next 24 hours geomagnetic activity is forecast to be quiet with unsettled intervals in the polar zone, unsettled in the auroral zone, and quiet in the sub-auroral zone.

Visit <u>http://www.spaceweather.gc.ca/sfst-1-eng.php</u> for the magnetic forecast.

Space Weather Bulletin - 2015-01-24 issued at 20:12 UT (15:12 EST)

Summary

There is currently no major storm watch in effect.

See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (20:00 UT)

Geomagnetic Activity:

polar cap zone: unsettled auroral zone: quiet sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Impacts are not expected.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: quiet auroral zone: quiet with unsettled intervals sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Impacts are not expected.

Detailed Information

Solar

Solar activity has been low.

One coronal hole is located near the edge of the solar disk.

Two coronal holes are located near the centre of the solar disk.

Interplanetary

The solar wind speed is currently slow (400-500 km/s).

The interplanetary magnetic field has been fluctuating at low (|Bz|<5 nT) levels.

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit was at a normal level yesterday and is expected to be at a normal level tomorrow.

Visit http://www.spaceweather.gc.ca/sffl-eng.php for the electron forecast.

Geomagnetic

Over the last 24 hours geomagnetic activity has been quiet in the polar zone, quiet with stormy intervals in the auroral zone, and quiet in the sub-auroral zone.

Over the next 24 hours geomagnetic activity is forecast to be quiet in the polar zone, quiet with unsettled intervals in the auroral zone, and quiet in the sub-auroral zone.

Visit http://www.spaceweather.gc.ca/sfst-1-eng.php for the magnetic forecast.

Space Weather Bulletin - 2015-01-25 issued at 17:38 UT (12:38 EST)

Summary

There is currently no major storm watch in effect.

See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (17:15 UT)

Geomagnetic Activity:

polar cap zone: quiet auroral zone: quiet sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Impacts are not expected.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: quiet auroral zone: quiet sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Impacts are not expected.

Detailed Information

Solar

Solar activity has been low.

A slow CME was observed on 24 JAN 2015, and is expected to deliver a glancing blow to the Earth on 29 JAN 2015.

One coronal hole is located near the edge of the solar disk. Two coronal holes are located near the centre of the solar disk.

Interplanetary

The solar wind speed is currently very slow (< 400 km/s).

The interplanetary magnetic field has been fluctuating at low (|Bz|<5 nT) levels.

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit was at a normal level yesterday and is expected to be at a normal level tomorrow.

Visit <u>http://www.spaceweather.gc.ca/sffl-eng.php</u> for the electron forecast.

Geomagnetic

Over the last 24 hours geomagnetic activity has been quiet with unsettled intervals in the polar zone, quiet with unsettled intervals in the auroral zone, and quiet in the sub-auroral zone. Over the next 24 hours geomagnetic activity is forecast to be quiet in the polar zone, quiet in the auroral zone, and quiet in the sub-auroral zone.

Visit http://www.spaceweather.gc.ca/sfst-1-eng.php for the magnetic forecast.

Space Weather Bulletin - 2015-01-26 issued at 18:45 UT (13:45 EST)

Summary

There is currently no major storm watch in effect.

See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (18:30 UT)

Geomagnetic Activity:

polar cap zone: quiet auroral zone: quiet

sub-auroral zone: unsettled

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Impacts are not expected.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: quiet with unsettled intervals auroral zone: unsettled with active intervals sub-auroral zone: quiet with unsettled intervals

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Aeromagnetic surveys: Potential for disruptions in the auroral zone.

Directional Drilling: Potential for deviations in the auroral zone.

Detailed Information

Solar

Solar activity has been moderate.

An M (medium) solar x-ray flare erupted 26 JAN 2015 16:51 UT. One small coronal hole is located near the centre of the solar disk. Two coronal holes are located near the edge of the solar disk.

Interplanetary

The solar wind speed is currently very slow (< 400 km/s).

The interplanetary magnetic field has been fluctuating at low (|Bz|<5 nT) levels.

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit was at a normal level yesterday and is expected to be at a normal level tomorrow.

Visit <u>http://www.spaceweather.gc.ca/sffl-eng.php</u> for the electron forecast.

Geomagnetic

Over the last 24 hours geomagnetic activity has been quiet with unsettled intervals in the polar zone, quiet with stormy intervals in the auroral zone, and quiet with active intervals in the subauroral zone.

Over the next 24 hours geomagnetic activity is forecast to be quiet with unsettled intervals in the polar zone, unsettled with active intervals in the auroral zone, and quiet with unsettled intervals in the sub-auroral zone.

Visit <u>http://www.spaceweather.gc.ca/sfst-1-eng.php</u> for the magnetic forecast.

Space Weather Bulletin - 2015-01-27 issued at 18:57 UT (13:57 EST)

Summary

There is currently no major storm watch in effect.

See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (18:45 UT)

Geomagnetic Activity:

polar cap zone: quiet auroral zone: quiet sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Impacts are not expected.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: quiet with unsettled intervals auroral zone: quiet with unsettled intervals sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Impacts are not expected.

Detailed Information

Solar

Solar activity has been low.

One small coronal hole is located near the centre of the solar disk.

Two coronal holes are located near the edge of the solar disk.

Interplanetary

Interplanetary activity has been low.

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit was at a low level yesterday and is expected to be at a normal level tomorrow.

Visit <u>http://www.spaceweather.gc.ca/sffl-eng.php</u> for the electron forecast.

Geomagnetic

Over the last 24 hours geomagnetic activity has been quiet with unsettled intervals in the polar zone, quiet with stormy intervals in the auroral zone, and quiet with unsettled intervals in the sub-auroral zone.

Over the next 24 hours geomagnetic activity is forecast to be quiet with unsettled intervals in the polar zone, quiet with unsettled intervals in the auroral zone, and quiet in the sub-auroral zone. Visit <u>http://www.spaceweather.gc.ca/sfst-1-eng.php</u> for the magnetic forecast.

Space Weather Bulletin - 2015-01-28 issued at 20:16 UT (15:16 EST)

Summary

There is currently no major storm watch in effect.

See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (20:00 UT)

Geomagnetic Activity:

polar cap zone: quiet auroral zone: quiet sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Impacts are not expected.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: quiet auroral zone: quiet with unsettled intervals sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Impacts are not expected.

Detailed Information

Solar

Solar activity has been moderate.

Two coronal holes are located near the edge of the solar disk.

Interplanetary

Interplanetary activity has been low.

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit was at a normal level yesterday and is expected to be at a normal level tomorrow.

Visit <u>http://www.spaceweather.gc.ca/sffl-eng.php</u> for the electron forecast.

Geomagnetic

Over the last 24 hours geomagnetic activity has been quiet with active intervals in the polar zone, quiet with stormy intervals in the auroral zone, and quiet with active intervals in the sub-auroral zone.

Over the next 24 hours geomagnetic activity is forecast to be quiet in the polar zone, quiet with unsettled intervals in the auroral zone, and quiet in the sub-auroral zone.

Visit <u>http://www.spaceweather.gc.ca/sfst-1-eng.php</u> for the magnetic forecast.

Space Weather Bulletin - 2015-01-29 issued at 20:20 UT (15:20 EST)

Summary

There is currently no major storm watch in effect.

See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (20:15 UT)

Geomagnetic Activity:

polar cap zone: quiet auroral zone: quiet sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Impacts are not expected.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: quiet

auroral zone: quiet with unsettled intervals

sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Impacts are not expected.

Detailed Information

Solar

Solar activity has been moderate.

Two coronal holes are located near the centre of the solar disk.

Interplanetary

Interplanetary activity has been low.

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit was at a normal level yesterday and is expected to be at a normal level tomorrow.

Visit <u>http://www.spaceweather.gc.ca/sffl-eng.php</u> for the electron forecast.

Geomagnetic

Over the last 24 hours geomagnetic activity has been quiet with active intervals in the polar zone, quiet with unsettled intervals in the auroral zone, and quiet with unsettled intervals in the subauroral zone.

Over the next 24 hours geomagnetic activity is forecast to be quiet in the polar zone, quiet with unsettled intervals in the auroral zone, and quiet in the sub-auroral zone.

Visit <u>http://www.spaceweather.gc.ca/sfst-1-eng.php</u> for the magnetic forecast.

Space Weather Bulletin - 2015-01-30 issued at 20:05 UT (15:05 EST)

Summary

There is currently no major storm watch in effect.

See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (20:00 UT)

Geomagnetic Activity:

polar cap zone: quiet auroral zone: quiet sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Impacts are not expected.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: quiet with unsettled intervals auroral zone: quiet with unsettled intervals sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Impacts are not expected.

Detailed Information

Solar

Solar activity has been moderate.

Three medium solar x-ray flares have erupted over the past 24 hours.

One coronal hole is located near the centre of the solar disk.

One coronal hole is located near the edge of the solar disk.

Interplanetary

Interplanetary activity has been low.

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit was at a normal level yesterday and is expected to be at a normal level tomorrow.

Visit <u>http://www.spaceweather.gc.ca/sffl-eng.php</u> for the electron forecast.

Geomagnetic

Over the last 24 hours geomagnetic activity has been quiet with active intervals in the polar zone, quiet with active intervals in the auroral zone, and quiet with unsettled intervals in the sub-auroral zone.

Over the next 24 hours geomagnetic activity is forecast to be quiet with unsettled intervals in the polar zone, quiet with unsettled intervals in the auroral zone, and quiet in the sub-auroral zone. Visit <u>http://www.spaceweather.gc.ca/sfst-1-eng.php</u> for the magnetic forecast.

Space Weather Bulletin - 2015-01-31 issued at 19:10 UT (14:10 EST)

Summary

There is currently no major storm watch in effect.

See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (19:00 UT)

Geomagnetic Activity:

polar cap zone: quiet auroral zone: quiet sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: low

Possible Impacts on Technology:

Impacts are not expected.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: quiet auroral zone: quiet with unsettled intervals sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Impacts are not expected.

Detailed Information

Solar

Solar activity has been low.

One coronal hole is located near the centre of the solar disk.

Interplanetary

Interplanetary activity has been low.

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit was at a low level yesterday and is expected to be at a normal level tomorrow.

Visit <u>http://www.spaceweather.gc.ca/sffl-eng.php</u> for the electron forecast.

Geomagnetic

Over the last 24 hours geomagnetic activity has been quiet with active intervals in the polar zone, quiet with unsettled intervals in the auroral zone, and quiet with unsettled intervals in the subauroral zone.

Over the next 24 hours geomagnetic activity is forecast to be quiet in the polar zone, quiet with unsettled intervals in the auroral zone, and quiet in the sub-auroral zone.

Visit <u>http://www.spaceweather.gc.ca/sfst-1-eng.php</u> for the magnetic forecast.

Space Weather Bulletin - 2015-02-01 issued at 19:43 UT (14:43 EST)

Summary

There is currently no major storm watch in effect.

See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (19:30 UT)

Geomagnetic Activity:

polar cap zone: quiet auroral zone: unsettled sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: low

Possible Impacts on Technology:

Impacts are not expected.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: quiet with unsettled intervals auroral zone: unsettled with active intervals sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Impacts are not expected.

Detailed Information

Solar

Solar activity has been low. One coronal hole is located near the centre of the solar disk.

Interplanetary

Interplanetary activity has been moderate.

Moderate solar wind speeds are due to high speed streams from coronal holes.

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit was at a low level yesterday and is expected to be at a normal level tomorrow.

Over the last 24 hours geomagnetic activity has been quiet with active intervals in the polar zone, quiet with stormy intervals in the auroral zone, and quiet with active intervals in the sub-auroral zone.

Over the next 24 hours geomagnetic activity is forecast to be quiet with unsettled intervals in the polar zone, unsettled with active intervals in the auroral zone, and quiet in the sub-auroral zone. Visit <u>http://www.spaceweather.gc.ca/sfst-1-eng.php</u> for the magnetic forecast.

Space Weather Bulletin - 2015-02-02 issued at 19:22 UT (14:22 EST)

Summary

There is currently no major storm watch in effect.

See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (19:15 UT)

Geomagnetic Activity:

polar cap zone: unsettled auroral zone: unsettled sub-auroral zone: unsettled

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Impacts are not expected.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: unsettled with active intervals auroral zone: active with stormy intervals sub-auroral zone: unsettled

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Aeromagnetic surveys: Potential for disruptions in the auroral zone.

Directional Drilling: Potential for deviations in the auroral zone.

Detailed Information

Solar

Solar activity has been low. One coronal hole is located near the centre of the solar disk.

Interplanetary

Interplanetary activity has been moderate.

Moderate solar wind speeds are due to high speed streams from coronal holes.

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit was at a low level yesterday and is expected to be at a normal level tomorrow.

Over the last 24 hours geomagnetic activity has been unsettled with active intervals in the polar zone, active with stormy intervals in the auroral zone, and unsettled with stormy intervals in the sub-auroral zone.

Over the next 24 hours geomagnetic activity is forecast to be unsettled with active intervals in the polar zone, active with stormy intervals in the auroral zone, and unsettled in the sub-auroral zone. Visit <u>http://www.spaceweather.gc.ca/sfst-1-eng.php</u> for the magnetic forecast.

Space Weather Bulletin - 2015-02-03 issued at 18:55 UT (13:55 EST)

Summary

There is currently no major storm watch in effect.

See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (18:45 UT)

Geomagnetic Activity:

polar cap zone: unsettled auroral zone: unsettled sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: moderate

Possible Impacts on Technology:

Geostationary satellites: moderate risk of internal charging.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: quiet with unsettled intervals auroral zone: unsettled with stormy intervals sub-auroral zone: quiet with unsettled intervals

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: moderate

Possible Impacts on Technology:

Geostationary satellites: moderate risk of internal charging.

Detailed Information

Solar

Solar activity has been low.

One coronal hole is located near the centre of the solar disk.

One coronal hole is located near the edge of the solar disk.

Interplanetary

Interplanetary activity has been moderate.

Moderate solar wind speeds are due to high speed streams from coronal holes.

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit was at a normal level yesterday and is expected to be at a moderate level tomorrow.

Over the last 24 hours geomagnetic activity has been unsettled with active intervals in the polar zone, unsettled with stormy intervals in the auroral zone, and quiet with active intervals in the sub-auroral zone.

Over the next 24 hours geomagnetic activity is forecast to be quiet with unsettled intervals in the polar zone, unsettled with stormy intervals in the auroral zone, and quiet with unsettled intervals in the sub-auroral zone.

Visit <u>http://www.spaceweather.gc.ca/sfst-1-eng.php</u> for the magnetic forecast.

Space Weather Bulletin - 2015-02-04 issued at 19:48 UT (14:48 EST)

Summary

There is currently no major storm watch in effect.

See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (19:30 UT)

Geomagnetic Activity:

polar cap zone: unsettled auroral zone: quiet sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: moderate

Possible Impacts on Technology:

Geostationary satellites: moderate risk of internal charging.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: quiet with unsettled intervals auroral zone: quiet with active intervals sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: moderate

Possible Impacts on Technology:

Geostationary satellites: moderate risk of internal charging.

Detailed Information

Solar

Solar activity has been moderate. An M (medium) solar x-ray flare erupted 04 FEB 2015 02:16 UT. One coronal hole is located near the centre of the solar disk.

Interplanetary

Interplanetary activity has been low.

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit was at a moderate level yesterday and is expected to be at a moderate level tomorrow.

Over the last 24 hours geomagnetic activity has been quiet with unsettled intervals in the polar zone, quiet with active intervals in the auroral zone, and quiet with unsettled intervals in the sub-auroral zone.

Over the next 24 hours geomagnetic activity is forecast to be quiet with unsettled intervals in the polar zone, quiet with active intervals in the auroral zone, and quiet in the sub-auroral zone. Visit <u>http://www.spaceweather.gc.ca/sfst-1-eng.php</u> for the magnetic forecast.

Space Weather Bulletin - 2015-02-05 issued at 19:29 UT (14:29 EST)

Summary

There is currently no major storm watch in effect.

See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (19:15 UT)

Geomagnetic Activity:

polar cap zone: unsettled auroral zone: quiet sub-auroral zone: unsettled

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: moderate

Possible Impacts on Technology:

Geostationary satellites: moderate risk of internal charging.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: quiet with unsettled intervals auroral zone: quiet with unsettled intervals sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Impacts are not expected.

Detailed Information

Solar

Solar activity has been low.

One coronal hole is located near the centre of the solar disk.

Interplanetary

Interplanetary activity has been low.

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit was at a moderate level yesterday and is expected to be at a normal level tomorrow.

Visit <u>http://www.spaceweather.gc.ca/sffl-eng.php</u> for the electron forecast.

Over the last 24 hours geomagnetic activity has been quiet with active intervals in the polar zone, quiet with active intervals in the auroral zone, and quiet with active intervals in the sub-auroral zone.

Over the next 24 hours geomagnetic activity is forecast to be quiet with unsettled intervals in the polar zone, quiet with unsettled intervals in the auroral zone, and quiet in the sub-auroral zone. Visit <u>http://www.spaceweather.gc.ca/sfst-1-eng.php</u> for the magnetic forecast.

Space Weather Bulletin - 2015-02-06 issued at 18:11 UT (13:11 EST)

Summary

There is currently no major storm watch in effect.

See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (18:00 UT)

Geomagnetic Activity:

polar cap zone: active auroral zone: quiet sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Aeromagnetic surveys: Potential for disruptions in the polar cap zone. Directional Drilling: Potential for deviations in the polar cap zone.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: quiet with unsettled intervals auroral zone: quiet with unsettled intervals sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Impacts are not expected.

Detailed Information

Solar

Solar activity has been low.

One coronal hole is located near the centre of the solar disk.

Interplanetary

Interplanetary activity has been low.

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit was at a moderate level yesterday and is expected to be at a normal level tomorrow.

Visit <u>http://www.spaceweather.gc.ca/sffl-eng.php</u> for the electron forecast.

Over the last 24 hours geomagnetic activity has been quiet with active intervals in the polar zone, quiet with active intervals in the auroral zone, and quiet with unsettled intervals in the sub-auroral zone.

Over the next 24 hours geomagnetic activity is forecast to be quiet with unsettled intervals in the polar zone, quiet with unsettled intervals in the auroral zone, and quiet in the sub-auroral zone. Visit <u>http://www.spaceweather.gc.ca/sfst-1-eng.php</u> for the magnetic forecast.

Space Weather Bulletin - 2015-02-07 issued at 19:36 UT (14:36 EST)

Summary

There is currently no major storm watch in effect.

See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (19:30 UT)

Geomagnetic Activity:

polar cap zone: unsettled auroral zone: unsettled sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Impacts are not expected.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: quiet with unsettled intervals auroral zone: unsettled with active intervals sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Impacts are not expected.

Detailed Information

Solar

Solar activity has been low. One coronal hole is located near the centre of the solar disk. One coronal hole is located near the edge of the solar disk.

Interplanetary

Interplanetary activity has been low.

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit was at a normal level yesterday and is expected to be at a normal level tomorrow.

Visit <u>http://www.spaceweather.gc.ca/sffl-eng.php</u> for the electron forecast.
Over the last 24 hours geomagnetic activity has been quiet with active intervals in the polar zone, quiet with stormy intervals in the auroral zone, and quiet with active intervals in the sub-auroral zone.

Over the next 24 hours geomagnetic activity is forecast to be quiet with unsettled intervals in the polar zone, unsettled with active intervals in the auroral zone, and quiet in the sub-auroral zone. Visit <u>http://www.spaceweather.gc.ca/sfst-1-eng.php</u> for the magnetic forecast.

Space Weather Bulletin - 2015-02-08 issued at 19:23 UT (14:23 EST)

Summary

There is currently no major storm watch in effect.

See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (19:15 UT)

Geomagnetic Activity:

polar cap zone: unsettled auroral zone: unsettled sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Impacts are not expected.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: quiet with unsettled intervals auroral zone: unsettled with active intervals sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Impacts are not expected.

Detailed Information

Solar

Solar activity has been low. One coronal hole is located near the centre of the solar disk. One coronal hole is located near the edge of the solar disk.

Interplanetary

Interplanetary activity has been moderate.

Moderate solar wind speeds are due to high speed streams from coronal holes.

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit was at a normal level yesterday and is expected to be at a normal level tomorrow.

Visit <u>http://www.spaceweather.gc.ca/sffl-eng.php</u> for the electron forecast.

Over the last 24 hours geomagnetic activity has been quiet with active intervals in the polar zone, quiet with stormy intervals in the auroral zone, and quiet with unsettled intervals in the sub-auroral zone.

Over the next 24 hours geomagnetic activity is forecast to be quiet with unsettled intervals in the polar zone, unsettled with active intervals in the auroral zone, and quiet in the sub-auroral zone. Visit <u>http://www.spaceweather.gc.ca/sfst-1-eng.php</u> for the magnetic forecast.

Space Weather Bulletin - 2015-02-09 issued at 19:09 UT (14:09 EST)

Summary

There is currently no major storm watch in effect.

See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (19:00 UT)

Geomagnetic Activity:

polar cap zone: quiet auroral zone: quiet sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Impacts are not expected.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: quiet with unsettled intervals auroral zone: quiet with unsettled intervals sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Impacts are not expected.

Detailed Information

Solar

Solar activity has been low. One coronal hole is located near the centre of the solar disk. One coronal hole is located near the edge of the solar disk.

Interplanetary

Interplanetary activity has been low.

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit was at a normal level yesterday and is expected to be at a normal level tomorrow.

Visit <u>http://www.spaceweather.gc.ca/sffl-eng.php</u> for the electron forecast.

Over the last 24 hours geomagnetic activity has been quiet with active intervals in the polar zone, quiet with active intervals in the auroral zone, and quiet with unsettled intervals in the sub-auroral zone.

Over the next 24 hours geomagnetic activity is forecast to be quiet with unsettled intervals in the polar zone, quiet with unsettled intervals in the auroral zone, and quiet in the sub-auroral zone. Visit <u>http://www.spaceweather.gc.ca/sfst-1-eng.php</u> for the magnetic forecast.

Space Weather Bulletin - 2015-02-10 issued at 20:45 UT (15:45 EST)

Summary

There is currently no major storm watch in effect.

See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (20:15 UT)

Geomagnetic Activity:

polar cap zone: quiet auroral zone: quiet sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Impacts are not expected.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: quiet auroral zone: quiet sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Impacts are not expected.

Detailed Information

Solar

Solar activity has been moderate.

An M (medium) solar x-ray flare erupted 09 FEB 2015 22:19 UT near the edge of the solar disk. A fast CME was observed on 09 FEB 2015 23:24 UT, and is expected to deliver a glancing blow to the Earth on 12-13 FEB 2015, resulting in increased geomagnetic activity.

One medium coronal hole is located near the centre of the solar disk.

Interplanetary

The solar wind speed is currently very slow (~400 km/s).

The interplanetary magnetic field has been fluctuating at low (|Bz|<5 nT) levels.

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit was at a normal level yesterday and is expected to be at a normal level tomorrow.

Visit <u>http://www.spaceweather.gc.ca/sffl-eng.php</u> for the electron forecast.

Over the last 24 hours geomagnetic activity has been quiet with unsettled intervals in the polar zone, quiet with active intervals in the auroral zone, and quiet in the sub-auroral zone. Over the next 24 hours geomagnetic activity is forecast to be quiet in the polar zone, quiet in the auroral zone, and quiet in the sub-auroral zone.

Visit <u>http://www.spaceweather.gc.ca/sfst-1-eng.php</u> for the magnetic forecast.

Space Weather Bulletin - 2015-02-11 issued at 23:46 UT (18:46 EST)

Summary

There is currently no major storm watch in effect.

See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (23:30 UT)

Geomagnetic Activity:

polar cap zone: quiet auroral zone: quiet sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Impacts are not expected.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: quiet with unsettled intervals

auroral zone: quiet with active intervals

sub-auroral zone: quiet with active intervals

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Aeromagnetic surveys: Potential for disruptions in the polar cap and auroral zones.

Directional Drilling: Potential for deviations in the polar cap and auroral zones.

Detailed Information

Solar

Solar activity has been low.

One medium coronal hole is located near the edge of the solar disk.

A fast CME was observed on 09 FEB 2015 23:24 UT, and is expected to deliver a glancing blow to the Earth on 13 FEB 2015, resulting in increased geomagnetic activity.

Interplanetary

The solar wind speed is currently very slow (< 400 km/s).

The interplanetary magnetic field has been fluctuating at low (|Bz|<5 nT) levels.

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit was at a normal level yesterday and is expected to be at a normal level tomorrow.

Visit <u>http://www.spaceweather.gc.ca/sffl-eng.php</u> for the electron forecast.

Over the last 24 hours geomagnetic activity has been quiet with active intervals in the polar zone, quiet with active intervals in the auroral zone, and quiet with unsettled intervals in the sub-auroral zone.

Over the next 24 hours geomagnetic activity is forecast to be quiet with stormy intervals in the polar zone, quiet with stormy intervals in the auroral zone, and quiet with stormy intervals in the subauroral zone.

Visit <u>http://www.spaceweather.gc.ca/sfst-1-eng.php</u> for the magnetic forecast.

Space Weather Bulletin - 2015-02-12 issued at 22:55 UT (17:55 EST)

Summary

There is currently no major storm watch in effect.

See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (22:15 UT)

Geomagnetic Activity:

polar cap zone: quiet auroral zone: quiet sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Impacts are not expected.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: quiet with active intervals auroral zone: quiet with active intervals sub-auroral zone: quiet with active intervals

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Aeromagnetic surveys: Potential for disruptions in the polar cap, auroral, and sub-auroral zones. Directional Drilling: Potential for deviations in the polar cap, auroral, and sub-auroral zones.

Detailed Information

Solar

Solar activity has been low.

One medium coronal hole is located near the centre of the solar disk.

A fast CME was observed on 09 FEB 2015 23:24 UT, and is expected to deliver a glancing blow to the Earth on 13 FEB 2015, resulting in increased geomagnetic activity.

Interplanetary

The solar wind speed is currently very slow (< 400 km/s).

The interplanetary magnetic field has been fluctuating at low (|Bz|<5 nT) levels.

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit was at a normal level yesterday and is expected to be at a normal level tomorrow.

Visit <u>http://www.spaceweather.gc.ca/sffl-eng.php</u> for the electron forecast.

Over the last 24 hours geomagnetic activity has been quiet with unsettled intervals in the polar zone, quiet with unsettled intervals in the auroral zone, and quiet in the sub-auroral zone. Over the next 24 hours geomagnetic activity is forecast to be quiet with active intervals in the polar zone, quiet with active intervals in the auroral zone, and quiet with active intervals in the sub-auroral zone.

Visit <u>http://www.spaceweather.gc.ca/sfst-1-eng.php</u> for the magnetic forecast.

Space Weather Bulletin - 2015-02-13 issued at 20:23 UT (15:23 EST)

Summary

There is currently no major storm watch in effect.

See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (20:00 UT)

Geomagnetic Activity:

polar cap zone: quiet auroral zone: quiet

sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Impacts are not expected.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: quiet with unsettled intervals auroral zone: quiet with unsettled intervals sub-auroral zone: quiet with unsettled intervals

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Impacts are not expected.

Detailed Information

Solar

Solar activity has been low.

One medium coronal hole is located near the centre of the solar disk.

Interplanetary

The solar wind speed is currently very slow (< 400 km/s).

The interplanetary magnetic field has been fluctuating at low (|Bz|<5 nT) levels.

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit was at a normal level yesterday and is expected to be at a normal level tomorrow.

Visit <u>http://www.spaceweather.gc.ca/sffl-eng.php</u> for the electron forecast.

Geomagnetic

Over the last 24 hours geomagnetic activity has been quiet with unsettled intervals in the polar zone, quiet with unsettled intervals in the auroral zone, and quiet in the sub-auroral zone.

Over the next 24 hours geomagnetic activity is forecast to be quiet with unsettled intervals in the polar zone, quiet with unsettled intervals in the auroral zone, and quiet with unsettled intervals in the sub-auroral zone.

Visit <u>http://www.spaceweather.gc.ca/sfst-1-eng.php</u> for the magnetic forecast.

Space Weather Bulletin - 2015-02-14 issued at 22:12 UT (17:12 EST)

Summary

There is currently no major storm watch in effect.

Disturbed geomagnetic conditions are expected 15 FEB 2015 to 16 FEB 2015 due to high speed streams from coronal holes.

See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (22:00 UT)

Geomagnetic Activity:

polar cap zone: quiet auroral zone: quiet sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Impacts are not expected.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: quiet with active intervals auroral zone: quiet with stormy intervals sub-auroral zone: quiet with stormy intervals

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Power Systems: possibility of weak voltage fluctuations in the auroral zone. Aeromagnetic surveys: Potential for significant disruptions in the polar cap and auroral zones. Directional Drilling: Potential for significant deviations in the polar cap and auroral zones. Aeromagnetic surveys: Potential for disruptions in the sub-auroral zone. Directional Drilling: Potential for deviations in the sub-auroral zone.

Detailed Information

Solar

Solar activity has been low.

One medium coronal hole is located near the centre of the solar disk.

Interplanetary

The solar wind speed is currently very slow (< 400 km/s).

The interplanetary magnetic field has been fluctuating at moderate (|Bz|<10 nT) levels.

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit was at a normal level yesterday and is expected to be at a normal level tomorrow.

Visit <u>http://www.spaceweather.gc.ca/sffl-eng.php</u> for the electron forecast.

Geomagnetic

Over the last 24 hours geomagnetic activity has been quiet with unsettled intervals in the polar zone, quiet with unsettled intervals in the auroral zone, and quiet in the sub-auroral zone. Over the next 24 hours geomagnetic activity is forecast to be quiet with active intervals in the polar zone, quiet with active intervals in the auroral zone, and quiet with active intervals in the subauroral zone.

Visit <u>http://www.spaceweather.gc.ca/sfst-1-eng.php</u> for the magnetic forecast.

Space Weather Bulletin - 2015-02-15 issued at 22:47 UT (17:47 EST)
Summary
I nere is currently no major storm watch in effect.
See our website for current information: <u>http://www.spaceweatner.gc.ca</u> (updated every 15
minutes)
Correct Conditions (22:30 01)
Geomagnetic Activity:
polar cap zone: quiet
auroral zone: quiet
Sub-autoral zone: quiet
energetie electron fluence et geostationary orbit: normal
Presible Impacts on Technology
Impacts are not expected
A Hour Foregoet
24 Hour Forecast
Geomagnetic Activity:
pular cap zone, quiet with uncettled intervale
autoral zone, quiet with unsettieu intervais
Sub-autoral zone: quiet
environment at Geostationary orbit:
Possible Impacts on Technology:
Impacts are not expected
Impacts are not expected.
Solar
Solar activity bas been low
One medium coronal hole is located near the centre of the solar disk
Internanotary
The solar wind speed is currently very slow (< 400 km/s)
The internlanetary magnetic field has been fluctuating at moderate ($ B_2 > 10$ nT) levels
Environment at Geostationary orbit
Environment at Geostational y orbit Energetic electron fluence at geostationary orbit was at a normal level vesterday and is expect
he at a normal level tomorrow
Visit http://www.spaceweather.gc.ca/sffl.eng.php.for.the electron forecast
Geomagnetic
Over the last 24 hours geomagnetic activity has been quiet with unsettled intervals in the pola
zone quiet with active intervals in the auroral zone and quiet in the sub-auroral zone
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and is expected to

Over the next 24 hours geomagnetic activity is forecast to be quiet in the polar zone, quiet with unsettled intervals in the auroral zone, and quiet in the sub-auroral zone. Visit <u>http://www.spaceweather.gc.ca/sfst-1-eng.php</u> for the magnetic forecast.

Space Weather Bulletin - 2015-02-16 issued at 22:15 UT (17:15 EST) Summary

There is currently no major storm watch in effect.

See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (22:00 UT)

Geomagnetic Activity:

polar cap zone: quiet auroral zone: quiet sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Impacts are not expected.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: quiet auroral zone: quiet

sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Impacts are not expected.

Detailed Information

Solar

Solar activity has been low.

Interplanetary

The solar wind speed is currently very slow (< 400 km/s).

The interplanetary magnetic field has been fluctuating at moderate (|Bz|<10 nT) levels.

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit was at a normal level yesterday and is expected to be at a normal level tomorrow.

Visit <u>http://www.spaceweather.gc.ca/sffl-eng.php</u> for the electron forecast.

Geomagnetic

Over the last 24 hours geomagnetic activity has been quiet with unsettled intervals in the polar zone, quiet with active intervals in the auroral zone, and quiet in the sub-auroral zone. Over the next 24 hours geomagnetic activity is forecast to be quiet in the polar zone, quiet in the

auroral zone, and quiet in the sub-auroral zone.

Visit <u>http://www.spaceweather.gc.ca/sfst-1-eng.php</u> for the magnetic forecast.

Space Weather Bulletin - 2015-02-17 issued at 22:38 UT (17:38 EST) Summary

There is currently no major storm watch in effect.

See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (22:15 UT)

Geomagnetic Activity:

polar cap zone: unsettled auroral zone: unsettled sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: low

Possible Impacts on Technology:

Impacts are not expected.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: unsettled with active intervals auroral zone: unsettled with active intervals sub-auroral zone: guiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Aeromagnetic surveys: Potential for disruptions in the polar cap and auroral zones. Directional Drilling: Potential for deviations in the polar cap and auroral zones.

Directional Drilling: Potential for deviations in the polar cap and aurora

Detailed Information

Solar

Solar activity has been low.

Interplanetary

The solar wind speed is currently very slow (~ 400 km/s).

The interplanetary magnetic field has been fluctuating at high (|Bz|<20 nT) levels.

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit was at a normal level yesterday and is expected to be at a normal level tomorrow.

Visit <u>http://www.spaceweather.gc.ca/sffl-eng.php</u> for the electron forecast.

Geomagnetic

Over the last 24 hours geomagnetic activity has been unsettled with active intervals in the polar zone, unsettled with stormy intervals in the auroral zone, and quiet with unsettled intervals in the sub-auroral zone.

Over the next 24 hours geomagnetic activity is forecast to be unsettled with active intervals in the polar zone, unsettled with active intervals in the auroral zone, and quiet in the sub-auroral zone. Visit <u>http://www.spaceweather.gc.ca/sfst-1-eng.php</u> for the magnetic forecast.

Space Weather Bulletin - 2015-02-18 issued at 19:00 UT (14:00 EST)

Summary

There is currently no major storm watch in effect.

See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (18:45 UT)

Geomagnetic Activity:

polar cap zone: quiet auroral zone: quiet sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: low

Possible Impacts on Technology:

Impacts are not expected.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: quiet with unsettled intervals auroral zone: active sub-auroral zone: unsettled

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Aeromagnetic surveys: Potential for disruptions in the auroral zone.

Directional Drilling: Potential for deviations in the auroral zone.

Detailed Information

Solar

Solar activity has been low.

Interplanetary

The solar wind speed is currently slow (400-500 km/s).

The interplanetary magnetic field has been fluctuating at low (|Bz|<5 nT) levels.

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit was at a low level yesterday and is expected to be at a normal level tomorrow.

Visit <u>http://www.spaceweather.gc.ca/sffl-eng.php</u> for the electron forecast.

Geomagnetic

Over the last 24 hours geomagnetic activity has been quiet with active intervals in the polar zone, unsettled with stormy intervals in the auroral zone, and quiet with stormy intervals in the subauroral zone.

Over the next 24 hours geomagnetic activity is forecast to be quiet with unsettled intervals in the polar zone, active in the auroral zone, and unsettled in the sub-auroral zone.

Visit <u>http://www.spaceweather.gc.ca/sfst-1-eng.php</u> for the magnetic forecast.

Space Weather Bulletin - 2015-02-19 issued at 21:08 UT (16:08 EST) Summary

There is currently no major storm watch in effect.

See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (21:00 UT)

Geomagnetic Activity:

polar cap zone: quiet auroral zone: quiet sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Impacts are not expected.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: quiet with unsettled intervals auroral zone: quiet with unsettled intervals sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Impacts are not expected.

Detailed Information

Solar

Solar activity has been low.

Interplanetary

The solar wind speed is currently very slow (~ 400 km/s).

The interplanetary magnetic field has been fluctuating at moderate (|Bz|<10 nT) levels.

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit was at a normal level yesterday and is expected to be at a normal level tomorrow.

Visit <u>http://www.spaceweather.gc.ca/sffl-eng.php</u> for the electron forecast.

Geomagnetic

Over the last 24 hours geomagnetic activity has been quiet with active intervals in the polar zone, quiet with stormy intervals in the auroral zone, and quiet with unsettled intervals in the sub-auroral zone.

Over the next 24 hours geomagnetic activity is forecast to be quiet with unsettled intervals in the polar zone, quiet with unsettled intervals in the auroral zone, and quiet in the sub-auroral zone. Visit <u>http://www.spaceweather.gc.ca/sfst-1-eng.php</u> for the magnetic forecast.

Space Weather Bulletin - 2015-02-20 issued at 19:28 UT (14:28 EST)

Summary

There is currently no major storm watch in effect.

See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (19:15 UT)

Geomagnetic Activity:

polar cap zone: unsettled auroral zone: quiet sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Impacts are not expected.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: quiet with unsettled intervals auroral zone: quiet with unsettled intervals sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Impacts are not expected.

Detailed Information

Solar

Solar activity has been low.

One small coronal hole is located near the centre of the solar disk.

Interplanetary

The solar wind speed is currently very slow (< 400 km/s).

The interplanetary magnetic field has been fluctuating at low (|Bz|<5 nT) levels.

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit was at a normal level yesterday and is expected to be at a normal level tomorrow.

Visit http://www.spaceweather.gc.ca/sffl-eng.php for the electron forecast.

Geomagnetic

Over the last 24 hours geomagnetic activity has been quiet with active intervals in the polar zone, quiet with active intervals in the auroral zone, and quiet in the sub-auroral zone. Over the next 24 hours geomagnetic activity is forecast to be quiet with unsettled intervals in the polar zone, quiet with unsettled intervals in the auroral zone, and quiet in the sub-auroral zone. Visit http://www.spaceweather.gc.ca/sfst-1-eng.php for the magnetic forecast.

Space Weather Bulletin - 2015-02-21 issued at 21:07 UT (16:07 EST)

Summary

There is currently no major storm watch in effect.

See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (20:45 UT)

Geomagnetic Activity:

polar cap zone: quiet auroral zone: quiet sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Impacts are not expected.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: quiet auroral zone: quiet with unsettled intervals

sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Impacts are not expected.

Detailed Information

Solar

Solar activity has been low.

One small coronal hole is located near the centre of the solar disk.

Interplanetary

The solar wind speed is currently very slow (< 400 km/s).

The interplanetary magnetic field has been fluctuating at low (|Bz|<5 nT) levels.

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit was at a normal level yesterday and is expected to be at a normal level tomorrow.

Visit <u>http://www.spaceweather.gc.ca/sffl-eng.php</u> for the electron forecast.

Geomagnetic

Over the last 24 hours geomagnetic activity has been quiet with unsettled intervals in the polar zone, quiet with stormy intervals in the auroral zone, and quiet with unsettled intervals in the sub-auroral zone.

Over the next 24 hours geomagnetic activity is forecast to be quiet in the polar zone, quiet with unsettled intervals in the auroral zone, and quiet in the sub-auroral zone.

Visit <u>http://www.spaceweather.gc.ca/sfst-1-eng.php</u> for the magnetic forecast.

Space Weather Bulletin - 2015-02-22 issued at 21:00 UT (16:00 EST)

Summary

There is currently no major storm watch in effect.

See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (20:45 UT)

Geomagnetic Activity:

polar cap zone: quiet auroral zone: quiet

sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Impacts are not expected.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: quiet

auroral zone: quiet with unsettled intervals

sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Impacts are not expected.

Detailed Information

Solar

Solar activity has been low.

One small coronal hole is located near the centre of the solar disk.

Interplanetary

The solar wind speed is currently very slow (< 400 km/s).

The interplanetary magnetic field has been fluctuating at low (|Bz|<5 nT) levels.

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit was at a normal level yesterday and is expected to be at a normal level tomorrow.

Visit <u>http://www.spaceweather.gc.ca/sffl-eng.php</u> for the electron forecast.

Geomagnetic

Over the last 24 hours geomagnetic activity has been quiet with unsettled intervals in the polar zone, quiet with active intervals in the auroral zone, and quiet in the sub-auroral zone. Over the next 24 hours geomagnetic activity is forecast to be quiet in the polar zone, quiet with unsettled intervals in the auroral zone, and quiet in the sub-auroral zone. Visit http://www.spacowoathor.gc.ca/sfet_1 ong php for the magnetic forecast

Visit <u>http://www.spaceweather.gc.ca/sfst-1-eng.php</u> for the magnetic forecast.

Space Weather Bulletin - 2015-02-23 issued at 19:09 UT (14:09 EST)

Summary

There is currently no major storm watch in effect.

See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (19:00 UT)

Geomagnetic Activity:

polar cap zone: unsettled auroral zone: active

sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: low

Possible Impacts on Technology:

Aeromagnetic surveys: Potential for disruptions in the auroral zone.

Directional Drilling: Potential for deviations in the auroral zone.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: quiet with unsettled intervals auroral zone: unsettled with active intervals sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Aeromagnetic surveys: Potential for disruptions in the auroral zone. Directional Drilling: Potential for deviations in the auroral zone.

Detailed Information

Solar

Solar activity has been low.

Two small coronal holes are located near the centre of the solar disk.

Interplanetary

The solar wind speed is currently slow (400-500 km/s).

The interplanetary magnetic field has been fluctuating at high (|Bz|<20 nT) levels.

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit was at a normal level yesterday and is expected to be at a normal level tomorrow.

Visit <u>http://www.spaceweather.gc.ca/sffl-eng.php</u> for the electron forecast.

Geomagnetic

Over the last 24 hours geomagnetic activity has been quiet with active intervals in the polar zone, unsettled with stormy intervals in the auroral zone, and quiet with active intervals in the sub-auroral zone.

Over the next 24 hours geomagnetic activity is forecast to be quiet with unsettled intervals in the polar zone, unsettled with active intervals in the auroral zone, and quiet in the sub-auroral zone. Visit <u>http://www.spaceweather.gc.ca/sfst-1-eng.php</u> for the magnetic forecast.

Space Weather Bulletin - 2015-02-24 issued at 20:12 UT (15:12 EST)

Summary

There is currently no major storm watch in effect.

See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (20:00 UT)

Geomagnetic Activity:

polar cap zone: unsettled auroral zone: quiet sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: low

Possible Impacts on Technology:

Impacts are not expected.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: unsettled with active intervals

auroral zone: active

sub-auroral zone: unsettled

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Aeromagnetic surveys: Potential for disruptions in the auroral zone. Directional Drilling: Potential for deviations in the auroral zone.

Detailed Information

Solar

Solar activity has been low.

Three small coronal holes are located near the centre of the solar disk.

Interplanetary

Interplanetary activity has been low.

Moderate solar wind speeds are due to high speed streams from coronal holes.

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit was at a low level yesterday and is expected to be at a normal level tomorrow.

Visit <u>http://www.spaceweather.gc.ca/sffl-eng.php</u> for the electron forecast.

Geomagnetic

Over the last 24 hours geomagnetic activity has been unsettled with active intervals in the polar zone, unsettled with stormy intervals in the auroral zone, and unsettled with stormy intervals in the sub-auroral zone.

Over the next 24 hours geomagnetic activity is forecast to be unsettled with active intervals in the polar zone, active in the auroral zone, and unsettled in the sub-auroral zone.

Visit <u>http://www.spaceweather.gc.ca/sfst-1-eng.php</u> for the magnetic forecast.

Space Weather Bulletin - 2015-02-25 issued at 20:14 UT (15:14 EST)

Summary

There is currently no major storm watch in effect.

See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (20:00 UT)

Geomagnetic Activity:

polar cap zone: unsettled auroral zone: quiet sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: moderate

Possible Impacts on Technology:

Impacts are not expected.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: quiet with unsettled intervals

auroral zone: unsettled

sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: moderate

Possible Impacts on Technology:

Impacts are not expected.

Detailed Information

Solar

Solar activity has been low.

Three small coronal holes are located near the centre of the solar disk.

Interplanetary

Interplanetary activity has been low.

Moderate solar wind speeds are due to high speed streams from coronal holes.

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit was at a low level yesterday and is expected to be at a moderate level tomorrow.

Visit <u>http://www.spaceweather.gc.ca/sffl-eng.php</u> for the electron forecast.

Geomagnetic

Over the last 24 hours geomagnetic activity has been quiet with unsettled intervals in the polar zone, quiet with stormy intervals in the auroral zone, and quiet with unsettled intervals in the sub-auroral zone.

Over the next 24 hours geomagnetic activity is forecast to be quiet with unsettled intervals in the polar zone, unsettled in the auroral zone, and quiet in the sub-auroral zone.

Visit <u>http://www.spaceweather.gc.ca/sfst-1-eng.php</u> for the magnetic forecast.

Space Weather Bulletin - 2015-02-26 issued at 21:19 UT (16:19 EST)

Summary

There is currently no major storm watch in effect.

See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (21:00 UT)

Geomagnetic Activity:

polar cap zone: quiet auroral zone: quiet

sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: low

Possible Impacts on Technology:

Impacts are not expected.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: quiet

auroral zone: quiet with unsettled intervals

sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Impacts are not expected.

Detailed Information

Solar

Solar activity has been very low.

Two small coronal holes are located near the centre of the solar disk.

Interplanetary

Interplanetary activity has been low.

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit for 25 FEB 2015 is unavailable but is expected to be at a normal level tomorrow.

Visit <u>http://www.spaceweather.gc.ca/sffl-eng.php</u> for the electron forecast.

Geomagnetic

Over the last 24 hours geomagnetic activity has been quiet with unsettled intervals in the polar zone, quiet with active intervals in the auroral zone, and quiet in the sub-auroral zone. Over the next 24 hours geomagnetic activity is forecast to be quiet in the polar zone, quiet with unsettled intervals in the auroral zone, and quiet in the sub-auroral zone. Visit http://www.spaceweather.gc.ca/sfst-1-eng.php for the magnetic forecast.

Space Weather Bulletin - 2015-02-27 issued at 21:39 UT (16:39 EST) Summary

There is currently no major storm watch in effect.

See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (21:30 UT)

Geomagnetic Activity:

polar cap zone: quiet auroral zone: quiet sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Impacts are not expected.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: quiet

auroral zone: quiet

sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Impacts are not expected.

Detailed Information

Solar

Solar activity has been low.

Two small coronal holes are located near the centre of the solar disk.

Interplanetary

Interplanetary activity has been low.

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit for 26 FEB 2015 is unavailable but is expected to be at a normal level tomorrow.

Visit <u>http://www.spaceweather.gc.ca/sffl-eng.php</u> for the electron forecast.

Over the last 24 hours geomagnetic activity has been quiet with unsettled intervals in the polar zone, quiet in the auroral zone, and quiet in the sub-auroral zone.

Over the next 24 hours geomagnetic activity is forecast to be quiet in the polar zone, quiet in the auroral zone, and quiet in the sub-auroral zone.

Visit <u>http://www.spaceweather.gc.ca/sfst-1-eng.php</u> for the magnetic forecast.

Space Weather Bulletin - 2015-02-28 issued at 20:00 UT (15:00 EST)

Summary

There is currently no major storm watch in effect.

See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (19:45 UT)

Geomagnetic Activity:

polar cap zone: unsettled auroral zone: unsettled sub-auroral zone: unsettled

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Impacts are not expected.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: quiet with unsettled intervals

auroral zone: unsettled

sub-auroral zone: quiet with unsettled intervals

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Impacts are not expected.

Detailed Information

Solar

Solar activity has been very low.

Two small coronal holes are located near the centre of the solar disk.

Interplanetary

Interplanetary activity has been moderate.

Moderate solar wind speeds are due to high speed streams from coronal holes.

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit was at a normal level yesterday and is expected to be at a normal level tomorrow.

Visit <u>http://www.spaceweather.gc.ca/sffl-eng.php</u> for the electron forecast.

Geomagnetic

Over the last 24 hours geomagnetic activity has been quiet with active intervals in the polar zone, quiet with stormy intervals in the auroral zone, and quiet with unsettled intervals in the sub-auroral zone.

Over the next 24 hours geomagnetic activity is forecast to be quiet with unsettled intervals in the polar zone, unsettled in the auroral zone, and quiet with unsettled intervals in the sub-auroral zone. Visit <u>http://www.spaceweather.gc.ca/sfst-1-eng.php</u> for the magnetic forecast.

Space Weather Bulletin - 2015-03-01 issued at 18:39 UT (13:39 EST) Summary

There is currently no major storm watch in effect.

Disturbed geomagnetic conditions are expected 01 Mar 2015 to 02 Mar 2015 due to high speed streams from coronal holes.

See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (18:15 UT)

Geomagnetic Activity:

polar cap zone: quiet auroral zone: quiet sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: low

Possible Impacts on Technology:

Impacts are not expected.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: quiet with active intervals auroral zone: active with stormy intervals sub-auroral zone: unsettled

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Impacts are not expected.

Detailed Information

Solar

Solar activity has been low.

Two small coronal holes are located near the centre of the solar disk.

Interplanetary

Moderate solar wind speeds are due to high speed streams from coronal holes.

The interplanetary magnetic field has been fluctuating at low (|Bz|<5 nT) levels.

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit was at a normal level yesterday and is expected to be at a normal level tomorrow.

Visit <u>http://www.spaceweather.gc.ca/sffl-eng.php</u> for the electron forecast.

Geomagnetic

Over the last 24 hours geomagnetic activity has been unsettled with active intervals in the polar zone, active with stormy intervals in the auroral zone, and quiet with stormy intervals in the sub-auroral zone.

Over the next 24 hours geomagnetic activity is forecast to be quiet with active intervals in the polar zone, active with stormy intervals in the auroral zone, and unsettled in the sub-auroral zone. Visit <u>http://www.spaceweather.gc.ca/sfst-1-eng.php</u> for the magnetic forecast.

Space Weather Bulletin - 2015-03-02 issued at 20:51 UT (15:51 EST) Summary

There is currently no major storm watch in effect.

Disturbed geomagnetic conditions are expected 02 Mar 2015 to 03 Mar 2015 due to high speed streams from coronal holes.

See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (20:15 UT)

Geomagnetic Activity:

polar cap zone: quiet auroral zone: quiet sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Impacts are not expected.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: quiet with active intervals auroral zone: active with stormy intervals sub-auroral zone: unsettled

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: moderate

Possible Impacts on Technology:

Aeromagnetic surveys: Potential for disruptions in the auroral zone.

Directional Drilling: Potential for deviations in the auroral zone.

Detailed Information

Solar

Solar activity has been low.

Two small coronal holes are located near the centre of the solar disk.

Interplanetary

Interplanetary activity has been low.

Moderate solar wind speeds are due to high speed streams from coronal holes.

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit was at a normal level yesterday and is expected to be at a moderate level tomorrow.

Visit <u>http://www.spaceweather.gc.ca/sffl-eng.php</u> for the electron forecast.

Geomagnetic

Over the last 24 hours geomagnetic activity has been unsettled with active intervals in the polar zone, active with stormy intervals in the auroral zone, and unsettled with stormy intervals in the sub-auroral zone.

Over the next 24 hours geomagnetic activity is forecast to be quiet with active intervals in the polar zone, active with stormy intervals in the auroral zone, and unsettled in the sub-auroral zone. Visit <u>http://www.spaceweather.gc.ca/sfst-1-eng.php</u> for the magnetic forecast.

Space Weather Bulletin - 2015-03-03 issued at 21:20 UT (16:20 EST) Summary

There is currently no major storm watch in effect.

Disturbed geomagnetic conditions are expected 03 Mar 2015 to 04 Mar 2015 due to high speed streams from coronal holes.

See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (21:00 UT)

Geomagnetic Activity:

polar cap zone: unsettled auroral zone: quiet

sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: moderate

Possible Impacts on Technology:

Impacts are not expected.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: quiet with unsettled intervals

auroral zone: unsettled sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: moderate

Possible Impacts on Technology:

Impacts are not expected.

Detailed Information

Solar

The active region located near the west limb of the solar disk has produced solar x-ray flares.

Three small coronal holes are located near the centre of the solar disk.

Interplanetary

Interplanetary activity has been moderate.

Moderate solar wind speeds are due to high speed streams from coronal holes.

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit was at a normal level yesterday and is expected to be at a moderate level tomorrow.

Visit <u>http://www.spaceweather.gc.ca/sffl-eng.php</u> for the electron forecast.

Geomagnetic

Over the last 24 hours geomagnetic activity has been quiet with active intervals in the polar zone, unsettled with active intervals in the auroral zone, and quiet with active intervals in the sub-auroral zone.

Over the next 24 hours geomagnetic activity is forecast to be quiet with unsettled intervals in the polar zone, unsettled in the auroral zone, and quiet in the sub-auroral zone. Visit <u>http://www.spaceweather.gc.ca/sfst-1-eng.php</u> for the magnetic forecast.

Space Weather Bulletin - 2015-03-04 issued at 22:04 UT (17:04 EST)

Summary

There is currently no major storm watch in effect.

See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (21:45 UT)

Geomagnetic Activity:

polar cap zone: unsettled auroral zone: quiet sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Impacts are not expected.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: quiet with unsettled intervals auroral zone: unsettled with active intervals sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Impacts are not expected.

Detailed Information

Solar

Solar activity has been low.

One medium coronal hole is located near the centre of the solar disk.

Interplanetary

Interplanetary activity has been low.

Moderate solar wind speeds are due to high speed streams from coronal holes.

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit was at a moderate level yesterday and is expected to be at a normal level tomorrow.

Visit <u>http://www.spaceweather.gc.ca/sffl-eng.php</u> for the electron forecast.

Geomagnetic

Over the last 24 hours geomagnetic activity has been quiet with active intervals in the polar zone, unsettled with stormy intervals in the auroral zone, and quiet with active intervals in the sub-auroral zone.

Over the next 24 hours geomagnetic activity is forecast to be quiet with unsettled intervals in the polar zone, unsettled with active intervals in the auroral zone, and quiet in the sub-auroral zone. Visit <u>http://www.spaceweather.gc.ca/sfst-1-eng.php</u> for the magnetic forecast.

Space Weather Bulletin - 2015-03-05 issued at 22:08 UT (17:08 EST)
Summary
There is currently no major storm watch in effect.
See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15
minutes)
Current Conditions (22:00 UT)
Geomagnetic Activity:
polar cap zone: unsettled
auroral zone: guiet
sub-auroral zone: quiet
Environment at Geostationary orbit:
energetic electron fluence at geostationary orbit: normal
Possible Impacts on Technology:
Impacts are not expected.
24 Hour Forecast
Geomagnetic Activity:
polar cap zone: quiet with unsettled intervals
auroral zone: guiet with unsettled intervals
sub-auroral zone: quiet
Environment at Geostationary orbit:
energetic electron fluence at geostationary orbit: normal
Possible Impacts on Technology:
Impacts are not expected.
Detailed Information
Solar
Solar activity has been low.
One medium coronal hole elongated in longitude is located near the centre of the solar disk.
Interplanetary
Interplanetary activity has been low.
Environment at Geostationary orbit
Energetic electron fluence at geostationary orbit was at a normal level vesterday and is expected to
be at a normal level tomorrow.
Visit http://www.spaceweather.gc.ca/sffl-eng.php for the electron forecast
Geomagnetic
Over the last 24 hours geomagnetic activity has been guiet with unsettled intervals in the polar
zone, guiet with active intervals in the auroral zone, and guiet with unsettled intervals in the sub-
auroral zone
Over the next 24 hours geomagnetic activity is forecast to be guiet with unsettled intervals in the
polar zone, guiet with unsettled intervals in the auroral zone, and guiet in the sub-auroral zone
Visit http://www.spaceweather.gc.ca/sfst-1-eng.php.for.the.magnetic forecast
Space weather Bulletin - 2015-03-06 Issued at 21:39 UT (16:39 EST)
Summary
i nere is currently no major storm watch in effect.
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See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (21:30 UT)

Geomagnetic Activity:

polar cap zone: unsettled auroral zone: unsettled sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: unavailable

Possible Impacts on Technology:

Impacts are not expected.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: unsettled with active intervals auroral zone: unsettled sub-auroral zone: guiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Impacts are not expected.

Detailed Information

Solar

Solar activity has been low.

Two medium coronal holes are located near the centre of the solar disk.

Interplanetary

Interplanetary activity has been low.

Moderate solar wind speeds are due to high speed streams from coronal holes.

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit for 05 MAR 2015 is unavailable but is expected to be at a normal level tomorrow.

Visit <u>http://www.spaceweather.gc.ca/sffl-eng.php</u> for the electron forecast.

Geomagnetic

Over the last 24 hours geomagnetic activity has been quiet with stormy intervals in the polar zone, quiet with stormy intervals in the auroral zone, and quiet with active intervals in the sub-auroral zone.

Over the next 24 hours geomagnetic activity is forecast to be unsettled with active intervals in the polar zone, unsettled in the auroral zone, and quiet in the sub-auroral zone.

Visit <u>http://www.spaceweather.gc.ca/sfst-1-eng.php</u> for the magnetic forecast.

Space Weather Bulletin - 2015-03-07 issued at 19:17 UT (14:17 EST) Summary

There is currently no major storm watch in effect.

Disturbed geomagnetic conditions are expected 07 Mar 2015 to 08 Mar 2015 due to high speed streams from coronal holes.

See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (18:45 UT)

Geomagnetic Activity:

polar cap zone: unsettled auroral zone: unsettled sub-auroral zone: unsettled

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: unavailable

Possible Impacts on Technology:

Impacts are not expected.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: unsettled with active intervals auroral zone: unsettled with active intervals sub-auroral zone: unsettled

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Aeromagnetic surveys: Potential for disruptions in the auroral zone.

Directional Drilling: Potential for deviations in the auroral zone.

Detailed Information

Solar

Solar activity has been very low.

One medium coronal hole is located near the centre of the solar disk.

Interplanetary

Interplanetary activity has been low.

Moderate solar wind speeds are due to high speed streams from coronal holes.

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit for 06 MAR 2015 is unavailable but is expected to be at a normal level tomorrow.

Visit <u>http://www.spaceweather.gc.ca/sffl-eng.php</u> for the electron forecast.

Geomagnetic

Over the last 24 hours geomagnetic activity has been unsettled with stormy intervals in the polar zone, active with stormy intervals in the auroral zone, and unsettled with active intervals in the sub-auroral zone.

Over the next 24 hours geomagnetic activity is forecast to be unsettled with active intervals in the polar zone, unsettled with active intervals in the auroral zone, and unsettled in the sub-auroral zone. Visit <u>http://www.spaceweather.gc.ca/sfst-1-eng.php</u> for the magnetic forecast.

Space Weather Bulletin - 2015-03-08 issued at 18:03 UT (13:03 EST) Summary

There is currently no major storm watch in effect.

Disturbed geomagnetic conditions are expected 08 Mar 2015 to 09 Mar 2015 due to high speed streams from coronal holes.

A moderate CME was observed on 08 Mar 2015, and is expected to deliver a glancing blow to the Earth on 11 Mar 2015.

See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (17:45 UT)

Geomagnetic Activity:

polar cap zone: unsettled auroral zone: unsettled sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: unavailable

Possible Impacts on Technology:

Impacts are not expected.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: unsettled with active intervals auroral zone: unsettled with active intervals sub-auroral zone: guiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: moderate

Possible Impacts on Technology:

Aeromagnetic surveys: Potential for disruptions in the auroral zone.

Directional Drilling: Potential for deviations in the auroral zone.

Detailed Information

Solar

Solar activity has been low.

An M (medium) solar x-ray flare erupted 07 Mar 2015 23: 30.

A moderate CME was observed on 08 Mar 2015, and is expected to deliver a glancing blow to the Earth on 11 mar 2015.

One medium coronal hole is located near the centre of the solar disk.

Interplanetary

Interplanetary activity has been low.

Moderate solar wind speeds are due to high speed streams from coronal holes.

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit for 07 MAR 2015 is unavailable but is expected to be at a moderate level tomorrow.

Visit http://www.spaceweather.gc.ca/sffl-eng.php for the electron forecast.

Geomagnetic

Over the last 24 hours geomagnetic activity has been unsettled with active intervals in the polar zone, unsettled with stormy intervals in the auroral zone, and unsettled in the sub-auroral zone. Over the next 24 hours geomagnetic activity is forecast to be unsettled with active intervals in the polar zone, unsettled with active intervals in the auroral zone, and quiet in the sub-auroral zone. Visit <u>http://www.spaceweather.gc.ca/sfst-1-eng.php</u> for the magnetic forecast.

Space Weather Bulletin - 2015-03-09 issued at 18:55 UT (13:55 EST) Summary

There is currently no major storm watch in effect.

See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (18:30 UT)

Geomagnetic Activity:

polar cap zone: unsettled auroral zone: quiet sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Impacts are not expected.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: quiet with unsettled intervals

auroral zone: quiet

sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Impacts are not expected.

Detailed Information

Solar

Solar activity has been moderate.

The active region located near the east limb of the solar disk has produced solar x-ray flares and an associated CME and has the potential to produce subsequent solar eruptions.

One medium coronal hole is located near the centre of the solar disk.

Interplanetary

Interplanetary activity has been low.

Moderate solar wind speeds are due to high speed streams from coronal holes.

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit was at a normal level yesterday and is expected to be at a normal level tomorrow.

Visit <u>http://www.spaceweather.gc.ca/sffl-eng.php</u> for the electron forecast.

Geomagnetic

Over the last 24 hours geomagnetic activity has been quiet with active intervals in the polar zone, quiet with stormy intervals in the auroral zone, and quiet with active intervals in the sub-auroral zone.

Over the next 24 hours geomagnetic activity is forecast to be quiet with unsettled intervals in the polar zone, quiet in the auroral zone, and quiet in the sub-auroral zone.

Visit <u>http://www.spaceweather.gc.ca/sfst-1-eng.php</u> for the magnetic forecast.

Space Weather Bulletin - 2015-03-10 issued at 18:00 UT (13:00 EST)

Summary

There is currently no major storm watch in effect.

See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (17:45 UT)

Geomagnetic Activity:

polar cap zone: unsettled auroral zone: quiet sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: moderate

Possible Impacts on Technology:

Geostationary satellites: moderate risk of internal charging.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: quiet with unsettled intervals auroral zone: quiet with unsettled intervals sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Impacts are not expected.

Detailed Information

Solar

Solar activity has been moderate.

An M (medium) solar x-ray flare erupted 09 MAR 2015 23:53 UT.

An M (medium) solar x-ray flare erupted 10 MAR 2015 03:24 UT.

Two moderate CMEs were observed on 10 MAR 2015, and are expected to deliver a glancing blow to the Earth on 12 MAR 2015, resulting in increased geomagnetic activity.

One medium coronal hole is located near the centre of the solar disk.

Interplanetary

Interplanetary activity has been low.

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit was at a moderate level yesterday and is expected to be at a normal level tomorrow.

Visit <u>http://www.spaceweather.gc.ca/sffl-eng.php</u> for the electron forecast.

Geomagnetic

Over the last 24 hours geomagnetic activity has been quiet with active intervals in the polar zone, quiet with active intervals in the auroral zone, and quiet in the sub-auroral zone.

Over the next 24 hours geomagnetic activity is forecast to be quiet with unsettled intervals in the polar zone, quiet with unsettled intervals in the auroral zone, and quiet in the sub-auroral zone. Visit <u>http://www.spaceweather.gc.ca/sfst-1-eng.php</u> for the magnetic forecast.

Space Weather Bulletin - 2015-03-11 issued at 19:06 UT (14:06 EST) Summary

There is currently no major storm watch in effect.

See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (19:00 UT)

Geomagnetic Activity:

polar cap zone: unsettled auroral zone: quiet sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Impacts are not expected.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: unsettled with active intervals auroral zone: unsettled with active intervals sub-auroral zone: quiet with active intervals

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Impacts are not expected.

Detailed Information

Solar

Solar activity has been high.

An M (medium) solar x-ray flare erupted 11 MAR 2015 00:01 UT.

An M (medium) solar x-ray flare erupted 11 MAR 2015 07:18 UT.

An M (medium) solar x-ray flare erupted 11 MAR 2015 07:57 UT.

An X (large) solar x-ray flare erupted 11 MAR 2015 16:22 UT.

Two moderate CMEs were observed on 10 MAR 2015, and are expected to deliver a glancing blow to the Earth on 12 MAR 2015, resulting in increased geomagnetic activity.

One medium coronal hole is located near the centre of the solar disk.

Interplanetary

Interplanetary activity has been low.

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit was at a moderate level yesterday and is expected to be at a normal level tomorrow.

Visit http://www.spaceweather.gc.ca/sffl-eng.php for the electron forecast.

Geomagnetic

Over the last 24 hours geomagnetic activity has been quiet with active intervals in the polar zone, quiet with stormy intervals in the auroral zone, and quiet with unsettled intervals in the sub-auroral zone.

Over the next 24 hours geomagnetic activity is forecast to be unsettled with active intervals in the polar zone, unsettled with active intervals in the auroral zone, and quiet with active intervals in the sub-auroral zone.

Visit <u>http://www.spaceweather.gc.ca/sfst-1-eng.php</u> for the magnetic forecast.

Space Weather Bulletin - 2015-03-12 issued at 18:35 UT (13:35 EST)

Summary

There is currently no major storm watch in effect.

See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (18:30 UT)

Geomagnetic Activity:

polar cap zone: unsettled auroral zone: quiet sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Impacts are not expected.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: quiet with active intervals auroral zone: unsettled with active intervals sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Impacts are not expected.

Detailed Information

Solar

Solar activity has been moderate.

An M (medium) solar x-ray flare erupted 12 MAR 2015 04:46 UT.

An M (medium) solar x-ray flare erupted 12 MAR 2015 11:50 UT.

An M (medium) solar x-ray flare erupted 12 MAR 2015 12:14 UT.

An M (medium) solar x-ray flare erupted 12 MAR 2015 14:08 UT.

One medium coronal hole is located near the centre of the solar disk.

Two coronal holes are located near the edge of the solar disk.

Interplanetary

Interplanetary activity has been low.

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit was at a normal level yesterday and is expected to be at a normal level tomorrow.

Visit <u>http://www.spaceweather.gc.ca/sffl-eng.php</u> for the electron forecast.

Geomagnetic

Over the last 24 hours geomagnetic activity has been quiet with active intervals in the polar zone, unsettled with active intervals in the auroral zone, and quiet with unsettled intervals in the subauroral zone. Over the next 24 hours geomagnetic activity is forecast to be quiet with active intervals in the polar zone, unsettled with active intervals in the auroral zone, and quiet in the sub-auroral zone. Visit <u>http://www.spaceweather.gc.ca/sfst-1-eng.php</u> for the magnetic forecast.

Space Weather Bulletin - 2015-03-13 issued at 19:20 UT (14:20 EST)

Summary

There is currently no major storm watch in effect.

See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (19:15 UT)

Geomagnetic Activity:

polar cap zone: unsettled auroral zone: quiet sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Impacts are not expected.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: quiet with active intervals auroral zone: quiet with unsettled intervals sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Impacts are not expected.

Detailed Information

Solar

Solar activity has been moderate.

An M (medium) solar x-ray flare erupted 12 MAR 2015 21:51 UT. An M (medium) solar x-ray flare erupted 13 MAR 2015 04:02 UT. An M (medium) solar x-ray flare erupted 13 MAR 2015 06:07 UT. Two coronal holes are located near the centre of the solar disk. One coronal hole is located near the edge of the solar disk.

Interplanetary

Interplanetary activity has been low.

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit was at a normal level yesterday and is expected to be at a normal level tomorrow.

Visit <u>http://www.spaceweather.gc.ca/sffl-eng.php</u> for the electron forecast.

Over the last 24 hours geomagnetic activity has been quiet with active intervals in the polar zone, quiet with stormy intervals in the auroral zone, and quiet with unsettled intervals in the sub-auroral zone.

Over the next 24 hours geomagnetic activity is forecast to be quiet with active intervals in the polar zone, quiet with unsettled intervals in the auroral zone, and quiet in the sub-auroral zone. Visit <u>http://www.spaceweather.gc.ca/sfst-1-eng.php</u> for the magnetic forecast.

Space Weather Bulletin - 2015-03-14 issued at 20:11 UT (15:11 EST)

Summary

There is currently no major storm watch in effect.

See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (20:00 UT)

Geomagnetic Activity:

polar cap zone: quiet auroral zone: quiet sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: low

Possible Impacts on Technology:

Impacts are not expected.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: quiet with unsettled intervals auroral zone: quiet sub-auroral zone: quiet Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Impacts are not expected.

Detailed Information

Solar

Solar activity has been moderate.

An M (medium) solar x-ray flare erupted 14 MAR 2015 04:46 UT.

One coronal hole is located near the edge of the solar disk.

Two coronal holes are located near the centre of the solar disk.

Interplanetary

Interplanetary activity has been low.

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit was at a normal level yesterday and is expected to be at a normal level tomorrow.

Visit <u>http://www.spaceweather.gc.ca/sffl-eng.php</u> for the electron forecast.

Over the last 24 hours geomagnetic activity has been quiet with unsettled intervals in the polar zone, quiet with active intervals in the auroral zone, and quiet in the sub-auroral zone. Over the next 24 hours geomagnetic activity is forecast to be quiet with unsettled intervals in the polar zone, quiet in the auroral zone, and quiet in the sub-auroral zone. Visit <u>http://www.spaceweather.gc.ca/sfst-1-eng.php</u> for the magnetic forecast.

Space Weather Bulletin - 2015-03-15 issued at 21:31 UT (16:31 EST)

Summary

See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (21:15 UT)

Geomagnetic Activity:

polar cap zone: unsettled auroral zone: quiet

sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: low

Possible Impacts on Technology:

Impacts are not expected.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: quiet with unsettled intervals auroral zone: quiet with unsettled intervals sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Impacts are not expected.

Detailed Information

Solar

Solar activity has been moderate.

A long duration C (low) solar x-ray flare erupted at 15 MAR 2015 02:13 UT near the centre of the solar disk.

An M (medium) solar x-ray flare erupted 15 MAR 2015 09:40 UT.

Two coronal holes are located near the centre of the solar disk.

A moderate CME was observed on 15 MAR 2015, and is expected to deliver a glancing blow to the Earth on 18 MAR 2015, resulting in increased geomagnetic activity.

Interplanetary

Interplanetary activity has been low.

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit was at a low level yesterday and is expected to be at a normal level tomorrow.

Visit <u>http://www.spaceweather.gc.ca/sffl-eng.php</u> for the electron forecast.

Geomagnetic

Over the last 24 hours geomagnetic activity has been quiet with active intervals in the polar zone, quiet with stormy intervals in the auroral zone, and quiet with unsettled intervals in the sub-auroral zone.

Over the next 24 hours geomagnetic activity is forecast to be quiet with unsettled intervals in the polar zone, quiet with unsettled intervals in the auroral zone, and quiet in the sub-auroral zone. Visit <u>http://www.spaceweather.gc.ca/sfst-1-eng.php</u> for the magnetic forecast.

Space Weather Bulletin - 2015-03-16 issued at 18:52 UT (13:52 EST)

Summary

See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (18:45 UT)

Geomagnetic Activity:

polar cap zone: active auroral zone: quiet sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Aeromagnetic surveys: Potential for disruptions in the polar cap zone. Directional Drilling: Potential for deviations in the polar cap zone.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: unsettled with active intervals auroral zone: quiet with unsettled intervals sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Impacts are not expected.

Detailed Information

Solar

Solar activity has been moderate.

An M (medium) solar x-ray flare erupted 15 MAR 2015 23:22 UT.

Two coronal holes are located near the centre of the solar disk.

A moderate CME was observed on 15 MAR 2015, and is expected to deliver a glancing blow to the Earth on 18 MAR 2015, resulting in increased geomagnetic activity.

An M (medium) solar x-ray flare erupted 16 MAR 2015 15:08 UT.

Interplanetary

Interplanetary activity has been low.

Environment at Geostationary orbit
Energetic electron fluence at geostationary orbit was at a low level yesterday and is expected to be at a normal level tomorrow.

Visit <u>http://www.spaceweather.gc.ca/sffl-eng.php</u> for the electron forecast.

Geomagnetic

Over the last 24 hours geomagnetic activity has been unsettled with active intervals in the polar zone, quiet with stormy intervals in the auroral zone, and quiet with unsettled intervals in the sub-auroral zone.

Over the next 24 hours geomagnetic activity is forecast to be unsettled with active intervals in the polar zone, quiet with unsettled intervals in the auroral zone, and quiet in the sub-auroral zone. Visit <u>http://www.spaceweather.gc.ca/sfst-1-eng.php</u> for the magnetic forecast.

Space Weather Bulletin - 2015-03-17 issued at 16:00 UT (11:00 EST)

Summary

A major storm WATCH is in effect for the polar cap, auroral, and sub-auroral zones from 17 MAR 2015 13:37 UT.

Stormy conditions are currently observed in the auroral and sub-auroral zones.

An ionospheric absorption event is currently in progress in the auroral zone.

See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (15:45 UT)

Geomagnetic Activity:

polar cap zone: stormy auroral zone: stormy

sub-auroral zone: stormy

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: low

Possible Impacts on Technology:

Power Systems: possibility of weak voltage fluctuations in the polar cap, auroral, and sub-auroral zones.

Aeromagnetic surveys: Potential for significant disruptions in the polar cap, auroral, and sub-auroral zones.

Directional Drilling: Potential for significant deviations in the polar cap, auroral, and sub-auroral zones.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: active with active intervals auroral zone: active with unsettled intervals sub-auroral zone: active

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Aeromagnetic surveys: Potential for disruptions in the polar cap, auroral, and sub-auroral zones. Directional Drilling: Potential for deviations in the polar cap, auroral, and sub-auroral zones.

Detailed Information

Solar

Solar activity has been moderate.

Two coronal holes are located near the centre of the solar disk.

Interplanetary

Interplanetary activity has been moderate.

The solar wind speed is currently moderate (500-700 km/s).

The interplanetary magnetic field has been primarily negative at high (|Bz|<20 nT) levels.

An interplanetary shock has been observed on 17 MAR 2015 04:00 UT.

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit was at a normal level yesterday and is expected to be at a normal level tomorrow.

Visit <u>http://www.spaceweather.gc.ca/sffl-eng.php</u> for the electron forecast.

Geomagnetic

Over the last 24 hours geomagnetic activity has been active with stormy intervals in the polar zone, quiet with major storm intervals in the auroral zone, and quiet with major storm intervals in the subauroral zone.

Over the next 24 hours geomagnetic activity is forecast to be active interval in the polar zone, active interval in the auroral zone, and active interval in the sub-auroral zone.

Visit <u>http://www.spaceweather.gc.ca/sfst-1-eng.php</u> for the magnetic forecast.

Space Weather Bulletin - 2015-03-17 issued at 21:32 UT (16:32 EST)

Summary

The major storm WATCH issued 17 MAR 2015 13:37 UT for the polar cap, auroral, and sub-auroral zones ended 17 MAR 2015 17:30 UT.

See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (21:15 UT)

Geomagnetic Activity:

polar cap zone: stormy auroral zone: active sub-auroral zone: active

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: low

Possible Impacts on Technology:

Power Systems: possibility of weak voltage fluctuations in the polar cap zone. Aeromagnetic surveys: Potential for significant disruptions in the polar cap zone. Directional Drilling: Potential for significant deviations in the polar cap zone. Aeromagnetic surveys: Potential for disruptions in the auroral and sub-auroral zones. Directional Drilling: Potential for deviations in the auroral and sub-auroral zones.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: active with stormy intervals auroral zone: stormy sub-auroral zone: stormy

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Aeromagnetic surveys: Potential for disruptions in the polar cap zone.

Directional Drilling: Potential for deviations in the polar cap zone.

Power Systems: possibility of weak voltage fluctuations in the auroral and sub-auroral zones. Aeromagnetic surveys: Potential for significant disruptions in the auroral and sub-auroral zones. Directional Drilling: Potential for significant deviations in the auroral and sub-auroral zones.

Detailed Information

Solar

Solar activity has been low.

Two coronal holes are located near the centre of the solar disk.

Interplanetary

Interplanetary activity has been moderate.

The solar wind speed is currently moderate (500-700 km/s).

The interplanetary magnetic field has been primarily negative at high (|Bz|<20 nT) levels.

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit was at a normal level yesterday and is expected to be at a normal level tomorrow.

Visit <u>http://www.spaceweather.gc.ca/sffl-eng.php</u> for the electron forecast.

Geomagnetic

Over the last 24 hours geomagnetic activity has been active with stormy intervals in the polar zone, active with major storm intervals in the auroral zone, and active with major storm intervals in the sub-auroral zone.

Over the next 24 hours geomagnetic activity is forecast to be active with stormy intervals in the polar zone, stormy in the auroral zone, and stormy in the sub-auroral zone.

Visit <u>http://www.spaceweather.gc.ca/sfst-1-eng.php</u> for the magnetic forecast.

Space Weather Bulletin - 2015-03-18 issued at 00:25 UT (20:25 EST) - UPDATE

A major storm watch was issued at 23:17 UT on March 17 by the system, and is currently still in effect.

Space Weather Bulletin - 2015-03-18 issued at 17:37 UT (13:37 EST)

Summary

There is currently no major storm watch in effect.

See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (17:30 UT)

Geomagnetic Activity:

polar cap zone: active auroral zone: active sub-auroral zone: unsettled

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Aeromagnetic surveys: Potential for disruptions in the polar cap and auroral zones. Directional Drilling: Potential for deviations in the polar cap and auroral zones.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: active with stormy intervals auroral zone: stormy sub-auroral zone: stormy

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: high

Possible Impacts on Technology:

Power Systems: possibility of weak voltage fluctuations in the auroral and sub-auroral zones. Aeromagnetic surveys: Potential for significant disruptions in the auroral and sub-auroral zones. Directional Drilling: Potential for significant deviations in the auroral and sub-auroral zones. Aeromagnetic surveys: Potential for disruptions in the polar cap zone. Directional Drilling: Potential for deviations in the polar cap zone.

Geostationary satellites: high risk of internal charging.

Detailed Information

Solar

Solar activity has been moderate.

An M (medium) solar x-ray flare erupted 17 MAR 2015 23:35 UT.

Two coronal holes are located near the centre of the solar disk.

Interplanetary

Interplanetary activity has been moderate.

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit was at a low level yesterday and is expected to be at a high level tomorrow.

Visit <u>http://www.spaceweather.gc.ca/sffl-eng.php</u> for the electron forecast.

Geomagnetic

Over the last 24 hours geomagnetic activity has been active with stormy intervals in the polar zone, stormy in the auroral zone, and stormy with major storm intervals in the sub-auroral zone. Over the next 24 hours geomagnetic activity is forecast to be active with stormy intervals in the polar zone, stormy in the auroral zone, and stormy in the sub-auroral zone. Visit <u>http://www.spaceweather.gc.ca/sfst-1-eng.php</u> for the magnetic forecast.

Space Weather Bulletin - 2015-03-19 issued at 17:24 UT (13:24 EST)

Summary

There is currently no major storm watch in effect. See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (17:15 UT)

Geomagnetic Activity:

polar cap zone: unsettled auroral zone: active sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: moderate

Possible Impacts on Technology:

Aeromagnetic surveys: Potential for disruptions in the auroral zone. Directional Drilling: Potential for deviations in the auroral zone. Geostationary satellites: moderate risk of internal charging.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: unsettled with stormy intervals auroral zone: stormy sub-auroral zone: unsettled

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: moderate

Possible Impacts on Technology:

Power Systems: possibility of weak voltage fluctuations in the auroral zone. Aeromagnetic surveys: Potential for significant disruptions in the auroral zone. Directional Drilling: Potential for significant deviations in the auroral zone. Geostationary satellites: moderate risk of internal charging.

Detailed Information

Solar

Solar activity has been low.

Two coronal holes are located near the centre of the solar disk.

Interplanetary

Interplanetary activity has been moderate.

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit was at a normal level yesterday and is expected to be at a moderate level tomorrow.

Visit <u>http://www.spaceweather.gc.ca/sffl-eng.php</u> for the electron forecast.

Geomagnetic

Over the last 24 hours geomagnetic activity has been unsettled with stormy intervals in the polar zone, active with stormy intervals in the auroral zone, and unsettled with stormy intervals in the sub-auroral zone.

Over the next 24 hours geomagnetic activity is forecast to be unsettled with stormy intervals in the polar zone, stormy in the auroral zone, and unsettled in the sub-auroral zone.

Visit <u>http://www.spaceweather.gc.ca/sfst-1-eng.php</u> for the magnetic forecast.

Space Weather Bulletin - 2015-03-20 issued at 17:22 UT (12:22 EST)

Summary

There is currently no major storm watch in effect.

See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (17:15 UT)

Geomagnetic Activity:

polar cap zone: unsettled auroral zone: quiet sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: high

Possible Impacts on Technology:

Geostationary satellites: high risk of internal charging.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: unsettled with stormy intervals auroral zone: active with stormy intervals sub-auroral zone: unsettled

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: moderate

Possible Impacts on Technology:

Aeromagnetic surveys: Potential for disruptions in the auroral zone. Directional Drilling: Potential for deviations in the auroral zone. Geostationary satellites: moderate risk of internal charging.

Detailed Information

Solar

Solar activity has been low.

Two coronal holes are located near the edge of the solar disk.

One coronal hole is located near the centre of the solar disk.

A long duration C (low) solar x-ray flare erupted at 20 MAR 2015 00:57 UT near the edge of the solar disk.

Interplanetary

Interplanetary activity has been moderate.

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit was at a moderate level yesterday and is expected to be at a moderate level tomorrow.

Visit <u>http://www.spaceweather.gc.ca/sffl-eng.php</u> for the electron forecast.

Geomagnetic

Over the last 24 hours geomagnetic activity has been active with stormy intervals in the polar zone, unsettled with stormy intervals in the auroral zone, and quiet with stormy intervals in the subauroral zone.

Over the next 24 hours geomagnetic activity is forecast to be unsettled with stormy intervals in the polar zone, active with stormy intervals in the auroral zone, and unsettled in the sub-auroral zone. Visit <u>http://www.spaceweather.gc.ca/sfst-1-eng.php</u> for the magnetic forecast.

Space Weather Bulletin - 2015-03-21 issued at 19:40 UT (14:40 EST)

Summary

There is currently no major storm watch in effect.

See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (19:30 UT)

Geomagnetic Activity:

polar cap zone: active auroral zone: unsettled sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: high

Possible Impacts on Technology:

Geostationary satellites: high risk of internal charging. Aeromagnetic surveys: Potential for disruptions in the polar cap zone. Directional Drilling: Potential for deviations in the polar cap zone.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: unsettled with active intervals auroral zone: unsettled with active intervals sub-auroral zone: quiet with unsettled intervals

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: moderate

Possible Impacts on Technology:

Geostationary satellites: moderate risk of internal charging.

Detailed Information

Solar

Solar activity has been low.

Two coronal holes are located near the edge of the solar disk.

One coronal hole is located near the centre of the solar disk.

Interplanetary

Interplanetary activity has been moderate.

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit was at a high level yesterday and is expected to be at a moderate level tomorrow.

Visit <u>http://www.spaceweather.gc.ca/sffl-eng.php</u> for the electron forecast.

Geomagnetic

Over the last 24 hours geomagnetic activity has been unsettled with stormy intervals in the polar zone, active with stormy intervals in the auroral zone, and quiet with active intervals in the sub-auroral zone.

Over the next 24 hours geomagnetic activity is forecast to be unsettled with active intervals in the polar zone, unsettled with active intervals in the auroral zone, and quiet with unsettled intervals in the sub-auroral zone.

Visit <u>http://www.spaceweather.gc.ca/sfst-1-eng.php</u> for the magnetic forecast.

Space Weather Bulletin - 2015-03-22 issued at 20:08 UT (15:08 EST)

Summary

There is currently no major storm watch in effect.

See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (20:00 UT)

Geomagnetic Activity:

polar cap zone: unsettled auroral zone: quiet sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: moderate

Possible Impacts on Technology:

Geostationary satellites: moderate risk of internal charging.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: unsettled with stormy intervals auroral zone: active with stormy intervals sub-auroral zone: quiet with unsettled intervals

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Aeromagnetic surveys: Potential for disruptions in the auroral zone. Directional Drilling: Potential for deviations in the auroral zone.

Detailed Information

Solar

Solar activity has been low.

Three small coronal holes are located near the edge of the solar disk.

Two small coronal holes are located near the centre of the solar disk.

Interplanetary

Interplanetary activity has been moderate.

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit was at a high level yesterday and is expected to be at a normal level tomorrow.

Visit <u>http://www.spaceweather.gc.ca/sffl-eng.php</u> for the electron forecast.

Geomagnetic

Over the last 24 hours geomagnetic activity has been unsettled with stormy intervals in the polar zone, unsettled with stormy intervals in the auroral zone, and quiet with stormy intervals in the sub-auroral zone.

Over the next 24 hours geomagnetic activity is forecast to be unsettled with stormy intervals in the polar zone, active with stormy intervals in the auroral zone, and quiet with unsettled intervals in the sub-auroral zone.

Visit <u>http://www.spaceweather.gc.ca/sfst-1-eng.php</u> for the magnetic forecast.

Space Weather Bulletin - 2015-03-23 issued at 19:54 UT (14:54 EST)

Summary

There is currently no major storm watch in effect.

See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (19:45 UT)

Geomagnetic Activity:

polar cap zone: active auroral zone: quiet sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: moderate

Possible Impacts on Technology:

Geostationary satellites: moderate risk of internal charging. Aeromagnetic surveys: Potential for disruptions in the polar cap zone. Directional Drilling: Potential for deviations in the polar cap zone.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: unsettled with active intervals auroral zone: active with stormy intervals sub-auroral zone: quiet with unsettled intervals

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: moderate

Possible Impacts on Technology:

Geostationary satellites: moderate risk of internal charging. Aeromagnetic surveys: Potential for disruptions in the auroral zone. Directional Drilling: Potential for deviations in the auroral zone.

Detailed Information

Solar

Solar activity has been low.

Two small coronal holes are located near the centre of the solar disk.

Three small coronal holes are located near the edge of the solar disk.

Interplanetary

Interplanetary activity has been moderate.

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit was at a moderate level yesterday and is expected to be at a moderate level tomorrow.

Visit <u>http://www.spaceweather.gc.ca/sffl-eng.php</u> for the electron forecast.

Geomagnetic

Over the last 24 hours geomagnetic activity has been unsettled with stormy intervals in the polar zone, active with stormy intervals in the auroral zone, and quiet with active intervals in the sub-auroral zone.

Over the next 24 hours geomagnetic activity is forecast to be unsettled with active intervals in the polar zone, active with stormy intervals in the auroral zone, and quiet with unsettled intervals in the sub-auroral zone.

Visit <u>http://www.spaceweather.gc.ca/sfst-1-eng.php</u> for the magnetic forecast.

Space Weather Bulletin - 2015-03-24 issued at 20:43 UT (15:43 EST) Summary

There is currently no major storm watch in effect.

See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (20:30 UT)

Geomagnetic Activity:

polar cap zone: active auroral zone: quiet

sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: moderate

Possible Impacts on Technology:

Aeromagnetic surveys: Potential for disruptions in the polar cap zone. Directional Drilling: Potential for deviations in the polar cap zone.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: unsettled with active intervals

auroral zone: unsettled with active intervals

sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: moderate

Possible Impacts on Technology:

Aeromagnetic surveys: Potential for disruptions in the polar cap and auroral zones. Directional Drilling: Potential for deviations in the polar cap and auroral zones.

Detailed Information

Solar

Solar activity has been low.

A non-Earth-directed CME erupted on 24 MAR 2015 08:24 UT.

Three coronal holes are located near the edge of the solar disk.

Interplanetary

The solar wind speed is currently moderate (500-700 km/s).

Moderate solar wind speeds are due to high speed streams from coronal holes.

The interplanetary magnetic field has been fluctuating at low (|Bz|<5 nT) levels.

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit was at a moderate level yesterday and is expected to be at a moderate level tomorrow.

Visit http://www.spaceweather.gc.ca/sffl-eng.php for the electron forecast.

Geomagnetic

Over the last 24 hours geomagnetic activity has been unsettled with stormy intervals in the polar zone, unsettled with stormy intervals in the auroral zone, and quiet with unsettled intervals in the sub-auroral zone.

Over the next 24 hours geomagnetic activity is forecast to be unsettled with active intervals in the polar zone, unsettled with active intervals in the auroral zone, and quiet in the sub-auroral zone. Visit <u>http://www.spaceweather.gc.ca/sfst-1-eng.php</u> for the magnetic forecast.

Space Weather Bulletin - 2015-03-25 issued at 16:42 UT (11:42 EST)

Summary

There is currently no major storm watch in effect.

See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (16:30 UT)

Geomagnetic Activity:

polar cap zone: active auroral zone: unsettled sub-auroral zone: unsettled

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: moderate

Possible Impacts on Technology:

Geostationary satellites: moderate risk of internal charging. Aeromagnetic surveys: Potential for disruptions in the polar cap zone. Directional Drilling: Potential for deviations in the polar cap zone.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: unsettled with active intervals auroral zone: unsettled with active intervals sub-auroral zone: quiet with unsettled intervals

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Aeromagnetic surveys: Potential for disruptions in the polar cap and auroral zones.

Directional Drilling: Potential for deviations in the polar cap and auroral zones.

Detailed Information

Solar

Solar activity has been moderate.

Two coronal holes are located near the centre of the solar disk.

Two coronal holes are located near the edge of the solar disk.

A long duration C (low) solar x-ray flare erupted at 25 MAR 2015 04:36 UT near the edge of the solar disk.

Interplanetary

The solar wind speed is currently moderate (500-700 km/s).

Moderate solar wind speeds are due to high speed streams from coronal holes.

The interplanetary magnetic field has been fluctuating at low (|Bz|<5 nT) levels.

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit was at a moderate level yesterday and is expected to be at a normal level tomorrow.

Visit http://www.spaceweather.gc.ca/sffl-eng.php for the electron forecast.

Geomagnetic

Over the last 24 hours geomagnetic activity has been unsettled with stormy intervals in the polar zone, unsettled with stormy intervals in the auroral zone, and quiet with active intervals in the sub-auroral zone.

Over the next 24 hours geomagnetic activity is forecast to be unsettled with active intervals in the polar zone, unsettled with active intervals in the auroral zone, and quiet with unsettled intervals in the sub-auroral zone.

Visit <u>http://www.spaceweather.gc.ca/sfst-1-eng.php</u> for the magnetic forecast.

Space Weather Bulletin - 2015-03-26 issued at 16:45 UT (11:45 EST)

Summary

There is currently no major storm watch in effect.

See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (16:30 UT)

Geomagnetic Activity:

polar cap zone: unsettled auroral zone: quiet sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: moderate

Possible Impacts on Technology:

Geostationary satellites: moderate risk of internal charging.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: quiet with active intervals auroral zone: quiet with unsettled intervals sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Aeromagnetic surveys: Potential for disruptions in the polar cap zone.

Directional Drilling: Potential for deviations in the polar cap zone.

Detailed Information

Solar

Solar activity has been low.

Two coronal holes are located near the centre of the solar disk.

Interplanetary

The solar wind speed has been decreasing over the last 21 hours (currently ~ 400 km/s).

The interplanetary magnetic field has been fluctuating at low (|Bz|<5 nT) levels.

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit was at a moderate level yesterday and is expected to be at a normal level tomorrow.

Visit <u>http://www.spaceweather.gc.ca/sffl-eng.php</u> for the electron forecast.

Geomagnetic

Over the last 24 hours geomagnetic activity has been quiet with active intervals in the polar zone, quiet with active intervals in the auroral zone, and quiet with unsettled intervals in the sub-auroral zone.

Over the next 24 hours geomagnetic activity is forecast to be quiet with active intervals in the polar zone, quiet with unsettled intervals in the auroral zone, and quiet in the sub-auroral zone. Visit <u>http://www.spaceweather.gc.ca/sfst-1-eng.php</u> for the magnetic forecast.

Space Weather Bulletin - 2015-03-27 issued at 16:37 UT (11:37 EST) Summary

There is currently no major storm watch in effect.

See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (16:15 UT)

Geomagnetic Activity:

polar cap zone: quiet auroral zone: unsettled sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: moderate

Possible Impacts on Technology:

Geostationary satellites: moderate risk of internal charging.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: quiet with unsettled intervals auroral zone: unsettled sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Impacts are not expected.

Detailed Information

Solar

Solar activity has been low.

Two coronal holes are located near the centre of the solar disk.

Interplanetary

The solar wind speed is currently slow (400-500 km/s).

The interplanetary magnetic field has been fluctuating at low (|Bz|<5 nT) levels.

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit was at a moderate level yesterday and is expected to be at a normal level tomorrow.

Visit <u>http://www.spaceweather.gc.ca/sffl-eng.php</u> for the electron forecast.

Geomagnetic

Over the last 24 hours geomagnetic activity has been quiet with unsettled intervals in the polar zone, unsettled with active intervals in the auroral zone, and quiet with active intervals in the sub-auroral zone.

Over the next 24 hours geomagnetic activity is forecast to be quiet with unsettled intervals in the polar zone, unsettled in the auroral zone, and quiet in the sub-auroral zone.

Visit <u>http://www.spaceweather.gc.ca/sfst-1-eng.php</u> for the magnetic forecast.

Space Weather Bulletin - 2015-03-28 issued at 17:49 UT (12:49 EST) Summary

There is currently no major storm watch in effect.

See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (17:30 UT)

Geomagnetic Activity:

polar cap zone: active auroral zone: quiet sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: moderate

Possible Impacts on Technology:

Geostationary satellites: moderate risk of internal charging. Aeromagnetic surveys: Potential for disruptions in the polar cap zone. Directional Drilling: Potential for deviations in the polar cap zone.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: quiet with active intervals auroral zone: quiet with unsettled intervals sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Aeromagnetic surveys: Potential for disruptions in the polar cap zone. Directional Drilling: Potential for deviations in the polar cap zone.

Detailed Information

Solar

Solar activity has been low.

Two coronal holes are located near the centre of the solar disk. One coronal hole is located near the edge of the solar disk.

Interplanetary

The solar wind speed is currently slow (400-500 km/s).

The interplanetary magnetic field has been primarily positive at low (|Bz|<5 nT) levels.

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit was at a moderate level yesterday and is expected to be at a normal level tomorrow.

Visit <u>http://www.spaceweather.gc.ca/sffl-eng.php</u> for the electron forecast.

Geomagnetic

Over the last 24 hours geomagnetic activity has been quiet with active intervals in the polar zone, quiet with stormy intervals in the auroral zone, and quiet with unsettled intervals in the sub-auroral zone.

Over the next 24 hours geomagnetic activity is forecast to be quiet with active intervals in the polar zone, quiet with unsettled intervals in the auroral zone, and quiet in the sub-auroral zone. Visit <u>http://www.spaceweather.gc.ca/sfst-1-eng.php</u> for the magnetic forecast.

Space Weather Bulletin - 2015-03-29 issued at 17:40 UT (12:40 EST) Summary

Disturbed geomagnetic conditions are expected 30 MAR 2015 to 02 APR 2015 due to high speed streams from coronal holes.

There is currently no major storm watch in effect.

See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (17:30 UT)

Geomagnetic Activity:

polar cap zone: unsettled auroral zone: quiet sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: quiet with active intervals auroral zone: unsettled with active intervals sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Aeromagnetic surveys: Potential for disruptions in the polar cap and auroral zones. Directional Drilling: Potential for deviations in the polar cap and auroral zones.

Detailed Information

Solar

Two coronal holes are located near the centre of the solar disk.

Interplanetary

The solar wind speed is currently very slow (< 400 km/s).

The interplanetary magnetic field has been fluctuating at low (|Bz|<5 nT) levels.

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit was at a normal level yesterday and is expected to be at a normal level tomorrow.

Visit <u>http://www.spaceweather.gc.ca/sffl-eng.php</u> for the electron forecast.

Geomagnetic

Over the last 24 hours geomagnetic activity has been quiet with stormy intervals in the polar zone, unsettled with stormy intervals in the auroral zone, and quiet with active intervals in the sub-auroral zone.

Over the next 24 hours geomagnetic activity is forecast to be quiet with active intervals in the polar zone, unsettled with active intervals in the auroral zone, and quiet in the sub-auroral zone. Visit <u>http://www.spaceweather.gc.ca/sfst-1-eng.php</u> for the magnetic forecast.

Space Weather Bulletin - 2015-03-30 issued at 17:06 UT (12:06 EST)

Summary

Disturbed geomagnetic conditions are expected 30 MAR 2015 to 02 APR 2015 due to high speed streams from coronal holes.

There is currently no major storm watch in effect.

See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (16:45 UT)

Geomagnetic Activity:

polar cap zone: unsettled auroral zone: quiet sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: quiet with unsettled intervals auroral zone: quiet sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Detailed Information

Solar

Solar activity has been low.

A slow non-Earth-directed CME erupted on 29 MAR 2015 18:24 UT.

Two coronal holes are located near the centre of the solar disk.

Interplanetary

The solar wind speed is currently very slow (< 400 km/s).

The interplanetary magnetic field has been fluctuating at very low (|Bz|<2 nT) levels.

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit was at a normal level yesterday and is expected to be at a normal level tomorrow.

Visit http://www.spaceweather.gc.ca/sffl-eng.php for the electron forecast.

Geomagnetic

Over the last 24 hours geomagnetic activity has been quiet with unsettled intervals in the polar zone, quiet with unsettled intervals in the auroral zone, and quiet with unsettled intervals in the sub-auroral zone.

Over the next 24 hours geomagnetic activity is forecast to be guiet with unsettled intervals in the polar zone, quiet in the auroral zone, and quiet in the sub-auroral zone. Visit http://www.spaceweather.gc.ca/sfst-1-eng.php for the magnetic forecast.

Space Weather Bulletin - 2015-03-31 issued at 16:24 UT (11:24 EST)

Summary

Disturbed geomagnetic conditions are expected 30 MAR 2015 to 02 APR 2015 due to high speed streams from coronal holes.

There is currently no major storm watch in effect.

See our website for current information: http://www.spaceweather.gc.ca (updated every 15 minutes)

Current Conditions (16:15 UT)

Geomagnetic Activity:

polar cap zone: unsettled auroral zone: quiet

sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Impacts are not expected.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: guiet with unsettled intervals

auroral zone: quiet

sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Impacts are not expected.

Detailed Information

Solar

Solar activity has been low.

Two coronal holes are located near the centre of the solar disk.

Interplanetary

The solar wind speed is currently very slow (< 400 km/s).

The interplanetary magnetic field has been fluctuating at moderate (|Bz|<10 nT) levels.

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit was at a normal level yesterday and is expected to be at a normal level tomorrow.

Visit http://www.spaceweather.gc.ca/sffl-eng.php for the electron forecast.

Geomagnetic

Over the last 24 hours geomagnetic activity has been guiet with active intervals in the polar zone, guiet with unsettled intervals in the auroral zone, and guiet with unsettled intervals in the subauroral zone.

Over the next 24 hours geomagnetic activity is forecast to be quiet with unsettled intervals in the polar zone, quiet in the auroral zone, and quiet in the sub-auroral zone. Visit <u>http://www.spaceweather.gc.ca/sfst-1-eng.php</u> for the magnetic forecast.

Space Weather Bulletin - 2015-04-01 issued at 16:10 UT (11:10 EST) Summary

Disturbed geomagnetic conditions are expected 01 APR 2015 to 03 APR 2015 due to high speed streams from coronal holes.

There is currently no major storm watch in effect.

See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (16:00 UT)

Geomagnetic Activity:

polar cap zone: stormy auroral zone: unsettled sub-auroral zone: unsettled

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Power Systems: possibility of weak voltage fluctuations in the polar cap zone. Aeromagnetic surveys: Potential for significant disruptions in the polar cap zone. Directional Drilling: Potential for significant deviations in the polar cap zone.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: unsettled with stormy intervals auroral zone: quiet with unsettled intervals sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Power Systems: possibility of weak voltage fluctuations in the polar cap zone. Aeromagnetic surveys: Potential for significant disruptions in the polar cap zone. Directional Drilling: Potential for deviations in the polar cap zone.

Detailed Information

Solar

Solar activity has been low.

Two coronal holes are located near the centre of the solar disk.

Interplanetary

The solar wind speed is currently slow (400-500 km/s).

The interplanetary magnetic field has been fluctuating at low (|Bz|<5 nT) levels.

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit was at a normal level yesterday and is expected to be at a normal level tomorrow.

Visit <u>http://www.spaceweather.gc.ca/sffl-eng.php</u> for the electron forecast.

Geomagnetic

Over the last 24 hours geomagnetic activity has been quiet with stormy intervals in the polar zone, quiet with unsettled intervals in the auroral zone, and quiet with active intervals in the sub-auroral zone.

Over the next 24 hours geomagnetic activity is forecast to be unsettled with stormy intervals in the polar zone, quiet with unsettled intervals in the auroral zone, and quiet in the sub-auroral zone. Visit <u>http://www.spaceweather.gc.ca/sfst-1-eng.php</u> for the magnetic forecast.

Space Weather Bulletin - 2015-04-02 issued at 17:44 UT (12:44 EST)

Summary

There is currently no major storm watch in effect.

See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (17:30 UT)

Geomagnetic Activity:

polar cap zone: unsettled auroral zone: unsettled sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Impacts are not expected.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: quiet with active intervals auroral zone: unsettled sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Aeromagnetic surveys: Potential for disruptions in the polar cap zone.

Directional Drilling: Potential for deviations in the polar cap zone.

Detailed Information

Solar

Solar activity has been low.

One coronal hole elongated in longitude is located near the centre of the solar disk.

One coronal hole is located near the edge of the solar disk.

Interplanetary

The solar wind speed is currently slow (400-500 km/s).

The interplanetary magnetic field has been fluctuating at low (|Bz|<5 nT) levels.

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit for 01 APR 2015 is unavailable but is expected to be at a normal level tomorrow.

Visit <u>http://www.spaceweather.gc.ca/sffl-eng.php</u> for the electron forecast.

Geomagnetic

Over the last 24 hours geomagnetic activity has been quiet with stormy intervals in the polar zone, unsettled with stormy intervals in the auroral zone, and quiet with unsettled intervals in the subauroral zone.

Over the next 24 hours geomagnetic activity is forecast to be quiet with active intervals in the polar zone, unsettled in the auroral zone, and quiet in the sub-auroral zone.

Visit <u>http://www.spaceweather.gc.ca/sfst-1-eng.php</u> for the magnetic forecast.

Space Weather Bulletin - 2015-04-03 issued at 17:03 UT (12:03 EST)

Summary

Disturbed geomagnetic conditions are expected 03 APR 2015 to 04 APR 2015 due to high speed streams from coronal holes.

There is currently no major storm watch in effect.

See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (16:45 UT)

Geomagnetic Activity:

polar cap zone: active auroral zone: quiet

sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Aeromagnetic surveys: Potential for disruptions in the polar cap zone. Directional Drilling: Potential for deviations in the polar cap zone.

niectional Drilling. Potential for deviations in the polar cap zone.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: unsettled with stormy intervals auroral zone: unsettled sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Power Systems: possibility of weak voltage fluctuations in the polar cap zone. Aeromagnetic surveys: Potential for significant disruptions in the polar cap zone. Directional Drilling: Potential for significant deviations in the polar cap zone.

Detailed Information

Solar

Solar activity has been low.

Two coronal holes are located near the edge of the solar disk.

A long duration C (low) solar x-ray flare erupted at 03 APR 2015 06:51 UT near the edge of the solar disk.

Interplanetary

The solar wind speed is currently moderate (500-700 km/s). The interplanetary magnetic field has been fluctuating at low (|Bz|<5 nT) levels. Moderate solar wind speeds are due to high speed streams from coronal holes.

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit was at a normal level yesterday and is expected to be at a normal level tomorrow.

Visit http://www.spaceweather.gc.ca/sffl-eng.php for the electron forecast.

Geomagnetic

Over the last 24 hours geomagnetic activity has been unsettled with stormy intervals in the polar zone, unsettled with active intervals in the auroral zone, and quiet with active intervals in the sub-auroral zone.

Over the next 24 hours geomagnetic activity is forecast to be unsettled with stormy intervals in the polar zone, unsettled in the auroral zone, and quiet in the sub-auroral zone.

Visit <u>http://www.spaceweather.gc.ca/sfst-1-eng.php</u> for the magnetic forecast.

Space Weather Bulletin - 2015-04-04 issued at 17:34 UT (12:34 EST)

Summary

There is currently no major storm watch in effect.

Disturbed geomagnetic conditions are expected 04 APR 2015 to 05 APR 2015 due to high speed streams from coronal holes.

See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (17:15 UT)

Geomagnetic Activity:

polar cap zone: active auroral zone: unsettled

sub-auroral zone: unsettled

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Aeromagnetic surveys: Potential for disruptions in the polar cap zone.

Directional Drilling: Potential for deviations in the polar cap zone.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: unsettled with stormy intervals auroral zone: unsettled with active intervals sub-auroral zone: guiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Power Systems: possibility of weak voltage fluctuations in the polar cap zone. Aeromagnetic surveys: Potential for significant disruptions in the polar cap zone. Aeromagnetic surveys: Potential for significant disruptions in the polar cap zone. Directional Drilling: Potential for deviations in the auroral zone.

Directional Drilling: Potential for deviations in the auroral zone.

Detailed Information

Solar

Solar activity has been low.

A non-Earth-directed CME erupted on 03 APR 2015 12:48 UT.

Two coronal holes are located near the edge of the solar disk.

Interplanetary

The solar wind speed is currently moderate (500-700 km/s).

Moderate solar wind speeds are due to high speed streams from coronal holes.

The interplanetary magnetic field has been fluctuating at low (|Bz|<5 nT) levels.

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit was at a normal level yesterday and is expected to be at a normal level tomorrow.

Visit http://www.spaceweather.gc.ca/sffl-eng.php for the electron forecast.

Geomagnetic

Over the last 24 hours geomagnetic activity has been quiet with stormy intervals in the polar zone, unsettled with stormy intervals in the auroral zone, and quiet with unsettled intervals in the subauroral zone.

Over the next 24 hours geomagnetic activity is forecast to be unsettled with stormy intervals in the polar zone, unsettled with active intervals in the auroral zone, and quiet in the sub-auroral zone. Visit <u>http://www.spaceweather.gc.ca/sfst-1-eng.php</u> for the magnetic forecast.

Space Weather Bulletin - 2015-04-05 issued at 17:40 UT (12:40 EST)

Summary

There is currently no major storm watch in effect.

A CME was observed on 04-05 APR 2015, and is expected to deliver a glancing blow to the Earth on 07-08 APR 2015, resulting in disturbed geomagnetic activity.

See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (17:15 UT)

Geomagnetic Activity:

polar cap zone: active auroral zone: quiet

sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Aeromagnetic surveys: Potential for disruptions in the polar cap zone.

Directional Drilling: Potential for deviations in the polar cap zone.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: unsettled with stormy intervals auroral zone: quiet with unsettled intervals sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Power Systems: possibility of weak voltage fluctuations in the polar cap zone. Aeromagnetic surveys: Potential for disruptions in the polar cap zone.

Directional Drilling: Potential for deviations in the polar cap zone.

Detailed Information

Solar

Solar activity has been moderate.

A CME was observed on 04-05 APR 2015, and is expected to deliver a glancing blow to the Earth on 07-08 APR 2015, resulting in disturbed geomagnetic activity.

One coronal hole is located near the centre of the solar disk.

Two coronal holes are located near the edge of the solar disk.

A long duration C (low) solar x-ray flare erupted at 05 APR 2015 00:07 UT near the edge of the solar disk.

Interplanetary

The solar wind speed is currently moderate (500-700 km/s).

Moderate solar wind speeds are due to high speed streams from coronal holes.

The interplanetary magnetic field has been fluctuating at low (|Bz|<5 nT) levels.

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit was at a normal level yesterday and is expected to be at a normal level tomorrow.

Visit http://www.spaceweather.gc.ca/sffl-eng.php for the electron forecast.

Geomagnetic

Over the last 24 hours geomagnetic activity has been quiet with stormy intervals in the polar zone, quiet with stormy intervals in the auroral zone, and quiet in the sub-auroral zone.

Over the next 24 hours geomagnetic activity is forecast to be unsettled with stormy intervals in the polar zone, quiet with unsettled intervals in the auroral zone, and quiet in the sub-auroral zone. Visit <u>http://www.spaceweather.gc.ca/sfst-1-eng.php</u> for the magnetic forecast.

Space Weather Bulletin - 2015-04-06 issued at 17:51 UT (12:51 EST)

Summary

There is currently no major storm watch in effect.

A CME was observed on 4-5 APR 2015, and is expected to deliver a glancing blow to the Earth on 7-8 APR 2015, resulting in increased geomagnetic activity.

See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (17:30 UT)

Geomagnetic Activity:

polar cap zone: unsettled auroral zone: quiet

sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Impacts are not expected.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: quiet with active intervals auroral zone: quiet with unsettled intervals sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Aeromagnetic surveys: Potential for disruptions in the polar cap zone.

Directional Drilling: Potential for deviations in the polar cap zone.

Detailed Information

Solar

Solar activity has been moderate.

A CME was observed on 4-5 APR 2015, and is expected to deliver a glancing blow to the Earth on 7-8 APR 2015, resulting in increased geomagnetic activity.

One coronal hole is located near the edge of the solar disk.

A long duration C (low) solar x-ray flare erupted at 05 APR 2015 00:07 UT near the edge of the solar disk.

Interplanetary

The solar wind speed is currently slow (400-500 km/s).

The interplanetary magnetic field has been fluctuating at low (|Bz|<5 nT) levels.

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit was at a normal level yesterday and is expected to be at a normal level tomorrow.

Visit <u>http://www.spaceweather.gc.ca/sffl-eng.php</u> for the electron forecast.

Geomagnetic

Over the last 24 hours geomagnetic activity has been quiet with stormy intervals in the polar zone, quiet with stormy intervals in the auroral zone, and quiet with unsettled intervals in the sub-auroral zone.

Over the next 24 hours geomagnetic activity is forecast to be quiet with active intervals in the polar zone, quiet with unsettled intervals in the auroral zone, and quiet in the sub-auroral zone. Visit <u>http://www.spaceweather.gc.ca/sfst-1-eng.php</u> for the magnetic forecast.

Space Weather Bulletin - 2015-04-07 issued at 19:50 UT (14:50 EST)

Summary

There is currently no major storm watch in effect.

A CME was observed on 4-5 Apr 2015, and is expected to deliver a glancing blow to the Earth on 7-8 Apr 2015, resulting in increased geomagnetic activity.

See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (19:30 UT)

Geomagnetic Activity:

polar cap zone: active

auroral zone: quiet

sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Impacts are not expected.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: quiet with active intervals auroral zone: quiet with unsettled intervals sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Impacts are not expected.

Detailed Information

Solar

Solar activity has been moderate.

A CME was observed on 4-5 Apr 2015, and is expected to deliver a glancing blow to the Earth on 7-8 Apr 2015, resulting in increased geomagnetic activity.

Interplanetary

The solar wind speed is currently slow (400-500 km/s).

The interplanetary magnetic field has been fluctuating at low (|Bz|<5 nT) levels.

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit was at a normal level yesterday and is expected to be at a normal level tomorrow.

Visit <u>http://www.spaceweather.gc.ca/sffl-eng.php</u> for the electron forecast.

Geomagnetic

Over the last 24 hours geomagnetic activity has been quiet with active intervals in the polar zone, quiet with stormy intervals in the auroral zone, and quiet in the sub-auroral zone.

Over the next 24 hours geomagnetic activity is forecast to be quiet with active intervals in the polar zone, quiet with unsettled intervals in the auroral zone, and quiet in the sub-auroral zone. Visit http://www.spaceweather.gc.ca/sfst-1-eng.php for the magnetic forecast.

Space Weather Bulletin - 2015-04-08 issued at 18:20 UT (13:20 EST)

Summary

There is currently no major storm watch in effect.

See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (18:00 UT)

Geomagnetic Activity:

polar cap zone: quiet auroral zone: quiet sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: unavailable

Possible Impacts on Technology:

Impacts are not expected.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: quiet with unsettled intervals auroral zone: quiet

sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Impacts are not expected.

Detailed Information

Solar

Solar activity has been moderate.

The active region located near the central region of the solar disk has produced solar x-ray flares.

Interplanetary

Interplanetary activity has been low.

The solar wind speed is currently very slow (< 400 km/s).

The interplanetary magnetic field has been fluctuating at low (|Bz|<5 nT) levels.

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit for 07 APR 2015 is unavailable but is expected to be at a normal level tomorrow.

Visit <u>http://www.spaceweather.gc.ca/sffl-eng.php</u> for the electron forecast.

Geomagnetic

Over the last 24 hours geomagnetic activity has been quiet with active intervals in the polar zone, quiet in the auroral zone, and quiet in the sub-auroral zone.

Over the next 24 hours geomagnetic activity is forecast to be quiet with unsettled intervals in the polar zone, quiet in the auroral zone, and quiet in the sub-auroral zone.

Visit <u>http://www.spaceweather.gc.ca/sfst-1-eng.php</u> for the magnetic forecast.

Space Weather Bulletin - 2015-04-09 issued at 17:56 UT (12:56 EST)

Summary

There is currently no major storm watch in effect.

See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (17:45 UT)

Geomagnetic Activity:

polar cap zone: unsettled auroral zone: quiet sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Impacts are not expected.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: quiet with active intervals auroral zone: unsettled with active intervals sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Impacts are not expected.

Detailed Information

Solar

Solar activity has been low.

Interplanetary

Interplanetary activity has been moderate.

The solar wind speed is currently very slow (< 400 km/s).

The interplanetary magnetic field has been fluctuating at high (|Bz|<20 nT) levels.

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit for 08 APR 2015 is unavailable but is expected to be at a normal level tomorrow.

Visit <u>http://www.spaceweather.gc.ca/sffl-eng.php</u> for the electron forecast.

Geomagnetic

Over the last 24 hours geomagnetic activity has been unsettled with stormy intervals in the polar zone, quiet with stormy intervals in the auroral zone, and quiet with unsettled intervals in the sub-auroral zone.

Over the next 24 hours geomagnetic activity is forecast to be quiet with active intervals in the polar zone, unsettled with active intervals in the auroral zone, and quiet in the sub-auroral zone. Visit http://www.spaceweather.gc.ca/sfst-1-eng.php for the magnetic forecast.

Space Weather Bulletin - 2015-04-10 issued at 17:33 UT (12:33 EST) Summary

There is currently no major storm watch in effect.

See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (17:15 UT)

Geomagnetic Activity:

polar cap zone: active auroral zone: active sub-auroral zone: unsettled

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Aeromagnetic surveys: Potential for disruptions in the polar cap and auroral zones. Directional Drilling: Potential for deviations in the polar cap and auroral zones.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: unsettled with stormy intervals auroral zone: unsettled with active intervals

sub-auroral zone: unsettled

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Impacts are not expected.

Detailed Information

Solar

Solar activity has been low.

Interplanetary

Interplanetary activity has been moderate.

The solar wind speed is currently slow (400-500 km/s).

The interplanetary magnetic field has been fluctuating at high (|Bz|<20 nT) levels.

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit was at a normal level yesterday and is expected to be at a normal level tomorrow.

Visit <u>http://www.spaceweather.gc.ca/sffl-eng.php</u> for the electron forecast.

Geomagnetic

Over the last 24 hours geomagnetic activity has been active with stormy intervals in the polar zone, active with stormy intervals in the auroral zone, and unsettled with stormy intervals in the subauroral zone.

Over the next 24 hours geomagnetic activity is forecast to be unsettled with stormy intervals in the polar zone, unsettled with active intervals in the auroral zone, and unsettled in the sub-auroral zone. Visit <u>http://www.spaceweather.gc.ca/sfst-1-eng.php</u> for the magnetic forecast.

Space Weather Bulletin - 2015-04-11 issued at 18:45 UT (13:45 EST)

Summary

There is currently no major storm watch in effect.

See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (18:30 UT)

Geomagnetic Activity:

polar cap zone: stormy auroral zone: unsettled

sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: low

Possible Impacts on Technology:

Directional Drilling: Potential for significant deviations in the polar cap zone.

Aeromagnetic surveys: Potential for significant disruptions in the polar cap zone.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: unsettled with stormy intervals

auroral zone: active with stormy intervals

sub-auroral zone: quiet with unsettled intervals

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: moderate

Possible Impacts on Technology:

Aeromagnetic surveys: Potential for disruptions in the auroral zone.

Directional Drilling: Potential for deviations in the auroral zone.

Detailed Information

Solar

Solar activity has been low.

Interplanetary

Interplanetary activity has been low.

The solar wind speed is currently very slow (< 400 km/s).

The interplanetary magnetic field has been fluctuating at low (|Bz|<5 nT) levels.

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit was at a low level yesterday and is expected to be at a moderate level tomorrow.

Visit <u>http://www.spaceweather.gc.ca/sffl-eng.php</u> for the electron forecast.

Geomagnetic

Over the last 24 hours geomagnetic activity has been unsettled with stormy intervals in the polar zone, active with stormy intervals in the auroral zone, and quiet with active intervals in the sub-auroral zone.

Over the next 24 hours geomagnetic activity is forecast to be unsettled with stormy intervals in the polar zone, active with stormy intervals in the auroral zone, and quiet with unsettled intervals in the sub-auroral zone.

Visit <u>http://www.spaceweather.gc.ca/sfst-1-eng.php</u> for the magnetic forecast.

Space Weather Bulletin - 2015-04-12 issued at 17:54 UT (12:54 EST)

Summary

There is currently no major storm watch in effect.

See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (17:45 UT)

Geomagnetic Activity:

polar cap zone: quiet

auroral zone: quiet

sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: low

Possible Impacts on Technology:

Impacts are not expected.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: quiet with unsettled intervals auroral zone: quiet

sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Impacts are not expected.

Detailed Information

Solar

Solar activity has been moderate.

Interplanetary

Interplanetary activity has been low.

The solar wind speed is currently very slow (< 400 km/s).

The interplanetary magnetic field has been fluctuating at low (|Bz|<5 nT) levels.

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit was at a low level yesterday and is expected to be at a normal level tomorrow.

Visit <u>http://www.spaceweather.gc.ca/sffl-eng.php</u> for the electron forecast.

Geomagnetic

Over the last 24 hours geomagnetic activity has been quiet with stormy intervals in the polar zone, quiet with stormy intervals in the auroral zone, and quiet with unsettled intervals in the sub-auroral zone.

Over the next 24 hours geomagnetic activity is forecast to be quiet with unsettled intervals in the polar zone, quiet in the auroral zone, and quiet in the sub-auroral zone.

Visit <u>http://www.spaceweather.gc.ca/sfst-1-eng.php</u> for the magnetic forecast.

Space Weather Bulletin - 2015-04-13 issued at 17:56 UT (12:56 EST) Summary

There is currently no major storm watch in effect.

See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (17:45 UT)

Geomagnetic Activity:

polar cap zone: quiet auroral zone: quiet sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: low

Possible Impacts on Technology:

Impacts are not expected.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: quiet with unsettled intervals auroral zone: quiet with unsettled intervals sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Impacts are not expected.

Detailed Information

Solar

Solar activity has been low.

Interplanetary

Interplanetary activity has been low.

The solar wind speed is currently very slow (< 400 km/s).

The interplanetary magnetic field has been fluctuating at low (|Bz|<5 nT) levels.

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit was at a low level yesterday and is expected to be at a normal level tomorrow.

Visit <u>http://www.spaceweather.gc.ca/sffl-eng.php</u> for the electron forecast.

Geomagnetic

Over the last 24 hours geomagnetic activity has been quiet with unsettled intervals in the polar zone, quiet with active intervals in the auroral zone, and quiet with unsettled intervals in the sub-auroral zone.

Over the next 24 hours geomagnetic activity is forecast to be quiet with unsettled intervals in the polar zone, quiet with unsettled intervals in the auroral zone, and quiet in the sub-auroral zone. Visit <u>http://www.spaceweather.gc.ca/sfst-1-eng.php</u> for the magnetic forecast.

Space Weather Bulletin - 2015-04-14 issued at 17:50 UT (12:50 EST)

Summary

There is currently no major storm watch in effect.

See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (17:30 UT)

Geomagnetic Activity:

polar cap zone: unsettled auroral zone: active sub-auroral zone: unsettled

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: low

Possible Impacts on Technology:

Aeromagnetic surveys: Potential for disruptions in the auroral zone.

Directional Drilling: Potential for deviations in the auroral zone.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: quiet with active intervals auroral zone: quiet with unsettled intervals sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Impacts are not expected.

Detailed Information

Solar

Solar activity has been moderate.

Interplanetary

Interplanetary activity has been moderate.

The solar wind speed is currently very slow (< 400 km/s).

The interplanetary magnetic field has been fluctuating at high (|Bz|<20 nT) levels.

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit was at a low level yesterday and is expected to be at a normal level tomorrow.

Visit <u>http://www.spaceweather.gc.ca/sffl-eng.php</u> for the electron forecast.

Geomagnetic

Over the last 24 hours geomagnetic activity has been quiet with active intervals in the polar zone, quiet with stormy intervals in the auroral zone, and quiet with active intervals in the sub-auroral zone.

Over the next 24 hours geomagnetic activity is forecast to be quiet with active intervals in the polar zone, quiet with unsettled intervals in the auroral zone, and quiet in the sub-auroral zone. Visit <u>http://www.spaceweather.gc.ca/sfst-1-eng.php</u> for the magnetic forecast.

Space Weather Bulletin - 2015-04-15 issued at 17:54 UT (12:54 EST)

Summary

There is currently no major storm watch in effect.

Disturbed geomagnetic conditions are expected 15 Apr 2015 to 16 Apr 2015 due to high speed streams from coronal holes.

See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (17:30 UT)

Geomagnetic Activity:

polar cap zone: stormy auroral zone: stormy sub-auroral zone: active

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: low

Possible Impacts on Technology:

Power Systems: possibility of weak voltage fluctuations in the polar cap and auroral zones. Aeromagnetic surveys: Potential for significant disruptions in the polar cap and sub-auroral zones. Aeromagnetic surveys: Potential for disruptions in the sub-auroral zone.

Directional Drilling: Potential for significant deviations in the polar cap and auroral zones.

Directional Drilling: Potential for deviations in the sub-auroral zone.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: unsettled with stormy intervals auroral zone: active with stormy intervals sub-auroral zone: unsettled

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Aeromagnetic surveys: Potential for disruptions in the auroral zone.

Directional Drilling: Potential for deviations in the auroral zone.

Detailed Information

Solar

Solar activity has been moderate.

Interplanetary

Interplanetary activity has been moderate.

The solar wind speed is currently moderate (500-700 km/s).

Moderate solar wind speeds are due to high speed streams from coronal holes.

The interplanetary magnetic field has been fluctuating at moderate (|Bz|<10 nT) levels.

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit was at a low level yesterday and is expected to be at a normal level tomorrow.

Visit <u>http://www.spaceweather.gc.ca/sffl-eng.php</u> for the electron forecast.

Geomagnetic

Over the last 24 hours geomagnetic activity has been unsettled with active intervals in the polar zone, unsettled with stormy intervals in the auroral zone, and quiet with stormy intervals in the sub-auroral zone.

Over the next 24 hours geomagnetic activity is forecast to be unsettled with stormy intervals in the polar zone, active with stormy intervals in the auroral zone, and unsettled in the sub-auroral zone. Visit <u>http://www.spaceweather.gc.ca/sfst-1-eng.php</u> for the magnetic forecast.

Space Weather Bulletin - 2015-04-16 issued at 17:49 UT (12:49 EST)

Summary

There is currently no major storm watch in effect.

Disturbed geomagnetic conditions due to solar activity are currently observed in the polar cap and auroral zones.

See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (17:30 UT)

Geomagnetic Activity:

polar cap zone: active auroral zone: stormy sub-auroral zone: unsettled

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Power Systems: possibility of weak voltage fluctuations in the auroral zone. Aeromagnetic surveys: Potential for significant disruptions in the polar cap and auroral zones. Directional Drilling: Potential for significant deviations in the polar cap and auroral zones.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: unsettled with stormy intervals

auroral zone: stormy

sub-auroral zone: unsettled with active intervals

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: moderate

Possible Impacts on Technology:

Aeromagnetic surveys: Potential for disruptions in the polar cap and auroral zones. Directional Drilling: Potential for deviations in the polar cap and auroral zones.

Detailed Information

Solar

Solar activity has been low.

Interplanetary

Interplanetary activity has been moderate.

The solar wind speed is currently moderate (500-700 km/s).

Moderate solar wind speeds are due to high speed streams from coronal holes.

The interplanetary magnetic field has been fluctuating at moderate (|Bz|<10 nT) levels.

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit was at a low level yesterday and is expected to be at a moderate level tomorrow.

Visit <u>http://www.spaceweather.gc.ca/sffl-eng.php</u> for the electron forecast.

Geomagnetic

Over the last 24 hours geomagnetic activity has been active in the polar zone, stormy in the auroral zone, and active with stormy intervals in the sub-auroral zone.

Over the next 24 hours geomagnetic activity is forecast to be unsettled with stormy intervals in the polar zone, stormy in the auroral zone, and unsettled with active intervals in the sub-auroral zone. Visit <u>http://www.spaceweather.gc.ca/sfst-1-eng.php</u> for the magnetic forecast.

Space Weather Bulletin - 2015-04-17 issued at 18:14 UT (13:14 EST)

Summary

There is currently no major storm watch in effect.

See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (18:00 UT)

Geomagnetic Activity:

polar cap zone: active auroral zone: quiet sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Impacts are not expected.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: unsettled with stormy intervals

auroral zone: active with stormy intervals

sub-auroral zone: unsettled with active intervals

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: moderate

Possible Impacts on Technology:

Geostationary satellites: moderate risk of internal charging.

Detailed Information

Solar

Solar activity has been low.

Interplanetary

Interplanetary activity has been moderate.

The solar wind speed is currently moderate (500-700 km/s).

The interplanetary magnetic field has been fluctuating at low (|Bz|<5 nT) levels. Moderate solar wind speeds are due to high speed streams from coronal holes.

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit was at a normal level yesterday and is expected to be at a moderate level tomorrow.

Visit http://www.spaceweather.gc.ca/sffl-eng.php for the electron forecast.

Geomagnetic

Over the last 24 hours geomagnetic activity has been unsettled with stormy intervals in the polar zone, active with stormy intervals in the auroral zone, and unsettled with stormy intervals in the sub-auroral zone.

Over the next 24 hours geomagnetic activity is forecast to be unsettled with stormy intervals in the polar zone, active with stormy intervals in the auroral zone, and unsettled with active intervals in the sub-auroral zone.

Visit <u>http://www.spaceweather.gc.ca/sfst-1-eng.php</u> for the magnetic forecast.

Space Weather Bulletin - 2015-04-18 issued at 17:30 UT (12:30 EST)

Summary

There is currently no major storm watch in effect.

See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (17:15 UT)

Geomagnetic Activity:

polar cap zone: quiet auroral zone: unsettled sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: moderate

Possible Impacts on Technology:

Impacts are not expected.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: quiet with active intervals auroral zone: unsettled with active intervals

sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: moderate

Possible Impacts on Technology:

Impacts are not expected.

Detailed Information

Solar

Solar activity has been moderate.

A non-Earth-directed CME erupted on 18 Apr 2015 04:00 UT.

Interplanetary

Interplanetary activity has been moderate.

The solar wind speed is currently moderate (500-700 km/s).

The interplanetary magnetic field has been fluctuating at low (|Bz|<5 nT) levels.

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit was at a moderate level yesterday and is expected to be at a moderate level tomorrow.

Visit <u>http://www.spaceweather.gc.ca/sffl-eng.php</u> for the electron forecast.

Geomagnetic

Over the last 24 hours geomagnetic activity has been unsettled with stormy intervals in the polar zone, unsettled with stormy intervals in the auroral zone, and quiet with unsettled intervals in the sub-auroral zone.

Over the next 24 hours geomagnetic activity is forecast to be quiet with active intervals in the polar zone, unsettled with active intervals in the auroral zone, and quiet in the sub-auroral zone. Visit <u>http://www.spaceweather.gc.ca/sfst-1-eng.php</u> for the magnetic forecast.

Space Weather Bulletin - 2015-04-19 issued at 18:19 UT (13:19 EST) Summary

There is currently no major storm watch in effect.

See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (18:00 UT)

Geomagnetic Activity:

polar cap zone: active auroral zone: quiet sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: moderate

Possible Impacts on Technology:

Geostationary satellites: moderate risk of internal charging.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: quiet with active intervals auroral zone: unsettled with active intervals sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Impacts are not expected.

Detailed Information

Solar

Solar activity has been low.

Interplanetary

Interplanetary activity has been low.

The solar wind speed is currently slow (400-500 km/s).

The interplanetary magnetic field has been fluctuating at low (|Bz|<5 nT) levels.

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit was at a moderate level yesterday and is expected to be at a normal level tomorrow.

Visit <u>http://www.spaceweather.gc.ca/sffl-eng.php</u> for the electron forecast.
Geomagnetic

Over the last 24 hours geomagnetic activity has been unsettled with active intervals in the polar zone, unsettled with stormy intervals in the auroral zone, and quiet with unsettled intervals in the sub-auroral zone.

Over the next 24 hours geomagnetic activity is forecast to be quiet with active intervals in the polar zone, unsettled with active intervals in the auroral zone, and quiet in the sub-auroral zone. Visit <u>http://www.spaceweather.gc.ca/sfst-1-eng.php</u> for the magnetic forecast.

Space Weather Bulletin - 2015-04-20 issued at 17:53 UT (12:53 EST) Summary

There is currently no major storm watch in effect.

See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (17:45 UT)

Geomagnetic Activity:

polar cap zone: active auroral zone: quiet

sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: moderate

Possible Impacts on Technology:

Geostationary satellites: moderate risk of internal charging.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: quiet with active intervals auroral zone: unsettled with active intervals sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Impacts are not expected.

Detailed Information

Solar

Solar activity has been low.

Interplanetary

Interplanetary activity has been low.

The solar wind speed is currently slow (400-500 km/s).

The interplanetary magnetic field has been fluctuating at low (|Bz|<5 nT) levels.

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit was at a moderate level yesterday and is expected to be at a normal level tomorrow.

Visit <u>http://www.spaceweather.gc.ca/sffl-eng.php</u> for the electron forecast.

Over the last 24 hours geomagnetic activity has been unsettled with active intervals in the polar zone, quiet with stormy intervals in the auroral zone, and quiet with unsettled intervals in the sub-auroral zone.

Over the next 24 hours geomagnetic activity is forecast to be quiet with active intervals in the polar zone, unsettled with active intervals in the auroral zone, and quiet in the sub-auroral zone. Visit <u>http://www.spaceweather.gc.ca/sfst-1-eng.php</u> for the magnetic forecast.

Space Weather Bulletin - 2015-04-21 issued at 20:18 UT (15:18 EST)

Summary

There is currently no major storm watch in effect.

See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (20:00 UT)

Geomagnetic Activity:

polar cap zone: stormy auroral zone: unsettled sub-auroral zone: unsettled

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Impacts are not expected.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: active with stormy intervals auroral zone: unsettled with active intervals sub-auroral zone: unsettled

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Aeromagnetic surveys: Potential for disruptions in the polar cap and auroral zones.

Directional Drilling: Potential for deviations in the polar cap and auroral zones.

Detailed Information

Solar

A slow Earth-directed CME erupted on 18 apr 2015 21:12 UT and is expected to reach the Earth on 21 apr 2015, resulting in increased geomagnetic activity.

Several medium solar x-ray flares have erupted over the past 24 hours.

Interplanetary

Moderate solar wind speeds are due to high speed streams from coronal holes.

The solar wind speed is currently moderate (500-700 km/s).

The interplanetary magnetic field has been fluctuating at moderate (|Bz|<10 nT) levels.

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit was at a moderate level yesterday and is expected to be at a normal level tomorrow.

Visit <u>http://www.spaceweather.gc.ca/sffl-eng.php</u> for the electron forecast.

Over the last 24 hours geomagnetic activity has been active with stormy intervals in the polar zone, active with stormy intervals in the auroral zone, and unsettled with active intervals in the subauroral zone.

Over the next 24 hours geomagnetic activity is forecast to be active with stormy intervals in the polar zone, unsettled with active intervals in the auroral zone, and unsettled in the sub-auroral zone. Visit <u>http://www.spaceweather.gc.ca/sfst-1-eng.php</u> for the magnetic forecast.

Space Weather Bulletin - 2015-04-22 issued at 20:46 UT (15:46 EST) – Delayed Transmission Summary

There is currently no major storm watch in effect.

See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (20:30 UT)

Geomagnetic Activity:

polar cap zone: stormy auroral zone: quiet sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Impacts are not expected.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: unsettled with stormy intervals auroral zone: unsettled with active intervals sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: moderate

Possible Impacts on Technology:

Aeromagnetic surveys: Potential for disruptions in the polar cap and auroral zones. Directional Drilling: Potential for deviations in the polar cap and auroral zones.

Geostationary satellites: moderate risk of internal charging.

Detailed Information

Solar

A slow Earth-directed CME erupted on 18 APR 2015 21:12 UT and is expected to reach the Earth on 22 APR 2015, resulting in increased geomagnetic activity.

Interplanetary

The solar wind speed is currently moderate (500-700 km/s).

Moderate solar wind speeds are due to high speed streams from coronal holes.

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit was at a normal level yesterday and is expected to be at a moderate level tomorrow.

Visit <u>http://www.spaceweather.gc.ca/sffl-eng.php</u> for the electron forecast.

Over the last 24 hours geomagnetic activity has been unsettled with stormy intervals in the polar zone, unsettled with stormy intervals in the auroral zone, and quiet with active intervals in the sub-auroral zone.

Over the next 24 hours geomagnetic activity is forecast to be unsettled with stormy intervals in the polar zone, unsettled with active intervals in the auroral zone, and quiet in the sub-auroral zone. Visit <u>http://www.spaceweather.gc.ca/sfst-1-eng.php</u> for the magnetic forecast.

Space Weather Bulletin - 2015-04-23 issued at 21:47 UT (16:47 EST)

Summary

There is currently no major storm watch in effect.

See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (21:30 UT)

Geomagnetic Activity:

polar cap zone: unsettled auroral zone: unsettled sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Impacts are not expected.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: quiet with active intervals auroral zone: quiet with unsettled intervals sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Impacts are not expected.

Detailed Information

Solar

Solar activity has been moderate.

A long duration M (medium) solar x-ray flare erupted at 23 APR 2015 09:42 UT near the edge of the solar disk.

Interplanetary

The solar wind speed is currently slow (400-500 km/s).

The solar wind speed has been decreasing over the last 24 hours (currently ~ 410 km/s).

The interplanetary magnetic field has been fluctuating at low (|Bz|<5 nT) levels.

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit was at a normal level yesterday and is expected to be at a normal level tomorrow.

Visit <u>http://www.spaceweather.gc.ca/sffl-eng.php</u> for the electron forecast.

Over the last 24 hours geomagnetic activity has been unsettled with stormy intervals in the polar zone, quiet with stormy intervals in the auroral zone, and quiet with unsettled intervals in the sub-auroral zone.

Over the next 24 hours geomagnetic activity is forecast to be quiet with active intervals in the polar zone, quiet with unsettled intervals in the auroral zone, and quiet in the sub-auroral zone. Visit <u>http://www.spaceweather.gc.ca/sfst-1-eng.php</u> for the magnetic forecast.

Space Weather Bulletin - 2015-04-24 issued at 17:32 UT (12:32 EST)

Summary

There is currently no major storm watch in effect.

See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (17:15 UT)

Geomagnetic Activity:

polar cap zone: quiet auroral zone: quiet sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Impacts are not expected.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: unsettled with active intervals auroral zone: quiet with active intervals sub-auroral zone: quiet with active intervals

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Impacts are not expected.

Detailed Information

Solar

Solar activity has been moderate.

One medium coronal hole is located near the centre of the solar disk.

Interplanetary

The solar wind speed is currently slow (400-500 km/s).

The interplanetary magnetic field has been fluctuating at low (|Bz|<5 nT) levels.

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit was at a normal level yesterday and is expected to be at a normal level tomorrow.

Visit <u>http://www.spaceweather.gc.ca/sffl-eng.php</u> for the electron forecast.

Geomagnetic

Over the last 24 hours geomagnetic activity has been unsettled with stormy intervals in the polar zone, quiet with stormy intervals in the auroral zone, and quiet with unsettled intervals in the sub-auroral zone.

Over the next 24 hours geomagnetic activity is forecast to be unsettled with active intervals in the polar zone, quiet with active intervals in the auroral zone, and quiet with active intervals in the sub-auroral zone.

Visit <u>http://www.spaceweather.gc.ca/sfst-1-eng.php</u> for the magnetic forecast.

Space Weather Bulletin - 2015-04-25 issued at 20:53 UT (15:53 EST)

Summary

There is currently no major storm watch in effect. See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (20:45 UT)

Geomagnetic Activity:

polar cap zone: quiet

auroral zone: quiet

sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: moderate

Possible Impacts on Technology:

Impacts are not expected.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: quiet auroral zone: quiet sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Impacts are not expected.

Detailed Information

Solar

Solar activity has been low.

Interplanetary

The solar wind speed is currently slow (400-500 km/s).

The interplanetary magnetic field has been fluctuating at low (|Bz|<5 nT) levels.

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit was at a normal level yesterday and is expected to be at a normal level tomorrow.

Visit <u>http://www.spaceweather.gc.ca/sffl-eng.php</u> for the electron forecast.

Geomagnetic

Over the last 24 hours geomagnetic activity has been quiet with unsettled intervals in the polar zone, quiet in the auroral zone, and quiet in the sub-auroral zone.

Over the next 24 hours geomagnetic activity is forecast to be quiet in the polar zone, quiet in the auroral zone, and quiet in the sub-auroral zone.

Visit <u>http://www.spaceweather.gc.ca/sfst-1-eng.php</u> for the magnetic forecast.

Space Weather Bulletin - 2015-04-26 issued at 17:26 UT (12:26 EST) Summary There is currently no major storm watch in effect. See our website for current information: http://www.spaceweather.gc.ca (updated every 15 minutes) Current Conditions (17:15 UT) Geomagnetic Activity: polar cap zone: quiet auroral zone: quiet sub-auroral zone: quiet **Environment at Geostationary orbit:** energetic electron fluence at geostationary orbit: moderate Possible Impacts on Technology: Impacts are not expected. 24 Hour Forecast Geomagnetic Activity: polar cap zone: quiet auroral zone: quiet sub-auroral zone: quiet **Environment at Geostationary orbit:** energetic electron fluence at geostationary orbit: normal Possible Impacts on Technology: Impacts are not expected. **Detailed Information** Solar Solar activity has been low. Interplanetary The solar wind speed is currently very slow (< 400 km/s). The interplanetary magnetic field has been fluctuating at low (|Bz| < 5 nT) levels. **Environment at Geostationary orbit** Energetic electron fluence at geostationary orbit was at a moderate level yesterday and is expected to be at a normal level tomorrow. Visit http://www.spaceweather.gc.ca/sffl-eng.php for the electron forecast. Geomagnetic Over the last 24 hours geomagnetic activity has been guiet with unsettled intervals in the polar zone, guiet with unsettled intervals in the auroral zone, and guiet in the sub-auroral zone. Over the next 24 hours geomagnetic activity is forecast to be guiet in the polar zone, guiet in the auroral zone, and quiet in the sub-auroral zone. Visit http://www.spaceweather.gc.ca/sfst-1-eng.php for the magnetic forecast. Space Weather Bulletin - 2015-04-27 issued at 23:13 UT (18:13 EST) Summary

There is currently no major storm watch in effect.

See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (23:00 UT)

Geomagnetic Activity:

polar cap zone: quiet auroral zone: quiet sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Impacts are not expected.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: quiet with unsettled intervals auroral zone: quiet with unsettled intervals sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Impacts are not expected.

Detailed Information

Solar

One medium coronal hole is located near the centre of the solar disk.

Interplanetary

The interplanetary magnetic field has been fluctuating at low (|Bz|<5 nT) levels.

The solar wind speed is currently very slow (< 400 km/s).

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit was at a moderate level yesterday and is expected to be at a normal level tomorrow.

Visit <u>http://www.spaceweather.gc.ca/sffl-eng.php</u> for the electron forecast.

Geomagnetic

Over the last 24 hours geomagnetic activity has been quiet with unsettled intervals in the polar zone, quiet with active intervals in the auroral zone, and quiet in the sub-auroral zone. Over the next 24 hours geomagnetic activity is forecast to be quiet with unsettled intervals in the polar zone, quiet with unsettled intervals in the auroral zone, and quiet in the sub-auroral zone. Visit <u>http://www.spaceweather.gc.ca/sfst-1-eng.php</u> for the magnetic forecast.

Space Weather Bulletin - 2015-04-28 issued at 20:34 UT (15:34 EST) Summary

There is currently no major storm watch in effect.

See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (20:15 UT)

Geomagnetic Activity:

polar cap zone: unsettled

auroral zone: quiet

sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Impacts are not expected.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: quiet with active intervals auroral zone: quiet with unsettled intervals sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Impacts are not expected.

Detailed Information

Solar

A fast CME erupted on 28 APR 2015 14:00 UT. It is not yet known if the CME will impact the Earth. One medium coronal hole is located near the centre of the solar disk.

A slow CME was observed on 28 APR 2015, and is expected to deliver a glancing blow to the Earth on 01 MAY 2015, resulting in disturbed geomagnetic activity.

Interplanetary

The solar wind speed is currently very slow (< 400 km/s).

The interplanetary magnetic field has been fluctuating at low (|Bz|<5 nT) levels.

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit was at a normal level yesterday and is expected to be at a normal level tomorrow.

Visit <u>http://www.spaceweather.gc.ca/sffl-eng.php</u> for the electron forecast.

Geomagnetic

Over the last 24 hours geomagnetic activity has been quiet with stormy intervals in the polar zone, unsettled with active intervals in the auroral zone, and quiet in the sub-auroral zone.

Over the next 24 hours geomagnetic activity is forecast to be quiet with active intervals in the polar zone, quiet with unsettled intervals in the auroral zone, and quiet in the sub-auroral zone. Visit http://www.spaceweather.gc.ca/sfst-1-eng.php for the magnetic forecast.

Space Weather Bulletin - 2015-04-29 issued at 17:26 UT (12:26 EST)

Summary

There is currently no major storm watch in effect.

See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (17:15 UT)

Geomagnetic Activity:

polar cap zone: active auroral zone: quiet sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Impacts are not expected.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: quiet with active intervals

auroral zone: quiet

sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Impacts are not expected.

Detailed Information

Solar

A slow CME was observed on 28 APR 2015 14:00 UT, and is expected to deliver a glancing blow to the Earth on 02 MAY 2015.

One medium coronal hole is located near the centre of the solar disk.

A slow CME was observed on 28 APR 2015 09:05 UT, and is not expected to impact the Earth.

Interplanetary

The solar wind speed is currently very slow (< 400 km/s).

The interplanetary magnetic field has been fluctuating at low (|Bz|<5 nT) levels.

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit was at a normal level yesterday and is expected to be at a normal level tomorrow.

Visit http://www.spaceweather.gc.ca/sffl-eng.php for the electron forecast.

Geomagnetic

Over the last 24 hours geomagnetic activity has been guiet with stormy intervals in the polar zone, guiet with unsettled intervals in the auroral zone, and guiet in the sub-auroral zone.

Over the next 24 hours geomagnetic activity is forecast to be guiet with active intervals in the polar zone, quiet in the auroral zone, and quiet in the sub-auroral zone.

Visit http://www.spaceweather.gc.ca/sfst-1-eng.php for the magnetic forecast.

Space Weather Bulletin - 2015-04-30 issued at 19:35 UT (14:35 EST) Summary

There is currently no major storm watch in effect.

See our website for current information: http://www.spaceweather.gc.ca (updated every 15 minutes)

Current Conditions (19:15 UT)

Geomagnetic Activity:

polar cap zone: stormy auroral zone: quiet sub-auroral zone: quiet

Environment at Geostationary orbit:

Aeromagnetic surveys: Potential for significant disruptions in the polar cap zone. Directional Drilling: Potential for significant deviations in the polar cap zone.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: quiet with active intervals auroral zone: quiet sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Aeromagnetic surveys: Potential for disruptions in the polar cap zone.

Directional Drilling: Potential for deviations in the polar cap zone.

Detailed Information

Solar

A slow CME was observed on 28 MAR 2015 14:00, and is expected to deliver a glancing blow to the Earth on 02 MAY 2015.

Interplanetary

The interplanetary magnetic field has been fluctuating at moderate (|Bz|<10 nT) levels. Prolonged periods of negative interplanetary magnetic field are often associated with increased geomagnetic activity.

The solar wind speed is currently very slow (< 400 km/s).

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit was at a normal level yesterday and is expected to be at a normal level tomorrow.

Visit <u>http://www.spaceweather.gc.ca/sffl-eng.php</u> for the electron forecast.

Geomagnetic

Over the last 24 hours geomagnetic activity has been quiet with active intervals in the polar zone, quiet with unsettled intervals in the auroral zone, and quiet in the sub-auroral zone. Over the next 24 hours geomagnetic activity is forecast to be quiet with active intervals in the polar

zone, quiet in the auroral zone, and quiet in the sub-auroral zone.

Visit <u>http://www.spaceweather.gc.ca/sfst-1-eng.php</u> for the magnetic forecast.

Space Weather Bulletin - 2015-05-01 issued at 16:57 UT (11:57 EST) Summary

Thoro is ourrout

There is currently no major storm watch in effect.

See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (16:45 UT)

Geomagnetic Activity:

polar cap zone: active auroral zone: quiet sub-auroral zone: quiet

Environment at Geostationary orbit:

Aeromagnetic surveys: Potential for disruptions in the polar cap zone.

Directional Drilling: Potential for deviations in the polar cap zone.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: unsettled with active intervals auroral zone: quiet sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Aeromagnetic surveys: Potential for disruptions in the polar cap zone.

Directional Drilling: Potential for deviations in the polar cap zone.

Detailed Information

Solar

A slow CME was observed on 28 MAY 2015 14:00, and is expected to deliver a glancing blow to the Earth on 02 MAY 2015.

Interplanetary

The interplanetary magnetic field has been fluctuating at moderate (|Bz| < 10 nT) levels. Prolonged periods of negative interplanetary magnetic field are often associated with increased geomagnetic activity.

The solar wind speed is currently slow (400-500 km/s).

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit was at a normal level yesterday and is expected to be at a normal level tomorrow.

Visit http://www.spaceweather.gc.ca/sffl-eng.php for the electron forecast.

Geomagnetic

Over the last 24 hours geomagnetic activity has been unsettled with stormy intervals in the polar zone, quiet with unsettled intervals in the auroral zone, and quiet in the sub-auroral zone. Over the next 24 hours geomagnetic activity is forecast to be unsettled with active intervals in the polar zone, quiet in the auroral zone, and quiet in the sub-auroral zone. Visit http://www.spaceweather.gc.ca/sfst-1-eng.php for the magnetic forecast.

Space Weather Bulletin - 2015-05-02 issued at 20:29 UT (15:29 EST) Summary

There is currently no major storm watch in effect.

See our website for current information: http://www.spaceweather.gc.ca (updated every 15 minutes)

Current Conditions (20:15 UT)

Geomagnetic Activity:

polar cap zone: active auroral zone: quiet sub-auroral zone: unsettled

Environment at Geostationary orbit:

Aeromagnetic surveys: Potential for disruptions in the polar cap zone.

Directional Drilling: Potential for deviations in the polar cap zone.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: unsettled with stormy intervals auroral zone: quiet sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Aeromagnetic surveys: Potential for significant disruptions in the polar cap zone.

Directional Drilling: Potential for significant deviations in the polar cap zone.

Detailed Information

Solar

Solar activity has been low.

One small coronal hole is located near the centre of the solar disk.

A slow CME was observed on 28 APR 2015 14:00 UT, and is not expected to impact the Earth.

Interplanetary

The solar wind speed is currently slow (400-500 km/s).

The interplanetary magnetic field has been fluctuating at moderate (|Bz|<10 nT) levels.

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit was at a low level yesterday and is expected to be at a normal level tomorrow.

Visit <u>http://www.spaceweather.gc.ca/sffl-eng.php</u> for the electron forecast.

Geomagnetic

Over the last 24 hours geomagnetic activity has been active with stormy intervals in the polar zone, quiet with unsettled intervals in the auroral zone, and quiet with unsettled intervals in the subauroral zone.

Over the next 24 hours geomagnetic activity is forecast to be unsettled with stormy intervals in the polar zone, quiet in the auroral zone, and quiet in the sub-auroral zone.

Visit <u>http://www.spaceweather.gc.ca/sfst-1-eng.php</u> for the magnetic forecast.

Space Weather Bulletin - 2015-05-03 issued at 16:58 UT (11:58 EST) Summary

There is currently no major storm watch in effect.

See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (16:30 UT)

Geomagnetic Activity:

polar cap zone: unsettled auroral zone: quiet

sub-auroral zone: quiet

Environment at Geostationary orbit:

Impacts are not expected.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: unsettled with stormy intervals auroral zone: unsettled sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Aeromagnetic surveys: Potential for significant disruptions in the polar cap zone.

Directional Drilling: Potential for significant deviations in the polar cap zone.

Detailed Information

Solar

Solar activity has been low.

One small coronal hole is located near the centre of the solar disk.

Interplanetary

The solar wind speed is currently slow (400-500 km/s).

The interplanetary magnetic field has been fluctuating at low (|Bz|<5 nT) levels.

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit was at a normal level yesterday and is expected to be at a normal level tomorrow.

Visit <u>http://www.spaceweather.gc.ca/sffl-eng.php</u> for the electron forecast.

Geomagnetic

Over the last 24 hours geomagnetic activity has been active with stormy intervals in the polar zone, unsettled with active intervals in the auroral zone, and quiet with unsettled intervals in the subauroral zone.

Over the next 24 hours geomagnetic activity is forecast to be unsettled with stormy intervals in the polar zone, unsettled in the auroral zone, and quiet in the sub-auroral zone.

Visit <u>http://www.spaceweather.gc.ca/sfst-1-eng.php</u> for the magnetic forecast.

Space Weather Bulletin - 2015-05-04 issued at 17:04 UT (12:04 EST)

Summary

There is currently no major storm watch in effect.

See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (16:45 UT)

Geomagnetic Activity:

polar cap zone: unsettled auroral zone: quiet sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Impacts are not expected.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: quiet with active intervals auroral zone: quiet with unsettled intervals sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Aeromagnetic surveys: Potential for disruptions in the polar cap zone.

Directional Drilling: Potential for deviations in the polar cap zone.

Detailed Information

Solar

Solar activity has been low.

One small coronal hole is located near the centre of the solar disk.

Interplanetary

The solar wind speed is currently very slow (< 400 km/s).

The interplanetary magnetic field has been fluctuating at low (|Bz|<5 nT) levels.

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit was at a normal level yesterday and is expected to be at a normal level tomorrow.

Visit <u>http://www.spaceweather.gc.ca/sffl-eng.php</u> for the electron forecast.

Geomagnetic

Over the last 24 hours geomagnetic activity has been unsettled with stormy intervals in the polar zone, quiet with stormy intervals in the auroral zone, and quiet with unsettled intervals in the sub-auroral zone.

Over the next 24 hours geomagnetic activity is forecast to be quiet with active intervals in the polar zone, quiet with unsettled intervals in the auroral zone, and quiet in the sub-auroral zone. Visit <u>http://www.spaceweather.gc.ca/sfst-1-eng.php</u> for the magnetic forecast.

Space Weather Bulletin - 2015-05-05 issued at 21:09 UT (16:09 EST)

Summary

There is currently no major storm watch in effect.

See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (20:00 UT)

Geomagnetic Activity:

polar cap zone: unsettled auroral zone: quiet sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Impacts are not expected.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: unsettled with active intervals

auroral zone: quiet with unsettled intervals sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Aeromagnetic surveys: Potential for disruptions in the polar cap zone.

Directional Drilling: Potential for deviations in the polar cap zone.

Detailed Information

Solar

Solar activity has been moderate.

Several medium solar x-ray flares have erupted over the past 24 hours.

A moderate CME was observed on 03 MAY 2015 04:00UT, and is expected to deliver a glancing blow to the Earth on 06 MAY 2015, resulting in increased geomagnetic activity.

Interplanetary

The solar wind speed is currently very slow (< 400 km/s).

The interplanetary magnetic field has been fluctuating at moderate (|Bz|<10 nT) levels.

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit was at a normal level yesterday and is expected to be at a normal level tomorrow.

Visit <u>http://www.spaceweather.gc.ca/sffl-eng.php</u> for the electron forecast.

Geomagnetic

Over the last 24 hours geomagnetic activity has been unsettled with stormy intervals in the polar zone, quiet with active intervals in the auroral zone, and quiet with unsettled intervals in the sub-auroral zone.

Over the next 24 hours geomagnetic activity is forecast to be unsettled with active intervals in the polar zone, quiet with unsettled intervals in the auroral zone, and quiet in the sub-auroral zone. Visit <u>http://www.spaceweather.gc.ca/sfst-1-eng.php</u> for the magnetic forecast.

Space Weather Bulletin - 2015-05-06 issued at 19:44 UT (14:44 EST)

Summary

There is currently no major storm watch in effect.

See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (19:15 UT)

Geomagnetic Activity:

polar cap zone: stormy auroral zone: unsettled

sub-auroral zone: unsettled

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Power Systems: possibility of weak voltage fluctuations in the polar cap zone. Aeromagnetic surveys: Potential for significant disruptions in the polar cap zone. Directional Drilling: Potential for significant deviations in the polar cap zone.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: active with stormy intervals auroral zone: active with stormy intervals

sub-auroral zone: unsettled

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Power Systems: possibility of weak voltage fluctuations in the polar cap and auroral zones. Aeromagnetic surveys: Potential for significant disruptions in the polar cap and auroral zones. Directional Drilling: Potential for significant deviations in the polar cap and auroral zones.

Detailed Information

Solar

Solar activity has been moderate.

An X (large) solar x-ray flare erupted 05 MAY 2015 22:05 UT near the edge of the solar disk. An M (medium) solar x-ray flare erupted 06 MAY 2015 11:45 UT near the centre of the solar disk. A moderate non-Earth-directed CME erupted on 05 MAY 2015 22:05 UT.

Interplanetary

An interplanetary shock has been observed on 06 MAY 2015 00:50 UT.

The solar wind speed is currently slow (400-500 km/s).

The interplanetary magnetic field has been fluctuating at high (|Bz|<20 nT) levels.

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit was at a normal level yesterday and is expected to be at a normal level tomorrow.

Visit <u>http://www.spaceweather.gc.ca/sffl-eng.php</u> for the electron forecast.

Geomagnetic

Over the last 24 hours geomagnetic activity has been active with stormy intervals in the polar zone, unsettled with stormy intervals in the auroral zone, and unsettled with stormy intervals in the sub-auroral zone.

Over the next 24 hours geomagnetic activity is forecast to be active with stormy intervals in the polar zone, active with stormy intervals in the auroral zone, and unsettled in the sub-auroral zone. Visit <u>http://www.spaceweather.gc.ca/sfst-1-eng.php</u> for the magnetic forecast.

Space Weather Bulletin - 2015-05-07 issued at 19:56 UT (14:56 EST)

Summary

There is currently no major storm watch in effect.

See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (19:30 UT)

Geomagnetic Activity:

polar cap zone: stormy

auroral zone: quiet

sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal **Possible Impacts on Technology:**

Power Systems: possibility of weak voltage fluctuations in the polar cap zone. Aeromagnetic surveys: Potential for significant disruptions in the polar cap zone. Directional Drilling: Potential for significant deviations in the polar cap zone.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: unsettled with stormy intervals auroral zone: quiet sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: moderate

Possible Impacts on Technology:

Power Systems: possibility of weak voltage fluctuations in the polar cap zone.

Geostationary satellites: moderate risk of internal charging.

Aeromagnetic surveys: Potential for significant disruptions in the polar cap zone.

Directional Drilling: Potential for deviations in the polar cap zone.

Detailed Information

Solar

Solar activity has been low.

A slow CME was observed on 06 MAY 2015 19:00 UT, and is expected to deliver a glancing blow to the Earth on 10 MAY 2015, resulting in increased geomagnetic activity.

Interplanetary

The solar wind speed is currently slow (400-500 km/s).

The interplanetary magnetic field has been fluctuating at low (|Bz|<5 nT) levels.

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit was at a normal level yesterday and is expected to be at a moderate level tomorrow.

Visit <u>http://www.spaceweather.gc.ca/sffl-eng.php</u> for the electron forecast.

Geomagnetic

Over the last 24 hours geomagnetic activity has been quiet with stormy intervals in the polar zone, quiet with unsettled intervals in the auroral zone, and quiet with unsettled intervals in the subauroral zone.

Over the next 24 hours geomagnetic activity is forecast to be unsettled with stormy intervals in the polar zone, quiet in the auroral zone, and quiet in the sub-auroral zone.

Visit <u>http://www.spaceweather.gc.ca/sfst-1-eng.php</u> for the magnetic forecast.

Space Weather Bulletin - 2015-05-08 issued at 21:27 UT (16:27 EST)

Summary

There is currently no major storm watch in effect.

See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (21:00 UT)

Geomagnetic Activity:

polar cap zone: quiet auroral zone: quiet sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Impacts are not expected.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: quiet with unsettled intervals auroral zone: quiet with unsettled intervals sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Impacts are not expected.

Detailed Information

Solar

Solar activity has been low.

One medium coronal hole is located near the centre of the solar disk.

A slow CME was observed on 06 MAY 2015 19:00 UT, and is expected to deliver a glancing blow to the Earth on 10 MAY 2015, resulting in increased geomagnetic activity.

Interplanetary

The solar wind speed is currently very slow (< 400 km/s).

The interplanetary magnetic field has been fluctuating at very low (|Bz|<2 nT) levels.

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit was at a normal level yesterday and is expected to be at a normal level tomorrow.

Visit <u>http://www.spaceweather.gc.ca/sffl-eng.php</u> for the electron forecast.

Geomagnetic

Over the last 24 hours geomagnetic activity has been unsettled with stormy intervals in the polar zone, quiet with active intervals in the auroral zone, and quiet with unsettled intervals in the sub-auroral zone.

Over the next 24 hours geomagnetic activity is forecast to be quiet with unsettled intervals in the polar zone, quiet with unsettled intervals in the auroral zone, and quiet in the sub-auroral zone. Visit <u>http://www.spaceweather.gc.ca/sfst-1-eng.php</u> for the magnetic forecast.

Space Weather Bulletin - 2015-05-09 issued at 21:06 UT (16:06 EST)

Summary

There is currently no major storm watch in effect.

See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (20:45 UT)

Geomagnetic Activity:

polar cap zone: stormy auroral zone: unsettled sub-auroral zone: unsettled

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: low

Possible Impacts on Technology:

Aeromagnetic surveys: Potential for significant disruptions in the polar cap zone.

Directional Drilling: Potential for significant deviations in the polar cap zone.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: unsettled with active intervals

auroral zone: quiet with active intervals

sub-auroral zone: quiet with active intervals

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Aeromagnetic surveys: Potential for disruptions in the polar cap, auroral, and sub-auroral zones.

Directional Drilling: Potential for deviations in the polar cap, auroral, and sub-auroral zones.

Detailed Information

Solar

Solar activity has been low.

One medium coronal hole is located near the centre of the solar disk.

A slow CME was observed on 06 MAY 2015 19:00 UT, and is expected to deliver a glancing blow to the Earth on 10 MAY 2015, resulting in increased geomagnetic activity.

Interplanetary

The solar wind speed is currently very slow (< 400 km/s).

The interplanetary magnetic field has been fluctuating at low (|Bz|<5 nT) levels.

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit was at a normal level yesterday and is expected to be at a normal level tomorrow.

Visit <u>http://www.spaceweather.gc.ca/sffl-eng.php</u> for the electron forecast.

Geomagnetic

Over the last 24 hours geomagnetic activity has been quiet with stormy intervals in the polar zone, quiet with active intervals in the auroral zone, and quiet with unsettled intervals in the sub-auroral zone.

Over the next 24 hours geomagnetic activity is forecast to be unsettled with active intervals in the polar zone, quiet with active intervals in the auroral zone, and quiet with active intervals in the sub-auroral zone.

Visit <u>http://www.spaceweather.gc.ca/sfst-1-eng.php</u> for the magnetic forecast.

Space Weather Bulletin - 2015-05-10 issued at 20:52 UT (15:52 EST)

Summary

There is currently no major storm watch in effect.

See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (20:45 UT)

Geomagnetic Activity:

polar cap zone: unsettled auroral zone: quiet

sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: low

Possible Impacts on Technology:

Impacts are not expected.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: unsettled with active intervals auroral zone: unsettled with active intervals sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Aeromagnetic surveys: Potential for disruptions in the polar cap and auroral zones. Directional Drilling: Potential for deviations in the polar cap and auroral zones.

Detailed Information

Solar

Solar activity has been low.

One medium coronal hole is located near the centre of the solar disk.

Interplanetary

The solar wind speed is currently very slow (< 400 km/s).

The interplanetary magnetic field has been fluctuating at moderate (|Bz|<10 nT) levels.

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit was at a low level yesterday and is expected to be at a normal level tomorrow.

Visit <u>http://www.spaceweather.gc.ca/sffl-eng.php</u> for the electron forecast.

Geomagnetic

Over the last 24 hours geomagnetic activity has been unsettled with stormy intervals in the polar zone, quiet with stormy intervals in the auroral zone, and quiet with active intervals in the sub-auroral zone.

Over the next 24 hours geomagnetic activity is forecast to be unsettled with active intervals in the polar zone, unsettled with active intervals in the auroral zone, and quiet in the sub-auroral zone. Visit <u>http://www.spaceweather.gc.ca/sfst-1-eng.php</u> for the magnetic forecast.

Space Weather Bulletin - 2015-05-11 issued at 18:36 UT (13:36 EST)

Summary

There is currently no major storm watch in effect.

See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (18:00 UT)

Geomagnetic Activity:

polar cap zone: quiet auroral zone: active sub-auroral zone: quiet

Environment at Geostationary orbit:

Aeromagnetic surveys: Potential for disruptions in the auroral zone.

Directional Drilling: Potential for deviations in the auroral zone.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: quiet with active intervals auroral zone: unsettled with active intervals sub-auroral zone: quiet with unsettled intervals

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Aeromagnetic surveys: Potential for disruptions in the polar cap and auroral zones. Directional Drilling: Potential for deviations in the polar cap and auroral zones.

Detailed Information

Solar

Solar activity has been low.

One medium coronal hole is located near the centre of the solar disk.

Interplanetary

The solar wind speed is currently very slow (< 400 km/s).

The interplanetary magnetic field has been fluctuating at moderate (|Bz|<10 nT) levels.

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit was at a low level yesterday and is expected to be at a normal level tomorrow.

Visit <u>http://www.spaceweather.gc.ca/sffl-eng.php</u> for the electron forecast.

Geomagnetic

Over the last 24 hours geomagnetic activity has been unsettled with stormy intervals in the polar zone, unsettled with stormy intervals in the auroral zone, and quiet with stormy intervals in the sub-auroral zone.

Over the next 24 hours geomagnetic activity is forecast to be quiet with active intervals in the polar zone, unsettled with active intervals in the auroral zone, and quiet with unsettled intervals in the sub-auroral zone.

Visit <u>http://www.spaceweather.gc.ca/sfst-1-eng.php</u> for the magnetic forecast.

Space Weather Bulletin - 2015-05-12 issued at 19:57 UT (14:57 EST)

Summary

There is currently no major storm watch in effect.

See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (17:45 UT)

Geomagnetic Activity:

polar cap zone: unsettled auroral zone: unsettled sub-auroral zone: quiet

Environment at Geostationary orbit:

Impacts are not expected.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: unsettled with active intervals auroral zone: unsettled with active intervals sub-auroral zone: quiet with unsettled intervals

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: moderate

Possible Impacts on Technology:

Aeromagnetic surveys: Potential for disruptions in the polar cap and auroral zones. Directional Drilling: Potential for deviations in the polar cap and auroral zones. Geostationary satellites: moderate risk of internal charging.

Detailed Information

Solar

Solar activity has been low.

One small coronal hole is located near the centre of the solar disk.

Interplanetary

The solar wind speed is currently slow (400-500 km/s).

The interplanetary magnetic field has been fluctuating at moderate (|Bz| < 10 nT) levels.

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit was at a low level yesterday and is expected to be at a moderate level tomorrow.

Visit http://www.spaceweather.gc.ca/sffl-eng.php for the electron forecast.

Geomagnetic

Over the last 24 hours geomagnetic activity has been unsettled with active intervals in the polar zone, unsettled with stormy intervals in the auroral zone, and quiet with active intervals in the subauroral zone.

Over the next 24 hours geomagnetic activity is forecast to be unsettled with active intervals in the polar zone, unsettled with active intervals in the auroral zone, and guiet with unsettled intervals in the sub-auroral zone.

Visit http://www.spaceweather.gc.ca/sfst-1-eng.php for the magnetic forecast.

Space Weather Bulletin - 2015-05-13 issued at 19:31 UT (14:31 EST) Summary

There is currently no major storm watch in effect.

See our website for current information: http://www.spaceweather.gc.ca (updated every 15 minutes)

Current Conditions (18:45 UT)

Geomagnetic Activity:

polar cap zone: active auroral zone: stormy sub-auroral zone: active

Environment at Geostationary orbit:

Power Systems: possibility of weak voltage fluctuations in the auroral zone. Aeromagnetic surveys: Potential for significant disruptions in the auroral zone. Directional Drilling: Potential for significant deviations in the auroral zone. Aeromagnetic surveys: Potential for disruptions in the polar cap and sub-auroral zones. Directional Drilling: Potential for deviations in the polar cap and sub-auroral zones.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: active with stormy intervals auroral zone: active with stormy intervals sub-auroral zone: active

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: moderate

Possible Impacts on Technology:

Power Systems: possibility of weak voltage fluctuations in the polar cap and auroral zones. Aeromagnetic surveys: Potential for significant disruptions in the polar cap and auroral zones. Directional Drilling: Potential for significant deviations in the polar cap and auroral zones. Aeromagnetic surveys: Potential for disruptions in the sub-auroral zone. Directional Drilling: Potential for deviations in the sub-auroral zone.

Geostationary satellites: moderate risk of internal charging.

Detailed Information

Solar

Solar activity has been low.

One small coronal hole is located near the centre of the solar disk.

Interplanetary

The solar wind speed is currently fast (~700 km/s).

The interplanetary magnetic field has been fluctuating at moderate (|Bz|<10 nT) levels.

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit was at a low level yesterday and is expected to be at a moderate level tomorrow.

Visit <u>http://www.spaceweather.gc.ca/sffl-eng.php</u> for the electron forecast.

Geomagnetic

Over the last 24 hours geomagnetic activity has been active with stormy intervals in the polar zone, active with stormy intervals in the auroral zone, and unsettled with stormy intervals in the subauroral zone.

Over the next 24 hours geomagnetic activity is forecast to be active with stormy intervals in the polar zone, active with stormy intervals in the auroral zone, and active in the sub-auroral zone. Enhanced geomagnetic activity is likely due to the arrival of a high speed stream associated with coronal holes.

Visit <u>http://www.spaceweather.gc.ca/sfst-1-eng.php</u> for the magnetic forecast.

Space Weather Bulletin - 2015-05-14 issued at 21:11 UT (16:11 EST) Summary

There is currently no major storm watch in effect.

See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (20:45 UT)

Geomagnetic Activity:

polar cap zone: active auroral zone: active sub-auroral zone: unsettled

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: moderate

Possible Impacts on Technology:

Aeromagnetic surveys: Potential for disruptions in the polar cap and auroral zones. Directional Drilling: Potential for deviations in the polar cap and auroral zones. Geostationary satellites: moderate risk of internal charging.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: unsettled with stormy intervals auroral zone: unsettled with active intervals sub-auroral zone: quiet with unsettled intervals

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: moderate

Possible Impacts on Technology:

Aeromagnetic surveys: Potential for significant disruptions in the polar cap zone. Directional Drilling: Potential for significant deviations in the polar cap zone.

Aeromagnetic surveys: Potential for disruptions in the auroral zone.

Directional Drilling: Potential for deviations in the auroral zone.

Geostationary satellites: moderate risk of internal charging.

Detailed Information

Solar

Solar activity has been low.

One small coronal hole is located near the centre of the solar disk.

Interplanetary

The solar wind speed is currently moderate (500-700 km/s).

The interplanetary magnetic field has been fluctuating at moderate (|Bz|<10 nT) levels.

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit was at a normal level yesterday and is expected to be at a moderate level tomorrow.

Visit <u>http://www.spaceweather.gc.ca/sffl-eng.php</u> for the electron forecast.

Geomagnetic

Over the last 24 hours geomagnetic activity has been unsettled with stormy intervals in the polar zone, unsettled with stormy intervals in the auroral zone, and quiet with active intervals in the sub-auroral zone.

Over the next 24 hours geomagnetic activity is forecast to be unsettled with stormy intervals in the polar zone, unsettled with active intervals in the auroral zone, and quiet with unsettled intervals in the sub-auroral zone.

Visit <u>http://www.spaceweather.gc.ca/sfst-1-eng.php</u> for the magnetic forecast.

Space Weather Bulletin - 2015-05-15 issued at 18:19 UT (13:19 EST) Summary

There is currently no major storm watch in effect.

See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (17:45 UT)

Geomagnetic Activity:

polar cap zone: quiet auroral zone: quiet sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: moderate

Possible Impacts on Technology:

Geostationary satellites: moderate risk of internal charging.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: quiet with active intervals auroral zone: unsettled with active intervals sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Aeromagnetic surveys: Potential for disruptions in the polar cap and auroral zones. Directional Drilling: Potential for deviations in the polar cap and auroral zones.

Detailed Information

Solar

Solar activity has been low.

One small coronal hole is located near the centre of the solar disk.

A slow non-Earth-directed CME erupted on 13 MAY 2015 18:40 UT.

Interplanetary

The solar wind speed is currently slow (~500 km/s).

The interplanetary magnetic field has been fluctuating at very low (|Bz|<2 nT) levels.

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit was at a moderate level yesterday and is expected to be at a normal level tomorrow.

Visit <u>http://www.spaceweather.gc.ca/sffl-eng.php</u> for the electron forecast.

Geomagnetic

Over the last 24 hours geomagnetic activity has been unsettled with stormy intervals in the polar zone, unsettled with stormy intervals in the auroral zone, and quiet with active intervals in the sub-auroral zone.

Over the next 24 hours geomagnetic activity is forecast to be quiet with active intervals in the polar zone, unsettled with active intervals in the auroral zone, and quiet in the sub-auroral zone. Visit <u>http://www.spaceweather.gc.ca/sfst-1-eng.php</u> for the magnetic forecast.

Space Weather Bulletin - 2015-05-16 issued at 19:55 UT (14:55 EST) Summary

There is currently no major storm watch in effect.

See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (19:30 UT)

Geomagnetic Activity:

polar cap zone: unsettled auroral zone: quiet sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: moderate

Possible Impacts on Technology:

Geostationary satellites: moderate risk of internal charging.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: quiet with active intervals auroral zone: quiet with unsettled intervals sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Aeromagnetic surveys: Potential for disruptions in the polar cap zone.

Directional Drilling: Potential for deviations in the polar cap zone.

Detailed Information

Solar

Solar activity has been low.

One small coronal hole is located near the centre of the solar disk.

Interplanetary

The solar wind speed is currently slow (400-500 km/s).

The interplanetary magnetic field has been fluctuating at low (|Bz|<5 nT) levels.

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit was at a moderate level yesterday and is expected to be at a normal level tomorrow.

Visit <u>http://www.spaceweather.gc.ca/sffl-eng.php</u> for the electron forecast.

Geomagnetic

Over the last 24 hours geomagnetic activity has been quiet with active intervals in the polar zone, quiet with unsettled intervals in the auroral zone, and quiet in the sub-auroral zone. Over the next 24 hours geomagnetic activity is forecast to be quiet with active intervals in the polar zone, quiet with unsettled intervals in the auroral zone, and quiet in the sub-auroral zone. Visit <u>http://www.spaceweather.gc.ca/sfst-1-eng.php</u> for the magnetic forecast.

Space Weather Bulletin - 2015-05-17 issued at 20:22 UT (15:22 EST) Summary

There is currently no major storm watch in effect. See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (20:15 UT)

Geomagnetic Activity:

polar cap zone: unsettled auroral zone: quiet sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: moderate

Possible Impacts on Technology:

Geostationary satellites: moderate risk of internal charging.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: unsettled with active intervals auroral zone: quiet with unsettled intervals sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Aeromagnetic surveys: Potential for disruptions in the polar cap zone.

Directional Drilling: Potential for deviations in the polar cap zone.

Detailed Information

Solar

Solar activity has been low.

One small coronal hole is located near the centre of the solar disk.

Interplanetary

The solar wind speed is currently very slow (< 400 km/s).

The interplanetary magnetic field has been fluctuating at low (|Bz|<5 nT) levels.

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit was at a moderate level yesterday and is expected to be at a normal level tomorrow.

Visit <u>http://www.spaceweather.gc.ca/sffl-eng.php</u> for the electron forecast.

Geomagnetic

Over the last 24 hours geomagnetic activity has been unsettled with stormy intervals in the polar zone, quiet with active intervals in the auroral zone, and quiet with unsettled intervals in the sub-auroral zone.

Over the next 24 hours geomagnetic activity is forecast to be unsettled with active intervals in the polar zone, quiet with unsettled intervals in the auroral zone, and quiet in the sub-auroral zone. Visit <u>http://www.spaceweather.gc.ca/sfst-1-eng.php</u> for the magnetic forecast.

Space Weather Bulletin - 2015-05-18 issued at 20:30 UT (15:30 EST) Summary

There is currently no major storm watch in effect.

See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (20:15 UT) Geomagnetic Activity:

polar cap zone: stormy auroral zone: unsettled sub-auroral zone: unsettled

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: moderate

Possible Impacts on Technology:

Aeromagnetic surveys: Potential for significant disruptions in the polar cap zone. Directional Drilling: Potential for significant deviations in the polar cap zone. Geostationary satellites: moderate risk of internal charging.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: active with stormy intervals

auroral zone: quiet with unsettled intervals

sub-auroral zone: quiet with unsettled intervals

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Aeromagnetic surveys: Potential for significant disruptions in the polar cap zone.

Directional Drilling: Potential for significant deviations in the polar cap zone.

Detailed Information

Solar

Solar activity has been low.

Interplanetary

The solar wind speed is currently slow (400-500 km/s).

The interplanetary magnetic field has been fluctuating at moderate (|Bz|<10 nT) levels.

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit was at a moderate level yesterday and is expected to be at a normal level tomorrow.

Visit <u>http://www.spaceweather.gc.ca/sffl-eng.php</u> for the electron forecast.

Geomagnetic

Over the last 24 hours geomagnetic activity has been active with stormy intervals in the polar zone, quiet with stormy intervals in the auroral zone, and quiet with unsettled intervals in the sub-auroral zone.

Over the next 24 hours geomagnetic activity is forecast to be active with stormy intervals in the polar zone, quiet with unsettled intervals in the auroral zone, and quiet with unsettled intervals in the sub-auroral zone.

Visit <u>http://www.spaceweather.gc.ca/sfst-1-eng.php</u> for the magnetic forecast.

Space Weather Bulletin - 2015-05-19 issued at 16:50 UT (11:50 EST) Summary

There is currently no major storm watch in effect.

Disturbed geomagnetic conditions are expected 19 May 2015 to 20 May 2015 due to high speed streams from coronal holes.

See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (16:30 UT)

Geomagnetic Activity:

polar cap zone: active auroral zone: quiet sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Impacts are not expected.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: active with stormy intervals auroral zone: unsettled with active intervals

sub-auroral zone: unsettled

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Aeromagnetic surveys: Potential for disruptions in the polar cap zone.

Directional Drilling: Potential for deviations in the polar cap zone.

Detailed Information

Solar

Solar activity has been low.

One small coronal hole is located near the centre of the solar disk.

Interplanetary

Interplanetary activity has been moderate.

Moderate solar wind speeds are due to high speed streams from coronal holes.

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit was at a moderate level yesterday and is expected to be at a normal level tomorrow.

Visit <u>http://www.spaceweather.gc.ca/sffl-eng.php</u> for the electron forecast.

Geomagnetic

Over the last 24 hours geomagnetic activity has been active with stormy intervals in the polar zone, unsettled with stormy intervals in the auroral zone, and quiet with stormy intervals in the subauroral zone.

Over the next 24 hours geomagnetic activity is forecast to be active with stormy intervals in the polar zone, unsettled with active intervals in the auroral zone, and unsettled in the sub-auroral zone. Enhanced geomagnetic activity is likely due to the arrival of a high speed stream associated with coronal holes.

Visit <u>http://www.spaceweather.gc.ca/sfst-1-eng.php</u> for the magnetic forecast.

Space Weather Bulletin - 2015-05-20 issued at 18:08 UT (13:08 EST) Summary

There is currently no major storm watch in effect. See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (18:00 UT)

Geomagnetic Activity:

polar cap zone: quiet auroral zone: quiet sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Impacts are not expected.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: quiet with active intervals

auroral zone: unsettled with active intervals

sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Impacts are not expected.

Detailed Information

Solar

Solar activity has been low.

Two medium coronal holes are located near the centre of the solar disk.

Interplanetary

Interplanetary activity has been low.

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit was at a normal level yesterday and is expected to be at a normal level tomorrow.

Visit <u>http://www.spaceweather.gc.ca/sffl-eng.php</u> for the electron forecast.

Geomagnetic

Over the last 24 hours geomagnetic activity has been unsettled with stormy intervals in the polar zone, quiet with stormy intervals in the auroral zone, and quiet with active intervals in the sub-auroral zone.

Over the next 24 hours geomagnetic activity is forecast to be quiet with active intervals in the polar zone, unsettled with active intervals in the auroral zone, and quiet in the sub-auroral zone. Visit <u>http://www.spaceweather.gc.ca/sfst-1-eng.php</u> for the magnetic forecast.

Space Weather Bulletin - 2015-05-21 issued at 17:40 UT (12:40 EST)

Summary

There is currently no major storm watch in effect.

See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (17:30 UT)

Geomagnetic Activity:

polar cap zone: unsettled auroral zone: quiet

sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Impacts are not expected.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: quiet with active intervals auroral zone: quiet sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Impacts are not expected.

Detailed Information

Solar

Solar activity has been very low.

One small coronal hole is located near the centre of the solar disk.

Interplanetary

Interplanetary activity has been low.

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit was at a normal level yesterday and is expected to be at a normal level tomorrow.

Visit <u>http://www.spaceweather.gc.ca/sffl-eng.php</u> for the electron forecast.

Geomagnetic

Over the last 24 hours geomagnetic activity has been quiet with unsettled intervals in the polar zone, quiet in the auroral zone, and quiet in the sub-auroral zone.

Over the next 24 hours geomagnetic activity is forecast to be quiet with active intervals in the polar zone, quiet in the auroral zone, and quiet in the sub-auroral zone.

Visit <u>http://www.spaceweather.gc.ca/sfst-1-eng.php</u> for the magnetic forecast.

Space Weather Bulletin - 2015-05-22 issued at 18:42 UT (13:42 EST)

Summary

There is currently no major storm watch in effect.

See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (18:30 UT)

Geomagnetic Activity:

polar cap zone: quiet auroral zone: quiet sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Impacts are not expected.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: quiet with active intervals auroral zone: quiet

sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Impacts are not expected.

Detailed Information

Solar

Solar activity has been very low.

One small coronal hole is located near the centre of the solar disk.

Interplanetary

Interplanetary activity has been very low.

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit was at a normal level yesterday and is expected to be at a normal level tomorrow.

Visit <u>http://www.spaceweather.gc.ca/sffl-eng.php</u> for the electron forecast.

Geomagnetic

Over the last 24 hours geomagnetic activity has been unsettled with active intervals in the polar zone, quiet with unsettled intervals in the auroral zone, and quiet in the sub-auroral zone.

Over the next 24 hours geomagnetic activity is forecast to be quiet with active intervals in the polar zone, quiet in the auroral zone, and quiet in the sub-auroral zone.

Visit <u>http://www.spaceweather.gc.ca/sfst-1-eng.php</u> for the magnetic forecast.

Space Weather Bulletin - 2015-05-23 issued at 21:29 UT (16:29 EST)

Summary

There is currently no major storm watch in effect.

See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (21:15 UT)

Geomagnetic Activity:

polar cap zone: quiet auroral zone: quiet sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Impacts are not expected.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: quiet with unsettled intervals auroral zone: quiet sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Impacts are not expected.

Detailed Information

Solar

Solar activity has been low.

Two small coronal holes are located near the centre of the solar disk.

Interplanetary

Interplanetary activity has been low.

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit was at a normal level yesterday and is expected to be at a normal level tomorrow.

Visit <u>http://www.spaceweather.gc.ca/sffl-eng.php</u> for the electron forecast.

Geomagnetic

Over the last 24 hours geomagnetic activity has been quiet with active intervals in the polar zone, quiet with unsettled intervals in the auroral zone, and quiet in the sub-auroral zone.

Over the next 24 hours geomagnetic activity is forecast to be quiet with unsettled intervals in the polar zone, quiet in the auroral zone, and quiet in the sub-auroral zone.

Visit <u>http://www.spaceweather.gc.ca/sfst-1-eng.php</u> for the magnetic forecast.

Space Weather Bulletin - 2015-05-24 issued at 19:43 UT (14:43 EST)

Summary

There is currently no major storm watch in effect.

See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (19:30 UT)

Geomagnetic Activity:

polar cap zone: unsettled auroral zone: quiet sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: quiet with active intervals

auroral zone: quiet

sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Impacts are not expected.

Detailed Information

Solar

Solar activity has been very low.

Two medium coronal holes are located near the centre of the solar disk.

Interplanetary

Interplanetary activity has been low.

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit was at a normal level yesterday and is expected to be at a normal level tomorrow.

Visit <u>http://www.spaceweather.gc.ca/sffl-eng.php</u> for the electron forecast.

Geomagnetic

Over the last 24 hours geomagnetic activity has been quiet with active intervals in the polar zone, quiet with active intervals in the auroral zone, and quiet with unsettled intervals in the sub-auroral zone.

Over the next 24 hours geomagnetic activity is forecast to be quiet with active intervals in the polar zone, quiet in the auroral zone, and quiet in the sub-auroral zone.

Visit <u>http://www.spaceweather.gc.ca/sfst-1-eng.php</u> for the magnetic forecast.

Space Weather Bulletin - 2015-05-25 issued at 19:56 UT (14:56 EST)

Summary

There is currently no major storm watch in effect.

See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (19:45 UT)

Geomagnetic Activity:

polar cap zone: active auroral zone: quiet sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Impacts are not expected.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: unsettled with active intervals

auroral zone: quiet

sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Impacts are not expected.

Detailed Information

Solar

Solar activity has been low.

Two small coronal holes are located near the centre of the solar disk.

Interplanetary

Interplanetary activity has been low.

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit was at a normal level yesterday and is expected to be at a normal level tomorrow.

Visit <u>http://www.spaceweather.gc.ca/sffl-eng.php</u> for the electron forecast.

Geomagnetic

Over the last 24 hours geomagnetic activity has been quiet with active intervals in the polar zone, quiet with unsettled intervals in the auroral zone, and quiet in the sub-auroral zone. Over the next 24 hours geomagnetic activity is forecast to be unsettled with active intervals in the polar zone, quiet in the auroral zone, and quiet in the sub-auroral zone.

Visit http://www.spaceweather.gc.ca/sfst-1-eng.php for the magnetic forecast.

Space Weather Bulletin - 2015-05-26 issued at 18:55 UT (13:55 EST)

Summary

There is currently no major storm watch in effect.

Disturbed geomagnetic conditions are expected 26 May 2015 to 27 May 2015 due to high speed streams from coronal holes.

See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (18:45 UT)

Geomagnetic Activity:

polar cap zone: stormy auroral zone: quiet sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Aeromagnetic surveys: Potential for disruptions in the polar cap and auroral zones.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: unsettled with stormy intervals auroral zone: quiet sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Aeromagnetic surveys: Potential for disruptions in the polar cap and auroral zones. Directional Drilling: Potential for deviations in the polar cap and auroral zones.

Detailed Information

Solar

Solar activity has been low.

Two medium coronal holes are located near the centre of the solar disk.

Interplanetary

Interplanetary activity has been low.

Moderate solar wind speeds are due to high speed streams from coronal holes.

Environment at Geostationary orbit
Energetic electron fluence at geostationary orbit was at a normal level yesterday and is expected to be at a normal level tomorrow.

Visit <u>http://www.spaceweather.gc.ca/sffl-eng.php</u> for the electron forecast.

Geomagnetic

Over the last 24 hours geomagnetic activity has been quiet with stormy intervals in the polar zone, quiet with active intervals in the auroral zone, and quiet with unsettled intervals in the sub-auroral zone.

Over the next 24 hours geomagnetic activity is forecast to be unsettled with stormy intervals in the polar zone, quiet in the auroral zone, and quiet in the sub-auroral zone.

Visit <u>http://www.spaceweather.gc.ca/sfst-1-eng.php</u> for the magnetic forecast.

Space Weather Bulletin - 2015-05-27 issued at 19:07 UT (14:07 EST) Summary

There is currently no major storm watch in effect.

See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (19:00 UT)

Geomagnetic Activity:

polar cap zone: quiet auroral zone: quiet sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: low

Possible Impacts on Technology:

Impacts are not expected.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: quiet with active intervals auroral zone: quiet sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Impacts are not expected.

Detailed Information

Solar

Solar activity has been very low.

Interplanetary

Interplanetary activity has been low.

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit was at a low level yesterday and is expected to be at a normal level tomorrow.

Visit <u>http://www.spaceweather.gc.ca/sffl-eng.php</u> for the electron forecast.

Geomagnetic

Over the last 24 hours geomagnetic activity has been quiet with stormy intervals in the polar zone, quiet with unsettled intervals in the auroral zone, and quiet with unsettled intervals in the subauroral zone.

Over the next 24 hours geomagnetic activity is forecast to be quiet with active intervals in the polar zone, quiet in the auroral zone, and quiet in the sub-auroral zone.

Visit <u>http://www.spaceweather.gc.ca/sfst-1-eng.php</u> for the magnetic forecast.

Space Weather Bulletin - 2015-05-28 issued at 20:06 UT (15:06 EST)

Summary

There is currently no major storm watch in effect.

See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (19:45 UT)

Geomagnetic Activity:

polar cap zone: stormy auroral zone: quiet

sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: low

Possible Impacts on Technology:

Aeromagnetic surveys: Potential for disruptions in the polar cap zone.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: unsettled with stormy intervals auroral zone: quiet with unsettled intervals sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Impacts are not expected.

Detailed Information

Solar

Solar activity has been low.

One medium coronal hole is located near the centre of the solar disk.

Interplanetary

Interplanetary activity has been low.

Moderate solar wind speeds are due to high speed streams from coronal holes.

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit was at a low level yesterday and is expected to be at a normal level tomorrow.

Visit <u>http://www.spaceweather.gc.ca/sffl-eng.php</u> for the electron forecast.

Geomagnetic

Over the last 24 hours geomagnetic activity has been unsettled with active intervals in the polar zone, quiet with stormy intervals in the auroral zone, and quiet with unsettled intervals in the sub-auroral zone.

Over the next 24 hours geomagnetic activity is forecast to be unsettled with stormy intervals in the polar zone, quiet with unsettled intervals in the auroral zone, and quiet in the sub-auroral zone. Visit http://www.spaceweather.gc.ca/sfst-1-eng.php for the magnetic forecast.

Space Weather Bulletin - 2015-05-29 issued at 19:24 UT (14:24 EST) Summary

There is currently no major storm watch in effect.

Disturbed geomagnetic conditions are expected 29 May 2015 to 30 May 2015 due to high speed streams from coronal holes.

See our website for current information: http://www.spaceweather.gc.ca (updated every 15 minutes)

Current Conditions (19:15 UT)

Geomagnetic Activity:

polar cap zone: stormy auroral zone: quiet sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: low

Possible Impacts on Technology:

Aeromagnetic surveys: Potential for disruptions in the polar cap zone.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: unsettled with stormy intervals

auroral zone: quiet

sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Impacts are not expected.

Detailed Information

Solar

Solar activity has been very low.

Two small coronal holes are located near the centre of the solar disk.

Interplanetary

Interplanetary activity has been moderate.

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit was at a low level yesterday and is expected to be at a normal level tomorrow.

Visit http://www.spaceweather.gc.ca/sffl-eng.php for the electron forecast.

Geomagnetic

Over the last 24 hours geomagnetic activity has been unsettled with stormy intervals in the polar zone, guiet with unsettled intervals in the auroral zone, and guiet with unsettled intervals in the sub-auroral zone.

Over the next 24 hours geomagnetic activity is forecast to be unsettled with stormy intervals in the polar zone, quiet in the auroral zone, and quiet in the sub-auroral zone.

Visit <u>http://www.spaceweather.gc.ca/sfst-1-eng.php</u> for the magnetic forecast.

Space Weather Bulletin - 2015-05-30 issued at 22:48 UT (17:48 EST) Summary There is currently no major storm watch in effect. See our website for current information: http://www.spaceweather.gc.ca (updated every 15 minutes) Current Conditions (22:30 UT) Geomagnetic Activity: polar cap zone: unsettled auroral zone: quiet sub-auroral zone: quiet **Environment at Geostationary orbit:** energetic electron fluence at geostationary orbit: low Possible Impacts on Technology: Impacts are not expected. 24 Hour Forecast Geomagnetic Activity: polar cap zone: unsettled with active intervals auroral zone: quiet sub-auroral zone: quiet **Environment at Geostationary orbit:** energetic electron fluence at geostationary orbit: normal Possible Impacts on Technology: Impacts are not expected. **Detailed Information** Solar Solar activity has been low. Interplanetary Interplanetary activity has been low. **Environment at Geostationary orbit** Energetic electron fluence at geostationary orbit was at a low level yesterday and is expected to be at a normal level tomorrow. Visit <u>http://www.spaceweather.gc.ca/sffl-eng.php</u> for the electron forecast. Geomagnetic Over the last 24 hours geomagnetic activity has been unsettled with stormy intervals in the polar zone, quiet with active intervals in the auroral zone, and quiet in the sub-auroral zone. Over the next 24 hours geomagnetic activity is forecast to be unsettled with active intervals in the polar zone, guiet in the auroral zone, and guiet in the sub-auroral zone. Visit http://www.spaceweather.gc.ca/sfst-1-eng.php for the magnetic forecast. Space Weather Bulletin - 2015-05-31 issued at 18:42 UT (13:42 EST) Summary

There is currently no major storm watch in effect.

See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (18:30 UT)

Geomagnetic Activity:

polar cap zone: stormy auroral zone: quiet sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: low

Possible Impacts on Technology:

Aeromagnetic surveys: Potential for disruptions in the polar cap zone.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: unsettled with stormy intervals auroral zone: quiet sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Impacts are not expected.

Detailed Information

Solar

Solar activity has been low.

One small coronal hole is located near the centre of the solar disk.

Interplanetary

Interplanetary activity has been moderate.

Moderate solar wind speeds are due to high speed streams from coronal holes.

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit was at a low level yesterday and is expected to be at a normal level tomorrow.

Visit <u>http://www.spaceweather.gc.ca/sffl-eng.php</u> for the electron forecast.

Geomagnetic

Over the last 24 hours geomagnetic activity has been unsettled with stormy intervals in the polar zone, quiet with unsettled intervals in the auroral zone, and quiet in the sub-auroral zone. Over the next 24 hours geomagnetic activity is forecast to be unsettled with stormy intervals in the polar zone, quiet in the auroral zone, and quiet in the sub-auroral zone. Visit http://www.spaceweather.gc.ca/sfst-1-eng.php for the magnetic forecast.

Space Weather Bulletin - 2015-06-01 issued at 20:48 UT (15:48 EST) Summary

There is currently no major storm watch in effect.

See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes) Current Conditions (20:30 UT)

Geomagnetic Activity:

polar cap zone: active auroral zone: quiet sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: unavailable

Possible Impacts on Technology:

Impacts are not expected.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: unsettled with active intervals auroral zone: quiet with active intervals sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Impacts are not expected.

Detailed Information

Solar

Solar activity has been very low.

One small coronal hole is located near the edge of the solar disk.

Interplanetary

Interplanetary activity has been low.

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit was at a low level yesterday and is expected to be at a normal level tomorrow.

Visit <u>http://www.spaceweather.gc.ca/sffl-eng.php</u> for the electron forecast.

Geomagnetic

Over the last 24 hours geomagnetic activity has been unsettled with stormy intervals in the polar zone, quiet with active intervals in the auroral zone, and quiet with unsettled intervals in the sub-auroral zone.

Over the next 24 hours geomagnetic activity is forecast to be unsettled with active intervals in the polar zone, quiet with active intervals in the auroral zone, and quiet in the sub-auroral zone. Visit <u>http://www.spaceweather.gc.ca/sfst-1-eng.php</u> for the magnetic forecast.

Space Weather Bulletin - 2015-06-02 issued at 22:28 UT (17:28 EST)

Summary

There is currently no major storm watch in effect.

See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (22:15 UT)

Geomagnetic Activity:

polar cap zone: active auroral zone: quiet sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: low

Possible Impacts on Technology:

Aeromagnetic surveys: Potential for disruptions in the polar cap zone.

Directional Drilling: Potential for deviations in the polar cap zone.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: unsettled with active intervals auroral zone: quiet

sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Impacts are not expected.

Detailed Information

Solar

Solar activity has been low.

Interplanetary

The interplanetary magnetic field has been fluctuating at low (|Bz|<5 nT) levels.

The solar wind speed is currently very slow (< 400 km/s).

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit for 01 JUN 2015 is unavailable but is expected to be at a normal level tomorrow.

Visit <u>http://www.spaceweather.gc.ca/sffl-eng.php</u> for the electron forecast.

Geomagnetic

Over the last 24 hours geomagnetic activity has been unsettled with stormy intervals in the polar zone, quiet in the auroral zone, and quiet with unsettled intervals in the sub-auroral zone. Over the next 24 hours geomagnetic activity is forecast to be unsettled with active intervals in the polar zone, quiet in the auroral zone, and quiet in the sub-auroral zone. Visit http://www.spaceweather.gc.ca/sfst-1-eng.php for the magnetic forecast.

Space Weather Bulletin - 2015-06-03 issued at 22:49 UT (17:49 EST)

Summary

There is currently no major storm watch in effect. See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (22:30 UT)

Geomagnetic Activity:

polar cap zone: quiet auroral zone: quiet sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: low

Possible Impacts on Technology:

Impacts are not expected.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: quiet with active intervals auroral zone: quiet sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Impacts are not expected.

Detailed Information

Solar

One medium coronal hole is located near the centre of the solar disk. Solar activity has been low.

Interplanetary

The interplanetary magnetic field has been fluctuating at low (|Bz|<5 nT) levels.

The solar wind speed is currently very slow (< 400 km/s).

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit was at a low level yesterday and is expected to be at a normal level tomorrow.

Visit <u>http://www.spaceweather.gc.ca/sffl-eng.php</u> for the electron forecast.

Geomagnetic

Over the last 24 hours geomagnetic activity has been unsettled with active intervals in the polar zone, quiet with unsettled intervals in the auroral zone, and quiet with unsettled intervals in the sub-auroral zone.

Over the next 24 hours geomagnetic activity is forecast to be quiet with active intervals in the polar zone, quiet in the auroral zone, and quiet in the sub-auroral zone.

Visit http://www.spaceweather.gc.ca/sfst-1-eng.php for the magnetic forecast.

Space Weather Bulletin - 2015-06-04 issued at 23:43 UT (18:43 EST)

Summary

There is currently no major storm watch in effect.

See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (23:30 UT)

Geomagnetic Activity:

polar cap zone: quiet auroral zone: quiet

sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: unavailable

Possible Impacts on Technology:

Impacts are not expected.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: quiet with unsettled intervals auroral zone: quiet

sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Impacts are not expected.

Detailed Information

Solar

Solar activity has been low.

One medium coronal hole is located near the centre of the solar disk.

Interplanetary

The interplanetary magnetic field has been fluctuating at low (|Bz|<5 nT) levels.

The solar wind speed is currently very slow (< 400 km/s).

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit was at a low level yesterday and is expected to be at a normal level tomorrow.

Visit <u>http://www.spaceweather.gc.ca/sffl-eng.php</u> for the electron forecast.

Geomagnetic

Over the last 24 hours geomagnetic activity has been quiet with active intervals in the polar zone, quiet in the auroral zone, and quiet with unsettled intervals in the sub-auroral zone. Over the next 24 hours geomagnetic activity is forecast to be quiet with unsettled intervals in the polar zone, quiet in the auroral zone, and quiet in the sub-auroral zone.

Visit <u>http://www.spaceweather.gc.ca/sfst-1-eng.php</u> for the magnetic forecast.

Space Weather Bulletin - 2015-06-05 issued at 21:15 UT (16:15 EST)

Summary

There is currently no major storm watch in effect.

See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (21:00 UT)

Geomagnetic Activity:

polar cap zone: unsettled auroral zone: quiet

sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: unavailable

Possible Impacts on Technology:

Aeromagnetic surveys: Potential for disruptions in the polar cap zone.

Directional Drilling: Potential for deviations in the polar cap zone.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: quiet with unsettled intervals

auroral zone: quiet

sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Impacts are not expected.

Detailed Information

Solar

Solar activity has been low.

One medium coronal hole is located near the centre of the solar disk.

Interplanetary

The interplanetary magnetic field has been fluctuating at low (|Bz|<5 nT) levels.

The solar wind speed is currently very slow (< 400 km/s).

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit for 04 JUN 2015 is unavailable but is expected to be at a normal level tomorrow.

Visit <u>http://www.spaceweather.gc.ca/sffl-eng.php</u> for the electron forecast.

Geomagnetic

Over the last 24 hours geomagnetic activity has been quiet with active intervals in the polar zone, quiet in the auroral zone, and quiet in the sub-auroral zone.

Over the next 24 hours geomagnetic activity is forecast to be quiet with unsettled intervals in the polar zone, quiet in the auroral zone, and quiet in the sub-auroral zone.

Visit <u>http://www.spaceweather.gc.ca/sfst-1-eng.php</u> for the magnetic forecast.

Space Weather Bulletin - 2015-06-07 issued at 00:59 UT (19:59 EST)

Summary

There is currently no major storm watch in effect.

See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (00:45 UT)

Geomagnetic Activity:

polar cap zone: unsettled auroral zone: quiet sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: low

Possible Impacts on Technology:

Impacts are not expected.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: quiet with active intervals

auroral zone: quiet

sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Impacts are not expected.

Detailed Information

Solar

Solar activity has been low.

One medium coronal hole is located near the centre of the solar disk.

Interplanetary

The interplanetary magnetic field has been fluctuating at moderate (|Bz|<10 nT) levels.

The solar wind speed is currently very slow (< 400 km/s).

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit was at a low level yesterday and is expected to be at a normal level tomorrow.

Visit <u>http://www.spaceweather.gc.ca/sffl-eng.php</u> for the electron forecast.

Geomagnetic

Over the last 24 hours geomagnetic activity has been unsettled with stormy intervals in the polar zone, quiet with unsettled intervals in the auroral zone, and quiet in the sub-auroral zone. Over the next 24 hours geomagnetic activity is forecast to be quiet with active intervals in the polar zone, quiet in the auroral zone, and quiet in the sub-auroral zone. Visit http://www.spaceweather.gc.ca/sfst-1-eng.php for the magnetic forecast.

Space Weather Bulletin - 2015-06-07 issued at 19:10 UT (14:10 EST)

Summary

There is currently no major storm watch in effect.

See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (19:00 UT)

Geomagnetic Activity:

polar cap zone: stormy auroral zone: quiet

sub-auroral zone: unsettled

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: low

Possible Impacts on Technology:

Aeromagnetic surveys: Potential for significant disruptions in the polar cap zone.

Directional Drilling: Potential for significant deviations in the polar cap zone.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: active with stormy intervals auroral zone: quiet sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Impacts are not expected.

Detailed Information

Solar

Solar activity has been low.

Interplanetary

The interplanetary magnetic field has been fluctuating at moderate (|Bz|<10 nT) levels.

The solar wind speed is currently very slow (< 400 km/s).

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit was at a low level yesterday and is expected to be at a normal level tomorrow.

Visit <u>http://www.spaceweather.gc.ca/sffl-eng.php</u> for the electron forecast.

Geomagnetic

Over the last 24 hours geomagnetic activity has been unsettled with stormy intervals in the polar zone, quiet with unsettled intervals in the auroral zone, and quiet with unsettled intervals in the sub-auroral zone.

Over the next 24 hours geomagnetic activity is forecast to be active with stormy intervals in the polar zone, quiet in the auroral zone, and quiet in the sub-auroral zone.

Visit <u>http://www.spaceweather.gc.ca/sfst-1-eng.php</u> for the magnetic forecast.

Space Weather Bulletin - 2015-06-08 issued at 18:31 UT (13:31 EST)

Summary

There is currently no major storm watch in effect.

Stormy conditions are currently observed in the polar cap and auroral zones.

Stormy conditions are possible in the polar cap, auroral, and sub-auroral zones within the next 24 hours.

See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (18:15 UT)

Geomagnetic Activity:

polar cap zone: stormy auroral zone: stormy sub-auroral zone: unsettled

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: low

Possible Impacts on Technology:

Power Systems: possibility of weak voltage fluctuations in the polar cap and auroral zones. Aeromagnetic surveys: Potential for significant disruptions in the polar cap and auroral zones. Directional Drilling: Potential for significant deviations in the polar cap and auroral zones.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: active with stormy intervals auroral zone: active with stormy intervals sub-auroral zone: unsettled with active intervals

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Aeromagnetic surveys: Potential for disruptions in the polar cap, auroral, and sub-auroral zones. Directional Drilling: Potential for deviations in the polar cap, auroral, and sub-auroral zones.

Detailed Information

Solar

There are several active regions visible on the solar disk. Solar activity has been low.

Interplanetary

The solar wind speed is currently moderate (500-700 km/s).

Moderate solar wind speeds are due to high speed streams from coronal holes.

The interplanetary magnetic field has been fluctuating at high (|Bz|<20 nT) levels.

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit was at a low level yesterday and is expected to be at a normal level tomorrow.

Visit <u>http://www.spaceweather.gc.ca/sffl-eng.php</u> for the electron forecast.

Geomagnetic

Over the last 24 hours geomagnetic activity has been active with stormy intervals in the polar zone, active with stormy intervals in the auroral zone, and unsettled with stormy intervals in the subauroral zone.

Over the next 24 hours geomagnetic activity is forecast to be active with stormy intervals in the polar zone, active with stormy intervals in the auroral zone, and unsettled with active intervals in the sub-auroral zone.

Visit <u>http://www.spaceweather.gc.ca/sfst-1-eng.php</u> for the magnetic forecast.

Space Weather Bulletin - 2015-06-09 issued at 21:05 UT (16:05 EST)

Summary

There is currently no major storm watch in effect.

See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (20:45 UT)

Geomagnetic Activity:

polar cap zone: active auroral zone: unsettled sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: unavailable

Possible Impacts on Technology:

Aeromagnetic surveys: Potential for disruptions in the polar cap zone.

Directional Drilling: Potential for deviations in the polar cap zone.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: active with stormy intervals auroral zone: active with stormy intervals sub-auroral zone: unsettled

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: moderate

Possible Impacts on Technology:

Geostationary satellites: moderate risk of internal charging.

Aeromagnetic surveys: Potential for disruptions in the polar cap and auroral zones. Directional Drilling: Potential for deviations in the polar cap and auroral zones.

Detailed Information

Solar

Solar activity has been low.

There are 8 active regions visible on the solar disk.

Interplanetary

The solar wind speed is currently moderate (500-700 km/s).

The interplanetary magnetic field has been fluctuating at low (|Bz|<5 nT) levels.

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit for 08 JUN 2015 is unavailable but is expected to be at a moderate level tomorrow.

Visit <u>http://www.spaceweather.gc.ca/sffl-eng.php</u> for the electron forecast.

Geomagnetic

Over the last 24 hours geomagnetic activity has been active with stormy intervals in the polar zone, active with stormy intervals in the auroral zone, and unsettled with active intervals in the subauroral zone.

Over the next 24 hours geomagnetic activity is forecast to be active with stormy intervals in the polar zone, active with stormy intervals in the auroral zone, and unsettled in the sub-auroral zone. Visit <u>http://www.spaceweather.gc.ca/sfst-1-eng.php</u> for the magnetic forecast.

Space Weather Bulletin - 2015-06-10 issued at 21:03 UT (16:03 EST)

Summary

There is currently no major storm watch in effect.

See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (20:45 UT)

Geomagnetic Activity:

polar cap zone: active auroral zone: unsettled sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: unavailable

Possible Impacts on Technology:

Aeromagnetic surveys: Potential for disruptions in the polar cap zone.

Directional Drilling: Potential for deviations in the polar cap zone.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: unsettled with stormy intervals auroral zone: unsettled with active intervals sub-auroral zone: guiet with unsettled intervals

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: moderate

Possible Impacts on Technology:

Geostationary satellites: moderate risk of internal charging.

Detailed Information

Solar

A moderate CME erupted on 09 JUN 2015. It is not yet known if the CME will impact the Earth. There are several active regions visible on the solar disk.

One small coronal hole is located near the centre of the solar disk.

Solar activity has been low.

Interplanetary

The solar wind speed is currently moderate (500-700 km/s).

The interplanetary magnetic field has been fluctuating at low (|Bz|<5 nT) levels.

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit was at a normal level yesterday and is expected to be at a moderate level tomorrow.

Visit <u>http://www.spaceweather.gc.ca/sffl-eng.php</u> for the electron forecast.

Geomagnetic

Over the last 24 hours geomagnetic activity has been active with stormy intervals in the polar zone, active with stormy intervals in the auroral zone, and unsettled with active intervals in the subauroral zone.

Over the next 24 hours geomagnetic activity is forecast to be unsettled with stormy intervals in the polar zone, unsettled with active intervals in the auroral zone, and quiet with unsettled intervals in the sub-auroral zone.

Visit <u>http://www.spaceweather.gc.ca/sfst-1-eng.php</u> for the magnetic forecast.

Space Weather Bulletin - 2015-06-11 issued at 21:22 UT (16:22 EST)

Summary

There is currently no major storm watch in effect.

A CME was observed on 09 JUN 2015, and is expected to deliver a glancing blow to the Earth on 12 JUN 2015, resulting in disturbed geomagnetic activity.

See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (21:15 UT)

Geomagnetic Activity:

polar cap zone: unsettled auroral zone: quiet sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: moderate

Possible Impacts on Technology:

Geostationary satellites: moderate risk of internal charging.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: unsettled with stormy intervals

auroral zone: unsettled with active intervals

sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: moderate

Possible Impacts on Technology:

Geostationary satellites: moderate risk of internal charging.

Aeromagnetic surveys: Potential for disruptions in the polar cap, auroral, and sub-auroral zones. Directional Drilling: Potential for deviations in the polar cap, auroral, and sub-auroral zones.

Detailed Information

Solar

An Earth-directed CME erupted on 09 JUN 2015 and is expected to reach the Earth on 12 JUN 2015, resulting in disturbed geomagnetic activity.

Interplanetary

The solar wind speed is currently moderate (500-700 km/s).

The interplanetary magnetic field has been fluctuating at low (|Bz|<5 nT) levels.

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit was at a moderate level yesterday and is expected to be at a moderate level tomorrow.

Visit http://www.spaceweather.gc.ca/sffl-eng.php for the electron forecast.

Geomagnetic

Over the last 24 hours geomagnetic activity has been active in the polar zone, unsettled with stormy intervals in the auroral zone, and quiet with active intervals in the sub-auroral zone.

Over the next 24 hours geomagnetic activity is forecast to be unsettled with stormy intervals in the polar zone, unsettled with active intervals in the auroral zone, and quiet in the sub-auroral zone. Visit <u>http://www.spaceweather.gc.ca/sfst-1-eng.php</u> for the magnetic forecast.

Space Weather Bulletin - 2015-06-12 issued at 17:17 UT (12:17 EST)

Summary

Stormy conditions are possible in the polar cap, auroral, and sub-auroral zones within the next 24 hours.

There is currently no major storm watch in effect.

See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (17:00 UT)

Geomagnetic Activity:

polar cap zone: stormy auroral zone: unsettled sub-auroral zone: unsettled

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: moderate

Possible Impacts on Technology:

Geostationary satellites: moderate risk of internal charging.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: unsettled with stormy intervals auroral zone: quiet with unsettled intervals

sub-auroral zone: quiet with unsettled intervals

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Aeromagnetic surveys: Potential for disruptions in the polar cap, auroral, and sub-auroral zones. Directional Drilling: Potential for deviations in the polar cap, auroral, and sub-auroral zones.

Detailed Information

Solar

Solar activity has been moderate.

There are several active regions visible on the solar disk.

Interplanetary

The interplanetary magnetic field has been fluctuating at moderate (|Bz|<10 nT) levels. Prolonged periods of negative interplanetary magnetic field are often associated with increased geomagnetic activity.

The solar wind speed is currently slow (400-500 km/s).

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit was at a moderate level yesterday and is expected to be at a normal level tomorrow.

Visit <u>http://www.spaceweather.gc.ca/sffl-eng.php</u> for the electron forecast.

Geomagnetic

Over the last 24 hours geomagnetic activity has been unsettled with stormy intervals in the polar zone, quiet with stormy intervals in the auroral zone, and quiet with unsettled intervals in the sub-auroral zone.

Over the next 24 hours geomagnetic activity is forecast to be unsettled with stormy intervals in the polar zone, quiet with unsettled intervals in the auroral zone, and quiet with unsettled intervals in the sub-auroral zone.

Visit <u>http://www.spaceweather.gc.ca/sfst-1-eng.php</u> for the magnetic forecast.

Space Weather Bulletin - 2015-06-13 issued at 22:56 UT (17:56 EST)

Summary

Stormy conditions are possible in the polar cap, auroral, and sub-auroral zones within the next 24 hours.

There is currently no major storm watch in effect.

See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (22:30 UT) Geomagnetic Activity:

polar cap zone: stormy auroral zone: quiet

sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: moderate

Possible Impacts on Technology:

Geostationary satellites: moderate risk of internal charging.

Directional Drilling: Potential for significant deviations in the polar cap zone.

Aeromagnetic surveys: Potential for significant disruptions in the polar cap zone.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: active with stormy intervals auroral zone: unsettled with active intervals sub-auroral zone: guiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Aeromagnetic surveys: Potential for disruptions in the polar cap zone. Directional Drilling: Potential for deviations in the polar cap zone.

Detailed Information

Solar

Solar activity has been moderate.

Interplanetary

The solar wind speed is currently moderate (500-700 km/s).

The interplanetary magnetic field has been fluctuating at moderate (|Bz|<10 nT) levels. Prolonged periods of negative interplanetary magnetic field are often associated with increased geomagnetic activity.

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit was at a moderate level yesterday and is expected to be at a normal level tomorrow.

Visit <u>http://www.spaceweather.gc.ca/sffl-eng.php</u> for the electron forecast.

Geomagnetic

Over the last 24 hours geomagnetic activity has been active with stormy intervals in the polar zone, unsettled with stormy intervals in the auroral zone, and quiet with unsettled intervals in the subauroral zone.

Over the next 24 hours geomagnetic activity is forecast to be active with stormy intervals in the polar zone, unsettled with active intervals in the auroral zone, and quiet in the sub-auroral zone. Visit <u>http://www.spaceweather.gc.ca/sfst-1-eng.php</u> for the magnetic forecast.

Space Weather Bulletin - 2015-06-14 issued at 22:13 UT (17:13 EST)

Summary

There is currently no major storm watch in effect.

See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (22:00 UT)

Geomagnetic Activity:

polar cap zone: stormy

auroral zone: unsettled

sub-auroral zone: unsettled **Environment at Geostationary orbit:**

nvironnent at Geostational y orbit.

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Aeromagnetic surveys: Potential for significant disruptions in the polar cap zone.

Directional Drilling: Potential for significant deviations in the polar cap zone.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: active with stormy intervals

auroral zone: active with stormy intervals

sub-auroral zone: unsettled

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Impacts are not expected.

Detailed Information

Solar

Solar activity has been moderate.

Interplanetary

The solar wind speed is currently moderate (500-700 km/s).

The interplanetary magnetic field has been fluctuating at moderate (|Bz|<10 nT) levels.

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit was at a moderate level yesterday and is expected to be at a normal level tomorrow.

Visit <u>http://www.spaceweather.gc.ca/sffl-eng.php</u> for the electron forecast.

Geomagnetic

Over the last 24 hours geomagnetic activity has been stormy in the polar zone, unsettled with stormy intervals in the auroral zone, and unsettled with stormy intervals in the sub-auroral zone. Over the next 24 hours geomagnetic activity is forecast to be active with stormy intervals in the polar zone, active with stormy intervals in the auroral zone, and unsettled in the sub-auroral zone. Visit <u>http://www.spaceweather.gc.ca/sfst-1-eng.php</u> for the magnetic forecast.

Space Weather Bulletin - 2015-06-15 issued at 21:23 UT (16:23 EST)

Summary

There is currently no major storm watch in effect.

See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (21:00 UT)

Geomagnetic Activity:

polar cap zone: stormy auroral zone: unsettled sub-auroral zone: guiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: moderate

Possible Impacts on Technology:

Geostationary satellites: moderate risk of internal charging.

Aeromagnetic surveys: Potential for significant disruptions in the polar cap zone.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: active with stormy intervals

auroral zone: active with stormy intervals

sub-auroral zone: quiet with unsettled intervals

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: moderate

Possible Impacts on Technology:

Geostationary satellites: moderate risk of internal charging.

Aeromagnetic surveys: Potential for disruptions in the polar cap and auroral zones.

Directional Drilling: Potential for deviations in the polar cap and auroral zones.

Detailed Information

Solar

Solar activity has been moderate.

Interplanetary

The solar wind speed is currently moderate (500-700 km/s).

The interplanetary magnetic field has been fluctuating at low (|Bz|<5 nT) levels.

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit was at a normal level yesterday and is expected to be at a moderate level tomorrow.

Visit <u>http://www.spaceweather.gc.ca/sffl-eng.php</u> for the electron forecast.

Geomagnetic

Over the last 24 hours geomagnetic activity has been active with stormy intervals in the polar zone, active with stormy intervals in the auroral zone, and unsettled with active intervals in the subauroral zone.

Over the next 24 hours geomagnetic activity is forecast to be active with stormy intervals in the polar zone, active with stormy intervals in the auroral zone, and quiet with unsettled intervals in the sub-auroral zone.

Visit <u>http://www.spaceweather.gc.ca/sfst-1-eng.php</u> for the magnetic forecast.

Space Weather Bulletin - 2015-06-16 issued at 20:12 UT (15:12 EST)

Summary

There is currently no major storm watch in effect.

See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (20:00 UT)

Geomagnetic Activity:

polar cap zone: stormy auroral zone: quiet

sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: moderate

Possible Impacts on Technology:

Power Systems: possibility of weak voltage fluctuations in the polar cap zone. Geostationary satellites: moderate risk of internal charging.

Aeromagnetic surveys: Potential for significant disruptions in the polar cap zone.

Directional Drilling: Potential for significant deviations in the polar cap zone.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: active with stormy intervals auroral zone: unsettled with active intervals sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: moderate

Possible Impacts on Technology:

Power Systems: possibility of weak voltage fluctuations in the polar cap zone. Geostationary satellites: moderate risk of internal charging. Aeromagnetic surveys: Potential for significant disruptions in the polar cap zone. Aeromagnetic surveys: Potential for disruptions in the auroral zone. Directional Drilling: Potential for significant deviations in the polar cap zone.

Directional Drilling: Potential for deviations in the auroral zone.

Detailed Information

Solar

Solar activity has been moderate.

Two coronal holes are located near the edge of the solar disk.

Interplanetary

The solar wind speed has been increasing over the last 2 hours (currently ~ 550 km/s).

The interplanetary magnetic field currently has Bz=5 nT.

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit was at a moderate level yesterday and is expected to be at a moderate level tomorrow.

Visit <u>http://www.spaceweather.gc.ca/sffl-eng.php</u> for the electron forecast.

Geomagnetic

Over the last 24 hours geomagnetic activity has been active with stormy intervals in the polar zone, unsettled with stormy intervals in the auroral zone, and quiet with unsettled intervals in the sub-auroral zone.

Over the next 24 hours geomagnetic activity is forecast to be active with stormy intervals in the polar zone, unsettled with active intervals in the auroral zone, and quiet in the sub-auroral zone. Visit <u>http://www.spaceweather.gc.ca/sfst-1-eng.php</u> for the magnetic forecast.

Space Weather Bulletin - 2015-06-17 issued at 16:07 UT (11:07 EST)

Summary

Stormy conditions are currently observed in the auroral zone.

Stormy conditions are possible in the polar cap and auroral zones within the next 24 hours. See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (15:45 UT)

Geomagnetic Activity:

polar cap zone: active auroral zone: stormy

sub-auroral zone: unsettled

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: moderate

Possible Impacts on Technology:

Power Systems: possibility of weak voltage fluctuations in the auroral zone. Geostationary satellites: moderate risk of internal charging. Aeromagnetic surveys: Potential for significant disruptions in the auroral zone. Directional Drilling: Potential for significant deviations in the auroral zone.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: active with stormy intervals auroral zone: active with stormy intervals

sub-auroral zone: unsettled

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Power Systems: possibility of weak voltage fluctuations in the polar cap and auroral zones. Aeromagnetic surveys: Potential for significant disruptions in the polar cap and auroral zones. Directional Drilling: Potential for significant deviations in the polar cap and auroral zones.

Detailed Information

Solar

Solar activity has been low.

One coronal hole is located near the edge of the solar disk.

Interplanetary

The solar wind speed is currently moderate (500-700 km/s).

The interplanetary magnetic field currently has Bz=2 nT.

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit was at a moderate level yesterday and is expected to be at a normal level tomorrow.

Visit <u>http://www.spaceweather.gc.ca/sffl-eng.php</u> for the electron forecast.

Geomagnetic

Over the last 24 hours geomagnetic activity has been active with stormy intervals in the polar zone, active with stormy intervals in the auroral zone, and unsettled with active intervals in the subauroral zone.

Over the next 24 hours geomagnetic activity is forecast to be active with stormy intervals in the polar zone, active with stormy intervals in the auroral zone, and unsettled in the sub-auroral zone. Visit <u>http://www.spaceweather.gc.ca/sfst-1-eng.php</u> for the magnetic forecast.

Space Weather Bulletin - 2015-06-18 issued at 16:54 UT (11:54 EST)

Summary

There is currently no major storm watch in effect.

See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (16:30 UT)

Geomagnetic Activity:

polar cap zone: active auroral zone: active sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Aeromagnetic surveys: Potential for disruptions in the polar cap and auroral zones. Directional Drilling: Potential for deviations in the polar cap and auroral zones.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: unsettled with stormy intervals auroral zone: unsettled with active intervals

sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: moderate

Possible Impacts on Technology:

Power Systems: possibility of weak voltage fluctuations in the polar cap zone.

Geostationary satellites: moderate risk of internal charging.

Aeromagnetic surveys: Potential for significant disruptions in the polar cap zone.

Aeromagnetic surveys: Potential for disruptions in the auroral zone.

Directional Drilling: Potential for significant deviations in the polar cap zone.

Directional Drilling: Potential for deviations in the auroral zone.

Detailed Information

Solar

A non-Earth-directed CME erupted on 18 JUN 2015 01:25 UT.

One coronal hole is located near the centre of the solar disk.

A long duration M (medium) solar x-ray flare erupted at 18 JUN 2015 01:27 UT near the edge of the solar disk.

Interplanetary

The solar wind speed is currently slow (400-500 km/s).

The interplanetary magnetic field has been fluctuating at low (|Bz|<5 nT) levels.

A solar energetic proton event started on 18 JUN 2015 11:35 UT. Current levels are moderate.

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit was at a normal level yesterday and is expected to be at a moderate level tomorrow.

Visit <u>http://www.spaceweather.gc.ca/sffl-eng.php</u> for the electron forecast.

Geomagnetic

Over the last 24 hours geomagnetic activity has been unsettled with stormy intervals in the polar zone, unsettled with stormy intervals in the auroral zone, and quiet with unsettled intervals in the sub-auroral zone.

Over the next 24 hours geomagnetic activity is forecast to be unsettled with stormy intervals in the polar zone, unsettled with active intervals in the auroral zone, and quiet in the sub-auroral zone. Visit <u>http://www.spaceweather.gc.ca/sfst-1-eng.php</u> for the magnetic forecast.

Space Weather Bulletin - 2015-06-19 issued at 16:11 UT (11:11 EST)

Summary

There is currently no major storm watch in effect.

A CME was observed on 18 JUN 2015, and is expected to deliver a glancing blow to the Earth on 21 JUN 2015, resulting in disturbed geomagnetic activity.

See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (16:00 UT)

Geomagnetic Activity:

polar cap zone: active auroral zone: quiet sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: unavailable

Possible Impacts on Technology:

Aeromagnetic surveys: Potential for disruptions in the polar cap zone.

Directional Drilling: Potential for deviations in the polar cap zone.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: unsettled with stormy intervals auroral zone: quiet with unsettled intervals sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Aeromagnetic surveys: Potential for significant disruptions in the polar cap zone.

Directional Drilling: Potential for significant deviations in the polar cap zone.

Detailed Information

Solar

Solar activity has been high.

A CME was observed on 18 JUN 2015, and is expected to deliver a glancing blow to the Earth on 21 JUN 2015, resulting in disturbed geomagnetic activity.

A slow CME was observed on 19 JUN 2015, and is expected to deliver a glancing blow to the Earth on 24 JUN 2015.

One coronal hole is located near the centre of the solar disk.

A long duration M (medium) solar x-ray flare erupted at 18 JUN 2015 17:36 UT near the edge of the solar disk.

Interplanetary

The solar wind speed is currently very slow (< 400 km/s).

The interplanetary magnetic field has been fluctuating at low (|Bz|<5 nT) levels.

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit for 18 JUN 2015 is unavailable but is expected to be at a normal level tomorrow.

Visit <u>http://www.spaceweather.gc.ca/sffl-eng.php</u> for the electron forecast.

Geomagnetic

Over the last 24 hours geomagnetic activity has been unsettled with stormy intervals in the polar zone, quiet with unsettled intervals in the auroral zone, and quiet with unsettled intervals in the sub-auroral zone.

Over the next 24 hours geomagnetic activity is forecast to be unsettled with stormy intervals in the polar zone, quiet with unsettled intervals in the auroral zone, and quiet in the sub-auroral zone. Visit <u>http://www.spaceweather.gc.ca/sfst-1-eng.php</u> for the magnetic forecast.

Space Weather Bulletin - 2015-06-20 issued at 18:20 UT (13:20 EST) Summary

There is currently no major storm watch in effect.

A CME was observed on 18 JUN 2015, and is expected to deliver a glancing blow to the Earth on 21 JUN 2015, resulting in disturbed geomagnetic activity.

See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (18:00 UT)

Geomagnetic Activity:

polar cap zone: quiet auroral zone: quiet sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: moderate

Possible Impacts on Technology:

Geostationary satellites: moderate risk of internal charging.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: unsettled with stormy intervals auroral zone: quiet with stormy intervals sub-auroral zone: quiet with stormy intervals

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Power Systems: possibility of weak voltage fluctuations in the polar cap, auroral, and sub-auroral zones.

Aeromagnetic surveys: Potential for significant disruptions in the polar cap, auroral, and sub-auroral zones.

Directional Drilling: Potential for significant deviations in the polar cap, auroral, and sub-auroral zones.

Detailed Information

Solar

Solar activity has been moderate.

A CME was observed on 18 JUN 2015, and is expected to deliver a glancing blow to the Earth on 21 JUN 2015, resulting in disturbed geomagnetic activity.

A slow CME was observed on 19 JUN 2015, and is expected to deliver a glancing blow to the Earth on 22-23 JUN 2015.

One coronal hole is located near the centre of the solar disk.

An M (medium) solar x-ray flare erupted 20 JUN 2015 06:50 UT.

Interplanetary

The solar wind speed is currently very slow (< 400 km/s).

The interplanetary magnetic field has been fluctuating at very low (|Bz|<2 nT) levels.

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit was at a moderate level yesterday and is expected to be at a normal level tomorrow.

Visit <u>http://www.spaceweather.gc.ca/sffl-eng.php</u> for the electron forecast.

Geomagnetic

Over the last 24 hours geomagnetic activity has been quiet with unsettled intervals in the polar zone, quiet in the auroral zone, and quiet in the sub-auroral zone.

Over the next 24 hours geomagnetic activity is forecast to be unsettled with stormy intervals in the polar zone, quiet with stormy intervals in the auroral zone, and quiet with stormy intervals in the sub-auroral zone.

Visit <u>http://www.spaceweather.gc.ca/sfst-1-eng.php</u> for the magnetic forecast.

Space Weather Bulletin - 2015-06-21 issued at 17:22 UT (12:22 EST) Summary

An Earth-directed CME erupted on 21 JUN 2015 02:36 UT and is expected to reach the Earth on 22 JUN 2015, resulting in disturbed geomagnetic activity.

See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (17:00 UT)

Geomagnetic Activity:

polar cap zone: stormy auroral zone: unsettled sub-auroral zone: unsettled

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: moderate

Possible Impacts on Technology:

Geostationary satellites: moderate risk of internal charging. Power Systems: possibility of weak voltage fluctuations in the polar cap zone. Aeromagnetic surveys: Potential for significant disruptions in the polar cap zone. Directional Drilling: Potential for significant deviations in the polar cap zone.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: active with stormy intervals

auroral zone: active with stormy intervals

sub-auroral zone: active with stormy intervals

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Power Systems: possibility of weak voltage fluctuations in the polar cap, auroral, and sub-auroral zones.

Aeromagnetic surveys: Potential for significant disruptions in the polar cap, auroral, and sub-auroral zones.

Directional Drilling: Potential for significant deviations in the polar cap, auroral, and sub-auroral zones.

Detailed Information

Solar

Solar activity has been high.

An Earth-directed CME erupted on 21 JUN 2015 02:36 UT and is expected to reach the Earth on 22 JUN 2015, resulting in disturbed geomagnetic activity.

A slow CME was observed on 19 JUN 2015, and is expected to deliver a glancing blow to the Earth on 22 JUN 2015.

One coronal hole is located near the centre of the solar disk.

One coronal hole is located near the edge of the solar disk.

Two medium solar x-ray flares have erupted over the past 24 hours.

Interplanetary

The solar wind speed is currently very slow (< 400 km/s).

The interplanetary magnetic field has been primarily positive at very low (|Bz|<2 nT) levels. An interplanetary shock has been observed on 21 JUN 2015 15:39 UT.

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit was at a moderate level yesterday and is expected to be at a normal level tomorrow.

Visit <u>http://www.spaceweather.gc.ca/sffl-eng.php</u> for the electron forecast.

Geomagnetic

Over the last 24 hours geomagnetic activity has been quiet with unsettled intervals in the polar zone, quiet in the auroral zone, and quiet in the sub-auroral zone.

Over the next 24 hours geomagnetic activity is forecast to be active with stormy intervals in the polar zone, active with stormy intervals in the auroral zone, and active with stormy intervals in the sub-auroral zone.

Visit <u>http://www.spaceweather.gc.ca/sfst-1-eng.php</u> for the magnetic forecast.

Space Weather Bulletin - 2015-06-22 issued at 02:49 UT (21:49 EST)

Summary

A polar cap absorption event is currently in progress for the polar cap and auroral zones from 21 JUN 2015 20:35 UT to 22 JUN 2015 23:00 UT.

See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Possible Impacts on Technology:

HF radio: lonospheric and polar cap absorptions events may affect radio communications for transpolar flights and other arctic operations.

Detailed Information

Interplanetary

A solar energetic proton event started on 21 JUN 2015 20:35 UT. Current levels are moderate.

Space Weather Bulletin - 2015-06-22 issued at 18:02 UT (13:02 EST)

Summary

Disturbed geomagnetic conditions due to solar activity are currently observed in the polar cap, auroral, and sub-auroral zones.

A polar cap absorption event is currently in progress in the polar cap and auroral zones.

An Earth-directed CME erupted on 21 JUN 2015 and is expected to reach the Earth on 22 JUN 2015, resulting in disturbed geomagnetic activity.

See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (17:45 UT)

Geomagnetic Activity:

polar cap zone: stormy auroral zone: stormy sub-auroral zone: active

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: unavailable

Possible Impacts on Technology:

Power Systems: possibility of weak voltage fluctuations in the polar cap and auroral zones. HF radio: lonospheric and polar cap absorptions events may affect radio communications for transpolar flights and other arctic operations.

Aeromagnetic surveys: Potential for significant disruptions in the polar cap and auroral zones. Directional Drilling: Potential for significant deviations in the polar cap and auroral zones.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: active with stormy intervals auroral zone: active with stormy intervals sub-auroral zone: unsettled with active intervals

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Power Systems: possibility of weak voltage fluctuations in the polar cap and auroral zones. HF radio: lonospheric and polar cap absorptions events may affect radio communications for transpolar flights and other arctic operations.

Aeromagnetic surveys: Potential for significant disruptions in the polar cap and auroral zones.

Directional Drilling: Potential for significant deviations in the polar cap and auroral zones.

Detailed Information

Solar

Solar activity has been moderate.

An Earth-directed CME erupted on 21 JUN 2015 02:36 UT and is expected to reach the Earth on 22 JUN 2015, resulting in disturbed geomagnetic activity.

Two coronal holes are located near the centre of the solar disk.

An M (medium) solar x-ray flare erupted 21 JUN 2015 18:20 UT.

Interplanetary

The solar wind speed is currently slow (400-500 km/s).

The interplanetary magnetic field has been fluctuating at moderate (|Bz|<10 nT) levels.

An interplanetary shock has been observed on 21 JUN 2015 15:39 UT.

An interplanetary shock has been observed on 22 JUN 2015 04:50 UT.

A solar energetic proton event started on 21 JUN 2015 20:35 UT. Current levels are high.

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit was at a moderate level yesterday and is expected to be at a normal level tomorrow.

Visit <u>http://www.spaceweather.gc.ca/sffl-eng.php</u> for the electron forecast.

Geomagnetic

Over the last 24 hours geomagnetic activity has been active with stormy intervals in the polar zone, unsettled with stormy intervals in the auroral zone, and unsettled with stormy intervals in the sub-auroral zone.

Over the next 24 hours geomagnetic activity is forecast to be active with stormy intervals in the polar zone, active with stormy intervals in the auroral zone, and unsettled with active intervals in the sub-auroral zone.

Enhanced geomagnetic activity is likely associated with the arrival of a CME that erupted 18 JUN 2015 17:36 UT and reached the Earth at 21 JUN 2015 16:50 UT.

Enhanced geomagnetic activity is likely associated with the arrival of a CME that erupted 19 JUN 2015 06:42 UT and reached the Earth at 22 JUN 2015 05:45 UT.

Visit <u>http://www.spaceweather.gc.ca/sfst-1-eng.php</u> for the magnetic forecast.

Space Weather Bulletin - 2015-06-23 issued at 03:43 UT (22:43 EST) Summary

A major storm WATCH is in effect for the polar cap, auroral, and sub-auroral zones from June 23 2015 03:30 UT to June 23 2015 05:40 UT.

See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (03:30 UT)

Geomagnetic Activity:

polar cap zone: stormy auroral zone: active sub-auroral zone: major storm

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: moderate

Possible Impacts on Technology:

Power Systems: possibility of weak voltage fluctuations in the auroral and sub-auroral zones. Aeromagnetic surveys: Potential for significant disruptions in the polar cap, auroral, and sub-auroral zones.

Directional Drilling: Potential for significant deviations in the polar cap, auroral, and sub-auroral zones.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: stormy with major storm watch auroral zone: stormy with major storm watch sub-auroral zone: major storm

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: high

Possible Impacts on Technology:

Power Systems: possibility of weak voltage fluctuations in the auroral zone.

Aeromagnetic surveys: Potential for disruptions in the polar cap, auroral, and sub-auroral zones.

Directional Drilling: Potential for deviations in the polar cap, auroral, and sub-auroral zones.

Detailed Information

Solar

Solar activity has been high.

Interplanetary

Interplanetary activity has been very high.

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit for 22 JUN 2015 is unavailable but is expected to be at a high level tomorrow.

Visit <u>http://www.spaceweather.gc.ca/sffl-eng.php</u> for the electron forecast.

Geomagnetic

Over the last 24 hours geomagnetic activity has been stormy with major storm intervals in the polar zone, stormy with major storm intervals in the auroral zone, and active with major storm intervals in the sub-auroral zone.

Over the next 24 hours geomagnetic activity is forecast to be stormy with major storm watch in the polar zone, stormy with major storm watch in the auroral zone, and major storm in the sub-auroral zone.

Visit <u>http://www.spaceweather.gc.ca/sfst-1-eng.php</u> for the magnetic forecast.

Space Weather Bulletin - 2015-06-23 issued at 19:31 UT (14:31 EST)

Summary

Stormy conditions are possible in the polar cap, auroral, and sub-auroral zones within the next 24 hours.

A polar cap absorption event is currently in progress in the polar cap and auroral zones.

An Earth-directed CME erupted on 22 JUN 2015 18:36 UT and is expected to reach the Earth on 24-25 JUN 2015, resulting in disturbed geomagnetic activity.

See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (19:00 UT)

Geomagnetic Activity:

polar cap zone: stormy auroral zone: unsettled

sub-auroral zone: unsettled

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Power Systems: possibility of weak voltage fluctuations in the polar cap zone.

HF radio: lonospheric and polar cap absorptions events may affect radio communications for transpolar flights and other arctic operations.

Aeromagnetic surveys: Potential for significant disruptions in the polar cap zone.

Directional Drilling: Potential for significant deviations in the polar cap zone.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: stormy with major storm intervals

auroral zone: stormy

sub-auroral zone: stormy

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: high

Possible Impacts on Technology:

Power Systems: geomagnetic induced currents may cause misoperation of protective relays and transformer heating in the polar cap zone.

Power Systems: possibility of weak voltage fluctuations in the auroral and sub-auroral zones. HF radio: lonospheric and polar cap absorptions events may affect radio communications for transpolar flights and other arctic operations.

Geostationary satellites: high risk of internal charging.

Aeromagnetic surveys: Potential for severe disruptions in the polar cap zone.

Aeromagnetic surveys: Potential for significant disruptions in the auroral and sub-auroral zones. Directional Drilling: Potential for severe deviations in the polar cap zone.

Directional Drilling: Potential for significant deviations in the auroral and sub-auroral zones.

Detailed Information

Solar

Solar activity has been moderate.

An Earth-directed CME erupted on 22 JUN 2015 18:36 UT and is expected to reach the Earth on 24-25 JUN 2015, resulting in disturbed geomagnetic activity.

One coronal hole is located near the centre of the solar disk.

One coronal hole is located near the edge of the solar disk.

A long duration M (medium) solar x-ray flare erupted at 22 JUN 2015 17:50 UT near the centre of the solar disk.

Interplanetary

The solar wind speed is currently moderate (500-700 km/s).

Moderate solar wind speeds are due to a CME observed at 21 JUN 2015 02:36 UT.

The interplanetary magnetic field currently has Bz=-2 nT nT.

A solar energetic proton event started on 21 JUN 2015 20:35 UT. Current levels are moderate.

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit for 22 JUN 2015 is unavailable but is expected to be at a high level tomorrow.

Visit <u>http://www.spaceweather.gc.ca/sffl-eng.php</u> for the electron forecast.

Geomagnetic

Over the last 24 hours geomagnetic activity has been stormy with major storm intervals in the polar zone, stormy with major storm intervals in the auroral zone, and stormy with major storm intervals in the sub-auroral zone.

Over the next 24 hours geomagnetic activity is forecast to be stormy with major storm intervals in the polar zone, stormy in the auroral zone, and stormy in the sub-auroral zone.

Enhanced geomagnetic activity was likely associated with the arrival of a CME that erupted 21 JUN 2015 02:36 UT and reached the Earth at 22 JUN 2015 18:37 UT.

Visit <u>http://www.spaceweather.gc.ca/sfst-1-eng.php</u> for the magnetic forecast.

Space Weather Bulletin - 2015-06-24 issued at 17:21 UT (12:21 EST) Summary

There is currently no major storm watch in effect.

The polar cap absorption event that began 21 JUN 2015 in the polar cap and auroral zones ended 24 JUNE 2015.

See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (17:00 UT)

Geomagnetic Activity:

polar cap zone: stormy auroral zone: unsettled sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: moderate

Possible Impacts on Technology:

Power Systems: possibility of weak voltage fluctuations in the polar cap zone. Geostationary satellites: moderate risk of internal charging.

Aeromagnetic surveys: Potential for significant disruptions in the polar cap zone.

Directional Drilling: Potential for significant deviations in the polar cap zone.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: stormy auroral zone: active with stormy intervals sub-auroral zone: unsettled

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: high

Possible Impacts on Technology:

Power Systems: possibility of weak voltage fluctuations in the polar cap and auroral zones. Geostationary satellites: high risk of internal charging.

Aeromagnetic surveys: Potential for significant disruptions in the polar cap and auroral zones.

Directional Drilling: Potential for significant deviations in the polar cap and auroral zones.

Detailed Information

Solar

Solar activity has been low.

One coronal hole is located near the centre of the solar disk.

One coronal hole is located near the edge of the solar disk.

Interplanetary

The solar wind speed is currently fast (700-1000 km/s).

Fast solar wind speeds are due to a CME observed at 22 JUN 2015 18:36 UT.

The interplanetary magnetic field has been fluctuating at low (|Bz|<5 nT) levels.

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit was at a normal level yesterday and is expected to be at a high level tomorrow.

Visit http://www.spaceweather.gc.ca/sffl-eng.php for the electron forecast.

Geomagnetic

Over the last 24 hours geomagnetic activity has been active with major storm intervals in the polar zone, active with stormy intervals in the auroral zone, and unsettled with active intervals in the sub-auroral zone.

Over the next 24 hours geomagnetic activity is forecast to be stormy in the polar zone, active with stormy intervals in the auroral zone, and unsettled in the sub-auroral zone.

Visit <u>http://www.spaceweather.gc.ca/sfst-1-eng.php</u> for the magnetic forecast.

Space Weather Bulletin - 2015-06-25 issued at 17:30 UT (12:30 EST)

Summary

Stormy conditions are currently observed in the auroral zone.

Stormy conditions are possible in the polar cap, auroral, and sub-auroral zones within the next 24 hours.

A fast Earth-directed CME has erupted over the past 24 hours.

A medium long duration solar x-ray flare has erupted over the past 24 hours.

See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (17:00 UT)

Geomagnetic Activity:

polar cap zone: active

auroral zone: stormy sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: moderate

Possible Impacts on Technology:

Power Systems: possibility of weak voltage fluctuations in the auroral zone. Geostationary satellites: moderate risk of internal charging. Aeromagnetic surveys: Potential for significant disruptions in the auroral zone.

Directional Drilling: Potential for significant deviations in the auroral zone.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: stormy

auroral zone: active with stormy intervals

sub-auroral zone: unsettled with stormy intervals

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: moderate

Possible Impacts on Technology:

Power Systems: possibility of weak voltage fluctuations in the polar cap, auroral, and sub-auroral zones.

Geostationary satellites: moderate risk of internal charging.

Aeromagnetic surveys: Potential for significant disruptions in the polar cap, auroral, and sub-auroral zones.

Directional Drilling: Potential for significant deviations in the polar cap, auroral, and sub-auroral zones.

Detailed Information

Solar

Solar activity has been moderate.

A fast Earth-directed CME erupted on 25 JUN 2015 08:16 UT and is expected to reach the Earth on 26 JUN 2015, resulting in disturbed geomagnetic activity.

One coronal hole is located near the centre of the solar disk.

One coronal hole is located near the edge of the solar disk.

A long duration M (medium) solar x-ray flare erupted at 25 JUN 2015 08:16 UT near the edge of the solar disk.

Interplanetary

The solar wind speed is currently moderate (500-700 km/s).

The interplanetary magnetic field has been fluctuating at low (|Bz|<5 nT) levels.

Moderate solar wind speeds are due to a CME observed at 22 JUN 2015 18:36 UT.

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit was at a high level yesterday and is expected to be at a moderate level tomorrow.

Visit <u>http://www.spaceweather.gc.ca/sffl-eng.php</u> for the electron forecast.

Geomagnetic

Over the last 24 hours geomagnetic activity has been stormy with major storm intervals in the polar zone, unsettled with major storm intervals in the auroral zone, and quiet with stormy intervals in the sub-auroral zone.

Over the next 24 hours geomagnetic activity is forecast to be stormy in the polar zone, active with stormy intervals in the auroral zone, and unsettled with stormy intervals in the sub-auroral zone.

Enhanced geomagnetic activity is likely associated with the arrival of a CME that erupted 22 JUN 2015 18:36 UT and reached the Earth at 24 JUN 2015.

Visit <u>http://www.spaceweather.gc.ca/sfst-1-eng.php</u> for the magnetic forecast.

Space Weather Bulletin - 2015-06-26 issued at 17:10 UT (12:10 EST) Summary

A fast Earth-directed CME erupted on 25 JUN 2015 08:16 UT and is expected to reach the Earth on 26 JUN 2015, resulting in disturbed geomagnetic activity.

A polar cap absorption event is possible.

See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (16:45 UT)

Geomagnetic Activity:

polar cap zone: unsettled auroral zone: quiet

sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: moderate

Possible Impacts on Technology:

Geostationary satellites: moderate risk of internal charging.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: unsettled with active intervals auroral zone: unsettled with active intervals

sub-auroral zone: quiet with unsettled intervals

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: moderate

Possible Impacts on Technology:

Geostationary satellites: moderate risk of internal charging. Aeromagnetic surveys: Potential for disruptions in the polar cap and auroral zones. Directional Drilling: Potential for deviations in the polar cap and auroral zones. HF radio: lonospheric and polar cap absorptions events may affect radio communications for transpolar flights and other arctic operations.

Detailed Information

Solar

Solar activity has been low.

A fast Earth-directed CME erupted on 25 JUN 2015 08:16 UT and is expected to reach the Earth on 26 JUN 2015, resulting in disturbed geomagnetic activity.

Two coronal holes are located near the edge of the solar disk.

Interplanetary

The solar wind speed is currently slow (400-500 km/s).

The interplanetary magnetic field has been fluctuating at very low (|Bz|<2 nT) levels.

A solar energetic proton event started on 26 JUN 2015 02:30 UT. Current levels are moderate.

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit was at a moderate level yesterday and is expected to be at a moderate level tomorrow.

Visit <u>http://www.spaceweather.gc.ca/sffl-eng.php</u> for the electron forecast.

Geomagnetic

Over the last 24 hours geomagnetic activity has been unsettled with stormy intervals in the polar zone, unsettled with stormy intervals in the auroral zone, and quiet with unsettled intervals in the sub-auroral zone.

Over the next 24 hours geomagnetic activity is forecast to be unsettled with active intervals in the polar zone, unsettled with active intervals in the auroral zone, and quiet with unsettled intervals in the sub-auroral zone.

Visit <u>http://www.spaceweather.gc.ca/sfst-1-eng.php</u> for the magnetic forecast.

Space Weather Bulletin - 2015-06-27 issued at 17:02 UT (12:02 EST)

Summary

There is currently no major storm watch in effect.

See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (16:45 UT)

Geomagnetic Activity:

polar cap zone: stormy auroral zone: quiet sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: moderate

Possible Impacts on Technology:

Power Systems: possibility of weak voltage fluctuations in the polar cap zone. Geostationary satellites: moderate risk of internal charging. Aeromagnetic surveys: Potential for significant disruptions in the polar cap zone. Directional Drilling: Potential for significant deviations in the polar cap zone.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: active with stormy intervals auroral zone: unsettled sub-auroral zone: guiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Power Systems: possibility of weak voltage fluctuations in the polar cap zone. Aeromagnetic surveys: Potential for significant disruptions in the polar cap zone. Directional Drilling: Potential for significant deviations in the polar cap zone.

Detailed Information

Solar

Solar activity has been low.

One small coronal hole is located near the centre of the solar disk. Two coronal holes are located near the edge of the solar disk.

Interplanetary

The solar wind speed is currently moderate (500-700 km/s).

Moderate solar wind speeds are due to a CME observed at 25 JUN 2015 08:16 UT.

The interplanetary magnetic field has been primarily positive at low (|Bz|<5 nT) levels.

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit was at a moderate level yesterday and is expected to be at a normal level tomorrow.

Visit <u>http://www.spaceweather.gc.ca/sffl-eng.php</u> for the electron forecast.

Geomagnetic

Over the last 24 hours geomagnetic activity has been active with stormy intervals in the polar zone, quiet with active intervals in the auroral zone, and quiet with unsettled intervals in the sub-auroral zone.

Over the next 24 hours geomagnetic activity is forecast to be active with stormy intervals in the polar zone, unsettled in the auroral zone, and quiet in the sub-auroral zone.

Visit <u>http://www.spaceweather.gc.ca/sfst-1-eng.php</u> for the magnetic forecast.

Space Weather Bulletin - 2015-06-28 issued at 17:49 UT (12:49 EST)

Summary

There is currently no major storm watch in effect.

See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (17:30 UT)

Geomagnetic Activity:

polar cap zone: unsettled auroral zone: quiet

sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: moderate

Possible Impacts on Technology:

Geostationary satellites: moderate risk of internal charging.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: unsettled with stormy intervals auroral zone: active sub-auroral zone: guiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Power Systems: possibility of weak voltage fluctuations in the polar cap zone. Aeromagnetic surveys: Potential for significant disruptions in the polar cap zone. Directional Drilling: Potential for significant deviations in the polar cap zone.

Detailed Information

Solar

Solar activity has been low. One small coronal hole is located near the centre of the solar disk.
One coronal hole is located near the edge of the solar disk.

Interplanetary

The solar wind speed is currently slow (400-500 km/s).

The interplanetary magnetic field has been fluctuating at low (|Bz|<5 nT) levels.

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit was at a moderate level yesterday and is expected to be at a normal level tomorrow.

Visit <u>http://www.spaceweather.gc.ca/sffl-eng.php</u> for the electron forecast.

Geomagnetic

Over the last 24 hours geomagnetic activity has been active with stormy intervals in the polar zone, active with stormy intervals in the auroral zone, and quiet with unsettled intervals in the sub-auroral zone.

Over the next 24 hours geomagnetic activity is forecast to be unsettled with stormy intervals in the polar zone, active in the auroral zone, and quiet in the sub-auroral zone.

Visit <u>http://www.spaceweather.gc.ca/sfst-1-eng.php</u> for the magnetic forecast.

Space Weather Bulletin - 2015-06-29 issued at 16:23 UT (11:23 EST)

Summary

There is currently no major storm watch in effect.

See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (16:00 UT)

Geomagnetic Activity:

polar cap zone: unsettled auroral zone: unsettled

sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: moderate

Possible Impacts on Technology:

Geostationary satellites: moderate risk of internal charging.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: unsettled with stormy intervals auroral zone: unsettled sub-auroral zone: guiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: moderate

Possible Impacts on Technology:

Power Systems: possibility of weak voltage fluctuations in the polar cap zone. Geostationary satellites: moderate risk of internal charging.

Aeromagnetic surveys: Potential for significant disruptions in the polar cap zone.

Directional Drilling: Potential for significant deviations in the polar cap zone.

Detailed Information

Solar

Solar activity has been low.

One small coronal hole is located near the centre of the solar disk.

Two coronal holes are located near the edge of the solar disk.

Interplanetary

The solar wind speed is currently very slow (< 400 km/s).

The interplanetary magnetic field has been fluctuating at low (|Bz|<5 nT) levels.

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit was at a moderate level yesterday and is expected to be at a moderate level tomorrow.

Visit <u>http://www.spaceweather.gc.ca/sffl-eng.php</u> for the electron forecast.

Geomagnetic

Over the last 24 hours geomagnetic activity has been unsettled with stormy intervals in the polar zone, quiet with stormy intervals in the auroral zone, and quiet with unsettled intervals in the sub-auroral zone.

Over the next 24 hours geomagnetic activity is forecast to be unsettled with stormy intervals in the polar zone, unsettled in the auroral zone, and quiet in the sub-auroral zone.

Visit <u>http://www.spaceweather.gc.ca/sfst-1-eng.php</u> for the magnetic forecast.

Space Weather Bulletin - 2015-06-30 issued at 19:05 UT (14:05 EST)

Summary

There is currently no major storm watch in effect.

See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (18:45 UT)

Geomagnetic Activity:

polar cap zone: unsettled auroral zone: quiet sub-auroral zone: unsettled

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: moderate

Possible Impacts on Technology:

Geostationary satellites: moderate risk of internal charging.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: unsettled with active intervals auroral zone: quiet sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Impacts are not expected.

Detailed Information

Solar

Solar activity has been low.

Interplanetary

Interplanetary activity has been low.

The solar wind speed is currently very slow (< 400 km/s).

The interplanetary magnetic field has been fluctuating at low (|Bz|<5 nT) levels.

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit was at a moderate level yesterday and is expected to be at a normal level tomorrow.

Visit <u>http://www.spaceweather.gc.ca/sffl-eng.php</u> for the electron forecast.

Geomagnetic

Over the last 24 hours geomagnetic activity has been quiet with stormy intervals in the polar zone, quiet with active intervals in the auroral zone, and quiet in the sub-auroral zone.

Over the next 24 hours geomagnetic activity is forecast to be unsettled with active intervals in the polar zone, quiet in the auroral zone, and quiet in the sub-auroral zone.

Visit <u>http://www.spaceweather.gc.ca/sfst-1-eng.php</u> for the magnetic forecast.

Space Weather Bulletin - 2015-07-01 issued at 18:06 UT (13:06 EST)

Summary

There is currently no major storm watch in effect.

See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (17:45 UT)

Geomagnetic Activity:

polar cap zone: stormy auroral zone: quiet

sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: moderate

Possible Impacts on Technology:

Geostationary satellites: moderate risk of internal charging. Aeromagnetic surveys: Potential for significant disruptions in the polar cap zone. Directional Drilling: Potential for significant deviations in the polar cap zone.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: unsettled with stormy intervals auroral zone: quiet

auroral zone. quiet

sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Impacts are not expected.

Detailed Information

Solar

Solar activity has been low.

Interplanetary

Interplanetary activity has been low.

The solar wind speed is currently slow (400-500 km/s).

The interplanetary magnetic field has been fluctuating at low (|Bz|<5 nT) levels.

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit was at a moderate level yesterday and is expected to be at a normal level tomorrow.

Visit http://www.spaceweather.gc.ca/sffl-eng.php for the electron forecast.

Geomagnetic

Over the last 24 hours geomagnetic activity has been unsettled with stormy intervals in the polar zone, quiet with unsettled intervals in the auroral zone, and quiet with unsettled intervals in the sub-auroral zone.

Over the next 24 hours geomagnetic activity is forecast to be unsettled with stormy intervals in the polar zone, quiet in the auroral zone, and quiet in the sub-auroral zone.

Visit <u>http://www.spaceweather.gc.ca/sfst-1-eng.php</u> for the magnetic forecast.

Space Weather Bulletin - 2015-07-02 issued at 17:24 UT (12:24 EST)

Summary

There is currently no major storm watch in effect.

See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (17:15 UT)

Geomagnetic Activity:

polar cap zone: quiet auroral zone: quiet sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: moderate

Possible Impacts on Technology:

Geostationary satellites: moderate risk of internal charging.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: quiet with unsettled intervals auroral zone: quiet sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Impacts are not expected.

Detailed Information

Solar

Solar activity has been low.

One medium coronal hole is located near the centre of the solar disk.

Interplanetary

Interplanetary activity has been low.

The solar wind speed is currently very slow (< 400 km/s).

The interplanetary magnetic field has been fluctuating at low (|Bz|<5 nT) levels.

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit was at a moderate level yesterday and is expected to be at a normal level tomorrow.

Visit <u>http://www.spaceweather.gc.ca/sffl-eng.php</u> for the electron forecast.

Geomagnetic

Over the last 24 hours geomagnetic activity has been quiet with stormy intervals in the polar zone, quiet with unsettled intervals in the auroral zone, and quiet in the sub-auroral zone.

Over the next 24 hours geomagnetic activity is forecast to be quiet with unsettled intervals in the polar zone, quiet in the auroral zone, and quiet in the sub-auroral zone.

Visit <u>http://www.spaceweather.gc.ca/sfst-1-eng.php</u> for the magnetic forecast.

Space Weather Bulletin - 2015-07-03 issued at 17:22 UT (12:22 EST) Summary

There is currently no major storm watch in effect.

See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (17:15 UT)

Geomagnetic Activity:

polar cap zone: unsettled auroral zone: quiet

sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: moderate

Possible Impacts on Technology:

Geostationary satellites: moderate risk of internal charging.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: quiet with unsettled intervals auroral zone: quiet sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Impacts are not expected.

Detailed Information

Solar

Solar activity has been low.

One medium coronal hole is located near the centre of the solar disk.

Interplanetary

Interplanetary activity has been low.

The solar wind speed is currently very slow (< 400 km/s).

The interplanetary magnetic field has been fluctuating at low (|Bz|<5 nT) levels.

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit was at a moderate level yesterday and is expected to be at a normal level tomorrow.

Visit <u>http://www.spaceweather.gc.ca/sffl-eng.php</u> for the electron forecast.

Over the last 24 hours geomagnetic activity has been quiet with active intervals in the polar zone, quiet in the auroral zone, and quiet with unsettled intervals in the sub-auroral zone.

Over the next 24 hours geomagnetic activity is forecast to be quiet with unsettled intervals in the polar zone, quiet in the auroral zone, and quiet in the sub-auroral zone.

Visit <u>http://www.spaceweather.gc.ca/sfst-1-eng.php</u> for the magnetic forecast.

Space Weather Bulletin - 2015-07-04 issued at 16:29 UT (11:29 EST)

Summary

There is currently no major storm watch in effect.

See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (16:15 UT)

Geomagnetic Activity:

polar cap zone: stormy auroral zone: unsettled sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: moderate

Possible Impacts on Technology:

Geostationary satellites: moderate risk of internal charging. Aeromagnetic surveys: Potential for significant disruptions in the polar cap zone. Directional Drilling: Potential for significant deviations in the polar cap zone.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: unsettled with stormy intervals auroral zone: quiet sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Impacts are not expected.

Detailed Information

Solar

Solar activity has been low.

One medium coronal hole is located near the centre of the solar disk.

Interplanetary

Interplanetary activity has been moderate.

The solar wind speed is currently slow (400-500 km/s).

The interplanetary magnetic field has been fluctuating at high (|Bz|<20 nT) levels.

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit was at a moderate level yesterday and is expected to be at a normal level tomorrow.

Visit <u>http://www.spaceweather.gc.ca/sffl-eng.php</u> for the electron forecast.

Over the last 24 hours geomagnetic activity has been quiet with stormy intervals in the polar zone, quiet with stormy intervals in the auroral zone, and quiet with unsettled intervals in the subauroral zone.

Over the next 24 hours geomagnetic activity is forecast to be unsettled with stormy intervals in the polar zone, quiet in the auroral zone, and quiet in the sub-auroral zone.

Visit <u>http://www.spaceweather.gc.ca/sfst-1-eng.php</u> for the magnetic forecast.

Space Weather Bulletin - 2015-07-05 issued at 17:31 UT (12:31 EST)

Summary

There is currently no major storm watch in effect.

See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (17:15 UT)

Geomagnetic Activity:

polar cap zone: stormy auroral zone: unsettled sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Aeromagnetic surveys: Potential for significant disruptions in the polar cap zone.

Directional Drilling: Potential for significant deviations in the polar cap zone.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: active with stormy intervals auroral zone: active with stormy intervals sub-auroral zone: unsettled with active intervals

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Impacts are not expected.

Detailed Information

Solar

Solar activity has been low.

Interplanetary

Interplanetary activity has been moderate.

The solar wind speed is currently moderate (500-700 km/s).

Moderate solar wind speeds are due to high speed streams from coronal holes.

The interplanetary magnetic field has been fluctuating at moderate (|Bz|<10 nT) levels.

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit was at a moderate level yesterday and is expected to be at a normal level tomorrow.

Visit <u>http://www.spaceweather.gc.ca/sffl-eng.php</u> for the electron forecast.

Over the last 24 hours geomagnetic activity has been active with stormy intervals in the polar zone, active with stormy intervals in the auroral zone, and unsettled with stormy intervals in the subauroral zone.

Over the next 24 hours geomagnetic activity is forecast to be active with stormy intervals in the polar zone, active with stormy intervals in the auroral zone, and unsettled with active intervals in the sub-auroral zone.

Visit <u>http://www.spaceweather.gc.ca/sfst-1-eng.php</u> for the magnetic forecast.

Space Weather Bulletin - 2015-07-06 issued at 17:45 UT (12:45 EST)

Summary

There is currently no major storm watch in effect.

See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (17:30 UT)

Geomagnetic Activity:

polar cap zone: active auroral zone: quiet

sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Aeromagnetic surveys: Potential for disruptions in the polar cap zone.

Directional Drilling: Potential for deviations in the polar cap zone.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: unsettled with stormy intervals auroral zone: unsettled with active intervals

sub-auroral zone: quiet with unsettled intervals

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: moderate

Possible Impacts on Technology:

Geostationary satellites: moderate risk of internal charging.

Detailed Information

Solar

Solar activity has been low.

Interplanetary

Interplanetary activity has been low.

The solar wind speed is currently slow (400-500 km/s).

The interplanetary magnetic field has been fluctuating at low (|Bz|<5 nT) levels.

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit was at a low level yesterday and is expected to be at a moderate level tomorrow.

Visit <u>http://www.spaceweather.gc.ca/sffl-eng.php</u> for the electron forecast.

Over the last 24 hours geomagnetic activity has been unsettled with stormy intervals in the polar zone, unsettled with stormy intervals in the auroral zone, and quiet with stormy intervals in the sub-auroral zone.

Over the next 24 hours geomagnetic activity is forecast to be unsettled with stormy intervals in the polar zone, unsettled with active intervals in the auroral zone, and quiet with unsettled intervals in the sub-auroral zone.

Visit <u>http://www.spaceweather.gc.ca/sfst-1-eng.php</u> for the magnetic forecast.

Space Weather Bulletin - 2015-07-07 issued at 17:06 UT (12:06 EST)

Summary

There is currently no major storm watch in effect.

See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (16:45 UT)

Geomagnetic Activity:

polar cap zone: active auroral zone: quiet

sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Aeromagnetic surveys: Potential for disruptions in the polar cap zone.

Directional Drilling: Potential for deviations in the polar cap zone.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: unsettled with active intervals

auroral zone: quiet

sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Impacts are not expected.

Detailed Information

Solar

Solar activity has been moderate.

One medium coronal hole is located near the centre of the solar disk.

Interplanetary

Interplanetary activity has been low.

The solar wind speed is currently slow (400-500 km/s).

The interplanetary magnetic field has been fluctuating at low (|Bz|<5 nT) levels.

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit was at a normal level yesterday and is expected to be at a normal level tomorrow.

Visit <u>http://www.spaceweather.gc.ca/sffl-eng.php</u> for the electron forecast.

Over the last 24 hours geomagnetic activity has been unsettled with stormy intervals in the polar zone, quiet with active intervals in the auroral zone, and quiet with unsettled intervals in the sub-auroral zone.

Over the next 24 hours geomagnetic activity is forecast to be unsettled with active intervals in the polar zone, quiet in the auroral zone, and quiet in the sub-auroral zone.

Visit <u>http://www.spaceweather.gc.ca/sfst-1-eng.php</u> for the magnetic forecast.

Space Weather Bulletin - 2015-07-08 issued at 17:38 UT (12:38 EST)

Summary

There is currently no major storm watch in effect.

See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (17:30 UT)

Geomagnetic Activity:

polar cap zone: unsettled

auroral zone: quiet

sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Impacts are not expected.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: quiet with active intervals auroral zone: quiet sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Impacts are not expected.

Detailed Information

Solar

Solar activity has been low.

Interplanetary

Interplanetary activity has been low.

The solar wind speed is currently very slow (< 400 km/s).

The interplanetary magnetic field has been fluctuating at low (|Bz|<5 nT) levels.

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit was at a normal level yesterday and is expected to be at a normal level tomorrow.

Visit <u>http://www.spaceweather.gc.ca/sffl-eng.php</u> for the electron forecast.

Geomagnetic

Over the last 24 hours geomagnetic activity has been unsettled with active intervals in the polar zone, quiet with unsettled intervals in the auroral zone, and quiet with unsettled intervals in the sub-auroral zone.

Over the next 24 hours geomagnetic activity is forecast to be guiet with active intervals in the polar zone, quiet in the auroral zone, and quiet in the sub-auroral zone.

Visit http://www.spaceweather.gc.ca/sfst-1-eng.php for the magnetic forecast.

Space Weather Bulletin - 2015-07-09 issued at 18:06 UT (13:06 EST) Summary

There is currently no major storm watch in effect.

See our website for current information: http://www.spaceweather.gc.ca (updated every 15 minutes)

Current Conditions (17:45 UT)

Geomagnetic Activity:

polar cap zone: active auroral zone: quiet sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Aeromagnetic surveys: Potential for disruptions in the polar cap zone.

Directional Drilling: Potential for deviations in the polar cap zone.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: quiet with active intervals auroral zone: guiet with unsettled intervals sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Impacts are not expected.

Detailed Information

Solar

Solar activity has been low.

Interplanetary

Interplanetary activity has been low.

The solar wind speed is currently very slow (< 400 km/s).

The interplanetary magnetic field has been fluctuating at low (|Bz|<5 nT) levels.

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit was at a normal level yesterday and is expected to be at a normal level tomorrow.

Visit http://www.spaceweather.gc.ca/sffl-eng.php for the electron forecast.

Geomagnetic

Over the last 24 hours geomagnetic activity has been unsettled with active intervals in the polar zone, guiet with unsettled intervals in the auroral zone, and guiet with unsettled intervals in the sub-auroral zone.

Over the next 24 hours geomagnetic activity is forecast to be guiet with active intervals in the polar zone, quiet with unsettled intervals in the auroral zone, and quiet in the sub-auroral zone.

Visit <u>http://www.spaceweather.gc.ca/sfst-1-eng.php</u> for the magnetic forecast.

Space Weather Bulletin - 2015-07-10 issued at 17:57 UT (12:57 EST)

Summary

There is currently no major storm watch in effect.

See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (17:45 UT)

Geomagnetic Activity:

polar cap zone: active auroral zone: quiet sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: moderate

Possible Impacts on Technology:

Aeromagnetic surveys: Potential for disruptions in the polar cap zone. Directional Drilling: Potential for deviations in the polar cap zone.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: quiet with active intervals auroral zone: quiet

sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Impacts are not expected.

Detailed Information

Solar

Solar activity has been low.

Interplanetary

Interplanetary activity has been low.

The solar wind speed is currently slow (400-500 km/s).

The interplanetary magnetic field has been fluctuating at moderate (|Bz|<10 nT) levels.

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit was at a moderate level yesterday and is expected to be at a normal level tomorrow.

Visit <u>http://www.spaceweather.gc.ca/sffl-eng.php</u> for the electron forecast.

Geomagnetic

Over the last 24 hours geomagnetic activity has been quiet with stormy intervals in the polar zone, quiet with unsettled intervals in the auroral zone, and quiet in the sub-auroral zone.

Over the next 24 hours geomagnetic activity is forecast to be quiet with active intervals in the polar zone, quiet in the auroral zone, and quiet in the sub-auroral zone.

Visit <u>http://www.spaceweather.gc.ca/sfst-1-eng.php</u> for the magnetic forecast.

Space Weather Bulletin - 2015-07-11 issued at 18:20 UT (13:20 EST) Summary

There is currently no major storm watch in effect.

See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (18:00 UT)

Geomagnetic Activity:

polar cap zone: stormy auroral zone: unsettled sub-auroral zone: unsettled

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Aeromagnetic surveys: Potential for disruptions in the polar cap zone. Directional Drilling: Potential for deviations in the polar cap zone.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: active with stormy intervals

auroral zone: active with stormy intervals

sub-auroral zone: unsettled with active intervals

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Impacts are not expected.

Detailed Information

Solar

Solar activity has been low.

Interplanetary

Interplanetary activity has been moderate.

The solar wind speed is currently moderate (500-700 km/s).

Moderate solar wind speeds are due to high speed streams from coronal holes.

The interplanetary magnetic field has been fluctuating at moderate (|Bz|<10 nT) levels.

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit was at a moderate level yesterday and is expected to be at a normal level tomorrow.

Visit <u>http://www.spaceweather.gc.ca/sffl-eng.php</u> for the electron forecast.

Geomagnetic

- Over the last 24 hours geomagnetic activity has been active with stormy intervals in the polar zone, active with stormy intervals in the auroral zone, and unsettled with stormy intervals in the subauroral zone.
- Over the next 24 hours geomagnetic activity is forecast to be active with stormy intervals in the polar zone, active with stormy intervals in the auroral zone, and unsettled with active intervals in the sub-auroral zone.

Visit <u>http://www.spaceweather.gc.ca/sfst-1-eng.php</u> for the magnetic forecast.

Summary

There is currently no major storm watch in effect.

See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (18:30 UT)

Geomagnetic Activity:

polar cap zone: stormy auroral zone: unsettled sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Aeromagnetic surveys: Potential for significant disruptions in the polar cap zone.

Directional Drilling: Potential for significant deviations in the polar cap zone.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: active with stormy intervals

auroral zone: active

sub-auroral zone: quiet with unsettled intervals

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: moderate

Possible Impacts on Technology:

Geostationary satellites: moderate risk of internal charging.

Detailed Information

Solar

Solar activity has been low.

Interplanetary

Interplanetary activity has been moderate.

The solar wind speed is currently moderate (500-700 km/s).

The interplanetary magnetic field has been fluctuating at low (|Bz|<5 nT) levels.

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit was at a low level yesterday and is expected to be at a moderate level tomorrow.

Visit <u>http://www.spaceweather.gc.ca/sffl-eng.php</u> for the electron forecast.

Geomagnetic

Over the last 24 hours geomagnetic activity has been active with major storm intervals in the polar zone, active with stormy intervals in the auroral zone, and unsettled in the sub-auroral zone.

Over the next 24 hours geomagnetic activity is forecast to be active with stormy intervals in the polar zone, active in the auroral zone, and quiet with unsettled intervals in the sub-auroral zone. Visit <u>http://www.spaceweather.gc.ca/sfst-1-eng.php</u> for the magnetic forecast.

Space Weather Bulletin - 2015-07-13 issued at 17:55 UT (12:55 EST) Summary

There is currently no major storm watch in effect.

See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (17:45 UT)

Geomagnetic Activity:

polar cap zone: active auroral zone: active sub-auroral zone: active

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Aeromagnetic surveys: Potential for disruptions in the polar cap, auroral, and sub-auroral zones. Directional Drilling: Potential for deviations in the polar cap, auroral, and sub-auroral zones.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: active with stormy intervals auroral zone: active with stormy intervals sub-auroral zone: unsettled with active intervals

sub-auroral zone: unsettied with active intervals

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: moderate

Possible Impacts on Technology:

Aeromagnetic surveys: Potential for disruptions in the polar cap and auroral zones.

Directional Drilling: Potential for deviations in the polar cap and auroral zones.

Detailed Information

Solar

Solar activity has been low.

Interplanetary

Interplanetary activity has been moderate.

The solar wind speed is currently moderate (500-700 km/s).

Moderate solar wind speeds are due to high speed streams from coronal holes.

The interplanetary magnetic field has been fluctuating at moderate (|Bz|<10 nT) levels.

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit was at a normal level yesterday and is expected to be at a moderate level tomorrow.

Visit <u>http://www.spaceweather.gc.ca/sffl-eng.php</u> for the electron forecast.

Geomagnetic

Over the last 24 hours geomagnetic activity has been active with stormy intervals in the polar zone, active with stormy intervals in the auroral zone, and unsettled with stormy intervals in the subauroral zone.

Over the next 24 hours geomagnetic activity is forecast to be active with stormy intervals in the polar zone, active with stormy intervals in the auroral zone, and unsettled with active intervals in the sub-auroral zone.

Visit <u>http://www.spaceweather.gc.ca/sfst-1-eng.php</u> for the magnetic forecast.

Space Weather Bulletin - 2015-07-14 issued at 18:01 UT (13:01 EST) Summary

There is currently no major storm watch in effect.

See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (17:45 UT)

Geomagnetic Activity:

polar cap zone: stormy auroral zone: quiet sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Aeromagnetic surveys: Potential for significant disruptions in the polar cap zone.

Directional Drilling: Potential for significant deviations in the polar cap zone.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: unsettled with stormy intervals auroral zone: unsettled with active intervals sub-auroral zone: guiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: moderate

Possible Impacts on Technology:

Geostationary satellites: moderate risk of internal charging.

Detailed Information

Solar

Solar activity has been low.

Interplanetary

Interplanetary activity has been moderate.

The solar wind speed is currently slow (400-500 km/s).

The interplanetary magnetic field has been fluctuating at moderate (|Bz|<10 nT) levels.

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit was at a normal level yesterday and is expected to be at a moderate level tomorrow.

Visit <u>http://www.spaceweather.gc.ca/sffl-eng.php</u> for the electron forecast.

Geomagnetic

Over the last 24 hours geomagnetic activity has been unsettled with stormy intervals in the polar zone, unsettled with stormy intervals in the auroral zone, and quiet with stormy intervals in the sub-auroral zone.

Over the next 24 hours geomagnetic activity is forecast to be unsettled with stormy intervals in the polar zone, unsettled with active intervals in the auroral zone, and quiet in the sub-auroral zone. Visit <u>http://www.spaceweather.gc.ca/sfst-1-eng.php</u> for the magnetic forecast.

Space Weather Bulletin - 2015-07-15 issued at 17:55 UT (12:55 EST) Summary

There is currently no major storm watch in effect.

See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (17:45 UT)

Geomagnetic Activity:

polar cap zone: active auroral zone: unsettled sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: moderate

Possible Impacts on Technology:

Geostationary satellites: moderate risk of internal charging. Aeromagnetic surveys: Potential for disruptions in the polar cap zone. Directional Drilling: Potential for deviations in the polar cap zone.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: active with stormy intervals auroral zone: quiet sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Impacts are not expected.

Detailed Information

Solar

Solar activity has been low.

Interplanetary

Interplanetary activity has been low.

The solar wind speed is currently slow (400-500 km/s).

The interplanetary magnetic field has been fluctuating at low (|Bz|<5 nT) levels.

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit was at a moderate level yesterday and is expected to be at a normal level tomorrow.

Visit <u>http://www.spaceweather.gc.ca/sffl-eng.php</u> for the electron forecast.

Geomagnetic

Over the last 24 hours geomagnetic activity has been active with stormy intervals in the polar zone, quiet with unsettled intervals in the auroral zone, and quiet in the sub-auroral zone.

Over the next 24 hours geomagnetic activity is forecast to be active with stormy intervals in the polar zone, quiet in the auroral zone, and quiet in the sub-auroral zone.

Visit <u>http://www.spaceweather.gc.ca/sfst-1-eng.php</u> for the magnetic forecast.

Space Weather Bulletin - 2015-07-16 issued at 17:43 UT (12:43 EST)

Summary

There is currently no major storm watch in effect.

See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (17:30 UT)

Geomagnetic Activity:

polar cap zone: active auroral zone: quiet sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: moderate

Possible Impacts on Technology:

Geostationary satellites: moderate risk of internal charging. Aeromagnetic surveys: Potential for disruptions in the polar cap zone. Directional Drilling: Potential for deviations in the polar cap zone.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: unsettled with stormy intervals auroral zone: unsettled with active intervals sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Impacts are not expected.

Detailed Information

Solar

Solar activity has been very low.

Interplanetary

Interplanetary activity has been low.

The solar wind speed is currently slow (400-500 km/s).

The interplanetary magnetic field has been fluctuating at low (|Bz|<5 nT) levels.

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit was at a moderate level yesterday and is expected to be at a normal level tomorrow.

Visit <u>http://www.spaceweather.gc.ca/sffl-eng.php</u> for the electron forecast.

Geomagnetic

Over the last 24 hours geomagnetic activity has been active with stormy intervals in the polar zone, unsettled with stormy intervals in the auroral zone, and quiet with unsettled intervals in the sub-auroral zone.

Over the next 24 hours geomagnetic activity is forecast to be unsettled with stormy intervals in the polar zone, unsettled with active intervals in the auroral zone, and quiet in the sub-auroral zone. Visit http://www.spaceweather.gc.ca/sfst-1-eng.php for the magnetic forecast.

Space Weather Bulletin - 2015-07-17 issued at 17:29 UT (12:29 EST) Summary

There is currently no major storm watch in effect.

See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (17:15 UT)

Geomagnetic Activity:

polar cap zone: active auroral zone: quiet sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: moderate

Possible Impacts on Technology:

Geostationary satellites: moderate risk of internal charging. Aeromagnetic surveys: Potential for disruptions in the polar cap zone. Directional Drilling: Potential for deviations in the polar cap zone.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: quiet with active intervals auroral zone: quiet with unsettled intervals sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Impacts are not expected.

Detailed Information

Solar

Solar activity has been very low.

Interplanetary

Interplanetary activity has been low.

The solar wind speed is currently slow (400-500 km/s).

The interplanetary magnetic field has been fluctuating at low (|Bz|<5 nT) levels.

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit was at a moderate level yesterday and is expected to be at a normal level tomorrow.

Visit <u>http://www.spaceweather.gc.ca/sffl-eng.php</u> for the electron forecast.

Geomagnetic

Over the last 24 hours geomagnetic activity has been unsettled with stormy intervals in the polar zone, quiet with active intervals in the auroral zone, and quiet in the sub-auroral zone.

Over the next 24 hours geomagnetic activity is forecast to be quiet with active intervals in the polar zone, quiet with unsettled intervals in the auroral zone, and quiet in the sub-auroral zone.

Visit <u>http://www.spaceweather.gc.ca/sfst-1-eng.php</u> for the magnetic forecast.

Space Weather Bulletin - 2015-07-18 issued at 20:19 UT (15:19 EST) Summary

There is currently no major storm watch in effect.

See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (20:00 UT)

Geomagnetic Activity:

polar cap zone: unsettled auroral zone: quiet

sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: moderate

Possible Impacts on Technology:

Geostationary satellites: moderate risk of internal charging.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: quiet with unsettled intervals auroral zone: quiet sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Impacts are not expected.

Detailed Information

Solar

Solar activity has been low.

Two small coronal holes are located near the centre of the solar disk.

Interplanetary

The solar wind speed is currently very slow (< 400 km/s).

The interplanetary magnetic field has been fluctuating at low (|Bz|<5 nT) levels.

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit was at a moderate level yesterday and is expected to be at a normal level tomorrow.

Visit <u>http://www.spaceweather.gc.ca/sffl-eng.php</u> for the electron forecast.

Geomagnetic

Over the last 24 hours geomagnetic activity has been quiet with stormy intervals in the polar zone, quiet with active intervals in the auroral zone, and quiet in the sub-auroral zone.

Over the next 24 hours geomagnetic activity is forecast to be quiet with unsettled intervals in the polar zone, quiet in the auroral zone, and quiet in the sub-auroral zone.

Visit <u>http://www.spaceweather.gc.ca/sfst-1-eng.php</u> for the magnetic forecast.

Space Weather Bulletin - 2015-07-19 issued at 20:24 UT (15:24 EST)

Summary

There is currently no major storm watch in effect.

See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (19:45 UT)

Geomagnetic Activity:

polar cap zone: unsettled

auroral zone: quiet sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: moderate

Possible Impacts on Technology:

Geostationary satellites: moderate risk of internal charging.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: quiet with unsettled intervals

auroral zone: quiet

sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Impacts are not expected.

Detailed Information

Solar

Solar activity has been moderate.

A moderate CME erupted on 19 JUL 2015 09:50 UT. It is not yet known if the CME will impact the Earth.

Two small coronal holes are located near the centre of the solar disk.

Interplanetary

The solar wind speed is currently very slow (< 400 km/s).

The interplanetary magnetic field has been fluctuating at very low (|Bz|<2 nT) levels.

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit was at a moderate level yesterday and is expected to be at a normal level tomorrow.

Visit <u>http://www.spaceweather.gc.ca/sffl-eng.php</u> for the electron forecast.

Geomagnetic

Over the last 24 hours geomagnetic activity has been quiet with stormy intervals in the polar zone, quiet with unsettled intervals in the auroral zone, and quiet with unsettled intervals in the subauroral zone.

Over the next 24 hours geomagnetic activity is forecast to be quiet with unsettled intervals in the polar zone, quiet in the auroral zone, and quiet in the sub-auroral zone.

Visit <u>http://www.spaceweather.gc.ca/sfst-1-eng.php</u> for the magnetic forecast.

Space Weather Bulletin - 2015-07-20 issued at 17:10 UT (12:10 EST)

Summary

There is currently no major storm watch in effect.

See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (16:30 UT)

Geomagnetic Activity:

polar cap zone: unsettled auroral zone: quiet sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: moderate

Possible Impacts on Technology:

Geostationary satellites: moderate risk of internal charging.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: quiet with unsettled intervals auroral zone: quiet with unsettled intervals sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Impacts are not expected.

Detailed Information

Solar

Solar activity has been low.

A moderate non-Earth-directed CME erupted on 19 JUL 2015 09:50 UT.

Two small coronal holes are located near the centre of the solar disk.

Interplanetary

The solar wind speed is currently very slow (< 400 km/s).

The interplanetary magnetic field has been fluctuating at low (|Bz|<5 nT) levels.

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit was at a moderate level yesterday and is expected to be at a normal level tomorrow.

Visit <u>http://www.spaceweather.gc.ca/sffl-eng.php</u> for the electron forecast.

Geomagnetic

Over the last 24 hours geomagnetic activity has been quiet with active intervals in the polar zone, quiet with active intervals in the auroral zone, and quiet with unsettled intervals in the subauroral zone.

Over the next 24 hours geomagnetic activity is forecast to be quiet with unsettled intervals in the polar zone, quiet with unsettled intervals in the auroral zone, and quiet in the sub-auroral zone. Visit http://www.spaceweather.gc.ca/sfst-1-eng.php for the magnetic forecast.

Space Weather Bulletin - 2015-07-21 issued at 19:18 UT (14:18 EST)

Summary

There is currently no major storm watch in effect.

See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (19:00 UT)

Geomagnetic Activity:

polar cap zone: stormy

auroral zone: quiet

sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Aeromagnetic surveys: Potential for significant disruptions in the polar cap zone. Directional Drilling: Potential for significant deviations in the polar cap zone.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: unsettled with stormy intervals

auroral zone: quiet with unsettled intervals sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Aeromagnetic surveys: Potential for significant disruptions in the polar cap zone. Directional Drilling: Potential for deviations in the polar cap zone.

Detailed Information

Solar

Solar activity has been low.

One small coronal hole is located near the centre of the solar disk.

Interplanetary

The solar wind speed is currently slow (~400 km/s).

The interplanetary magnetic field has been fluctuating at moderate (|Bz|<10 nT) levels.

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit was at a moderate level yesterday and is expected to be at a normal level tomorrow.

Visit <u>http://www.spaceweather.gc.ca/sffl-eng.php</u> for the electron forecast.

Geomagnetic

Over the last 24 hours geomagnetic activity has been unsettled with stormy intervals in the polar zone, quiet with stormy intervals in the auroral zone, and quiet with unsettled intervals in the sub-auroral zone.

Over the next 24 hours geomagnetic activity is forecast to be unsettled with stormy intervals in the polar zone, quiet with unsettled intervals in the auroral zone, and quiet in the sub-auroral zone. Visit <u>http://www.spaceweather.gc.ca/sfst-1-eng.php</u> for the magnetic forecast.

Space Weather Bulletin - 2015-07-22 issued at 21:41 UT (16:41 EST)

Summary

There is currently no major storm watch in effect.

See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (21:00 UT)

Geomagnetic Activity:

polar cap zone: active auroral zone: quiet sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Aeromagnetic surveys: Potential for disruptions in the polar cap zone.

Directional Drilling: Potential for deviations in the polar cap zone.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: unsettled with stormy intervals auroral zone: quiet with unsettled intervals

sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Aeromagnetic surveys: Potential for significant disruptions in the polar cap zone.

Directional Drilling: Potential for significant deviations in the polar cap zone.

Detailed Information

Solar

Solar activity has been low.

Two small coronal holes are located near the centre of the solar disk.

Interplanetary

The solar wind speed is currently slow (~400 km/s).

The interplanetary magnetic field has been fluctuating at moderate (|Bz|<10 nT) levels.

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit was at a normal level yesterday and is expected to be at a normal level tomorrow.

Visit <u>http://www.spaceweather.gc.ca/sffl-eng.php</u> for the electron forecast.

Geomagnetic

Over the last 24 hours geomagnetic activity has been unsettled with stormy intervals in the polar zone, quiet with stormy intervals in the auroral zone, and quiet with active intervals in the sub-auroral zone.

Over the next 24 hours geomagnetic activity is forecast to be unsettled with stormy intervals in the polar zone, quiet with unsettled intervals in the auroral zone, and quiet in the sub-auroral zone. Visit http://www.spaceweather.gc.ca/sfst-1-eng.php for the magnetic forecast.

Space Weather Bulletin - 2015-07-23 issued at 20:24 UT (15:24 EST)

Summary

There is currently no major storm watch in effect.

See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (20:00 UT)

Geomagnetic Activity:

polar cap zone: stormy

auroral zone: active

sub-auroral zone: unsettled

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Aeromagnetic surveys: Potential for significant disruptions in the polar cap zone. Directional Drilling: Potential for significant deviations in the polar cap zone. Aeromagnetic surveys: Potential for disruptions in the auroral zone.

Directional Drilling: Potential for deviations in the auroral zone.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: active with stormy intervals auroral zone: active

sub-auroral zone: unsettled

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Aeromagnetic surveys: Potential for significant disruptions in the polar cap zone. Directional Drilling: Potential for significant deviations in the polar cap zone. Aeromagnetic surveys: Potential for disruptions in the auroral zone. Directional Drilling: Potential for deviations in the auroral zone.

Detailed Information

Solar

Solar activity has been low.

Two small coronal holes are located near the centre of the solar disk.

Interplanetary

The solar wind speed is currently slow (400-500 km/s).

The interplanetary magnetic field has been fluctuating at moderate (|Bz|<10 nT) levels.

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit was at a normal level yesterday and is expected to be at a normal level tomorrow.

Visit <u>http://www.spaceweather.gc.ca/sffl-eng.php</u> for the electron forecast.

Geomagnetic

Over the last 24 hours geomagnetic activity has been active with stormy intervals in the polar zone, unsettled with stormy intervals in the auroral zone, and quiet with stormy intervals in the subauroral zone.

Over the next 24 hours geomagnetic activity is forecast to be active with stormy intervals in the polar zone, active in the auroral zone, and unsettled in the sub-auroral zone.

Visit <u>http://www.spaceweather.gc.ca/sfst-1-eng.php</u> for the magnetic forecast.

Space Weather Bulletin - 2015-07-24 issued at 19:13 UT (14:13 EST)

Summary

There is currently no major storm watch in effect.

See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (19:00 UT)

Geomagnetic Activity:

polar cap zone: stormy auroral zone: quiet

sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Aeromagnetic surveys: Potential for significant disruptions in the polar cap zone.

Directional Drilling: Potential for significant deviations in the polar cap zone.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: unsettled with stormy intervals auroral zone: unsettled

sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: moderate

Possible Impacts on Technology:

Aeromagnetic surveys: Potential for significant disruptions in the polar cap zone. Directional Drilling: Potential for significant deviations in the polar cap zone. Geostationary satellites: moderate risk of internal charging.

Detailed Information

Solar

Solar activity has been low.

Two small coronal holes are located near the centre of the solar disk.

Interplanetary

The solar wind speed is currently slow (~400 km/s).

The interplanetary magnetic field has been fluctuating at moderate (|Bz|<10 nT) levels.

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit was at a normal level yesterday and is expected to be at a moderate level tomorrow.

Visit <u>http://www.spaceweather.gc.ca/sffl-eng.php</u> for the electron forecast.

Geomagnetic

Over the last 24 hours geomagnetic activity has been unsettled with stormy intervals in the polar zone, unsettled with active intervals in the auroral zone, and quiet with unsettled intervals in the sub-auroral zone.

Over the next 24 hours geomagnetic activity is forecast to be unsettled with stormy intervals in the polar zone, unsettled in the auroral zone, and quiet in the sub-auroral zone.

Visit <u>http://www.spaceweather.gc.ca/sfst-1-eng.php</u> for the magnetic forecast.

Space Weather Bulletin - 2015-07-25 issued at 19:30 UT (14:30 EST)

Summary

There is currently no major storm watch in effect.

See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (19:15 UT)

Geomagnetic Activity:

polar cap zone: active auroral zone: quiet sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Aeromagnetic surveys: Potential for disruptions in the polar cap zone.

Directional Drilling: Potential for deviations in the polar cap zone.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: unsettled with stormy intervals auroral zone: unsettled

sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Aeromagnetic surveys: Potential for significant disruptions in the polar cap zone.

Directional Drilling: Potential for significant deviations in the polar cap zone.

Detailed Information

Solar

Solar activity has been low.

One small coronal hole is located near the centre of the solar disk.

Interplanetary

The solar wind speed is currently slow (400-500 km/s).

The interplanetary magnetic field has been fluctuating at moderate (|Bz|<10 nT) levels.

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit was at a normal level yesterday and is expected to be at a normal level tomorrow.

Visit <u>http://www.spaceweather.gc.ca/sffl-eng.php</u> for the electron forecast.

Geomagnetic

Over the last 24 hours geomagnetic activity has been active with stormy intervals in the polar zone, quiet with stormy intervals in the auroral zone, and quiet with unsettled intervals in the subauroral zone.

Over the next 24 hours geomagnetic activity is forecast to be unsettled with stormy intervals in the polar zone, unsettled in the auroral zone, and quiet in the sub-auroral zone.

Visit <u>http://www.spaceweather.gc.ca/sfst-1-eng.php</u> for the magnetic forecast.

Space Weather Bulletin - 2015-07-26 issued at 19:51 UT (14:51 EST)

Summary

There is currently no major storm watch in effect.

See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (19:30 UT)

Geomagnetic Activity:

polar cap zone: stormy auroral zone: unsettled

sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Aeromagnetic surveys: Potential for significant disruptions in the polar cap zone. Directional Drilling: Potential for significant deviations in the polar cap zone.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: active with stormy intervals auroral zone: unsettled with active intervals sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Aeromagnetic surveys: Potential for significant disruptions in the polar cap zone. Directional Drilling: Potential for significant deviations in the polar cap zone. Aeromagnetic surveys: Potential for disruptions in the auroral zone. Directional Drilling: Potential for deviations in the auroral zone.

Detailed Information

Solar

Solar activity has been low.

Three small coronal holes are located near the centre of the solar disk.

Interplanetary

The solar wind speed is currently slow (~400 km/s).

The interplanetary magnetic field has been fluctuating at moderate (|Bz|<10 nT) levels.

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit was at a normal level yesterday and is expected to be at a normal level tomorrow.

Visit <u>http://www.spaceweather.gc.ca/sffl-eng.php</u> for the electron forecast.

Geomagnetic

Over the last 24 hours geomagnetic activity has been unsettled with stormy intervals in the polar zone, unsettled with stormy intervals in the auroral zone, and quiet with unsettled intervals in the sub-auroral zone.

Over the next 24 hours geomagnetic activity is forecast to be active with stormy intervals in the polar zone, unsettled with active intervals in the auroral zone, and quiet in the sub-auroral zone. Visit <u>http://www.spaceweather.gc.ca/sfst-1-eng.php</u> for the magnetic forecast.

Space Weather Bulletin - 2015-07-27 issued at 18:37 UT (13:37 EST)

Summary

There is currently no major storm watch in effect.

See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (18:15 UT)

Geomagnetic Activity:

polar cap zone: stormy auroral zone: quiet sub-auroral zone: unsettled

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Aeromagnetic surveys: Potential for significant disruptions in the polar cap zone.

Directional Drilling: Potential for significant deviations in the polar cap zone.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: unsettled with stormy intervals auroral zone: unsettled with active intervals

sub-auroral zone: quiet with unsettled intervals

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Aeromagnetic surveys: Potential for significant disruptions in the polar cap zone. Directional Drilling: Potential for significant deviations in the polar cap zone. Aeromagnetic surveys: Potential for disruptions in the auroral zone. Directional Drilling: Potential for deviations in the auroral zone.

Detailed Information

Solar

Solar activity has been low.

Three small coronal holes are located near the centre of the solar disk.

Interplanetary

The solar wind speed is currently slow (400-500 km/s).

The interplanetary magnetic field has been fluctuating at low (|Bz|<5 nT) levels.

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit for 26 JUL 2015 is unavailable but is expected to be at a normal level tomorrow.

Visit <u>http://www.spaceweather.gc.ca/sffl-eng.php</u> for the electron forecast.

Geomagnetic

Over the last 24 hours geomagnetic activity has been unsettled with stormy intervals in the polar zone, unsettled with stormy intervals in the auroral zone, and quiet with active intervals in the sub-auroral zone.

Over the next 24 hours geomagnetic activity is forecast to be unsettled with stormy intervals in the polar zone, unsettled with active intervals in the auroral zone, and quiet with unsettled intervals in the sub-auroral zone.

Visit <u>http://www.spaceweather.gc.ca/sfst-1-eng.php</u> for the magnetic forecast.

Space Weather Bulletin - 2015-07-28 issued at 19:38 UT (14:38 EST)

Summary

There is currently no major storm watch in effect.

See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (19:15 UT)

Geomagnetic Activity:

polar cap zone: active

auroral zone: quiet

sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Aeromagnetic surveys: Potential for disruptions in the polar cap zone.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: unsettled with stormy intervals

auroral zone: unsettled with active intervals sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Aeromagnetic surveys: Potential for disruptions in the polar cap zone.

Detailed Information

Solar

Solar activity has been low.

Two small coronal holes are located near the centre of the solar disk.

Interplanetary

Interplanetary activity has been low.

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit was at a normal level yesterday and is expected to be at a normal level tomorrow.

Visit <u>http://www.spaceweather.gc.ca/sffl-eng.php</u> for the electron forecast.

Geomagnetic

Over the last 24 hours geomagnetic activity has been unsettled with stormy intervals in the polar zone, unsettled with stormy intervals in the auroral zone, and quiet with unsettled intervals in the sub-auroral zone.

Over the next 24 hours geomagnetic activity is forecast to be unsettled with stormy intervals in the polar zone, unsettled with active intervals in the auroral zone, and quiet in the sub-auroral zone. Visit http://www.spaceweather.gc.ca/sfst-1-eng.php for the magnetic forecast.

Space Weather Bulletin - 2015-07-29 issued at 19:19 UT (14:19 EST)

Summary

There is currently no major storm watch in effect.

See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (19:00 UT)

Geomagnetic Activity:

polar cap zone: unsettled auroral zone: quiet

sub-auroral zone: unsettled

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Impacts are not expected.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: quiet with active intervals

auroral zone: quiet

sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Impacts are not expected.

Detailed Information

Solar

Solar activity has been very low.

Interplanetary

Interplanetary activity has been low.

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit was at a normal level yesterday and is expected to be at a normal level tomorrow.

Visit <u>http://www.spaceweather.gc.ca/sffl-eng.php</u> for the electron forecast.

Geomagnetic

Over the last 24 hours geomagnetic activity has been unsettled with active intervals in the polar zone, quiet with unsettled intervals in the auroral zone, and quiet in the sub-auroral zone.

Over the next 24 hours geomagnetic activity is forecast to be quiet with active intervals in the polar zone, quiet in the auroral zone, and quiet in the sub-auroral zone.

Visit <u>http://www.spaceweather.gc.ca/sfst-1-eng.php</u> for the magnetic forecast.

Space Weather Bulletin - 2015-07-30 issued at 20:11 UT (15:11 EST) Summary

There is currently no major storm watch in effect.

Disturbed geomagnetic conditions are expected 30 JUL 2015 to 01 AUG 2015 due to high speed streams from coronal holes.

See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (19:30 UT)

Geomagnetic Activity:

polar cap zone: unsettled auroral zone: quiet

sub-auroral zone: unsettled **Environment at Geostationary orbit:**

energetic electron fluence at geostationary orbit: unavailable

Possible Impacts on Technology:

Impacts are not expected.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: quiet with active intervals auroral zone: quiet with unsettled intervals sub-auroral zone: quiet with unsettled intervals

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Impacts are not expected.

Detailed Information

Solar

Solar activity has been low.

Three small coronal holes are located near the centre of the solar disk.

Interplanetary

The solar wind speed is currently slow (400-500 km/s).

The interplanetary magnetic field has been fluctuating at moderate (|Bz|<10 nT) levels.

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit for 29 JUL 2015 is unavailable but is expected to be at a normal level tomorrow.

Visit <u>http://www.spaceweather.gc.ca/sffl-eng.php</u> for the electron forecast.

Geomagnetic

- Over the last 24 hours geomagnetic activity has been quiet with stormy intervals in the polar zone, quiet with stormy intervals in the auroral zone, and quiet with active intervals in the sub-auroral zone.
- Over the next 24 hours geomagnetic activity is forecast to be quiet with active intervals in the polar zone, quiet with unsettled intervals in the auroral zone, and quiet with unsettled intervals in the sub-auroral zone.

Visit <u>http://www.spaceweather.gc.ca/sfst-1-eng.php</u> for the magnetic forecast.

Space Weather Bulletin - 2015-07-31 issued at 19:33 UT (14:33 EST)

Summary

There is currently no major storm watch in effect.

- Disturbed geomagnetic conditions are expected 31 JUL 2015 to 01 AUG 2015 due to high speed streams from coronal holes.
- See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (19:00 UT)

Geomagnetic Activity:

polar cap zone: stormy auroral zone: quiet sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: unavailable

Possible Impacts on Technology:

Aeromagnetic surveys: Potential for disruptions in the polar cap zone.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: active with stormy intervals auroral zone: unsettled with active intervals sub-auroral zone: quiet with unsettled intervals

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Aeromagnetic surveys: Potential for disruptions in the polar cap and sub-auroral zones. Directional Drilling: Potential for deviations in the auroral zone.

Directional Drining. Fotertial for deviation.

Detailed Information

Solar

Solar activity has been low.

Two small coronal holes are located near the centre of the solar disk.

Interplanetary

The solar wind speed is currently moderate (500-700 km/s).

The interplanetary magnetic field has been fluctuating at moderate (|Bz|<10 nT) levels. Moderate solar wind speeds are due to high speed streams from coronal holes.

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit was at a normal level yesterday and is expected to be at a normal level tomorrow.

Visit <u>http://www.spaceweather.gc.ca/sffl-eng.php</u> for the electron forecast.

Geomagnetic

- Over the last 24 hours geomagnetic activity has been unsettled with stormy intervals in the polar zone, unsettled with active intervals in the auroral zone, and quiet with active intervals in the sub-auroral zone.
- Over the next 24 hours geomagnetic activity is forecast to be active with stormy intervals in the polar zone, unsettled with active intervals in the auroral zone, and quiet with unsettled intervals in the sub-auroral zone.

Visit <u>http://www.spaceweather.gc.ca/sfst-1-eng.php</u> for the magnetic forecast.

Space Weather Bulletin - 2015-08-01 issued at 20:03 UT (15:03 EST)

Summary

There is currently no major storm watch in effect.

Disturbed geomagnetic conditions are expected 01 Aug 2015 to 02 Aug 2015 due to high speed streams from coronal holes.

See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (19:45 UT)

Geomagnetic Activity:

polar cap zone: stormy

auroral zone: unsettled

sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Aeromagnetic surveys: Potential for disruptions in the polar cap zone.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: active with stormy intervals auroral zone: unsettled with active intervals

sub-auroral zone: quiet with unsettled intervals

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Aeromagnetic surveys: Potential for disruptions in the polar cap and auroral zones.

Directional Drilling: Potential for deviations in the polar cap and auroral zones.

Detailed Information

Solar

Solar activity has been low.

Three small coronal holes are located near the centre of the solar disk.

Interplanetary

Interplanetary activity has been moderate.

Moderate solar wind speeds are due to high speed streams from coronal holes.

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit for 31 JUL 2015 is unavailable but is expected to be at a normal level tomorrow.

Visit <u>http://www.spaceweather.gc.ca/sffl-eng.php</u> for the electron forecast.

Geomagnetic

Over the last 24 hours geomagnetic activity has been unsettled with stormy intervals in the polar zone, unsettled with stormy intervals in the auroral zone, and quiet with active intervals in the sub-auroral zone.

Over the next 24 hours geomagnetic activity is forecast to be active with stormy intervals in the polar zone, unsettled with active intervals in the auroral zone, and quiet with unsettled intervals in the sub-auroral zone.

Visit <u>http://www.spaceweather.gc.ca/sfst-1-eng.php</u> for the magnetic forecast.

Space Weather Bulletin - 2015-08-02 issued at 19:06 UT (14:06 EST)

Summary

There is currently no major storm watch in effect.

Disturbed geomagnetic conditions are expected 02 Aug 2015 to 03 Aug 2015 due to high speed streams from coronal holes.

See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (18:45 UT)

Geomagnetic Activity:

polar cap zone: stormy auroral zone: quiet

sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Aeromagnetic surveys: Potential for disruptions in the polar cap zone.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: unsettled with stormy intervals

auroral zone: unsettled with active intervals

sub-auroral zone: quiet with unsettled intervals

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal **Possible Impacts on Technology:**

Aeromagnetic surveys: Potential for disruptions in the polar cap and auroral zones. Directional Drilling: Potential for deviations in the polar cap and auroral zones.

Detailed Information

Solar

Solar activity has been low.

Three small coronal holes are located near the centre of the solar disk.

Interplanetary

The solar wind speed is currently moderate (500-700 km/s).

Moderate solar wind speeds are due to high speed streams from coronal holes.

The interplanetary magnetic field has been fluctuating at low (|Bz|<5 nT) levels.

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit was at a normal level yesterday and is expected to be at a normal level tomorrow.

Visit <u>http://www.spaceweather.gc.ca/sffl-eng.php</u> for the electron forecast.

Geomagnetic

- Over the last 24 hours geomagnetic activity has been active with stormy intervals in the polar zone, unsettled with stormy intervals in the auroral zone, and unsettled with active intervals in the sub-auroral zone.
- Over the next 24 hours geomagnetic activity is forecast to be unsettled with stormy intervals in the polar zone, unsettled with active intervals in the auroral zone, and quiet with unsettled intervals in the sub-auroral zone.

Visit <u>http://www.spaceweather.gc.ca/sfst-1-eng.php</u> for the magnetic forecast.

Space Weather Bulletin - 2015-08-03 issued at 19:31 UT (14:31 EST)

Summary

There is currently no major storm watch in effect.

See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (19:15 UT)

Geomagnetic Activity:

polar cap zone: stormy auroral zone: quiet

sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Aeromagnetic surveys: Potential for disruptions in the polar cap zone.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: unsettled with stormy intervals

- auroral zone: unsettled
- sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Aeromagnetic surveys: Potential for disruptions in the polar cap zone.

Detailed Information

Solar

Solar activity has been low.

Two small coronal holes are located near the centre of the solar disk.

Interplanetary

Interplanetary activity has been low.

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit was at a normal level yesterday and is expected to be at a normal level tomorrow.

Visit <u>http://www.spaceweather.gc.ca/sffl-eng.php</u> for the electron forecast.

Geomagnetic

Over the last 24 hours geomagnetic activity has been unsettled with stormy intervals in the polar zone, quiet with stormy intervals in the auroral zone, and quiet with unsettled intervals in the sub-auroral zone.

Over the next 24 hours geomagnetic activity is forecast to be unsettled with stormy intervals in the polar zone, unsettled in the auroral zone, and quiet in the sub-auroral zone.

Visit <u>http://www.spaceweather.gc.ca/sfst-1-eng.php</u> for the magnetic forecast.

Space Weather Bulletin - 2015-08-04 issued at 19:21 UT (14:21 EST)

Summary

There is currently no major storm watch in effect.

See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (19:00 UT)

Geomagnetic Activity:

polar cap zone: active auroral zone: quiet sub-auroral zone: unsettled

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: moderate

Possible Impacts on Technology:

Aeromagnetic surveys: Potential for disruptions in the polar cap zone.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: unsettled with active intervals

auroral zone: quiet with unsettled intervals

sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Aeromagnetic surveys: Potential for disruptions in the polar cap zone.

Detailed Information

Solar

Solar activity has been low.
Two small coronal holes are located near the centre of the solar disk.

Interplanetary

Interplanetary activity has been low.

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit was at a normal level yesterday and is expected to be at a normal level tomorrow.

Visit <u>http://www.spaceweather.gc.ca/sffl-eng.php</u> for the electron forecast.

Geomagnetic

Over the last 24 hours geomagnetic activity has been unsettled with stormy intervals in the polar zone, quiet with active intervals in the auroral zone, and quiet with unsettled intervals in the sub-auroral zone.

Over the next 24 hours geomagnetic activity is forecast to be unsettled with active intervals in the polar zone, quiet with unsettled intervals in the auroral zone, and quiet in the sub-auroral zone. Visit http://www.spaceweather.gc.ca/sfst-1-eng.php for the magnetic forecast.

Space Weather Bulletin - 2015-08-05 issued at 19:33 UT (14:33 EST)

Summary

There is currently no major storm watch in effect.

See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (19:15 UT)

Geomagnetic Activity:

polar cap zone: stormy

auroral zone: quiet

sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Aeromagnetic surveys: Potential for disruptions in the polar cap zone.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: unsettled with stormy intervals

auroral zone: quiet

sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Aeromagnetic surveys: Potential for disruptions in the polar cap zone.

Detailed Information

Solar

Solar activity has been low.

Three small coronal holes are located near the centre of the solar disk.

Interplanetary

Interplanetary activity has been low.

Energetic electron fluence at geostationary orbit was at a moderate level yesterday and is expected to be at a normal level tomorrow.

Visit <u>http://www.spaceweather.gc.ca/sffl-eng.php</u> for the electron forecast.

Geomagnetic

Over the last 24 hours geomagnetic activity has been unsettled with stormy intervals in the polar zone, quiet with unsettled intervals in the auroral zone, and quiet with unsettled intervals in the sub-auroral zone.

Over the next 24 hours geomagnetic activity is forecast to be unsettled with stormy intervals in the polar zone, quiet in the auroral zone, and quiet in the sub-auroral zone.

Visit <u>http://www.spaceweather.gc.ca/sfst-1-eng.php</u> for the magnetic forecast.

Space Weather Bulletin - 2015-08-06 issued at 19:31 UT (14:31 EST) Summary

There is currently no major storm watch in effect.

Disturbed geomagnetic conditions are expected 06 Aug 2015 to 07 Aug 2015 due to high speed streams from coronal holes.

See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (19:00 UT)

Geomagnetic Activity:

polar cap zone: stormy auroral zone: unsettled sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Aeromagnetic surveys: Potential for disruptions in the polar cap zone.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: unsettled with stormy intervals

auroral zone: unsettled with active intervals

sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Aeromagnetic surveys: Potential for disruptions in the polar cap and auroral zones. Directional Drilling: Potential for deviations in the polar cap and auroral zones.

Detailed Information

Solar

Solar activity has been low.

Two small coronal holes are located near the centre of the solar disk.

Interplanetary

Interplanetary activity has been moderate.

Moderate solar wind speeds are due to high speed streams from coronal holes.

Energetic electron fluence at geostationary orbit was at a normal level yesterday and is expected to be at a normal level tomorrow.

Visit <u>http://www.spaceweather.gc.ca/sffl-eng.php</u> for the electron forecast.

Geomagnetic

Over the last 24 hours geomagnetic activity has been unsettled with stormy intervals in the polar zone, unsettled with stormy intervals in the auroral zone, and quiet with active intervals in the sub-auroral zone.

Over the next 24 hours geomagnetic activity is forecast to be unsettled with stormy intervals in the polar zone, unsettled with active intervals in the auroral zone, and quiet in the sub-auroral zone. Visit <u>http://www.spaceweather.gc.ca/sfst-1-eng.php</u> for the magnetic forecast.

Space Weather Bulletin - 2015-08-07 issued at 18:06 UT (13:06 EST) Summary

There is currently no major storm watch in effect.

Disturbed geomagnetic conditions are expected 07 AUG 2015 to 08 AUG 2015 due to high speed streams from coronal holes.

See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (17:45 UT)

Geomagnetic Activity:

polar cap zone: stormy auroral zone: unsettled sub-auroral zone: unsettled

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Aeromagnetic surveys: Potential for disruptions in the polar cap zone.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: active with stormy intervals auroral zone: active with stormy intervals sub-auroral zone: unsettled

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: moderate

Possible Impacts on Technology:

Aeromagnetic surveys: Potential for disruptions in the polar cap and auroral zones. Directional Drilling: Potential for deviations in the polar cap and auroral zones.

Detailed Information

Solar

Solar activity has been low.

One small coronal hole is located near the centre of the solar disk.

Interplanetary

Interplanetary activity has been moderate.

Moderate solar wind speeds are due to high speed streams from coronal holes.

Energetic electron fluence at geostationary orbit was at a normal level yesterday and is expected to be at a normal level tomorrow.

Visit <u>http://www.spaceweather.gc.ca/sffl-eng.php</u> for the electron forecast.

Geomagnetic

- Over the last 24 hours geomagnetic activity has been active with stormy intervals in the polar zone, active with stormy intervals in the auroral zone, and quiet with stormy intervals in the subauroral zone.
- Over the next 24 hours geomagnetic activity is forecast to be active with stormy intervals in the polar zone, active with stormy intervals in the auroral zone, and unsettled in the sub-auroral zone.

Visit <u>http://www.spaceweather.gc.ca/sfst-1-eng.php</u> for the magnetic forecast.

Space Weather Bulletin - 2015-08-08 issued at 20:57 UT (15:57 EST)

Summary

There is currently no major storm watch in effect.

- Disturbed geomagnetic conditions are expected 08 Aug 2015 to 09 Aug 2015 due to high speed streams from coronal holes.
- See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (20:45 UT)

Geomagnetic Activity:

polar cap zone: active auroral zone: active sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Impacts are not expected.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: unsettled with stormy intervals

auroral zone: unsettled with active intervals

sub-auroral zone: quiet with unsettled intervals

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: moderate

Possible Impacts on Technology:

Aeromagnetic surveys: Potential for disruptions in the polar cap zone.

Detailed Information

Solar

Solar activity has been low.

Interplanetary

Interplanetary activity has been moderate.

Moderate solar wind speeds are due to high speed streams from coronal holes.

Energetic electron fluence at geostationary orbit was at a normal level yesterday and is expected to be at a moderate level tomorrow.

Visit <u>http://www.spaceweather.gc.ca/sffl-eng.php</u> for the electron forecast.

Geomagnetic

- Over the last 24 hours geomagnetic activity has been active with stormy intervals in the polar zone, unsettled with stormy intervals in the auroral zone, and quiet with active intervals in the subauroral zone.
- Over the next 24 hours geomagnetic activity is forecast to be unsettled with stormy intervals in the polar zone, unsettled with active intervals in the auroral zone, and quiet with unsettled intervals in the sub-auroral zone.

Visit <u>http://www.spaceweather.gc.ca/sfst-1-eng.php</u> for the magnetic forecast.

Space Weather Bulletin - 2015-08-09 issued at 19:07 UT (14:07 EST)

Summary

There is currently no major storm watch in effect.

See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (19:00 UT)

Geomagnetic Activity:

polar cap zone: active auroral zone: unsettled sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Impacts are not expected.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: unsettled with stormy intervals auroral zone: unsettled with active intervals sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: moderate

Possible Impacts on Technology:

Impacts are not expected.

Detailed Information

Solar

Solar activity has been low.

Interplanetary

Interplanetary activity has been moderate.

Moderate solar wind speeds are due to high speed streams from coronal holes.

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit was at a normal level yesterday and is expected to be at a moderate level tomorrow.

Visit <u>http://www.spaceweather.gc.ca/sffl-eng.php</u> for the electron forecast.

Geomagnetic

Over the last 24 hours geomagnetic activity has been active with stormy intervals in the polar zone, unsettled with stormy intervals in the auroral zone, and quiet with active intervals in the subauroral zone.

Over the next 24 hours geomagnetic activity is forecast to be unsettled with stormy intervals in the polar zone, unsettled with active intervals in the auroral zone, and quiet in the sub-auroral zone. Visit http://www.spaceweather.gc.ca/sfst-1-eng.php for the magnetic forecast.

Space Weather Bulletin - 2015-08-10 issued at 19:54 UT (14:54 EST)

Summary

There is currently no major storm watch in effect.

See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (19:45 UT)

Geomagnetic Activity:

polar cap zone: active

auroral zone: quiet

sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Impacts are not expected.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: unsettled with active intervals auroral zone: unsettled with active intervals sub-auroral zone: guiet with unsettled intervals

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Impacts are not expected.

Detailed Information

Solar

Solar activity has been low.

One medium coronal hole is located near the centre of the solar disk.

Interplanetary

Interplanetary activity has been low.

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit was at a normal level yesterday and is expected to be at a normal level tomorrow.

Visit <u>http://www.spaceweather.gc.ca/sffl-eng.php</u> for the electron forecast.

Geomagnetic

Over the last 24 hours geomagnetic activity has been unsettled with active intervals in the polar zone, unsettled with stormy intervals in the auroral zone, and quiet with active intervals in the sub-auroral zone.

Over the next 24 hours geomagnetic activity is forecast to be unsettled with active intervals in the polar zone, unsettled with active intervals in the auroral zone, and quiet with unsettled intervals in the sub-auroral zone.

Visit <u>http://www.spaceweather.gc.ca/sfst-1-eng.php</u> for the magnetic forecast.

Space Weather Bulletin - 2015-08-11 issued at 20:42 UT (15:42 EST)

Summary

There is currently no major storm watch in effect.

See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (20:30 UT)

Geomagnetic Activity:

polar cap zone: active

auroral zone: quiet

sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: moderate

Possible Impacts on Technology:

Geostationary satellites: moderate risk of internal charging. Aeromagnetic surveys: Potential for disruptions in the polar cap zone. Directional Drilling: Potential for deviations in the polar cap zone.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: unsettled with active intervals auroral zone: unsettled with active intervals sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: moderate

Possible Impacts on Technology:

Geostationary satellites: moderate risk of internal charging.

Detailed Information

Solar

Solar activity has been low.

One medium coronal hole is located near the centre of the solar disk.

Interplanetary

The solar wind speed is currently slow (400-500 km/s).

The interplanetary magnetic field has been fluctuating at low (|Bz|<5 nT) levels.

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit was at a normal level yesterday and is expected to be at a moderate level tomorrow.

Visit <u>http://www.spaceweather.gc.ca/sffl-eng.php</u> for the electron forecast.

Geomagnetic

Over the last 24 hours geomagnetic activity has been unsettled with active intervals in the polar zone, unsettled with stormy intervals in the auroral zone, and quiet with unsettled intervals in the sub-auroral zone.

Over the next 24 hours geomagnetic activity is forecast to be unsettled with active intervals in the polar zone, unsettled with active intervals in the auroral zone, and quiet in the sub-auroral zone. Visit <u>http://www.spaceweather.gc.ca/sfst-1-eng.php</u> for the magnetic forecast.

Space Weather Bulletin - 2015-08-12 issued at 19:54 UT (14:54 EST) Summary

There is currently no major storm watch in effect.

See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (19:45 UT)

Geomagnetic Activity:

polar cap zone: active auroral zone: active sub-auroral zone: unsettled

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: moderate

Possible Impacts on Technology:

Aeromagnetic surveys: Potential for disruptions in the polar cap and auroral zones. Directional Drilling: Potential for deviations in the polar cap and auroral zones. Geostationary satellites: moderate risk of internal charging.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: unsettled with active intervals auroral zone: unsettled with active intervals sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Impacts are not expected.

Detailed Information

Solar

Solar activity has been low.

Interplanetary

The solar wind speed is currently slow (400-500 km/s).

The interplanetary magnetic field has been fluctuating at moderate (|Bz|<10 nT) levels.

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit was at a moderate level yesterday and is expected to be at a normal level tomorrow.

Visit <u>http://www.spaceweather.gc.ca/sffl-eng.php</u> for the electron forecast.

Geomagnetic

Over the last 24 hours geomagnetic activity has been unsettled with stormy intervals in the polar zone, unsettled with active intervals in the auroral zone, and quiet with unsettled intervals in the sub-auroral zone.

Over the next 24 hours geomagnetic activity is forecast to be unsettled with active intervals in the polar zone, unsettled with active intervals in the auroral zone, and quiet in the sub-auroral zone.

Visit <u>http://www.spaceweather.gc.ca/sfst-1-eng.php</u> for the magnetic forecast.

Space Weather Bulletin - 2015-08-13 issued at 20:43 UT (15:43 EST) Summary There is currently no major storm watch in effect. See our website for current information: http://www.spaceweather.gc.ca (updated every 15 minutes) Current Conditions (20:30 UT) **Geomagnetic Activity:** polar cap zone: unsettled auroral zone: quiet sub-auroral zone: quiet **Environment at Geostationary orbit:** energetic electron fluence at geostationary orbit: normal Possible Impacts on Technology: Impacts are not expected. 24 Hour Forecast Geomagnetic Activity: polar cap zone: quiet with active intervals auroral zone: unsettled with stormy intervals sub-auroral zone: quiet **Environment at Geostationary orbit:** energetic electron fluence at geostationary orbit: normal Possible Impacts on Technology: Impacts are not expected. **Detailed Information** Solar Solar activity has been low. A moderate CME was observed on 12 AUG 2015, and is expected to deliver a glancing blow to the Earth on 16 AUG 2015. Interplanetary The solar wind speed is currently slow (400-500 km/s). The interplanetary magnetic field has been fluctuating at low (|Bz|<5 nT) levels. **Environment at Geostationary orbit** Energetic electron fluence at geostationary orbit was at a moderate level yesterday and is expected to be at a normal level tomorrow. Visit http://www.spaceweather.gc.ca/sffl-eng.php for the electron forecast. Geomagnetic Over the last 24 hours geomagnetic activity has been unsettled with stormy intervals in the polar zone, active with stormy intervals in the auroral zone, and quiet with active intervals in the subauroral zone.

Over the next 24 hours geomagnetic activity is forecast to be quiet with active intervals in the polar zone, unsettled with stormy intervals in the auroral zone, and quiet in the sub-auroral zone. Visit http://www.spaceweather.gc.ca/sfst-1-eng.php for the magnetic forecast.

Space Weather Bulletin - 2015-08-14 issued at 19:42 UT (14:42 EST)

Summary

There is currently no major storm watch in effect.

A moderate Earth-directed CME erupted on 12 AUG 2015 and is expected to reach the Earth on 16 AUG 2015, resulting in disturbed geomagnetic activity.

See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (19:30 UT)

Geomagnetic Activity:

polar cap zone: stormy auroral zone: quiet

sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Aeromagnetic surveys: Potential for significant disruptions in the polar cap zone.

Directional Drilling: Potential for significant deviations in the polar cap zone.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: unsettled with stormy intervals

auroral zone: quiet

sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Impacts are not expected.

Detailed Information

Solar

A moderate CME was observed on 12 AUG 2015, and is expected to deliver a glancing blow to the Earth on 16 AUG 2015, resulting in disturbed geomagnetic activity.

Solar activity has been low.

Interplanetary

The interplanetary magnetic field has been fluctuating at low (|Bz|<5 nT) levels.

The solar wind speed is currently very slow (< 400 km/s).

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit was at a normal level yesterday and is expected to be at a normal level tomorrow.

Visit <u>http://www.spaceweather.gc.ca/sffl-eng.php</u> for the electron forecast.

Geomagnetic

Over the last 24 hours geomagnetic activity has been quiet with active intervals in the polar zone, quiet with unsettled intervals in the auroral zone, and quiet with unsettled intervals in the subauroral zone.

Over the next 24 hours geomagnetic activity is forecast to be unsettled with stormy intervals in the polar zone, quiet in the auroral zone, and quiet in the sub-auroral zone.

Visit <u>http://www.spaceweather.gc.ca/sfst-1-eng.php</u> for the magnetic forecast.

Space Weather Bulletin - 2015-08-15 issued at 15:06 UT (10:06 EST)

Summary

The major storm WATCH issued 15 AUG 2015 11:37 UT for the polar cap, auroral, and sub-auroral zones ended 15 AUG 2015 14:58 UT.

- Major storm conditions are possible in the polar cap, auroral, and sub-auroral zones within the next 24 hours.
- A moderate Earth-directed CME erupted on 12 AUG 2015, resulting in increased geomagnetic activity.

An ionospheric absorption event is currently in progress in the auroral zone.

See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (15:00 UT)

Geomagnetic Activity:

polar cap zone: stormy auroral zone: stormy sub-auroral zone: active

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Power Systems: possibility of weak voltage fluctuations in the auroral and sub-auroral zones.

Aeromagnetic surveys: Potential for significant disruptions in the polar cap, auroral, and sub-auroral zones.

Directional Drilling: Potential for significant deviations in the polar cap, auroral, and sub-auroral zones.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: unsettled with stormy intervals auroral zone: active with stormy intervals

sub-auroral zone: unsettled with active intervals

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Power Systems: possibility of weak voltage fluctuations in the auroral and sub-auroral zones. Aeromagnetic surveys: Potential for significant disruptions in the polar cap, auroral, and sub-auroral

zones.

Directional Drilling: Potential for significant deviations in the polar cap, auroral, and sub-auroral zones.

Detailed Information

Solar

Solar activity has been low.

Interplanetary

An interplanetary shock has been observed on 15 AUG 2015 0730.

The interplanetary magnetic field has been fluctuating at high (|Bz|<20 nT) levels.

The solar wind speed is currently slow (400-500 km/s).

Prolonged periods of negative interplanetary magnetic field are often associated with increased geomagnetic activity.

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit was at a normal level yesterday and is expected to be at a normal level tomorrow.

Visit http://www.spaceweather.gc.ca/sffl-eng.php for the electron forecast.

Geomagnetic

- Over the last 24 hours geomagnetic activity has been unsettled with stormy intervals in the polar zone, quiet with major storm intervals in the auroral zone, and quiet with stormy intervals in the sub-auroral zone.
- Over the next 24 hours geomagnetic activity is forecast to be unsettled with stormy intervals in the polar zone, active with stormy intervals in the auroral zone, and unsettled with active intervals in the sub-auroral zone.

Visit <u>http://www.spaceweather.gc.ca/sfst-1-eng.php</u> for the magnetic forecast.

Space Weather Bulletin - 2015-08-15 issued at 19:32 UT (14:32 EST)

Summary

There is currently no major storm watch in effect.

Stormy conditions are possible in the polar cap, auroral, and sub-auroral zones within the next 24 hours.

The ionospheric absorption event reported earlier today has ended.

See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (19:15 UT)

Geomagnetic Activity:

polar cap zone: stormy auroral zone: unsettled sub-auroral zone: unsettled

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Aeromagnetic surveys: Potential for significant disruptions in the polar cap zone.

Directional Drilling: Potential for significant deviations in the polar cap zone.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: active with stormy intervals

auroral zone: active with stormy intervals

sub-auroral zone: unsettled with active intervals

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Power Systems: possibility of weak voltage fluctuations in the polar cap, auroral, and sub-auroral zones.

Aeromagnetic surveys: Potential for significant disruptions in the polar cap, auroral, and sub-auroral zones.

Directional Drilling: Potential for significant deviations in the polar cap, auroral, and sub-auroral zones.

Detailed Information

Solar

Solar activity has been low.

Interplanetary

The interplanetary magnetic field has been fluctuating at high (|Bz|<20 nT) levels.

The interplanetary magnetic field currently has Bz=+5 nT.

The solar wind speed is currently slow (400-500 km/s).

Prolonged periods of negative interplanetary magnetic field are often associated with increased geomagnetic activity.

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit was at a normal level yesterday and is expected to be at a normal level tomorrow.

Visit <u>http://www.spaceweather.gc.ca/sffl-eng.php</u> for the electron forecast.

Geomagnetic

Over the last 24 hours geomagnetic activity has been active with major storm intervals in the polar zone, quiet with major storm intervals in the auroral zone, and quiet with stormy intervals in the sub-auroral zone.

Over the next 24 hours geomagnetic activity is forecast to be active with stormy intervals in the polar zone, active with stormy intervals in the auroral zone, and unsettled with active intervals in the sub-auroral zone.

Visit <u>http://www.spaceweather.gc.ca/sfst-1-eng.php</u> for the magnetic forecast.

Space Weather Bulletin - 2015-08-16 issued at 11:37 UT (06:37 EST) Summary

The major storm WATCH issued 16 AUG 2015 08:17 UT for the polar cap, auroral, and sub-auroral zones ended 16 AUG 2015 10:42 UT.

There is currently no major storm watch in effect.

Stormy conditions are possible in the polar cap, auroral, and sub-auroral zones within the next 12 hours.

A moderate Earth-directed CME erupted on 12 AUG 2015, resulting in disturbed geomagnetic activity.

See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (11:30 UT)

Geomagnetic Activity:

polar cap zone: active auroral zone: unsettled sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: low

Possible Impacts on Technology:

Impacts are not expected.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: active with stormy intervals auroral zone: stormy sub-auroral zone: active with stormy intervals

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: moderate

Possible Impacts on Technology:

Power Systems: possibility of weak voltage fluctuations in the polar cap, auroral, and sub-auroral zones.

Geostationary satellites: moderate risk of internal charging.

Aeromagnetic surveys: Potential for significant disruptions in the polar cap, auroral, and sub-auroral zones.

Directional Drilling: Potential for significant deviations in the polar cap, auroral, and sub-auroral zones.

Detailed Information

Solar

Solar activity has been low.

Interplanetary

The interplanetary magnetic field has been fluctuating at moderate (|Bz| < 10 nT) levels.

Prolonged periods of negative interplanetary magnetic field are often associated with increased geomagnetic activity.

The solar wind speed has been increasing over the last 12 hours (currently ~ 550 km/s).

The solar wind speed is currently moderate (500-700 km/s).

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit was at a normal level yesterday and is expected to be at a moderate level tomorrow.

Visit <u>http://www.spaceweather.gc.ca/sffl-eng.php</u> for the electron forecast.

Geomagnetic

Over the last 24 hours geomagnetic activity has been active with major storm intervals in the polar zone, active with major storm intervals in the auroral zone, and active with stormy intervals in the sub-auroral zone.

Over the next 24 hours geomagnetic activity is forecast to be active with stormy intervals in the polar zone, stormy in the auroral zone, and active with stormy intervals in the sub-auroral zone. Visit <u>http://www.spaceweather.gc.ca/sfst-1-eng.php</u> for the magnetic forecast.

Space Weather Bulletin - 2015-08-16 issued at 18:43 UT (13:43 EST)

Summary

There is currently no major storm watch in effect.

Stormy conditions are possible in the auroral zone within the next 12 hours.

See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (18:30 UT) Geomagnetic Activity:

Geomagnetic Activity:

polar cap zone: stormy

auroral zone: active

sub-auroral zone: unsettled

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal **Possible Impacts on Technology:**

Aeromagnetic surveys: Potential for significant disruptions in the polar cap zone. Directional Drilling: Potential for significant deviations in the polar cap zone.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: active with stormy intervals auroral zone: active with stormy intervals

sub-auroral zone: unsettled with active intervals

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: moderate

Possible Impacts on Technology:

Power Systems: possibility of weak voltage fluctuations in the auroral zone.

Geostationary satellites: moderate risk of internal charging.

Aeromagnetic surveys: Potential for significant disruptions in the polar cap and auroral zones.

Directional Drilling: Potential for significant deviations in the polar cap and auroral zones.

Detailed Information

Solar

Solar activity has been low.

Interplanetary

The interplanetary magnetic field has been fluctuating at moderate (|Bz|<10 nT) levels. Prolonged periods of negative interplanetary magnetic field are often associated with increased geomagnetic activity.

The solar wind speed is currently slow (400-500 km/s).

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit was at a normal level yesterday and is expected to be at a moderate level tomorrow.

Visit <u>http://www.spaceweather.gc.ca/sffl-eng.php</u> for the electron forecast.

Geomagnetic

- Over the last 24 hours geomagnetic activity has been active with stormy intervals in the polar zone, active with stormy intervals in the auroral zone, and unsettled with stormy intervals in the subauroral zone.
- Over the next 24 hours geomagnetic activity is forecast to be active with stormy intervals in the polar zone, active with stormy intervals in the auroral zone, and unsettled with active intervals in the sub-auroral zone.

Visit <u>http://www.spaceweather.gc.ca/sfst-1-eng.php</u> for the magnetic forecast.

Space Weather Bulletin - 2015-08-17 issued at 20:19 UT (15:19 EST)

Summary

There is currently no major storm watch in effect.

See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (20:00 UT)

Geomagnetic Activity:

polar cap zone: unsettled auroral zone: unsettled sub-auroral zone: unsettled

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: moderate

Possible Impacts on Technology:

Geostationary satellites: moderate risk of internal charging.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: unsettled with stormy intervals auroral zone: active with stormy intervals sub-auroral zone: unsettled

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: moderate

Possible Impacts on Technology:

Geostationary satellites: moderate risk of internal charging.

Power Systems: possibility of weak voltage fluctuations in the polar cap and auroral zones. Aeromagnetic surveys: Potential for significant disruptions in the polar cap and auroral zones.

Directional Drilling: Potential for significant deviations in the polar cap and auroral zones.

Detailed Information

Solar

Solar activity has been low.

One large coronal hole is located near the centre of the solar disk.

Interplanetary

The solar wind speed is currently moderate (500-700 km/s).

The interplanetary magnetic field has been fluctuating at low (|Bz|<5 nT) levels.

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit was at a normal level yesterday and is expected to be at a moderate level tomorrow.

Visit <u>http://www.spaceweather.gc.ca/sffl-eng.php</u> for the electron forecast.

Geomagnetic

Over the last 24 hours geomagnetic activity has been active with stormy intervals in the polar zone, stormy in the auroral zone, and unsettled with stormy intervals in the sub-auroral zone.

Over the next 24 hours geomagnetic activity is forecast to be unsettled with stormy intervals in the polar zone, active with stormy intervals in the auroral zone, and unsettled in the sub-auroral zone.

Visit <u>http://www.spaceweather.gc.ca/sfst-1-eng.php</u> for the magnetic forecast.

Space Weather Bulletin - 2015-08-18 issued at 20:12 UT (15:12 EST)

Summary

There is currently no major storm watch in effect.

A slow CME was observed on 14 AUG 2015, and is expected to deliver a glancing blow to the Earth on 19 AUG 2015, resulting in increased geomagnetic activity.

See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (20:00 UT)

Geomagnetic Activity:

polar cap zone: active

auroral zone: quiet sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: high

Possible Impacts on Technology:

Geostationary satellites: high risk of internal charging.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: unsettled with active intervals auroral zone: unsettled with active intervals sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: moderate

Possible Impacts on Technology:

Geostationary satellites: moderate risk of internal charging.

Detailed Information

Solar

Solar activity has been low.

One large coronal hole is located near the centre of the solar disk.

A slow CME was observed on 14 AUG 2015, and is expected to deliver a glancing blow to the Earth on 18 AUG 2015, resulting in increased geomagnetic activity.

Interplanetary

The solar wind speed is currently slow (400-500 km/s).

The interplanetary magnetic field has been fluctuating at low (|Bz|<5 nT) levels.

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit was at a moderate level yesterday and is expected to be at a moderate level tomorrow.

Visit <u>http://www.spaceweather.gc.ca/sffl-eng.php</u> for the electron forecast.

Geomagnetic

Over the last 24 hours geomagnetic activity has been unsettled with active intervals in the polar zone, unsettled with stormy intervals in the auroral zone, and quiet with active intervals in the sub-auroral zone.

Over the next 24 hours geomagnetic activity is forecast to be unsettled with active intervals in the polar zone, unsettled with active intervals in the auroral zone, and quiet in the sub-auroral zone.

Visit http://www.spaceweather.gc.ca/sfst-1-eng.php for the magnetic forecast.

Space Weather Bulletin - 2015-08-19 issued at 21:29 UT (16:29 EST)

Summary

There is currently no major storm watch in effect.

See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (21:15 UT)

Geomagnetic Activity:

polar cap zone: active auroral zone: quiet sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: moderate

Possible Impacts on Technology:

Geostationary satellites: moderate risk of internal charging. Aeromagnetic surveys: Potential for disruptions in the polar cap zone. Directional Drilling: Potential for deviations in the polar cap zone.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: unsettled with stormy intervals auroral zone: active with stormy intervals sub-auroral zone: unsettled

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Power Systems: possibility of weak voltage fluctuations in the auroral and sub-auroral zones. Aeromagnetic surveys: Potential for significant disruptions in the polar cap and auroral zones. Directional Drilling: Potential for significant deviations in the polar cap and auroral zones.

Detailed Information

Solar

Solar activity has been low.

One medium coronal hole is located near the centre of the solar disk.

Interplanetary

The solar wind speed is currently slow (400-500 km/s).

The interplanetary magnetic field has been fluctuating at low (|Bz|<5 nT) levels.

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit was at a high level yesterday and is expected to be at a normal level tomorrow.

Visit <u>http://www.spaceweather.gc.ca/sffl-eng.php</u> for the electron forecast.

Geomagnetic

Over the last 24 hours geomagnetic activity has been unsettled with stormy intervals in the polar zone, active with stormy intervals in the auroral zone, and unsettled with active intervals in the sub-auroral zone.

Over the next 24 hours geomagnetic activity is forecast to be unsettled with stormy intervals in the polar zone, active with stormy intervals in the auroral zone, and unsettled in the sub-auroral zone.

Visit <u>http://www.spaceweather.gc.ca/sfst-1-eng.php</u> for the magnetic forecast.

Space Weather Bulletin - 2015-08-20 issued at 20:38 UT (15:38 EST) Summary

There is currently no major storm watch in effect.

See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (20:30 UT)

Geomagnetic Activity:

polar cap zone: stormy

auroral zone: active sub-auroral zone: unsettled

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: moderate

Possible Impacts on Technology:

Geostationary satellites: moderate risk of internal charging.

Aeromagnetic surveys: Potential for significant disruptions in the polar cap zone.

Directional Drilling: Potential for significant deviations in the polar cap zone.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: active with stormy intervals

auroral zone: unsettled with active intervals

sub-auroral zone: quiet with unsettled intervals

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: moderate

Possible Impacts on Technology:

Geostationary satellites: moderate risk of internal charging.

Aeromagnetic surveys: Potential for significant disruptions in the polar cap zone.

Directional Drilling: Potential for significant deviations in the polar cap zone.

Detailed Information

Solar

Solar activity has been moderate.

One medium coronal hole is located near the centre of the solar disk.

Interplanetary

The solar wind speed is currently slow (400-500 km/s).

The interplanetary magnetic field has been fluctuating at low (|Bz|<5 nT) levels.

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit was at a moderate level yesterday and is expected to be at a moderate level tomorrow.

Visit <u>http://www.spaceweather.gc.ca/sffl-eng.php</u> for the electron forecast.

Geomagnetic

Over the last 24 hours geomagnetic activity has been active with stormy intervals in the polar zone, unsettled with stormy intervals in the auroral zone, and quiet with stormy intervals in the subauroral zone.

Over the next 24 hours geomagnetic activity is forecast to be active with stormy intervals in the polar zone, unsettled with active intervals in the auroral zone, and quiet with unsettled intervals in the sub-auroral zone.

Visit <u>http://www.spaceweather.gc.ca/sfst-1-eng.php</u> for the magnetic forecast.

Space Weather Bulletin - 2015-08-21 issued at 19:57 UT (14:57 EST) Summary

There is currently no major storm watch in effect.

See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (19:45 UT)

Geomagnetic Activity:

polar cap zone: active auroral zone: quiet sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: moderate

Possible Impacts on Technology:

Geostationary satellites: moderate risk of internal charging. Directional Drilling: Potential for deviations in the polar cap zone. Aeromagnetic surveys: Potential for disruptions in the polar cap zone.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: unsettled with stormy intervals auroral zone: quiet with unsettled intervals

sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: moderate

Possible Impacts on Technology:

Geostationary satellites: moderate risk of internal charging.

Detailed Information

Solar

Solar activity has been moderate.

One medium coronal hole is located near the centre of the solar disk.

A slow CME erupted on 21 AUG 2015. It is not yet known if the CME will impact the Earth.

The active region located near the central region of the solar disk has produced solar x-ray flares and an associated CME and has the potential to produce subsequent solar eruptions.

Interplanetary

The solar wind speed is currently slow (400-500 km/s).

The interplanetary magnetic field has been fluctuating at low (|Bz|<5 nT) levels.

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit was at a moderate level yesterday and is expected to be at a moderate level tomorrow.

Visit <u>http://www.spaceweather.gc.ca/sffl-eng.php</u> for the electron forecast.

Geomagnetic

Over the last 24 hours geomagnetic activity has been unsettled with stormy intervals in the polar zone, quiet with active intervals in the auroral zone, and quiet with unsettled intervals in the sub-auroral zone.

Over the next 24 hours geomagnetic activity is forecast to be unsettled with stormy intervals in the polar zone, quiet with unsettled intervals in the auroral zone, and quiet in the sub-auroral zone. Visit <u>http://www.spaceweather.gc.ca/sfst-1-eng.php</u> for the magnetic forecast.

Space Weather Bulletin - 2015-08-22 issued at 22:23 UT (17:23 EST) Summary

There is currently no major storm watch in effect.

See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (22:00 UT)

Geomagnetic Activity:

polar cap zone: active auroral zone: quiet sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: moderate

Possible Impacts on Technology:

Geostationary satellites: moderate risk of internal charging.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: unsettled with active intervals auroral zone: unsettled with active intervals sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Impacts are not expected.

Detailed Information

Solar

Solar activity has been moderate.

The active region located near the central region of the solar disk has produced solar x-ray flares and associated CMEs and has the potential to produce subsequent solar eruptions.

A slow non-Earth-directed CME erupted on 21 AUG 2015.

A moderate CME erupted on 22 AUG 2015. It is not yet known if the CME will impact the Earth.

Interplanetary

The solar wind speed is currently slow (400-500 km/s).

The interplanetary magnetic field has been fluctuating at low (|Bz|<5 nT) levels.

Prolonged periods of negative interplanetary magnetic field are often associated with increased geomagnetic activity.

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit was at a moderate level yesterday and is expected to be at a normal level tomorrow.

Visit <u>http://www.spaceweather.gc.ca/sffl-eng.php</u> for the electron forecast.

Geomagnetic

Over the last 24 hours geomagnetic activity has been quiet with active intervals in the polar zone, unsettled with active intervals in the auroral zone, and quiet with unsettled intervals in the subauroral zone.

Over the next 24 hours geomagnetic activity is forecast to be unsettled with active intervals in the polar zone, unsettled with active intervals in the auroral zone, and quiet in the sub-auroral zone. Visit <u>http://www.spaceweather.gc.ca/sfst-1-eng.php</u> for the magnetic forecast.

Space Weather Bulletin - 2015-08-23 issued at 19:27 UT (14:27 EST)

Summary

There is currently no major storm watch in effect.

See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (19:15 UT)

Geomagnetic Activity:

polar cap zone: stormy auroral zone: unsettled sub-auroral zone: unsettled

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Aeromagnetic surveys: Potential for significant disruptions in the polar cap zone.

Directional Drilling: Potential for significant deviations in the polar cap zone.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: unsettled with stormy intervals auroral zone: active with stormy intervals sub-auroral zone: unsettled with active intervals

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Aeromagnetic surveys: Potential for disruptions in the auroral zone.

Directional Drilling: Potential for deviations in the auroral zone.

Detailed Information

Solar

Solar activity has been moderate.

The active region located near the central region of the solar disk has produced solar x-ray flares and associated CMEs and has the potential to produce subsequent solar eruptions.

A slow Earth-directed CME erupted on 22 AUG 2015 and is expected to reach the Earth on 25 AUG 2015.

Interplanetary

The solar wind speed is currently moderate (500-700 km/s).

Moderate solar wind speeds are due to high speed streams from coronal holes.

The interplanetary magnetic field has been fluctuating at low (|Bz|<5 nT) levels.

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit was at a moderate level yesterday and is expected to be at a normal level tomorrow.

Visit <u>http://www.spaceweather.gc.ca/sffl-eng.php</u> for the electron forecast.

Geomagnetic

Over the last 24 hours geomagnetic activity has been active with stormy intervals in the polar zone, active with stormy intervals in the auroral zone, and quiet with stormy intervals in the subauroral zone.

Over the next 24 hours geomagnetic activity is forecast to be unsettled with stormy intervals in the polar zone, active with stormy intervals in the auroral zone, and unsettled with active intervals in the sub-auroral zone.

Visit <u>http://www.spaceweather.gc.ca/sfst-1-eng.php</u> for the magnetic forecast.

Space Weather Bulletin - 2015-08-24 issued at 20:59 UT (15:59 EST) Summary

There is currently no major storm watch in effect.

Stormy conditions are possible in the polar cap, auroral, and sub-auroral zones within the next 24 hours.

See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (20:45 UT)

Geomagnetic Activity:

polar cap zone: unsettled auroral zone: quiet

sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Impacts are not expected.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: active with stormy intervals auroral zone: unsettled with active intervals sub-auroral zone: quiet with active intervals

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: moderate

Possible Impacts on Technology:

Geostationary satellites: moderate risk of internal charging.

Detailed Information

Solar

Solar activity has been moderate.

The active region located near the central region of the solar disk has produced solar x-ray flares and associated CMEs and has the potential to produce subsequent solar eruptions.

A slow Earth-directed CME erupted on AUG 22 2015 06:07 UT and is expected to reach the Earth on 25 AUG 2015.

Interplanetary

The interplanetary magnetic field has been fluctuating at low (|Bz|<5 nT) levels.

The solar wind speed is currently slow (400-500 km/s).

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit was at a normal level yesterday and is expected to be at a moderate level tomorrow.

Visit <u>http://www.spaceweather.gc.ca/sffl-eng.php</u> for the electron forecast.

Geomagnetic

Over the last 24 hours geomagnetic activity has been unsettled with stormy intervals in the polar zone, unsettled with stormy intervals in the auroral zone, and quiet with unsettled intervals in the sub-auroral zone.

Over the next 24 hours geomagnetic activity is forecast to be active with stormy intervals in the polar zone, unsettled with active intervals in the auroral zone, and quiet with active intervals in the sub-auroral zone.

Visit <u>http://www.spaceweather.gc.ca/sfst-1-eng.php</u> for the magnetic forecast.

Space Weather Bulletin - 2015-08-25 issued at 16:39 UT (11:39 EST)

Summary

There is currently no major storm watch in effect.

Stormy conditions are possible in the polar cap, auroral, and sub-auroral zones within the next 24 hours.

See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (16:15 UT)

Geomagnetic Activity:

polar cap zone: unsettled

auroral zone: quiet

sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: moderate

Possible Impacts on Technology:

Geostationary satellites: moderate risk of internal charging.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: quiet with active intervals auroral zone: unsettled with active intervals sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Aeromagnetic surveys: Potential for disruptions in the polar cap and auroral zones.

Directional Drilling: Potential for deviations in the polar cap and auroral zones.

Detailed Information

Solar

Solar activity has been moderate.

- The active region located near the central region of the solar disk has produced solar x-ray flares and associated CMEs and has the potential to produce subsequent solar eruptions.
- A slow Earth-directed CME erupted on 22 AUG 2015 06:07 UT and is expected to reach the Earth on 25 AUG 2015.

Interplanetary

The solar wind speed is currently very slow (< 400 km/s).

The interplanetary magnetic field has been primarily negative at low (|Bz|<5 nT) levels.

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit was at a moderate level yesterday and is expected to be at a normal level tomorrow.

Visit <u>http://www.spaceweather.gc.ca/sffl-eng.php</u> for the electron forecast.

Geomagnetic

Over the last 24 hours geomagnetic activity has been quiet with stormy intervals in the polar zone, quiet with stormy intervals in the auroral zone, and quiet with active intervals in the sub-auroral zone.

Over the next 24 hours geomagnetic activity is forecast to be quiet with active intervals in the polar zone, unsettled with active intervals in the auroral zone, and quiet in the sub-auroral zone. Visit <u>http://www.spaceweather.gc.ca/sfst-1-eng.php</u> for the magnetic forecast.

Space Weather Bulletin - 2015-08-26 issued at 17:02 UT (12:02 EST) Summary

There is currently no major storm watch in effect.

Stormy conditions are possible in the polar cap, auroral, and sub-auroral zones within the next 24 hours.

See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (16:45 UT)

Geomagnetic Activity:

polar cap zone: unsettled auroral zone: unsettled

sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: unsettled with active intervals auroral zone: active with stormy intervals sub-auroral zone: guiet with unsettled intervals

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Power Systems: possibility of weak voltage fluctuations in the auroral zone. Aeromagnetic surveys: Potential for significant disruptions in the auroral zone. Aeromagnetic surveys: Potential for disruptions in the polar cap zone. Directional Drilling: Potential for significant deviations in the auroral zone. Directional Drilling: Potential for deviations in the polar cap zone.

Detailed Information

Solar

Solar activity has been moderate.

A slow non-Earth-directed CME erupted on 25 AUG 2015 13:25 UT.

Two coronal holes are located near the centre of the solar disk.

A long duration C (low) solar x-ray flare erupted at 26 AUG 2015 13:51 UT near the edge of the solar disk.

Interplanetary

The solar wind speed is currently very slow (< 400 km/s).

The interplanetary magnetic field has been primarily negative at moderate (|Bz|<10 nT) levels.

Prolonged periods of negative interplanetary magnetic field are often associated with increased geomagnetic activity.

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit was at a normal level yesterday and is expected to be at a normal level tomorrow.

Visit http://www.spaceweather.gc.ca/sffl-eng.php for the electron forecast.

Geomagnetic

- Over the last 24 hours geomagnetic activity has been unsettled with stormy intervals in the polar zone, active with stormy intervals in the auroral zone, and quiet with stormy intervals in the subauroral zone.
- Over the next 24 hours geomagnetic activity is forecast to be unsettled with active intervals in the polar zone, active with stormy intervals in the auroral zone, and quiet with unsettled intervals in the sub-auroral zone.

Visit http://www.spaceweather.gc.ca/sfst-1-eng.php for the magnetic forecast.

Space Weather Bulletin - 2015-08-27 issued at 10:37 UT (05:37 EST)

Summary

- The major storm WATCH issued 27 AUG 2015 04:07 UT for the polar cap, auroral, and sub-auroral zones ended 27 AUG 2015 06:13 UT.
- The major storm WATCH issued 27 AUG 2015 07:27 UT for the polar cap, auroral, and sub-auroral zones ended 27 AUG 2015 09:33 UT.
- Stormy conditions are possible in the polar cap, auroral, and sub-auroral zones within the next 24 hours.
- See our website for current information: http://www.spaceweather.gc.ca (updated every 15 minutes)

Possible Impacts on Technology:

- Power Systems: possibility of weak voltage fluctuations in the polar cap, auroral, and sub-auroral zones.
- Aeromagnetic surveys: Potential for significant disruptions in the polar cap, auroral, and sub-auroral zones.
- Directional Drilling: Potential for significant deviations in the polar cap, auroral, and sub-auroral zones.

Detailed Information

Interplanetary

The solar wind speed is currently very slow (< 400 km/s).

The interplanetary magnetic field has been fluctuating at moderate (|Bz|<10 nT) levels.

Prolonged periods of negative interplanetary magnetic field are often associated with increased geomagnetic activity.

Space Weather Bulletin - 2015-08-27 issued at 17:02 UT (12:02 EST) Summary

Stormy conditions are currently observed in the auroral zone.

Disturbed geomagnetic conditions are expected 27 AUG 2015 to 29 AUG 2015 due to high speed streams from coronal holes.

Stormy conditions are possible in the polar cap, auroral, and sub-auroral zones within the next 24 hours.

See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (16:45 UT)

Geomagnetic Activity:

polar cap zone: unsettled auroral zone: stormy sub-auroral zone: active

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Power Systems: possibility of weak voltage fluctuations in the auroral zone. Aeromagnetic surveys: Potential for significant disruptions in the auroral zone. Aeromagnetic surveys: Potential for disruptions in the sub-auroral zone. Directional Drilling: Potential for significant deviations in the auroral zone. Directional Drilling: Potential for deviations in the sub-auroral zone.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: unsettled with active intervals auroral zone: stormy

autoral zone. Storing

sub-auroral zone: active

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: moderate

Possible Impacts on Technology:

Power Systems: possibility of weak voltage fluctuations in the auroral zone.

Geostationary satellites: moderate risk of internal charging.

Aeromagnetic surveys: Potential for significant disruptions in the auroral zone.

Aeromagnetic surveys: Potential for disruptions in the polar cap and sub-auroral zones.

Directional Drilling: Potential for significant deviations in the auroral zone.

Directional Drilling: Potential for deviations in the polar cap and sub-auroral zones.

Detailed Information

Solar

Solar activity has been moderate.

A non-Earth-directed CME erupted on 26 AUG 2015 20:24 UT.

Three coronal holes are located near the centre of the solar disk.

An M (medium) solar x-ray flare erupted 27 AUG 2015 05:36 UT near the edge of the solar disk.

Interplanetary

The solar wind speed is currently very slow (< 400 km/s).

The interplanetary magnetic field has been primarily negative at moderate (|Bz|<10 nT) levels. Prolonged periods of negative interplanetary magnetic field are often associated with increased geomagnetic activity.

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit was at a normal level yesterday and is expected to be at a moderate level tomorrow.

Visit <u>http://www.spaceweather.gc.ca/sffl-eng.php</u> for the electron forecast.

Geomagnetic

- Over the last 24 hours geomagnetic activity has been unsettled with stormy intervals in the polar zone, active with major storm intervals in the auroral zone, and unsettled with stormy intervals in the sub-auroral zone.
- Over the next 24 hours geomagnetic activity is forecast to be unsettled with active intervals in the polar zone, stormy in the auroral zone, and active in the sub-auroral zone.

Visit <u>http://www.spaceweather.gc.ca/sfst-1-eng.php</u> for the magnetic forecast.

Space Weather Bulletin - 2015-08-27 issued at 10:37 UT (05:37 EST) Summary

- The major storm WATCH issued 27 AUG 2015 04:07 UT for the polar cap, auroral, and sub-auroral zones ended 27 AUG 2015 06:13 UT.
- The major storm WATCH issued 27 AUG 2015 07:27 UT for the polar cap, auroral, and sub-auroral zones ended 27 AUG 2015 09:33 UT.
- Stormy conditions are possible in the polar cap, auroral, and sub-auroral zones within the next 24 hours.
- See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Possible Impacts on Technology:

- Power Systems: possibility of weak voltage fluctuations in the polar cap, auroral, and sub-auroral zones.
- Aeromagnetic surveys: Potential for significant disruptions in the polar cap, auroral, and sub-auroral zones.
- Directional Drilling: Potential for significant deviations in the polar cap, auroral, and sub-auroral zones.

Detailed Information

Interplanetary

The solar wind speed is currently very slow (< 400 km/s).

The interplanetary magnetic field has been fluctuating at moderate (|Bz|<10 nT) levels. Prolonged periods of negative interplanetary magnetic field are often associated with increased geomagnetic activity.

Space Weather Bulletin - 2015-08-27 issued at 17:02 UT (12:02 EST)

Summary

Stormy conditions are currently observed in the auroral zone.

- Disturbed geomagnetic conditions are expected 27 AUG 2015 to 29 AUG 2015 due to high speed streams from coronal holes.
- Stormy conditions are possible in the polar cap, auroral, and sub-auroral zones within the next 24 hours.
- See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (16:45 UT)

Geomagnetic Activity:

polar cap zone: unsettled auroral zone: stormy sub-auroral zone: active

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Power Systems: possibility of weak voltage fluctuations in the auroral zone. Aeromagnetic surveys: Potential for significant disruptions in the auroral zone. Aeromagnetic surveys: Potential for disruptions in the sub-auroral zone. Directional Drilling: Potential for significant deviations in the auroral zone. Directional Drilling: Potential for deviations in the sub-auroral zone.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: unsettled with active intervals auroral zone: stormy sub-auroral zone: active

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: moderate

Possible Impacts on Technology:

Power Systems: possibility of weak voltage fluctuations in the auroral zone.

Geostationary satellites: moderate risk of internal charging.

Aeromagnetic surveys: Potential for significant disruptions in the auroral zone.

Aeromagnetic surveys: Potential for disruptions in the polar cap and sub-auroral zones.

Directional Drilling: Potential for significant deviations in the auroral zone.

Directional Drilling: Potential for deviations in the polar cap and sub-auroral zones.

Detailed Information

Solar

Solar activity has been moderate.

A non-Earth-directed CME erupted on 26 AUG 2015 20:24 UT.

Three coronal holes are located near the centre of the solar disk.

An M (medium) solar x-ray flare erupted 27 AUG 2015 05:36 UT near the edge of the solar disk.

Interplanetary

The solar wind speed is currently very slow (< 400 km/s).

The interplanetary magnetic field has been primarily negative at moderate (|Bz|<10 nT) levels. Prolonged periods of negative interplanetary magnetic field are often associated with increased geomagnetic activity.

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit was at a normal level yesterday and is expected to be at a moderate level tomorrow.

Visit <u>http://www.spaceweather.gc.ca/sffl-eng.php</u> for the electron forecast.

Geomagnetic

Over the last 24 hours geomagnetic activity has been unsettled with stormy intervals in the polar zone, active with major storm intervals in the auroral zone, and unsettled with stormy intervals in the sub-auroral zone.

Over the next 24 hours geomagnetic activity is forecast to be unsettled with active intervals in the polar zone, stormy in the auroral zone, and active in the sub-auroral zone.

Visit <u>http://www.spaceweather.gc.ca/sfst-1-eng.php</u> for the magnetic forecast.

Space Weather Bulletin - 2015-08-28 issued at 17:07 UT (12:07 EST) Summary

Stormy conditions are possible in the polar cap, auroral, and sub-auroral zones within the next 24 hours.

There is currently no major storm watch in effect.

See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (16:45 UT)

Geomagnetic Activity:

polar cap zone: unsettled auroral zone: active sub-auroral zone: unsettled

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Aeromagnetic surveys: Potential for disruptions in the auroral zone. Directional Drilling: Potential for deviations in the auroral zone.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: unsettled with active intervals

auroral zone: active with stormy intervals

sub-auroral zone: unsettled with active intervals

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: high

Possible Impacts on Technology:

Power Systems: possibility of weak voltage fluctuations in the auroral zone.

Geostationary satellites: high risk of internal charging.

Aeromagnetic surveys: Potential for significant disruptions in the auroral zone.

Aeromagnetic surveys: Potential for disruptions in the polar cap and sub-auroral zones.

Directional Drilling: Potential for significant deviations in the auroral zone.

Directional Drilling: Potential for deviations in the polar cap and sub-auroral zones.

Detailed Information

Solar

Solar activity has been moderate.

Three coronal holes are located near the centre of the solar disk.

An M (medium) solar x-ray flare erupted 28 AUG 2015 13:11 UT.

Interplanetary

The solar wind speed is currently very slow (< 400 km/s).

The interplanetary magnetic field has been primarily negative at moderate (|Bz|<10 nT) levels. Prolonged periods of negative interplanetary magnetic field are often associated with increased geomagnetic activity.

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit was at a normal level yesterday and is expected to be at a high level tomorrow.

Visit <u>http://www.spaceweather.gc.ca/sffl-eng.php</u> for the electron forecast.

Geomagnetic

Over the last 24 hours geomagnetic activity has been unsettled with active intervals in the polar zone, active with stormy intervals in the auroral zone, and unsettled with stormy intervals in the sub-auroral zone.

Over the next 24 hours geomagnetic activity is forecast to be unsettled with active intervals in the polar zone, active with stormy intervals in the auroral zone, and unsettled with active intervals in the sub-auroral zone.

Visit <u>http://www.spaceweather.gc.ca/sfst-1-eng.php</u> for the magnetic forecast.

Space Weather Bulletin - 2015-08-29 issued at 18:57 UT (13:57 EST) Summary

There is currently no major storm watch in effect.

See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (18:45 UT)

Geomagnetic Activity:

polar cap zone: stormy auroral zone: quiet

sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Power Systems: possibility of weak voltage fluctuations in the polar cap zone. Aeromagnetic surveys: Potential for significant disruptions in the polar cap zone. Directional Drilling: Potential for significant deviations in the polar cap zone.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: unsettled with stormy intervals auroral zone: unsettled with active intervals sub-auroral zone: unsettled

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: moderate

Possible Impacts on Technology:

Power Systems: possibility of weak voltage fluctuations in the polar cap zone. Geostationary satellites: moderate risk of internal charging. Aeromagnetic surveys: Potential for significant disruptions in the polar cap zone. Aeromagnetic surveys: Potential for disruptions in the auroral zone. Directional Drilling: Potential for significant deviations in the polar cap zone. Directional Drilling: Potential for deviations in the auroral zone.

Detailed Information

Solar

Solar activity has been moderate.

Two coronal holes are located near the edge of the solar disk.

One coronal hole is located near the centre of the solar disk.

Two medium solar x-ray flares have erupted over the past 24 hours.

Interplanetary

The solar wind speed is currently slow (400-500 km/s).

The interplanetary magnetic field has been fluctuating at moderate (|Bz|<10 nT) levels.

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit was at a normal level yesterday and is expected to be at a moderate level tomorrow.

Visit <u>http://www.spaceweather.gc.ca/sffl-eng.php</u> for the electron forecast.

Geomagnetic

- Over the last 24 hours geomagnetic activity has been active with stormy intervals in the polar zone, unsettled with stormy intervals in the auroral zone, and unsettled with stormy intervals in the sub-auroral zone.
- Over the next 24 hours geomagnetic activity is forecast to be unsettled with stormy intervals in the polar zone, unsettled with active intervals in the auroral zone, and unsettled in the sub-auroral zone.

Visit <u>http://www.spaceweather.gc.ca/sfst-1-eng.php</u> for the magnetic forecast.

Space Weather Bulletin - 2015-08-30 issued at 17:53 UT (12:53 EST)

Summary

There is currently no major storm watch in effect.

See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (17:30 UT)

Geomagnetic Activity:

polar cap zone: stormy

auroral zone: quiet

sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Power Systems: possibility of weak voltage fluctuations in the polar cap zone. Aeromagnetic surveys: Potential for significant disruptions in the polar cap zone. Directional Drilling: Potential for significant deviations in the polar cap zone.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: unsettled with active intervals auroral zone: quiet with unsettled intervals sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Aeromagnetic surveys: Potential for disruptions in the polar cap zone.

Directional Drilling: Potential for deviations in the polar cap zone.

Detailed Information

Solar

Solar activity has been low. Two coronal holes are located near the edge of the solar disk. One coronal hole is located near the centre of the solar disk. An M (medium) solar x-ray flare erupted 30 AUG 2015 03:00 UT.

Interplanetary

The solar wind speed is currently slow (400-500 km/s).

The interplanetary magnetic field has been fluctuating at low (|Bz|<5 nT) levels.

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit was at a normal level yesterday and is expected to be at a normal level tomorrow.

Visit <u>http://www.spaceweather.gc.ca/sffl-eng.php</u> for the electron forecast.

Geomagnetic

Over the last 24 hours geomagnetic activity has been quiet with stormy intervals in the polar zone, quiet with active intervals in the auroral zone, and quiet with unsettled intervals in the subauroral zone.

Over the next 24 hours geomagnetic activity is forecast to be unsettled with active intervals in the polar zone, quiet with unsettled intervals in the auroral zone, and quiet in the sub-auroral zone. Visit http://www.spaceweather.gc.ca/sfst-1-eng.php for the magnetic forecast.

Space Weather Bulletin - 2015-08-31 issued at 16:50 UT (11:50 EST)

Summary

There is currently no major storm watch in effect.

See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (16:30 UT)

Geomagnetic Activity:

polar cap zone: active auroral zone: quiet sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: moderate

Possible Impacts on Technology:

Geostationary satellites: moderate risk of internal charging. Aeromagnetic surveys: Potential for disruptions in the polar cap zone. Directional Drilling: Potential for deviations in the polar cap zone.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: quiet with active intervals auroral zone: quiet sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Detailed Information

Solar

Solar activity has been low.

Two coronal holes are located near the edge of the solar disk.

Two coronal holes are located near the centre of the solar disk.

Interplanetary

The solar wind speed is currently very slow (< 400 km/s).

The interplanetary magnetic field has been fluctuating at low (|Bz|<5 nT) levels.

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit was at a moderate level yesterday and is expected to be at a normal level tomorrow.

Visit <u>http://www.spaceweather.gc.ca/sffl-eng.php</u> for the electron forecast.

Geomagnetic

Over the last 24 hours geomagnetic activity has been quiet with stormy intervals in the polar zone, quiet with unsettled intervals in the auroral zone, and quiet in the sub-auroral zone.

Over the next 24 hours geomagnetic activity is forecast to be quiet with active intervals in the polar zone, quiet in the auroral zone, and quiet in the sub-auroral zone.

Visit http://www.spaceweather.gc.ca/sfst-1-eng.php for the magnetic forecast.

Space Weather Bulletin - 2015-09-01 issued at 16:57 UT (11:57 EST)

Summary

There is currently no major storm watch in effect.

See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (16:45 UT)

Geomagnetic Activity:

polar cap zone: unsettled auroral zone: quiet sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: moderate

Possible Impacts on Technology:

Geostationary satellites: moderate risk of internal charging.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: quiet with active intervals

auroral zone: quiet with unsettled intervals

sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Aeromagnetic surveys: Potential for disruptions in the polar cap zone.

Directional Drilling: Potential for deviations in the polar cap zone.

Detailed Information

Solar

Solar activity has been moderate.

Several non-Earth-directed CMEs erupted on 31 AUG 2015 - 01 SEP 2015.

Two coronal holes are located near the centre of the solar disk.

Interplanetary

The solar wind speed is currently very slow (< 400 km/s).

The interplanetary magnetic field has been fluctuating at low (|Bz|<5 nT) levels.

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit was at a moderate level yesterday and is expected to be at a normal level tomorrow.

Visit <u>http://www.spaceweather.gc.ca/sffl-eng.php</u> for the electron forecast.

Geomagnetic

Over the last 24 hours geomagnetic activity has been quiet with stormy intervals in the polar zone, quiet with active intervals in the auroral zone, and quiet with unsettled intervals in the subauroral zone.

Over the next 24 hours geomagnetic activity is forecast to be quiet with active intervals in the polar zone, quiet with unsettled intervals in the auroral zone, and quiet in the sub-auroral zone. Visit http://www.spaceweather.gc.ca/sfst-1-eng.php for the magnetic forecast.

Space Weather Bulletin - 2015-09-02 issued at 17:06 UT (12:06 EST)

Summary

There is currently no major storm watch in effect.

See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (16:45 UT)

Geomagnetic Activity:

polar cap zone: quiet auroral zone: quiet

sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: moderate

Possible Impacts on Technology:

Geostationary satellites: moderate risk of internal charging.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: quiet with active intervals auroral zone: quiet

sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Aeromagnetic surveys: Potential for disruptions in the polar cap zone.

Directional Drilling: Potential for deviations in the polar cap zone.

Detailed Information

Solar

Solar activity has been low.

Two coronal holes are located near the edge of the solar disk.

One coronal hole is located near the centre of the solar disk.

Interplanetary

The solar wind speed is currently slow (400-500 km/s). The interplanetary magnetic field has been fluctuating at low (|Bz|<5 nT) levels.

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit was at a moderate level yesterday and is expected to be at a normal level tomorrow.

Visit http://www.spaceweather.gc.ca/sffl-eng.php for the electron forecast.

Geomagnetic

Over the last 24 hours geomagnetic activity has been quiet with stormy intervals in the polar zone, quiet with active intervals in the auroral zone, and quiet with unsettled intervals in the subauroral zone.

Over the next 24 hours geomagnetic activity is forecast to be quiet with active intervals in the polar zone, quiet in the auroral zone, and quiet in the sub-auroral zone.

Visit <u>http://www.spaceweather.gc.ca/sfst-1-eng.php</u> for the magnetic forecast.

Space Weather Bulletin - 2015-09-03 issued at 16:59 UT (11:59 EST)

Summary

There is currently no major storm watch in effect.

See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (16:45 UT)

Geomagnetic Activity:

polar cap zone: unsettled auroral zone: quiet sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Impacts are not expected.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: quiet with active intervals auroral zone: unsettled with active intervals sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Aeromagnetic surveys: Potential for disruptions in the polar cap and auroral zones. Directional Drilling: Potential for deviations in the polar cap and auroral zones.

Detailed Information

Solar

Solar activity has been low.

One coronal hole is located near the centre of the solar disk.

One coronal hole is located near the edge of the solar disk.

Interplanetary

The solar wind speed is currently slow (400-500 km/s).

The interplanetary magnetic field has been fluctuating at low (|Bz|<5 nT) levels.
Energetic electron fluence at geostationary orbit was at a moderate level yesterday and is expected to be at a normal level tomorrow.

Visit <u>http://www.spaceweather.gc.ca/sffl-eng.php</u> for the electron forecast.

Geomagnetic

Over the last 24 hours geomagnetic activity has been quiet with stormy intervals in the polar zone, quiet with stormy intervals in the auroral zone, and quiet with active intervals in the sub-auroral zone.

Over the next 24 hours geomagnetic activity is forecast to be quiet with active intervals in the polar zone, unsettled with active intervals in the auroral zone, and quiet in the sub-auroral zone. Visit http://www.spaceweather.gc.ca/sfst-1-eng.php for the magnetic forecast.

Space Weather Bulletin - 2015-09-04 issued at 19:12 UT (14:12 EST) Summary

There is currently no major storm watch in effect.

See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (19:00 UT)

Geomagnetic Activity:

polar cap zone: unsettled auroral zone: unsettled sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Impacts are not expected.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: unsettled with stormy intervals auroral zone: active with stormy intervals sub-auroral zone: unsettled

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Power Systems: possibility of weak voltage fluctuations in the auroral and sub-auroral zones. Aeromagnetic surveys: Potential for significant disruptions in the polar cap and sub-auroral zones. Directional Drilling: Potential for significant deviations in the polar cap and auroral zones.

Detailed Information

Solar

A non-Earth-directed CME erupted on 03 SEP 2015 12:00 UT.

Two coronal holes are located near the centre of the solar disk.

Two coronal holes are located near the edge of the solar disk.

Interplanetary

The solar wind speed is currently slow (400-500 km/s).

The interplanetary magnetic field has been fluctuating at low (|Bz|<5 nT) levels.

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit was at a normal level yesterday and is expected to be at a normal level tomorrow.

Visit <u>http://www.spaceweather.gc.ca/sffl-eng.php</u> for the electron forecast.

Geomagnetic

- Over the last 24 hours geomagnetic activity has been active in the polar zone, active with stormy intervals in the auroral zone, and quiet with stormy intervals in the sub-auroral zone.
- Over the next 24 hours geomagnetic activity is forecast to be unsettled with stormy intervals in the polar zone, active with stormy intervals in the auroral zone, and unsettled in the sub-auroral zone.

Visit <u>http://www.spaceweather.gc.ca/sfst-1-eng.php</u> for the magnetic forecast.

Space Weather Bulletin - 2015-09-05 issued at 17:56 UT (12:56 EST) Summary

There is currently no major storm watch in effect.

- A slow Earth-directed CME erupted on 04 SEP 2015 19:24 UT and is expected to reach the Earth on 08-09 SEP 2015.
- See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (17:45 UT)

Geomagnetic Activity:

polar cap zone: active auroral zone: active

sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Aeromagnetic surveys: Potential for disruptions in the polar cap and auroral zones. Directional Drilling: Potential for deviations in the polar cap and auroral zones.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: unsettled with active intervals auroral zone: unsettled with active intervals sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: moderate

Possible Impacts on Technology:

Geostationary satellites: moderate risk of internal charging.

Aeromagnetic surveys: Potential for disruptions in the polar cap and auroral zones.

Directional Drilling: Potential for deviations in the polar cap and auroral zones.

Detailed Information

Solar

Solar activity has been low.

A slow Earth-directed CME erupted on 04 SEP 2015 19:24 UT and is expected to reach the Earth on 08-09 SEP 2015.

Three coronal holes are located near the edge of the solar disk.

Interplanetary

The solar wind speed is currently slow (400-500 km/s).

The interplanetary magnetic field has been fluctuating at low (|Bz|<5 nT) levels.

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit was at a normal level yesterday and is expected to be at a moderate level tomorrow.

Visit <u>http://www.spaceweather.gc.ca/sffl-eng.php</u> for the electron forecast.

Space Weather Bulletin - 2015-09-07 issued at 17:24 UT (12:24 EST) Summary

Stormy conditions are currently observed in the polar cap, auroral, and sub-auroral zones.

Stormy conditions are possible from 07 SEP 2015 to 08 SEP 2015 for the polar cap, auroral, and subauroral zones.

An ionospheric absorption event is currently in progress in the auroral zone.

See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (17:00 UT)

Geomagnetic Activity:

polar cap zone: stormy auroral zone: stormy sub-auroral zone: stormy

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Power Systems: possibility of weak voltage fluctuations in the polar cap, auroral, and sub-auroral zones.

- HF radio: lonospheric and polar cap absorptions events may affect radio communications for transpolar flights and other arctic operations.
- Aeromagnetic surveys: Potential for significant disruptions in the polar cap, auroral, and sub-auroral zones.

Directional Drilling: Potential for significant deviations in the polar cap, auroral, and sub-auroral zones.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: unsettled with stormy intervals

auroral zone: active with stormy intervals

sub-auroral zone: unsettled with active intervals

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Power Systems: possibility of weak voltage fluctuations in the polar cap and auroral zones.

HF radio: lonospheric and polar cap absorptions events may affect radio communications for transpolar flights and other arctic operations.

Aeromagnetic surveys: Potential for significant disruptions in the polar cap, auroral, and sub-auroral zones.

Directional Drilling: Potential for significant deviations in the polar cap, auroral, and sub-auroral zones.

Detailed Information

Solar

Solar activity has been low.

A non-Earth-directed CME erupted on 06 SEP 2015 09:12 UT.

One coronal hole is located near the edge of the solar disk.

Two coronal holes are located near the centre of the solar disk.

Interplanetary

The solar wind speed is currently moderate (500-700 km/s).

Moderate solar wind speeds are due to high speed streams from coronal holes.

The interplanetary magnetic field has been fluctuating at moderate (|Bz|<10 nT) levels.

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit was at a normal level yesterday and is expected to be at a normal level tomorrow.

Visit <u>http://www.spaceweather.gc.ca/sffl-eng.php</u> for the electron forecast.

Geomagnetic

Over the last 24 hours geomagnetic activity has been unsettled with stormy intervals in the polar zone, active with stormy intervals in the auroral zone, and unsettled with active intervals in the sub-auroral zone.

Over the next 24 hours geomagnetic activity is forecast to be unsettled with stormy intervals in the polar zone, active with stormy intervals in the auroral zone, and unsettled with active intervals in the sub-auroral zone.

Visit <u>http://www.spaceweather.gc.ca/sfst-1-eng.php</u> for the magnetic forecast.

Space Weather Bulletin - 2015-09-08 issued at 00:59 UT (19:59 EST)

Summary

- Disturbed geomagnetic conditions due to solar activity are currently observed in the polar cap, auroral, and sub-auroral zones.
- Stormy conditions are possible in the polar cap, auroral, and sub-auroral zones within the next 24 hours.
- An ionospheric absorption event is currently in progress for the polar cap and auroral zones from 08 SEP 2016 to 09 SEP 2015.
- Possibility of impacts to power systems, radio systems, aeromagnetic surveys, and directional drilling.
- See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (00:45 UT)

Geomagnetic Activity:

polar cap zone: stormy

auroral zone: stormy

sub-auroral zone: active

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Power Systems: possibility of weak voltage fluctuations in the polar cap and auroral zones. HF radio: lonospheric and polar cap absorptions events may affect radio communications for

transpolar flights and other arctic operations.

Aeromagnetic surveys: Potential for significant disruptions in the polar cap and auroral zones. Aeromagnetic surveys: Potential for disruptions in the sub-auroral zone.

Directional Drilling: Potential for significant deviations in the polar cap and auroral zones. Directional Drilling: Potential for deviations in the sub-auroral zone.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: unsettled with stormy intervals

auroral zone: stormy

sub-auroral zone: unsettled with active intervals

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: moderate

Possible Impacts on Technology:

Power Systems: possibility of weak voltage fluctuations in the polar cap and auroral zones. Aeromagnetic surveys: Potential for significant disruptions in the polar cap and auroral zones. Aeromagnetic surveys: Potential for disruptions in the sub-auroral zone.

Directional Drilling: Potential for significant deviations in the polar cap and auroral zones.

Directional Drilling: Potential for deviations in the sub-auroral zone.

Detailed Information

Interplanetary

The solar wind speed is currently moderate (500-700 km/s).

The interplanetary magnetic field has been primarily negative at moderate (|Bz|<10 nT) levels. Moderate solar wind speeds are due to high speed streams from coronal holes.

Prolonged periods of negative interplanetary magnetic field are often associated with increased geomagnetic activity.

Space Weather Bulletin - 2015-09-08 issued at 18:40 UT (13:40 EST) Summary

There is currently no major storm watch in effect.

The ionospheric absorption event reported yesterday has ended.

See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (18:15 UT)

Geomagnetic Activity:

polar cap zone: unsettled

auroral zone: quiet

sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Impacts are not expected.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: unsettled with stormy intervals auroral zone: active with stormy intervals sub-auroral zone: unsettled with active intervals

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: moderate

Possible Impacts on Technology:

Geostationary satellites: moderate risk of internal charging.

Detailed Information

Solar

Solar activity has been low.

Interplanetary

Interplanetary activity has been high.

The solar wind speed is currently slow (400-500 km/s).

The interplanetary magnetic field has been fluctuating at high (|Bz|<20 nT) levels.

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit was at a normal level yesterday and is expected to be at a moderate level tomorrow.

Visit <u>http://www.spaceweather.gc.ca/sffl-eng.php</u> for the electron forecast.

Geomagnetic

Over the last 24 hours geomagnetic activity has been active with stormy intervals in the polar zone, active with stormy intervals in the auroral zone, and unsettled with stormy intervals in the subauroral zone.

Over the next 24 hours geomagnetic activity is forecast to be unsettled with stormy intervals in the polar zone, active with stormy intervals in the auroral zone, and unsettled with active intervals in the sub-auroral zone.

Visit <u>http://www.spaceweather.gc.ca/sfst-1-eng.php</u> for the magnetic forecast.

Space Weather Bulletin - 2015-09-09 issued at 18:32 UT (13:32 EST)

Summary

There is currently no major storm watch in effect.

Disturbed geomagnetic conditions due to solar activity are expected today.

See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (18:15 UT)

Geomagnetic Activity:

polar cap zone: active auroral zone: unsettled

sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Impacts are not expected.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: unsettled with stormy intervals

auroral zone: stormy

sub-auroral zone: active with stormy intervals

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Power Systems: possibility of weak voltage fluctuations in the polar cap, auroral, and sub-auroral zones.

Aeromagnetic surveys: Potential for significant disruptions in the polar cap, auroral, and sub-auroral zones.

Directional Drilling: Potential for significant deviations in the polar cap, auroral, and sub-auroral zones.

Detailed Information

Solar

A slow Earth-directed CME erupted on 07 Sep 2015 and is expected to reach the Earth on 11 Sep 2015, resulting in disturbed geomagnetic activity.

One large coronal hole elongated in longitude is located near the centre of the solar disk.

Interplanetary

Interplanetary activity has been moderate.

The solar wind speed is currently slow (400-500 km/s).

The interplanetary magnetic field has been fluctuating at moderate (|Bz|<10 nT) levels.

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit for 08 SEP 2015 is unavailable but is expected to be at a normal level tomorrow.

Visit <u>http://www.spaceweather.gc.ca/sffl-eng.php</u> for the electron forecast.

Geomagnetic

Over the last 24 hours geomagnetic activity has been unsettled with stormy intervals in the polar zone, stormy with major storm intervals in the auroral zone, and active with stormy intervals in the sub-auroral zone.

Over the next 24 hours geomagnetic activity is forecast to be unsettled with stormy intervals in the polar zone, stormy in the auroral zone, and active with stormy intervals in the sub-auroral zone. Visit <u>http://www.spaceweather.gc.ca/sfst-1-eng.php</u> for the magnetic forecast.

Space Weather Bulletin - 2015-09-10 issued at 17:18 UT (12:18 EST)

Summary

There is currently no major storm watch in effect.

See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (17:00 UT)

Geomagnetic Activity:

polar cap zone: active

auroral zone: active

sub-auroral zone: quiet Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: moderate

Possible Impacts on Technology:

Geostationary satellites: moderate risk of internal charging.

Aeromagnetic surveys: Potential for disruptions in the polar cap and auroral zones. Directional Drilling: Potential for deviations in the polar cap and auroral zones.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: unsettled with active intervals auroral zone: unsettled with active intervals sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: high

Possible Impacts on Technology:

Geostationary satellites: high risk of internal charging.

Aeromagnetic surveys: Potential for disruptions in the polar cap and auroral zones.

Directional Drilling: Potential for deviations in the polar cap and auroral zones.

Detailed Information

Solar

Solar activity has been low.

One large coronal hole elongated in longitude is located near the centre of the solar disk.

Interplanetary

Interplanetary activity has been low.

The solar wind speed is currently slow (400-500 km/s).

The interplanetary magnetic field has been fluctuating at low (|Bz|<5 nT) levels.

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit was at a normal level yesterday and is expected to be at a high level tomorrow.

Visit http://www.spaceweather.gc.ca/sffl-eng.php for the electron forecast.

Geomagnetic

Over the last 24 hours geomagnetic activity has been unsettled with stormy intervals in the polar zone, unsettled with stormy intervals in the auroral zone, and quiet with active intervals in the sub-auroral zone.

Over the next 24 hours geomagnetic activity is forecast to be unsettled with active intervals in the polar zone, unsettled with active intervals in the auroral zone, and quiet in the sub-auroral zone. Visit http://www.spaceweather.gc.ca/sfst-1-eng.php for the magnetic forecast.

Space Weather Bulletin - 2015-09-11 issued at 18:49 UT (13:49 EST)

Summary

There is currently no major storm watch in effect.

Disturbed geomagnetic conditions due to solar activity are expected today.

See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (18:30 UT)

Geomagnetic Activity:

polar cap zone: stormy auroral zone: unsettled sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Aeromagnetic surveys: Potential for significant disruptions in the polar cap and auroral zones. Directional Drilling: Potential for significant deviations in the polar cap and auroral zones.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: unsettled with stormy intervals auroral zone: stormy sub-auroral zone: active

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Aeromagnetic surveys: Potential for significant disruptions in the polar cap and auroral zones. Aeromagnetic surveys: Potential for disruptions in the sub-auroral zone.

Directional Drilling: Potential for significant deviations in the polar cap and auroral zones.

Directional Drilling: Potential for deviations in the sub-auroral zone.

Detailed Information

Solar

Solar activity has been low.

Interplanetary

Interplanetary activity has been moderate.

The solar wind speed is currently moderate (500-700 km/s).

The interplanetary magnetic field has been fluctuating at moderate (|Bz|<10 nT) levels.

Moderate solar wind speeds are due to high speed streams from coronal holes.

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit was at a moderate level yesterday and is expected to be at a normal level tomorrow.

Visit <u>http://www.spaceweather.gc.ca/sffl-eng.php</u> for the electron forecast.

Geomagnetic

Over the last 24 hours geomagnetic activity has been active with stormy intervals in the polar zone, stormy with major storm intervals in the auroral zone, and unsettled with stormy intervals in the sub-auroral zone.

Over the next 24 hours geomagnetic activity is forecast to be unsettled with stormy intervals in the polar zone, stormy in the auroral zone, and active in the sub-auroral zone.

Visit http://www.spaceweather.gc.ca/sfst-1-eng.php for the magnetic forecast.

Space Weather Bulletin - 2015-09-12 issued at 17:04 UT	(12:04	EST)
Summary		

There is currently no major storm watch in effect.

See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (16:45 UT)

Geomagnetic Activity:

polar cap zone: unsettled

auroral zone: quiet

sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: moderate

Possible Impacts on Technology:

Geostationary satellites: moderate risk of internal charging.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: unsettled with stormy intervals auroral zone: active with stormy intervals sub-auroral zone: unsettled

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: high

Possible Impacts on Technology:

Impacts are not expected.

Detailed Information

Solar

Solar activity has been low.

Interplanetary

Interplanetary activity has been moderate.

The solar wind speed is currently moderate (500-700 km/s).

The interplanetary magnetic field has been fluctuating at low (|Bz|<5 nT) levels.

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit was at a normal level yesterday and is expected to be at a high level tomorrow.

Visit http://www.spaceweather.gc.ca/sffl-eng.php for the electron forecast.

Geomagnetic

- Over the last 24 hours geomagnetic activity has been active with stormy intervals in the polar zone, active with stormy intervals in the auroral zone, and unsettled with stormy intervals in the subauroral zone.
- Over the next 24 hours geomagnetic activity is forecast to be unsettled with stormy intervals in the polar zone, active with stormy intervals in the auroral zone, and unsettled in the sub-auroral zone.

Visit <u>http://www.spaceweather.gc.ca/sfst-1-eng.php</u> for the magnetic forecast.

Space Weather Bulletin - 2015-09-13 issued at 18:15 UT (13:15 EST)

Summary

There is currently no major storm watch in effect.

See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (18:00 UT)

Geomagnetic Activity:

polar cap zone: quiet auroral zone: active sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: moderate

Possible Impacts on Technology:

Geostationary satellites: moderate risk of internal charging.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: quiet with active intervals auroral zone: unsettled with active intervals sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: moderate

Possible Impacts on Technology:

Geostationary satellites: moderate risk of internal charging.

Detailed Information

Solar

Solar activity has been low.

One medium coronal hole is located near the centre of the solar disk.

Interplanetary

Interplanetary activity has been low.

The solar wind speed is currently slow (400-500 km/s).

The interplanetary magnetic field has been fluctuating at low (|Bz|<5 nT) levels.

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit was at a moderate level yesterday and is expected to be at a moderate level tomorrow.

Visit <u>http://www.spaceweather.gc.ca/sffl-eng.php</u> for the electron forecast.

Geomagnetic

Over the last 24 hours geomagnetic activity has been quiet with active intervals in the polar zone, unsettled with stormy intervals in the auroral zone, and quiet with active intervals in the subauroral zone.

Over the next 24 hours geomagnetic activity is forecast to be quiet with active intervals in the polar zone, unsettled with active intervals in the auroral zone, and quiet in the sub-auroral zone.

Visit <u>http://www.spaceweather.gc.ca/sfst-1-eng.php</u> for the magnetic forecast.

Space Weather Bulletin - 2015-09-14 issued at 17:58 UT (12:58 EST) Summary

There is currently no major storm watch in effect.

See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (17:45 UT)

Geomagnetic Activity:

polar cap zone: unsettled auroral zone: active

sub-auroral zone: unsettled

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: moderate

Possible Impacts on Technology:

Geostationary satellites: moderate risk of internal charging. Aeromagnetic surveys: Potential for disruptions in the auroral zone. Directional Drilling: Potential for deviations in the auroral zone.

Directional Drilling: Potential for deviations in the auroral zone.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: unsettled with active intervals auroral zone: unsettled with active intervals sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Impacts are not expected.

Detailed Information

Solar

Solar activity has been low.

Interplanetary

Interplanetary activity has been moderate.

The solar wind speed is currently moderate (500-700 km/s).

The interplanetary magnetic field has been fluctuating at moderate (|Bz|<10 nT) levels.

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit was at a moderate level yesterday and is expected to be at a normal level tomorrow.

Visit http://www.spaceweather.gc.ca/sffl-eng.php for the electron forecast.

Geomagnetic

Over the last 24 hours geomagnetic activity has been unsettled with active intervals in the polar zone, unsettled with stormy intervals in the auroral zone, and quiet with active intervals in the sub-auroral zone.

Over the next 24 hours geomagnetic activity is forecast to be unsettled with active intervals in the polar zone, unsettled with active intervals in the auroral zone, and quiet in the sub-auroral zone. Visit <u>http://www.spaceweather.gc.ca/sfst-1-eng.php</u> for the magnetic forecast.

Space Weather Bulletin - 2015-09-15 issued at 17:29 UT (12:29 EST)

Summary

There is currently no major storm watch in effect.

See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (17:15 UT)

Geomagnetic Activity:

polar cap zone: active

auroral zone: active

sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: moderate **Possible Impacts on Technology:**

Geostationary satellites: moderate risk of internal charging.

Aeromagnetic surveys: Potential for disruptions in the polar cap and auroral zones. Directional Drilling: Potential for deviations in the polar cap and auroral zones.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: unsettled with stormy intervals auroral zone: active with stormy intervals sub-auroral zone: unsettled

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Aeromagnetic surveys: Potential for disruptions in the auroral zone.

Directional Drilling: Potential for deviations in the auroral zone.

Detailed Information

Solar

Solar activity has been low.

One medium coronal hole is located near the centre of the solar disk.

Interplanetary

Interplanetary activity has been moderate.

The solar wind speed is currently slow (400-500 km/s).

The interplanetary magnetic field has been fluctuating at moderate (|Bz|<10 nT) levels.

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit was at a moderate level yesterday and is expected to be at a normal level tomorrow.

Visit <u>http://www.spaceweather.gc.ca/sffl-eng.php</u> for the electron forecast.

Geomagnetic

Over the last 24 hours geomagnetic activity has been unsettled with active intervals in the polar zone, active with stormy intervals in the auroral zone, and unsettled with stormy intervals in the sub-auroral zone.

Over the next 24 hours geomagnetic activity is forecast to be unsettled with stormy intervals in the polar zone, active with stormy intervals in the auroral zone, and unsettled in the sub-auroral zone.

Visit <u>http://www.spaceweather.gc.ca/sfst-1-eng.php</u> for the magnetic forecast.

Space Weather Bulletin - 2015-09-16 issued at 17:51 UT (12:51 EST)

Summary

There is currently no major storm watch in effect.

See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (17:30 UT)

Geomagnetic Activity:

polar cap zone: unsettled auroral zone: unsettled sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: moderate

Possible Impacts on Technology:

Geostationary satellites: moderate risk of internal charging.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: unsettled with active intervals auroral zone: unsettled with active intervals sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: moderate

Possible Impacts on Technology:

Geostationary satellites: moderate risk of internal charging.

Detailed Information

Solar

Solar activity has been low.

One medium coronal hole is located near the centre of the solar disk.

Interplanetary

Interplanetary activity has been low.

The solar wind speed is currently slow (400-500 km/s).

The interplanetary magnetic field has been fluctuating at low (|Bz|<5 nT) levels.

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit was at a moderate level yesterday and is expected to be at a moderate level tomorrow.

Visit <u>http://www.spaceweather.gc.ca/sffl-eng.php</u> for the electron forecast.

Geomagnetic

Over the last 24 hours geomagnetic activity has been unsettled with stormy intervals in the polar zone, unsettled with stormy intervals in the auroral zone, and quiet with unsettled intervals in the sub-auroral zone.

Over the next 24 hours geomagnetic activity is forecast to be unsettled with active intervals in the polar zone, unsettled with active intervals in the auroral zone, and quiet in the sub-auroral zone. Visit <u>http://www.spaceweather.gc.ca/sfst-1-eng.php</u> for the magnetic forecast.

Space Weather Bulletin - 2015-09-17 issued at 18:11 UT (13:11 EST)

Summary

There is currently no major storm watch in effect.

See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (18:00 UT) Geomagnetic Activity:

Geomagnetic Activity:

polar cap zone: quiet auroral zone: quiet

sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: moderate

Possible Impacts on Technology:

Geostationary satellites: moderate risk of internal charging.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: quiet with active intervals auroral zone: unsettled with active intervals sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Impacts are not expected.

Detailed Information

Solar

Solar activity has been low.

One medium coronal hole is located near the centre of the solar disk.

Interplanetary

Interplanetary activity has been moderate.

The solar wind speed is currently slow (400-500 km/s).

The interplanetary magnetic field has been fluctuating at moderate (|Bz|<10 nT) levels.

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit was at a moderate level yesterday and is expected to be at a normal level tomorrow.

Visit <u>http://www.spaceweather.gc.ca/sffl-eng.php</u> for the electron forecast.

Geomagnetic

Over the last 24 hours geomagnetic activity has been unsettled with active intervals in the polar zone, unsettled with stormy intervals in the auroral zone, and quiet with active intervals in the sub-auroral zone.

Over the next 24 hours geomagnetic activity is forecast to be quiet with active intervals in the polar zone, unsettled with active intervals in the auroral zone, and quiet in the sub-auroral zone. Visit http://www.spaceweather.gc.ca/sfst-1-eng.php for the magnetic forecast.

Space Weather Bulletin - 2015-09-18 issued at 18:14 UT (13:14 EST)

Summary

There is currently no major storm watch in effect.

See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (18:00 UT)

Geomagnetic Activity:

polar cap zone: quiet auroral zone: quiet sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: moderate

Possible Impacts on Technology:

Geostationary satellites: moderate risk of internal charging.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: quiet with active intervals

auroral zone: unsettled with active intervals

sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Impacts are not expected.

Detailed Information

Solar

Solar activity has been moderate.

A moderate Earth-directed CME erupted on 18 Sep 2015 04:50 UT and is expected to reach the Earth on 20 Sep 2015 04:54 , resulting in disturbed geomagnetic activity.

Interplanetary

Interplanetary activity has been moderate.

The solar wind speed is currently slow (400-500 km/s).

The interplanetary magnetic field has been fluctuating at moderate (|Bz|<10 nT) levels.

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit was at a moderate level yesterday and is expected to be at a normal level tomorrow.

Visit <u>http://www.spaceweather.gc.ca/sffl-eng.php</u> for the electron forecast.

Geomagnetic

Over the last 24 hours geomagnetic activity has been unsettled with stormy intervals in the polar zone, unsettled with stormy intervals in the auroral zone, and quiet with active intervals in the sub-auroral zone.

Over the next 24 hours geomagnetic activity is forecast to be quiet with active intervals in the polar zone, unsettled with active intervals in the auroral zone, and quiet in the sub-auroral zone. Visit http://www.spaceweather.gc.ca/sfst-1-eng.php for the magnetic forecast.

Space Weather Bulletin - 2015-09-19 issued at 17:39 UT (12:39 EST)

Summary

There is currently no major storm watch in effect.

A moderate Earth-directed CME erupted on 18 Sep 2015 04:50 UT and is expected to reach the Earth on 20 Sep 2015 04:54, resulting in disturbed geomagnetic activity.

See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (17:15 UT)

Geomagnetic Activity:

polar cap zone: unsettled auroral zone: quiet sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Impacts are not expected.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: quiet with active intervals auroral zone: unsettled with active intervals sub-auroral zone: quiet with unsettled intervals

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: moderate

Possible Impacts on Technology:

Geostationary satellites: moderate risk of internal charging.

Detailed Information

Solar

Solar activity has been moderate.

A moderate Earth-directed CME erupted on 18 Sep 2015 04:50 UT and is expected to reach the Earth on 20 Sep 2015 04:%4, resulting in disturbed geomagnetic activity.

Interplanetary

Interplanetary activity has been moderate.

The solar wind speed is currently slow (400-500 km/s).

The interplanetary magnetic field has been fluctuating at moderate (|Bz|<10 nT) levels.

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit was at a moderate level yesterday and is expected to be at a moderate level tomorrow.

Visit <u>http://www.spaceweather.gc.ca/sffl-eng.php</u> for the electron forecast.

Geomagnetic

Over the last 24 hours geomagnetic activity has been unsettled with active intervals in the polar zone, unsettled with stormy intervals in the auroral zone, and quiet with active intervals in the sub-auroral zone.

Over the next 24 hours geomagnetic activity is forecast to be quiet with active intervals in the polar zone, unsettled with active intervals in the auroral zone, and quiet with unsettled intervals in the sub-auroral zone.

Visit <u>http://www.spaceweather.gc.ca/sfst-1-eng.php</u> for the magnetic forecast.

Space Weather Bulletin - 2015-09-20 issued at 18:31 UT (13:31 EST)

Summary

There is currently no major storm watch in effect.

See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (18:15 UT)

Geomagnetic Activity:

polar cap zone: unsettled auroral zone: active sub-auroral zone: unsettled

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Impacts are not expected.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: unsettled with stormy intervals

auroral zone: stormy

sub-auroral zone: unsettled with active intervals

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Impacts are not expected.

Detailed Information

Solar

Solar activity has been moderate.

Interplanetary

Interplanetary activity has been moderate.

The solar wind speed is currently moderate (500-700 km/s).

The interplanetary magnetic field has been fluctuating at moderate (|Bz|<10 nT) levels.

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit was at a normal level yesterday and is expected to be at a normal level tomorrow.

Visit <u>http://www.spaceweather.gc.ca/sffl-eng.php</u> for the electron forecast.

Geomagnetic

Over the last 24 hours geomagnetic activity has been unsettled with stormy intervals in the polar zone, stormy in the auroral zone, and unsettled with stormy intervals in the sub-auroral zone.

Over the next 24 hours geomagnetic activity is forecast to be unsettled with stormy intervals in the polar zone, stormy in the auroral zone, and unsettled with active intervals in the sub-auroral zone.

Visit <u>http://www.spaceweather.gc.ca/sfst-1-eng.php</u> for the magnetic forecast.

Space Weather Bulletin - 2015-09-21 issued at 18:01 UT (13:01 EST)

Summary

There is currently no major storm watch in effect.

A moderate Earth-directed CME erupted on 20 Sep 2015 18:00 UT and is expected to reach the Earth on 22 Sep 2015 03:00, resulting in disturbed geomagnetic activity.

See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (17:45 UT)

Geomagnetic Activity:

polar cap zone: active auroral zone: quiet sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Impacts are not expected.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: unsettled with stormy intervals

auroral zone: unsettled with active intervals

sub-auroral zone: quiet with unsettled intervals

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: high

Possible Impacts on Technology:

Geostationary satellites: high risk of internal charging.

Aeromagnetic surveys: Potential for disruptions in the polar cap and auroral zones.

Directional Drilling: Potential for deviations in the polar cap and auroral zones.

Detailed Information

Solar

Solar activity has been moderate.

A moderate Earth-directed CME erupted on 20 Sep 2015 18:00 UT and is expected to reach the Earth on 22 Sep 02015 3:00 , resulting in disturbed geomagnetic activity.

Interplanetary

Interplanetary activity has been moderate.

The solar wind speed is currently moderate (500-700 km/s).

The interplanetary magnetic field has been fluctuating at low (|Bz|<5 nT) levels.

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit was at a normal level yesterday and is expected to be at a high level tomorrow.

Visit <u>http://www.spaceweather.gc.ca/sffl-eng.php</u> for the electron forecast.

Geomagnetic

Over the last 24 hours geomagnetic activity has been unsettled with stormy intervals in the polar zone, unsettled with stormy intervals in the auroral zone, and quiet with unsettled intervals in the sub-auroral zone.

Over the next 24 hours geomagnetic activity is forecast to be unsettled with stormy intervals in the polar zone, unsettled with active intervals in the auroral zone, and quiet with unsettled intervals in the sub-auroral zone.

Visit <u>http://www.spaceweather.gc.ca/sfst-1-eng.php</u> for the magnetic forecast.

Space Weather Bulletin - 2015-09-22 issued at 21:27 UT (16:27 EST)

Summary

There is currently no major storm watch in effect.

See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (20:45 UT)

Geomagnetic Activity:

polar cap zone: unsettled

auroral zone: quiet

sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal **Possible Impacts on Technology:**

Impacts are not expected.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: quiet with active intervals auroral zone: unsettled sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Aeromagnetic surveys: Potential for disruptions in the polar cap zone.

Directional Drilling: Potential for deviations in the polar cap zone.

Detailed Information

Solar

Solar activity has been low.

Two medium coronal holes are located near the centre of the solar disk.

Interplanetary

The solar wind speed is currently moderate (500-700 km/s).

The interplanetary magnetic field has been fluctuating at low (|Bz|<5 nT) levels.

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit was at a normal level yesterday and is expected to be at a normal level tomorrow.

Visit <u>http://www.spaceweather.gc.ca/sffl-eng.php</u> for the electron forecast.

Geomagnetic

Over the last 24 hours geomagnetic activity has been unsettled with active intervals in the polar zone, quiet with stormy intervals in the auroral zone, and quiet with stormy intervals in the sub-auroral zone.

Over the next 24 hours geomagnetic activity is forecast to be quiet with active intervals in the polar zone, unsettled in the auroral zone, and quiet in the sub-auroral zone.

Visit http://www.spaceweather.gc.ca/sfst-1-eng.php for the magnetic forecast.

Space Weather Bulletin - 2015-09-23 issued at 17:48 UT (12:48 EST)

Summary

There is currently no major storm watch in effect.

See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (17:00 UT)

Geomagnetic Activity:

polar cap zone: active auroral zone: unsettled sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Aeromagnetic surveys: Potential for disruptions in the polar cap zone. Directional Drilling: Potential for deviations in the polar cap zone.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: unsettled with active intervals auroral zone: unsettled with active intervals sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Aeromagnetic surveys: Potential for disruptions in the polar cap and auroral zones.

Directional Drilling: Potential for deviations in the polar cap and auroral zones.

Detailed Information

Solar

Solar activity has been low.

Two medium coronal holes are located near the centre of the solar disk.

Interplanetary

The solar wind speed is currently moderate (~500 km/s).

The interplanetary magnetic field has been fluctuating at moderate (|Bz|<10 nT) levels.

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit was at a normal level yesterday and is expected to be at a normal level tomorrow.

Visit <u>http://www.spaceweather.gc.ca/sffl-eng.php</u> for the electron forecast.

Geomagnetic

Over the last 24 hours geomagnetic activity has been unsettled with stormy intervals in the polar zone, quiet with stormy intervals in the auroral zone, and quiet with active intervals in the sub-auroral zone.

Over the next 24 hours geomagnetic activity is forecast to be unsettled with active intervals in the polar zone, unsettled with active intervals in the auroral zone, and quiet in the sub-auroral zone. Visit http://www.spaceweather.gc.ca/sfst-1-eng.php for the magnetic forecast.

Space Weather Bulletin - 2015-09-24 issued at 21:09 UT (16:09 EST)

Summary

There is currently no major storm watch in effect.

See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (20:45 UT)

Geomagnetic Activity:

polar cap zone: unsettled

auroral zone: quiet

sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Impacts are not expected.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: quiet with active intervals auroral zone: unsettled sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Aeromagnetic surveys: Potential for disruptions in the polar cap zone. Directional Drilling: Potential for deviations in the polar cap zone.

Detailed Information

Solar

Solar activity has been low.

Two small coronal holes are located near the centre of the solar disk.

Interplanetary

The solar wind speed is currently slow (400-500 km/s).

The interplanetary magnetic field has been fluctuating at low (|Bz|<5 nT) levels.

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit was at a normal level yesterday and is expected to be at a normal level tomorrow.

Visit <u>http://www.spaceweather.gc.ca/sffl-eng.php</u> for the electron forecast.

Geomagnetic

Over the last 24 hours geomagnetic activity has been quiet with active intervals in the polar zone, quiet with stormy intervals in the auroral zone, and quiet with unsettled intervals in the subauroral zone.

Over the next 24 hours geomagnetic activity is forecast to be quiet with active intervals in the polar zone, unsettled in the auroral zone, and quiet in the sub-auroral zone.

Visit <u>http://www.spaceweather.gc.ca/sfst-1-eng.php</u> for the magnetic forecast.

Space Weather Bulletin - 2015-09-25 issued at 20:33 UT (15:33 EST)

Summary

There is currently no major storm watch in effect.

See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (20:15 UT)

Geomagnetic Activity:

polar cap zone: unsettled

auroral zone: quiet

sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Impacts are not expected.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: quiet with active intervals auroral zone: quiet with unsettled intervals

sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Aeromagnetic surveys: Potential for disruptions in the polar cap zone.

Directional Drilling: Potential for deviations in the polar cap zone.

Detailed Information

Solar

Solar activity has been low.

Interplanetary

The solar wind speed is currently slow (400-500 km/s).

The interplanetary magnetic field has been fluctuating at low (|Bz|<5 nT) levels.

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit was at a normal level yesterday and is expected to be at a normal level tomorrow.

Visit <u>http://www.spaceweather.gc.ca/sffl-eng.php</u> for the electron forecast.

Geomagnetic

Over the last 24 hours geomagnetic activity has been unsettled with active intervals in the polar zone, quiet with stormy intervals in the auroral zone, and quiet with unsettled intervals in the sub-auroral zone.

Over the next 24 hours geomagnetic activity is forecast to be quiet with active intervals in the polar zone, quiet with unsettled intervals in the auroral zone, and quiet in the sub-auroral zone. Visit http://www.spaceweather.gc.ca/sfst-1-eng.php for the magnetic forecast.

Space Weather Bulletin - 2015-09-26 issued at 21:27 UT (16:27 EST)

Summary

There is currently no major storm watch in effect.

See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (21:00 UT)

Geomagnetic Activity:

polar cap zone: unsettled auroral zone: quiet

sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Impacts are not expected.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: quiet with unsettled intervals

auroral zone: quiet

sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Impacts are not expected.

Detailed Information

Solar

Solar activity has been low.

Interplanetary

The solar wind speed is currently slow (400-500 km/s).

The interplanetary magnetic field has been fluctuating at low (|Bz|<5 nT) levels.

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit was at a normal level yesterday and is expected to be at a normal level tomorrow.

Visit <u>http://www.spaceweather.gc.ca/sffl-eng.php</u> for the electron forecast.

Geomagnetic

Over the last 24 hours geomagnetic activity has been quiet with active intervals in the polar zone, quiet with unsettled intervals in the auroral zone, and quiet in the sub-auroral zone.

Over the next 24 hours geomagnetic activity is forecast to be quiet with unsettled intervals in the polar zone, quiet in the auroral zone, and quiet in the sub-auroral zone.

Visit <u>http://www.spaceweather.gc.ca/sfst-1-eng.php</u> for the magnetic forecast.

Space Weather Bulletin - 2015-09-27 issued at 21:25 UT (16:25 EST)

Summary

There is currently no major storm watch in effect.

See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (21:15 UT)

Geomagnetic Activity:

polar cap zone: unsettled auroral zone: quiet sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Impacts are not expected.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: quiet with unsettled intervals

auroral zone: quiet

sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Impacts are not expected.

Detailed Information

Solar

Solar activity has been moderate.

An M (medium) solar x-ray flare erupted 27 SEP 2015 10:20 UT.

Interplanetary

The solar wind speed is currently slow (~400 km/s).

The interplanetary magnetic field has been fluctuating at moderate (|Bz|<10 nT) levels.

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit was at a normal level yesterday and is expected to be at a normal level tomorrow.

Visit <u>http://www.spaceweather.gc.ca/sffl-eng.php</u> for the electron forecast.

Geomagnetic

Over the last 24 hours geomagnetic activity has been quiet with unsettled intervals in the polar zone, quiet in the auroral zone, and quiet in the sub-auroral zone.

Over the next 24 hours geomagnetic activity is forecast to be quiet with unsettled intervals in the polar zone, quiet in the auroral zone, and quiet in the sub-auroral zone.

Visit <u>http://www.spaceweather.gc.ca/sfst-1-eng.php</u> for the magnetic forecast.

Space Weather Bulletin - 2015-09-28 issued at 18:31 UT (13:31 EST)

Summary

There is currently no major storm watch in effect.

See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (18:00 UT)

Geomagnetic Activity:

polar cap zone: quiet

auroral zone: quiet

sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Impacts are not expected.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: quiet with unsettled intervals

auroral zone: quiet

sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Impacts are not expected.

Detailed Information

Solar

Solar activity has been moderate.

Several medium solar x-ray flares have erupted over the past 24 hours.

Interplanetary

The solar wind speed is currently very slow (< 400 km/s). The interplanetary magnetic field has been fluctuating at low (|Bz|<5 nT) levels.

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit was at a normal level yesterday and is expected to be at a normal level tomorrow.

Visit <u>http://www.spaceweather.gc.ca/sffl-eng.php</u> for the electron forecast.

Geomagnetic

Over the last 24 hours geomagnetic activity has been quiet with active intervals in the polar zone, quiet in the auroral zone, and quiet in the sub-auroral zone.

Over the next 24 hours geomagnetic activity is forecast to be quiet with unsettled intervals in the polar zone, quiet in the auroral zone, and quiet in the sub-auroral zone.

Visit <u>http://www.spaceweather.gc.ca/sfst-1-eng.php</u> for the magnetic forecast.

Space Weather Bulletin - 2015-09-29 issued at 18:26 UT (13:26 EST) Summary

There is currently no major storm watch in effect.

See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (17:45 UT)

Geomagnetic Activity:

polar cap zone: unsettled auroral zone: quiet sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Impacts are not expected.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: quiet with unsettled intervals auroral zone: quiet with unsettled intervals sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Impacts are not expected.

Detailed Information

Solar

Solar activity has been moderate.

Several medium solar x-ray flares have erupted over the past 24 hours.

Interplanetary

The solar wind speed is currently very slow (< 400 km/s).

The interplanetary magnetic field has been fluctuating at low (|Bz|<5 nT) levels.

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit was at a normal level yesterday and is expected to be at a normal level tomorrow.

Visit <u>http://www.spaceweather.gc.ca/sffl-eng.php</u> for the electron forecast.

Geomagnetic

Over the last 24 hours geomagnetic activity has been quiet with unsettled intervals in the polar zone, quiet with stormy intervals in the auroral zone, and quiet in the sub-auroral zone.
Over the next 24 hours geomagnetic activity is forecast to be quiet with unsettled intervals in the polar zone, quiet with unsettled intervals in the auroral zone, and quiet in the sub-auroral zone.
Visit http://www.spaceweather.gc.ca/sfst-1-eng.php for the magnetic forecast.

Space Weather Bulletin - 2015-09-30 issued at 21:18 UT (16:18 EST)

Summary

There is currently no major storm watch in effect.

See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (18:45 UT)

Geomagnetic Activity:

polar cap zone: quiet auroral zone: quiet sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: unavailable

Possible Impacts on Technology:

Impacts are not expected.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: quiet auroral zone: quiet sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Impacts are not expected.

Detailed Information

Solar

Solar activity has been high.

Three medium solar x-ray flares have erupted over the past 24 hours.

Three CMEs erupted on 30 SEP 2015 at 07:12 UT, 10:48 UT, and 12:48 UT. It is not yet known if the CMEs will impact the Earth.

Interplanetary

The solar wind speed is currently very slow (< 400 km/s).

The interplanetary magnetic field has been fluctuating at low (|Bz|<5 nT) levels.

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit was at a normal level yesterday and is expected to be at a normal level tomorrow.

Visit http://www.spaceweather.gc.ca/sffl-eng.php for the electron forecast.

Over the last 24 hours geomagnetic activity has been quiet with unsettled intervals in the polar zone, quiet with unsettled intervals in the auroral zone, and quiet in the sub-auroral zone.

Over the next 24 hours geomagnetic activity is forecast to be quiet in the polar zone, quiet in the auroral zone, and quiet in the sub-auroral zone.

Visit <u>http://www.spaceweather.gc.ca/sfst-1-eng.php</u> for the magnetic forecast.

Space Weather Bulletin - 2015-10-01 issued at 19:41 UT (14:41 EST)

Summary

There is currently no major storm watch in effect.

See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (19:00 UT)

Geomagnetic Activity:

polar cap zone: unsettled auroral zone: active

sub-auroral zone: unsettled

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Aeromagnetic surveys: Potential for disruptions in the auroral zone.

Directional Drilling: Potential for deviations in the auroral zone.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: quiet with unsettled intervals auroral zone: unsettled sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Impacts are not expected.

Detailed Information

Solar

Solar activity has been moderate.

An M (medium) solar x-ray flare erupted 01 OCT 2015 13:03 UT.

Three non-Earth-directed CMEs erupted on 30 SEP 2015 at 07:12 UT, 10:48 UT, and 12:48 UT.

Interplanetary

The solar wind speed is currently very slow (< 400 km/s).

The interplanetary magnetic field has been fluctuating at high (|Bz|<20 nT) levels.

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit for 30 SEP 2015 is unavailable but is expected to be at a normal level tomorrow.

Visit <u>http://www.spaceweather.gc.ca/sffl-eng.php</u> for the electron forecast.

Over the last 24 hours geomagnetic activity has been quiet with stormy intervals in the polar zone, quiet with active intervals in the auroral zone, and quiet with unsettled intervals in the subauroral zone.

Over the next 24 hours geomagnetic activity is forecast to be quiet with unsettled intervals in the polar zone, unsettled in the auroral zone, and quiet in the sub-auroral zone.

Visit <u>http://www.spaceweather.gc.ca/sfst-1-eng.php</u> for the magnetic forecast.

Space Weather Bulletin - 2015-10-02 issued at 20:45 UT (15:45 EST)

Summary

There is currently no major storm watch in effect.

See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (20:15 UT)

Geomagnetic Activity:

polar cap zone: unsettled

auroral zone: quiet

sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Impacts are not expected.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: quiet with active intervals auroral zone: unsettled with active intervals sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Aeromagnetic surveys: Potential for disruptions in the polar cap and auroral zones.

Directional Drilling: Potential for deviations in the polar cap and auroral zones.

Detailed Information

Solar

Solar activity has been moderate.

Three medium solar x-ray flares have erupted over the past 24 hours.

Interplanetary

The solar wind speed is currently very slow (< 400 km/s).

The interplanetary magnetic field has been fluctuating at low (|Bz|<5 nT) levels.

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit was at a normal level yesterday and is expected to be at a normal level tomorrow.

Visit <u>http://www.spaceweather.gc.ca/sffl-eng.php</u> for the electron forecast.

Over the last 24 hours geomagnetic activity has been unsettled with active intervals in the polar zone, active with stormy intervals in the auroral zone, and quiet with active intervals in the sub-auroral zone.

Over the next 24 hours geomagnetic activity is forecast to be quiet with active intervals in the polar zone, unsettled with active intervals in the auroral zone, and quiet in the sub-auroral zone. Visit http://www.spaceweather.gc.ca/sfst-1-eng.php for the magnetic forecast.

Space Weather Bulletin - 2015-10-03 issued at 21:11 UT (16:11 EST)

Summary

There is currently no major storm watch in effect.

See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (20:45 UT)

Geomagnetic Activity:

polar cap zone: unsettled auroral zone: quiet

sub-auroral zone: quiet

sub-aurorar zone: quie

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: low

Possible Impacts on Technology:

Impacts are not expected.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: quiet with active intervals auroral zone: unsettled with active intervals sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Aeromagnetic surveys: Potential for disruptions in the polar cap and auroral zones.

Directional Drilling: Potential for deviations in the polar cap and auroral zones.

Detailed Information

Solar

Solar activity has been low.

One medium coronal hole is located near the centre of the solar disk.

Interplanetary

The solar wind speed is currently slow (~400 km/s).

The interplanetary magnetic field has been fluctuating at moderate (|Bz|<10 nT) levels.

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit was at a normal level yesterday and is expected to be at a normal level tomorrow.

Visit <u>http://www.spaceweather.gc.ca/sffl-eng.php</u> for the electron forecast.

Over the last 24 hours geomagnetic activity has been unsettled with active intervals in the polar zone, unsettled with stormy intervals in the auroral zone, and quiet with active intervals in the sub-auroral zone.

Over the next 24 hours geomagnetic activity is forecast to be quiet with active intervals in the polar zone, unsettled with active intervals in the auroral zone, and quiet in the sub-auroral zone. Visit http://www.spaceweather.gc.ca/sfst-1-eng.php for the magnetic forecast.

Space Weather Bulletin - 2015-10-04 issued at 17:19 UT (12:19 EST)

Summary

There is currently no major storm watch in effect.

See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (17:00 UT)

Geomagnetic Activity:

polar cap zone: quiet auroral zone: quiet sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Impacts are not expected.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: quiet with active intervals auroral zone: unsettled with active intervals sub-auroral zone: quiet with unsettled intervals

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Aeromagnetic surveys: Potential for disruptions in the polar cap and auroral zones.

Directional Drilling: Potential for deviations in the polar cap and auroral zones.

Detailed Information

Solar

Solar activity has been moderate.

One medium coronal hole is located near the centre of the solar disk.

An M (medium) solar x-ray flare erupted 04 OCT 2015 02:34 UT.

Interplanetary

The solar wind speed is currently slow (400-500 km/s).

The interplanetary magnetic field has been fluctuating at very low (|Bz|<2 nT) levels.

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit was at a low level yesterday and is expected to be at a normal level tomorrow.

Visit <u>http://www.spaceweather.gc.ca/sffl-eng.php</u> for the electron forecast.

Over the last 24 hours geomagnetic activity has been unsettled with active intervals in the polar zone, active with stormy intervals in the auroral zone, and quiet with stormy intervals in the sub-auroral zone.

Over the next 24 hours geomagnetic activity is forecast to be quiet with active intervals in the polar zone, unsettled with active intervals in the auroral zone, and quiet with unsettled intervals in the sub-auroral zone.

Visit <u>http://www.spaceweather.gc.ca/sfst-1-eng.php</u> for the magnetic forecast.

Space Weather Bulletin - 2015-10-05 issued at 20:59 UT (15:59 EST) Summary

There is currently no major storm watch in effect.

See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (20:15 UT)

Geomagnetic Activity:

polar cap zone: unsettled auroral zone: quiet

sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Impacts are not expected.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: unsettled with active intervals auroral zone: active with stormy intervals sub-auroral zone: quiet with unsettled intervals

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: moderate

Possible Impacts on Technology:

Aeromagnetic surveys: Potential for significant disruptions in the auroral zone. Directional Drilling: Potential for significant deviations in the auroral zone. Aeromagnetic surveys: Potential for disruptions in the polar cap zone. Directional Drilling: Potential for deviations in the polar cap zone. Geostationary satellites: moderate risk of internal charging.

Detailed Information

Solar

Solar activity has been low.

One medium coronal hole is located near the centre of the solar disk.

Interplanetary

The solar wind speed is currently slow (400-500 km/s).

The interplanetary magnetic field has been fluctuating at moderate (|Bz|<10 nT) levels.

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit was at a normal level yesterday and is expected to be at a moderate level tomorrow.

Visit <u>http://www.spaceweather.gc.ca/sffl-eng.php</u> for the electron forecast.

Geomagnetic

- Over the last 24 hours geomagnetic activity has been unsettled with stormy intervals in the polar zone, active with stormy intervals in the auroral zone, and quiet with active intervals in the sub-auroral zone.
- Over the next 24 hours geomagnetic activity is forecast to be unsettled with active intervals in the polar zone, active with stormy intervals in the auroral zone, and quiet with unsettled intervals in the sub-auroral zone.

Visit <u>http://www.spaceweather.gc.ca/sfst-1-eng.php</u> for the magnetic forecast.

Space Weather Bulletin - 2015-10-06 issued at 21:25 UT (16:25 EST)

Summary

There is currently no major storm watch in effect.

Stormy conditions are possible from 06 Oct 2015 to 07 Oct 2015 for the polar cap zone.

See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (21:00 UT)

Geomagnetic Activity:

polar cap zone: unsettled auroral zone: active sub-auroral zone: active

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: moderate

Possible Impacts on Technology:

Impacts are not expected.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: quiet with unsettled intervals

auroral zone: active

sub-auroral zone: quiet with unsettled intervals

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: moderate

Detailed Information

Solar

Solar activity has been low.

Two large coronal holes are located near the centre of the solar disk.

Interplanetary

Interplanetary activity has been moderate.

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit was at a moderate level yesterday and is expected to be at a moderate level tomorrow.

Visit <u>http://www.spaceweather.gc.ca/sffl-eng.php</u> for the electron forecast.

Over the last 24 hours geomagnetic activity has been guiet with unsettled intervals in the polar zone, unsettled with stormy intervals in the auroral zone, and quiet with active intervals in the sub-auroral zone.

Over the next 24 hours geomagnetic activity is forecast to be guiet with unsettled intervals in the polar zone, active in the auroral zone, and quiet with unsettled intervals in the sub-auroral zone. Visit http://www.spaceweather.gc.ca/sfst-1-eng.php for the magnetic forecast.

Space Weather Bulletin - 2015-10-07 issued at 20:28 UT (15:28 EST)

Summary

There is currently no major storm watch in effect.

- The major storm WATCH issued 07 Oct 2015 05:22 UT for the polar cap, auroral, and sub-auroral zones ended 07 Oct 2015 07:37 UT.
- Stormy conditions are possible in the polar cap, auroral, and sub-auroral zones within the next 24 hours.
- See our website for current information: http://www.spaceweather.gc.ca (updated every 15 minutes)

Current Conditions (20:00 UT)

Geomagnetic Activity:

polar cap zone: stormy auroral zone: stormy sub-auroral zone: stormy

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Aeromagnetic surveys: Potential for disruptions in the polar cap, auroral, and sub-auroral zones. Directional Drilling: Potential for deviations in the polar cap, auroral, and sub-auroral zones. Power Systems: possibility of weak voltage fluctuations in the auroral and sub-auroral zones.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: active with stormy intervals

auroral zone: stormy

sub-auroral zone: active with stormy intervals

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: moderate

Possible Impacts on Technology:

Power Systems: possibility of weak voltage fluctuations in the auroral and sub-auroral zones. Aeromagnetic surveys: Potential for disruptions in the polar cap, auroral, and sub-auroral zones. Directional Drilling: Potential for deviations in the polar cap, auroral, and sub-auroral zones.

Detailed Information

Solar

Solar activity has been low.

A slow CME erupted on 07 Oct 2015 07:48 UT. It is not yet known if the CME will impact the Earth. Two large coronal holes are located near the centre of the solar disk.

Interplanetary

Interplanetary activity has been high.

Fast solar wind speeds are due to high speed streams from coronal holes.

The interplanetary magnetic field has been fluctuating at high (|Bz|<20 nT) levels.

The solar wind speed has been increasing over the last hour (currently ~ 800 km/s).

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit was at a moderate level yesterday and is expected to be at a moderate level tomorrow.

Visit <u>http://www.spaceweather.gc.ca/sffl-eng.php</u> for the electron forecast.

Geomagnetic

Over the last 24 hours geomagnetic activity has been unsettled with stormy intervals in the polar zone, active with major storm intervals in the auroral zone, and active with stormy intervals in the sub-auroral zone.

Over the next 24 hours geomagnetic activity is forecast to be active with stormy intervals in the polar zone, stormy in the auroral zone, and active with stormy intervals in the sub-auroral zone. Visit http://www.spaceweather.gc.ca/sfst-1-eng.php for the magnetic forecast.

Space Weather Bulletin - 2015-10-08 issued at 19:57 UT (14:57 EST)

Summary

There is currently no major storm watch in effect.

The major storm WATCH issued 08 Oct 2015 05:32 UT for the polar cap, auroral, and sub-auroral zones ended 08 Oct 2015 08:17 UT.

Stormy conditions are possible in the polar cap and auroral zones within the next 24 hours.
See our website for current information: http://www.spaceweather.gc.ca (updated every 15 minutes)

Current Conditions (19:30 UT)

Geomagnetic Activity:

polar cap zone: stormy auroral zone: active

sub-auroral zone: active

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: moderate

Possible Impacts on Technology:

Aeromagnetic surveys: Potential for disruptions in the polar cap and auroral zones. Directional Drilling: Potential for deviations in the polar cap and auroral zones.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: active with stormy intervals

auroral zone: stormy

sub-auroral zone: active with stormy intervals

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: high

Possible Impacts on Technology:

Power Systems: possibility of weak voltage fluctuations in the auroral zone. Aeromagnetic surveys: Potential for disruptions in the auroral zone.

Directional Drilling: Potential for deviations in the auroral zone.

Detailed Information

Solar

Solar activity has been low.

Two large coronal holes are located near the centre of the solar disk.

A slow CME erupted on on 07 Oct 2015 07:48 UT. It is not yet known if the CME will impact the Earth.

Interplanetary

Interplanetary activity has been moderate.

Moderate solar wind speeds are due to high speed streams from coronal holes.

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit was at a normal level yesterday and is expected to be at a high level tomorrow.

Visit <u>http://www.spaceweather.gc.ca/sffl-eng.php</u> for the electron forecast.

Geomagnetic

Over the last 24 hours geomagnetic activity has been active with stormy intervals in the polar zone, stormy with major storm intervals in the auroral zone, and active with stormy intervals in the sub-auroral zone.

Over the next 24 hours geomagnetic activity is forecast to be active with stormy intervals in the polar zone, stormy in the auroral zone, and active with stormy intervals in the sub-auroral zone. Visit <u>http://www.spaceweather.gc.ca/sfst-1-eng.php</u> for the magnetic forecast.

Space Weather Bulletin - 2015-10-09 issued at 18:32 UT (13:32 EST)

Summary

There is currently no major storm watch in effect.

See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (18:15 UT)

Geomagnetic Activity:

polar cap zone: unsettled auroral zone: quiet sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: high

Possible Impacts on Technology:

Geostationary satellites: moderate risk of internal charging.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: unsettled with active intervals auroral zone: active with stormy intervals sub-auroral zone: unsettled

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: high

Possible Impacts on Technology:

Geostationary satellites: moderate risk of internal charging.

Detailed Information

Solar
Solar activity has been low.

A slow CME erupted on 07 Oct 2015 07:48 UT. It is not yet known if the CME will impact the Earth.

Interplanetary

Interplanetary activity has been low.

The solar wind speed is currently moderate (500-700 km/s).

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit was at a moderate level yesterday and is expected to be at a high level tomorrow.

Visit <u>http://www.spaceweather.gc.ca/sffl-eng.php</u> for the electron forecast.

Geomagnetic

Over the last 24 hours geomagnetic activity has been active with stormy intervals in the polar zone, active with stormy intervals in the auroral zone, and unsettled with stormy intervals in the subauroral zone.

Over the next 24 hours geomagnetic activity is forecast to be unsettled with active intervals in the polar zone, active with stormy intervals in the auroral zone, and unsettled in the sub-auroral zone.

Visit <u>http://www.spaceweather.gc.ca/sfst-1-eng.php</u> for the magnetic forecast.

Space Weather Bulletin - 2015-10-10 issued at 19:44 UT (14:44 EST)

Summary

There is currently no major storm watch in effect.

See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (19:30 UT)

Geomagnetic Activity:

polar cap zone: active

auroral zone: quiet

sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: high

Possible Impacts on Technology:

Geostationary satellites: moderate risk of internal charging.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: unsettled with active intervals

auroral zone: active

sub-auroral zone: quiet with unsettled intervals

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: moderate

Possible Impacts on Technology:

Impacts are not expected.

Detailed Information

Solar

Solar activity has been low.

Interplanetary

Interplanetary activity has been low.

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit was at a high level yesterday and is expected to be at a moderate level tomorrow.

Visit <u>http://www.spaceweather.gc.ca/sffl-eng.php</u> for the electron forecast.

Geomagnetic

Over the last 24 hours geomagnetic activity has been unsettled with active intervals in the polar zone, active with stormy intervals in the auroral zone, and quiet with active intervals in the sub-auroral zone.

Over the next 24 hours geomagnetic activity is forecast to be unsettled with active intervals in the polar zone, active in the auroral zone, and quiet with unsettled intervals in the sub-auroral zone. Visit http://www.spaceweather.gc.ca/sfst-1-eng.php for the magnetic forecast.

Space Weather Bulletin - 2015-10-11 issued at 18:09 UT (13:09 EST)

Summary

There is currently no major storm watch in effect.

See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (17:45 UT)

Geomagnetic Activity:

polar cap zone: stormy auroral zone: unsettled sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: high

Possible Impacts on Technology:

Geostationary satellites: moderate risk of internal charging.

Aeromagnetic surveys: Potential for disruptions in the polar cap zone.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: unsettled with active intervals

auroral zone: active

sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: moderate

Possible Impacts on Technology:

Geostationary satellites: moderate risk of internal charging.

Detailed Information

Solar

Solar activity has been low.

One large coronal hole is located near the centre of the solar disk.

Interplanetary

Interplanetary activity has been low.

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit was at a high level yesterday and is expected to be at a moderate level tomorrow.

Visit <u>http://www.spaceweather.gc.ca/sffl-eng.php</u> for the electron forecast.

Geomagnetic

Over the last 24 hours geomagnetic activity has been unsettled in the polar zone, active with stormy intervals in the auroral zone, and quiet with active intervals in the sub-auroral zone.

Over the next 24 hours geomagnetic activity is forecast to be unsettled with active intervals in the polar zone, active in the auroral zone, and quiet in the sub-auroral zone.

Visit <u>http://www.spaceweather.gc.ca/sfst-1-eng.php</u> for the magnetic forecast.

Space Weather Bulletin - 2015-10-12 issued at 18:29 UT (13:29 EST)

Summary

There is currently no major storm watch in effect.

Stormy conditions are possible in the polar cap and auroral zones within the next 24 hours. See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (18:15 UT)

Geomagnetic Activity:

polar cap zone: active auroral zone: stormy sub-auroral zone: unsettled

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: high

Possible Impacts on Technology:

Geostationary satellites: moderate risk of internal charging. Aeromagnetic surveys: Potential for disruptions in the auroral zone. Directional Drilling: Potential for deviations in the auroral zone. Power Systems: possibility of weak voltage fluctuations in the auroral zone.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: unsettled with active intervals

auroral zone: active

sub-auroral zone: quiet with unsettled intervals

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Aeromagnetic surveys: Potential for disruptions in the polar cap and auroral zones. Directional Drilling: Potential for deviations in the polar cap and auroral zones.

Detailed Information

Solar

Solar activity has been low.

One large coronal hole is located near the centre of the solar disk.

Interplanetary

Interplanetary activity has been moderate.

Moderate solar wind speeds are due to high speed streams from coronal holes.

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit was at a high level yesterday and is expected to be at a normal level tomorrow.

Visit <u>http://www.spaceweather.gc.ca/sffl-eng.php</u> for the electron forecast.

Geomagnetic

- Over the last 24 hours geomagnetic activity has been unsettled with stormy intervals in the polar zone, active with stormy intervals in the auroral zone, and quiet with stormy intervals in the sub-auroral zone.
- Over the next 24 hours geomagnetic activity is forecast to be unsettled with active intervals in the polar zone, active in the auroral zone, and quiet with unsettled intervals in the sub-auroral zone.
- Disturbed geomagnetic conditions are expected 12 Oct 2015 to 13 Oct 2015 due to high speed streams from coronal holes.

Visit <u>http://www.spaceweather.gc.ca/sfst-1-eng.php</u> for the magnetic forecast.

Space Weather Bulletin - 2015-10-13 issued at 20:08 UT (15:08 EST)

Summary

There is currently no major storm watch in effect.

See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (19:45 UT)

Geomagnetic Activity:

polar cap zone: unsettled auroral zone: active sub-auroral zone: guiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: moderate

Possible Impacts on Technology:

Aeromagnetic surveys: Potential for disruptions in the auroral zone. Directional Drilling: Potential for deviations in the auroral zone.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: unsettled with active intervals auroral zone: active with stormy intervals sub-auroral zone: unsettled

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: moderate

Possible Impacts on Technology:

Aeromagnetic surveys: Potential for disruptions in the auroral zone.

Directional Drilling: Potential for deviations in the auroral zone.

Detailed Information

Solar

Solar activity has been low.

One large coronal hole is located near the centre of the solar disk.

Interplanetary

Interplanetary activity has been moderate.

Moderate solar wind speeds are due to high speed streams from coronal holes.

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit was at a high level yesterday and is expected to be at a moderate level tomorrow.

Visit <u>http://www.spaceweather.gc.ca/sffl-eng.php</u> for the electron forecast.

Geomagnetic

- Over the last 24 hours geomagnetic activity has been unsettled with stormy intervals in the polar zone, active with stormy intervals in the auroral zone, and unsettled with active intervals in the sub-auroral zone.
- Over the next 24 hours geomagnetic activity is forecast to be unsettled with active intervals in the polar zone, active with stormy intervals in the auroral zone, and unsettled in the sub-auroral zone.
- Disturbed geomagnetic conditions are expected 13 Oct 2015 to 14 Oct 2015 due to high speed streams from coronal holes.

Visit <u>http://www.spaceweather.gc.ca/sfst-1-eng.php</u> for the magnetic forecast.

Space Weather Bulletin - 2015-10-14 issued at 19:31 UT (14:31 EST)

Summary

There is currently no major storm watch in effect.

See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (19:15 UT)

Geomagnetic Activity:

polar cap zone: active auroral zone: quiet

sub-auroral zone: unsettled

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: moderate

Possible Impacts on Technology:

Impacts are not expected.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: unsettled with active intervals auroral zone: active with stormy intervals sub-auroral zone: unsettled

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: moderate

Possible Impacts on Technology:

Aeromagnetic surveys: Potential for disruptions in the auroral zone. Directional Drilling: Potential for deviations in the auroral zone.

Detailed Information

Solar

Solar activity has been low.

One medium coronal hole is located near the centre of the solar disk.

Interplanetary

Interplanetary activity has been moderate.

Moderate solar wind speeds are due to high speed streams from coronal holes.

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit was at a moderate level yesterday and is expected to be at a moderate level tomorrow.

Visit <u>http://www.spaceweather.gc.ca/sffl-eng.php</u> for the electron forecast.

Geomagnetic

Over the last 24 hours geomagnetic activity has been unsettled with active intervals in the polar zone, active with stormy intervals in the auroral zone, and unsettled with stormy intervals in the sub-auroral zone.

Over the next 24 hours geomagnetic activity is forecast to be unsettled with active intervals in the polar zone, active with stormy intervals in the auroral zone, and unsettled in the sub-auroral zone.

Disturbed geomagnetic conditions are expected 13 Oct 2015 to 14 Oct 2015 due to high speed streams from coronal holes.

Visit http://www.spaceweather.gc.ca/sfst-1-eng.php for the magnetic forecast.

Space Weather Bulletin - 2015-10-15 issued at 18:33 UT (13:33 EST)

Summary

There is currently no major storm watch in effect.

See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (18:15 UT)

Geomagnetic Activity:

polar cap zone: quiet auroral zone: unsettled sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: moderate

Possible Impacts on Technology:

Impacts are not expected.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: quiet with unsettled intervals auroral zone: unsettled with active intervals sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: moderate

Possible Impacts on Technology:

Impacts are not expected.

Detailed Information

Solar

Solar activity has been low.

Two small coronal holes are located near the centre of the solar disk.

Interplanetary

Interplanetary activity has been low.

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit was at a moderate level yesterday and is expected to be at a moderate level tomorrow.

Visit <u>http://www.spaceweather.gc.ca/sffl-eng.php</u> for the electron forecast.

Geomagnetic

Over the last 24 hours geomagnetic activity has been quiet with active intervals in the polar zone, quiet with stormy intervals in the auroral zone, and quiet with unsettled intervals in the subauroral zone.

Over the next 24 hours geomagnetic activity is forecast to be quiet with unsettled intervals in the polar zone, unsettled with active intervals in the auroral zone, and quiet in the sub-auroral zone. Visit http://www.spaceweather.gc.ca/sfst-1-eng.php for the magnetic forecast.

Space Weather Bulletin - 2015-10-16 issued at 19:06 UT (14:06 EST)

Summary

There is currently no major storm watch in effect.

See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (18:45 UT)

Geomagnetic Activity:

polar cap zone: unsettled

auroral zone: quiet

sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: moderate

Possible Impacts on Technology:

Impacts are not expected.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: quiet with unsettled intervals

auroral zone: unsettled

sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Impacts are not expected.

Detailed Information

Solar

Solar activity has been moderate.

The active region located near the east limb of the solar disk has produced solar x-ray flares and has the potential to produce subsequent solar eruptions.

One small coronal hole is located near the centre of the solar disk.

Interplanetary

Interplanetary activity has been low.

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit was at a moderate level yesterday and is expected to be at a normal level tomorrow.

Visit <u>http://www.spaceweather.gc.ca/sffl-eng.php</u> for the electron forecast.

Geomagnetic

Over the last 24 hours geomagnetic activity has been quiet with unsettled intervals in the polar zone, quiet with stormy intervals in the auroral zone, and quiet with unsettled intervals in the sub-auroral zone.

Over the next 24 hours geomagnetic activity is forecast to be quiet with unsettled intervals in the polar zone, unsettled in the auroral zone, and quiet in the sub-auroral zone.

Visit <u>http://www.spaceweather.gc.ca/sfst-1-eng.php</u> for the magnetic forecast.

Space Weather Bulletin - 2015-10-17 issued at 17:43 UT (12:43 EST) Summary

There is currently no major storm watch in effect.

See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (17:30 UT)

Geomagnetic Activity:

polar cap zone: unsettled auroral zone: unsettled sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: moderate

Possible Impacts on Technology:

Impacts are not expected.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: quiet with unsettled intervals auroral zone: unsettled sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Impacts are not expected.

Detailed Information

Solar

Solar activity has been low.

The active region located near the central region of the solar disk has produced solar x-ray flares and has the potential to produce subsequent solar eruptions.

One small coronal hole is located near the centre of the solar disk.

Interplanetary

Interplanetary activity has been low.

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit was at a moderate level yesterday and is expected to be at a normal level tomorrow.

Visit <u>http://www.spaceweather.gc.ca/sffl-eng.php</u> for the electron forecast.

Geomagnetic

Over the last 24 hours geomagnetic activity has been quiet with unsettled intervals in the polar zone, quiet with active intervals in the auroral zone, and quiet with unsettled intervals in the sub-auroral zone.

Over the next 24 hours geomagnetic activity is forecast to be quiet with unsettled intervals in the polar zone, unsettled in the auroral zone, and quiet in the sub-auroral zone.

Visit <u>http://www.spaceweather.gc.ca/sfst-1-eng.php</u> for the magnetic forecast.

Space Weather Bulletin - 2015-10-18 issued at 19:22 UT (14:22 EST) Summary

There is currently no major storm watch in effect.

See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (19:00 UT)

Geomagnetic Activity:

polar cap zone: unsettled auroral zone: unsettled sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Impacts are not expected.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: quiet with active intervals

auroral zone: active

sub-auroral zone: unsettled

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Impacts are not expected.

Detailed Information

Solar

Solar activity has been low.

Two small coronal holes are located near the centre of the solar disk.

Interplanetary

Interplanetary activity has been moderate.

Moderate solar wind speeds are due to high speed streams from coronal holes.

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit was at a moderate level yesterday and is expected to be at a normal level tomorrow.

Visit <u>http://www.spaceweather.gc.ca/sffl-eng.php</u> for the electron forecast.

Geomagnetic

Over the last 24 hours geomagnetic activity has been unsettled with active intervals in the polar zone, active with stormy intervals in the auroral zone, and unsettled with stormy intervals in the sub-auroral zone.

Over the next 24 hours geomagnetic activity is forecast to be quiet with active intervals in the polar zone, active in the auroral zone, and unsettled in the sub-auroral zone.

Visit <u>http://www.spaceweather.gc.ca/sfst-1-eng.php</u> for the magnetic forecast.

Space Weather Bulletin - 2015-10-19 issued at 18:18 UT (13:18 EST)

Summary

There is currently no major storm watch in effect.

See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (18:00 UT)

Geomagnetic Activity:

polar cap zone: unsettled

auroral zone: quiet

sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Impacts are not expected.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: quiet with unsettled intervals auroral zone: quiet sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: moderate

Possible Impacts on Technology:

Impacts are not expected.

Detailed Information

Solar

Solar activity has been low.

There are several active regions visible on the solar disk.

One small coronal hole is located near the centre of the solar disk.

Interplanetary

Interplanetary activity has been low.

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit was at a normal level yesterday and is expected to be at a moderate level tomorrow.

Visit <u>http://www.spaceweather.gc.ca/sffl-eng.php</u> for the electron forecast.

Geomagnetic

Over the last 24 hours geomagnetic activity has been quiet with unsettled intervals in the polar zone, quiet with active intervals in the auroral zone, and quiet in the sub-auroral zone.

Over the next 24 hours geomagnetic activity is forecast to be quiet with unsettled intervals in the polar zone, quiet in the auroral zone, and quiet in the sub-auroral zone. Visit http://www.spaceweather.gc.ca/sfst-1-eng.php for the magnetic forecast.

Space Weather Bulletin - 2015-10-20 issued at 20:47 UT (15:47 EST) Summary

There is currently no major storm watch in effect.

See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (20:30 UT)

Geomagnetic Activity:

polar cap zone: quiet auroral zone: quiet sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Impacts are not expected.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: quiet with unsettled intervals auroral zone: quiet with unsettled intervals

sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Impacts are not expected.

Detailed Information

Solar

Solar activity has been low.

There are several active regions visible on the solar disk.

Interplanetary

The solar wind speed is currently very slow (< 400 km/s).

The interplanetary magnetic field has been fluctuating at low (|Bz|<5 nT) levels.

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit was at a normal level yesterday and is expected to be at a normal level tomorrow.

Visit <u>http://www.spaceweather.gc.ca/sffl-eng.php</u> for the electron forecast.

Geomagnetic

Over the last 24 hours geomagnetic activity has been quiet with unsettled intervals in the polar zone, quiet with active intervals in the auroral zone, and quiet with unsettled intervals in the sub-auroral zone.

Over the next 24 hours geomagnetic activity is forecast to be quiet with unsettled intervals in the polar zone, quiet with unsettled intervals in the auroral zone, and quiet in the sub-auroral zone. Visit http://www.spaceweather.gc.ca/sfst-1-eng.php for the magnetic forecast.

Space Weather Bulletin - 2015-10-21 issued at 21:04 UT (16:04 EST) Summary

There is currently no major storm watch in effect.

See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (20:45 UT)

Geomagnetic Activity:

polar cap zone: unsettled auroral zone: unsettled sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Impacts are not expected.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: quiet with unsettled intervals

auroral zone: unsettled

sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Impacts are not expected.

Detailed Information

Solar

There are several active regions visible on the solar disk.

The active region located near the central region of the solar disk has produced solar x-ray flares and has the potential to produce subsequent solar eruptions.

One small coronal hole is located near the edge of the solar disk.

Interplanetary

The solar wind speed is currently slow (400-500 km/s).

The interplanetary magnetic field has been fluctuating at moderate (|Bz|<10 nT) levels.

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit was at a normal level yesterday and is expected to be at a normal level tomorrow.

Visit <u>http://www.spaceweather.gc.ca/sffl-eng.php</u> for the electron forecast.

Geomagnetic

- Over the last 24 hours geomagnetic activity has been quiet with active intervals in the polar zone, quiet with stormy intervals in the auroral zone, and quiet with unsettled intervals in the subauroral zone.
- Over the next 24 hours geomagnetic activity is forecast to be quiet with unsettled intervals in the polar zone, unsettled in the auroral zone, and quiet in the sub-auroral zone.

Visit <u>http://www.spaceweather.gc.ca/sfst-1-eng.php</u> for the magnetic forecast.

Space Weather Bulletin - 2015-10-22 issued at 19:50 UT (14:50 EST) Summary There is currently no major storm watch in effect. See our website for current information: http://www.spaceweather.gc.ca (updated every 15 minutes) Current Conditions (19:45 UT) Geomagnetic Activity: polar cap zone: unsettled auroral zone: quiet sub-auroral zone: quiet **Environment at Geostationary orbit:** energetic electron fluence at geostationary orbit: normal Possible Impacts on Technology: Impacts are not expected. 24 Hour Forecast Geomagnetic Activity:

polar cap zone: quiet with unsettled intervals auroral zone: quiet with unsettled intervals sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Impacts are not expected.

Detailed Information

Solar

- A moderate CME was observed on 22 OCT 2015, and is expected to deliver a glancing blow to the Earth on 24 OCT 2015, resulting in disturbed geomagnetic activity.
- A long duration C (low) solar x-ray flare erupted at 22 OCT 2015 0246 near the centre of the solar disk.

There are several active regions visible on the solar disk.

The active region located near the central region of the solar disk has produced solar x-ray flares and has the potential to produce subsequent solar eruptions.

Interplanetary

The solar wind speed is currently slow (400-500 km/s).

The interplanetary magnetic field has been fluctuating at low (|Bz|<5 nT) levels.

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit was at a normal level yesterday and is expected to be at a normal level tomorrow.

Visit <u>http://www.spaceweather.gc.ca/sffl-eng.php</u> for the electron forecast.

Geomagnetic

Over the last 24 hours geomagnetic activity has been quiet with unsettled intervals in the polar zone, quiet with active intervals in the auroral zone, and quiet in the sub-auroral zone.

Over the next 24 hours geomagnetic activity is forecast to be quiet with unsettled intervals in the polar zone, quiet with unsettled intervals in the auroral zone, and quiet in the sub-auroral zone.

Visit <u>http://www.spaceweather.gc.ca/sfst-1-eng.php</u> for the magnetic forecast.

Space Weather Bulletin - 2015-10-23 issued at 19:36 UT (14:36 EST) Summary There is currently no major storm watch in effect. See our website for current information: http://www.spaceweather.gc.ca (updated every 15 minutes) Current Conditions (19:30 UT) Geomagnetic Activity: polar cap zone: unsettled auroral zone: quiet sub-auroral zone: quiet Environment at Geostationary orbit: energetic electron fluence at geostationary orbit: normal Possible Impacts on Technology:

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Impacts are not expected.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: quiet with unsettled intervals auroral zone: quiet with unsettled intervals sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Impacts are not expected.

Detailed Information

Solar

A moderate CME was observed on 22 OCT 2015, and is expected to deliver a glancing blow to the Earth on 24 OCT 2015, resulting in disturbed geomagnetic activity.

A long duration C (low) solar x-ray flare erupted at 22 OCT 2015 near the centre of the solar disk. There are several active regions visible on the solar disk.

The active region located near the central region of the solar disk has produced solar x-ray flares and has the potential to produce subsequent solar eruptions.

Interplanetary

The solar wind speed is currently slow (400-500 km/s).

The interplanetary magnetic field has been fluctuating at low (|Bz|<5 nT) levels.

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit was at a normal level yesterday and is expected to be at a normal level tomorrow.

Visit <u>http://www.spaceweather.gc.ca/sffl-eng.php</u> for the electron forecast.

Geomagnetic

Over the last 24 hours geomagnetic activity has been quiet with active intervals in the polar zone, quiet with unsettled intervals in the auroral zone, and quiet in the sub-auroral zone.

Over the next 24 hours geomagnetic activity is forecast to be quiet with unsettled intervals in the polar zone, quiet with unsettled intervals in the auroral zone, and quiet in the sub-auroral zone. Visit <u>http://www.spaceweather.gc.ca/sfst-1-eng.php</u> for the magnetic forecast.

Space Weather Bulletin - 2015-10-24 issued at 18:57 UT (13:57 EST)
Summary
There is currently no major storm watch in effect.
See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15
current conditions (18:45 UT)
Geomagnetic Activity:
polar cap zone: quiet
auroral zone: quiet
sub-auroral zone: quiet
Environment at Geostationary orbit:
energetic electron fluence at geostationary orbit: normal
Possible Impacts on Technology:
Impacts are not expected.
24 Hour Forecast
Geomagnetic Activity:
polar cap zone: quiet with unsettled intervals
auroral zone: unsettled
sub-auroral zone: quiet
Environment at Geostationary orbit:
energetic electron fluence at geostationary orbit: normal
Possible Impacts on Technology:
Impacts are not expected.

Detailed Information

Solar

A moderate CME was observed on 22 OCT 2015, and is expected to deliver a glancing blow to the Earth on 24 OCT 2015, resulting in increased geomagnetic activity.

Solar activity has been low.

Interplanetary

An interplanetary shock has been observed on 24 OCT 2015 18:26 UT.

Moderate solar wind speeds are due to a CME observed at 22 OCT 2015 02:48 UT.

Prolonged periods of negative interplanetary magnetic field are often associated with increased geomagnetic activity.

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit was at a normal level yesterday and is expected to be at a normal level tomorrow.

Visit <u>http://www.spaceweather.gc.ca/sffl-eng.php</u> for the electron forecast.

Geomagnetic

- Over the last 24 hours geomagnetic activity has been quiet with active intervals in the polar zone, quiet with stormy intervals in the auroral zone, and quiet with unsettled intervals in the subauroral zone.
- Over the next 24 hours geomagnetic activity is forecast to be quiet with unsettled intervals in the polar zone, unsettled in the auroral zone, and quiet in the sub-auroral zone.

Visit http://www.spaceweather.gc.ca/sfst-1-eng.php for the magnetic forecast.

Space Weather Bulletin - 2015-10-25 issued at 20:58 UT (15:58 EST)
Summary
There is currently no major storm watch in effect.
See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15
minutes)
Current Conditions (20:45 UT)
Geomagnetic Activity:
polar cap zone: quiet
auroral zone: quiet
sub-auroral zone: quiet
Environment at Geostationary orbit:
energetic electron fluence at geostationary orbit: normal
Possible Impacts on Technology:
Impacts are not expected.
24 Hour Forecast
Geomagnetic Activity:
polar cap zone: quiet with unsettled intervals
auroral zone: guiet with unsettled intervals
sub-auroral zone: quiet
Environment at Geostationary orbit:
energetic electron fluence at geostationary orbit: normal
Possible Impacts on Technology:
Impacts are not expected.
Detailed Information
Solar
Solar activity has been low.
Interplanetary
The interplanetary magnetic field has been fluctuating at moderate (Bz <10 nT) levels.
Prolonged periods of negative interplanetary magnetic field are often associated with increased
The solar wind speed is currently slow (400-500 km/s)
Environment at Geostationary orbit
Energetic electron fluence at geostationary orbit was at a normal level yesterday and is expected to be at a normal level tomorrow.
Visit http://www.spaceweather.gc.ca/sffl-eng.php.for.the electron forecast
Geomagnetic
Over the last 24 hours geomagnetic activity has been quiet with stormy intervals in the polar zone
quiet with active intervals in the auroral zone, and quiet with unsettled intervals in the sub- auroral zone
Over the next 24 hours geomagnetic activity is forecast to be quiet with unsettled intervals in the
polar zone, quiet with unsettled intervals in the auroral zone, and quiet in the sub-auroral zone
Visit http://www.spaceweather.gc.ca/sfst-1-eng.php for the magnetic forecast
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Space Weather Bulletin - 2015-10-26 issued at 20:35 UT (15:35 EST)

Summary

There is currently no major storm watch in effect.

See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (20:15 UT)

Geomagnetic Activity:

polar cap zone: quiet auroral zone: quiet sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Impacts are not expected.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: quiet auroral zone: quiet sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Impacts are not expected.

Detailed Information

Solar

Solar activity has been low.

Interplanetary

The solar wind speed is currently slow (400-500 km/s).

The interplanetary magnetic field has been fluctuating at low (|Bz|<5 nT) levels.

Prolonged periods of negative interplanetary magnetic field are often associated with increased geomagnetic activity.

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit was at a normal level yesterday and is expected to be at a normal level tomorrow.

Visit <u>http://www.spaceweather.gc.ca/sffl-eng.php</u> for the electron forecast.

Geomagnetic

Over the last 24 hours geomagnetic activity has been quiet in the polar zone, quiet in the auroral zone, and quiet in the sub-auroral zone.

Over the next 24 hours geomagnetic activity is forecast to be quiet in the polar zone, quiet in the auroral zone, and quiet in the sub-auroral zone.

Visit <u>http://www.spaceweather.gc.ca/sfst-1-eng.php</u> for the magnetic forecast.

Space Weather Bulletin - 2015-10-27 issued at 21:17 UT (16:17 EST) Summary

See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (21:00 UT)

Geomagnetic Activity:

polar cap zone: quiet auroral zone: quiet sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Impacts are not expected.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: quiet auroral zone: quiet sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Impacts are not expected.

Detailed Information

Solar

Solar activity has been low.

Interplanetary

The solar wind speed is currently slow (400-500 km/s).

The interplanetary magnetic field has been fluctuating at low (|Bz|<5 nT) levels.

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit was at a normal level yesterday and is expected to be at a normal level tomorrow.

Visit <u>http://www.spaceweather.gc.ca/sffl-eng.php</u> for the electron forecast.

Geomagnetic

Over the last 24 hours geomagnetic activity has been quiet in the polar zone, quiet with unsettled intervals in the auroral zone, and quiet in the sub-auroral zone.

Over the next 24 hours geomagnetic activity is forecast to be quiet in the polar zone, quiet in the auroral zone, and quiet in the sub-auroral zone.

Visit <u>http://www.spaceweather.gc.ca/sfst-1-eng.php</u> for the magnetic forecast.

Space Weather Bulletin - 2015-10-28 issued at 20:45 UT (15:45 EST) Summary

There is currently no major storm watch in effect.

See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (20:30 UT)

Geomagnetic Activity:

polar cap zone: quiet

auroral zone: quiet

sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Impacts are not expected.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: quiet auroral zone: quiet sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Impacts are not expected.

Detailed Information

Solar

Solar activity has been low.

One medium coronal hole is located near the edge of the solar disk.

Interplanetary

The interplanetary magnetic field has been fluctuating at low (|Bz|<5 nT) levels.

The solar wind speed is currently very slow (< 400 km/s).

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit was at a normal level yesterday and is expected to be at a normal level tomorrow.

Visit http://www.spaceweather.gc.ca/sffl-eng.php for the electron forecast.

Geomagnetic

Over the last 24 hours geomagnetic activity has been quiet in the polar zone, quiet in the auroral zone, and quiet in the sub-auroral zone.

Over the next 24 hours geomagnetic activity is forecast to be quiet in the polar zone, quiet in the auroral zone, and quiet in the sub-auroral zone.

Visit http://www.spaceweather.gc.ca/sfst-1-eng.php for the magnetic forecast.

Space Weather Bulletin - 2015-10-29 issued at 17:34 UT (12:34 EST) Summary

There is currently no major storm watch in effect.

See our website for current information: http://www.spaceweather.gc.ca (updated every 15 minutes)

Current Conditions (17:15 UT)

Geomagnetic Activity:

polar cap zone: quiet auroral zone: quiet sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Impacts are not expected.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: quiet auroral zone: quiet sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Impacts are not expected.

Detailed Information

Solar

One medium coronal hole is located near the centre of the solar disk. Solar activity has been low.

Interplanetary

The solar wind speed is currently very slow (< 400 km/s).

The interplanetary magnetic field has been fluctuating at low (|Bz|<5 nT) levels.

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit was at a normal level yesterday and is expected to be at a normal level tomorrow.

Visit <u>http://www.spaceweather.gc.ca/sffl-eng.php</u> for the electron forecast.

Geomagnetic

Over the last 24 hours geomagnetic activity has been quiet in the polar zone, quiet with unsettled intervals in the auroral zone, and quiet in the sub-auroral zone.

Over the next 24 hours geomagnetic activity is forecast to be quiet in the polar zone, quiet in the auroral zone, and quiet in the sub-auroral zone.

Visit <u>http://www.spaceweather.gc.ca/sfst-1-eng.php</u> for the magnetic forecast.

Space Weather Bulletin - 2015-10-30 issued at 19:07 UT (14:07 EST)

Summary

There is currently no major storm watch in effect.

See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (18:45 UT)

Geomagnetic Activity:

polar cap zone: unsettled auroral zone: unsettled sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Impacts are not expected.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: quiet with unsettled intervals auroral zone: quiet sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Impacts are not expected.

Detailed Information

Solar

One medium coronal hole is located near the centre of the solar disk.

Solar activity has been moderate.

Interplanetary

The solar wind speed is currently slow (400-500 km/s).

The interplanetary magnetic field has been fluctuating at low (|Bz|<5 nT) levels.

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit was at a normal level yesterday and is expected to be at a normal level tomorrow.

Visit <u>http://www.spaceweather.gc.ca/sffl-eng.php</u> for the electron forecast.

Geomagnetic

Over the last 24 hours geomagnetic activity has been quiet with unsettled intervals in the polar zone, quiet with active intervals in the auroral zone, and quiet with unsettled intervals in the sub-auroral zone.

Over the next 24 hours geomagnetic activity is forecast to be quiet with unsettled intervals in the polar zone, quiet in the auroral zone, and quiet in the sub-auroral zone.

Visit <u>http://www.spaceweather.gc.ca/sfst-1-eng.php</u> for the magnetic forecast.

Space Weather Bulletin - 2015-10-31 issued at 19:06 UT (14:06 EST)

Summary

There is currently no major storm watch in effect.

See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (18:45 UT)

Geomagnetic Activity:

polar cap zone: quiet auroral zone: quiet sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: low

Possible Impacts on Technology:

Impacts are not expected.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: quiet auroral zone: quiet with unsettled intervals sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Impacts are not expected.

Detailed Information

Solar

One medium coronal hole is located near the centre of the solar disk.

The active region located near the east limb of the solar disk has produced solar x-ray flares and has the potential to produce subsequent solar eruptions.

Interplanetary

The interplanetary magnetic field has been fluctuating at low (|Bz|<5 nT) levels.

The solar wind speed is currently very slow (< 400 km/s).

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit was at a normal level yesterday and is expected to be at a normal level tomorrow.

Visit <u>http://www.spaceweather.gc.ca/sffl-eng.php</u> for the electron forecast.

Geomagnetic

Over the last 24 hours geomagnetic activity has been quiet with unsettled intervals in the polar zone, quiet with active intervals in the auroral zone, and quiet with unsettled intervals in the sub-auroral zone.

Over the next 24 hours geomagnetic activity is forecast to be quiet in the polar zone, quiet with unsettled intervals in the auroral zone, and quiet in the sub-auroral zone.

Visit <u>http://www.spaceweather.gc.ca/sfst-1-eng.php</u> for the magnetic forecast.

Space Weather Bulletin - 2015-11-01 issued at 19:09 UT (14:09 EST)

Summary

There is currently no major storm watch in effect.

See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (19:00 UT)

Geomagnetic Activity:

polar cap zone: quiet auroral zone: quiet

sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: low

Possible Impacts on Technology:

Impacts are not expected.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: quiet

auroral zone: unsettled with active intervals

sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Impacts are not expected.

Detailed Information

Solar

One medium coronal hole is located near the centre of the solar disk.

The active region located near the east limb of the solar disk has produced solar x-ray flares and has the potential to produce subsequent solar eruptions.

Interplanetary

The solar wind speed is currently slow (400-500 km/s).

The interplanetary magnetic field has been fluctuating at low (|Bz|<5 nT) levels.

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit was at a low level yesterday and is expected to be at a normal level tomorrow.

Visit <u>http://www.spaceweather.gc.ca/sffl-eng.php</u> for the electron forecast.

Geomagnetic

- Over the last 24 hours geomagnetic activity has been quiet with unsettled intervals in the polar zone, quiet with stormy intervals in the auroral zone, and quiet with unsettled intervals in the sub-auroral zone.
- Over the next 24 hours geomagnetic activity is forecast to be quiet in the polar zone, unsettled with active intervals in the auroral zone, and quiet in the sub-auroral zone.

Visit <u>http://www.spaceweather.gc.ca/sfst-1-eng.php</u> for the magnetic forecast.

Space Weather Bulletin - 2015-11-02 issued at 20:54 UT (15:54 EST)

Summary

Stormy conditions are possible within the next 24 hours.

See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (20:45 UT)

Geomagnetic Activity:

polar cap zone: quiet

auroral zone: quiet

sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: low

Possible Impacts on Technology:

Impacts are not expected.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: quiet with active intervals auroral zone: quiet with stormy intervals sub-auroral zone: quiet with active intervals

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Power Systems: possibility of weak voltage fluctuations in the auroral zone.

Aeromagnetic surveys: Potential for significant disruptions in the auroral zone. Directional Drilling: Potential for significant deviations in the auroral zone.

Detailed Information

Solar

One medium coronal hole is located near the centre of the solar disk.

The active region located near the central region of the solar disk has produced solar x-ray flares and has the potential to produce subsequent solar eruptions.

Interplanetary

The solar wind speed is currently very slow (< 400 km/s).

The interplanetary magnetic field has been fluctuating at low (|Bz|<5 nT) levels.

Prolonged periods of negative interplanetary magnetic field are often associated with increased geomagnetic activity.

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit was at a low level yesterday and is expected to be at a normal level tomorrow.

Visit <u>http://www.spaceweather.gc.ca/sffl-eng.php</u> for the electron forecast.

Geomagnetic

Over the last 24 hours geomagnetic activity has been quiet with unsettled intervals in the polar zone, quiet with stormy intervals in the auroral zone, and quiet with unsettled intervals in the sub-auroral zone.

Over the next 24 hours geomagnetic activity is forecast to be quiet in the polar zone, quiet with unsettled intervals in the auroral zone, and quiet in the sub-auroral zone.

Enhanced geomagnetic activity is possible due to the arrival of a high speed stream associated with coronal holes.

Visit <u>http://www.spaceweather.gc.ca/sfst-1-eng.php</u> for the magnetic forecast.

Space Weather Bulletin - 2015-11-03 issued at 18:39 UT (13:39 EST)

Summary

Stormy conditions are possible in the polar cap, auroral, and sub-auroral zones within the next 24 hours.

See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (18:15 UT)

Geomagnetic Activity:

polar cap zone: active

auroral zone: unsettled

sub-auroral zone: unsettled

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: low

Possible Impacts on Technology:

Aeromagnetic surveys: Potential for disruptions in the polar cap zone.

Directional Drilling: Potential for deviations in the polar cap zone.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: unsettled with active intervals

auroral zone: unsettled with stormy intervals

sub-auroral zone: unsettled with stormy intervals

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Power Systems: possibility of weak voltage fluctuations in the auroral and sub-auroral zones.

Detailed Information

Solar

Solar activity has been moderate.

Interplanetary

The interplanetary magnetic field has been fluctuating at high (|Bz|<20 nT) levels.

Prolonged periods of negative interplanetary magnetic field are often associated with increased geomagnetic activity.

The solar wind speed is currently moderate (500-700 km/s).

Moderate solar wind speeds are due to high speed streams from coronal holes.

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit was at a low level yesterday and is expected to be at a normal level tomorrow.

Visit <u>http://www.spaceweather.gc.ca/sffl-eng.php</u> for the electron forecast.

Geomagnetic

- Over the last 24 hours geomagnetic activity has been quiet with stormy intervals in the polar zone, unsettled with stormy intervals in the auroral zone, and quiet with stormy intervals in the subauroral zone.
- Over the next 24 hours geomagnetic activity is forecast to be unsettled with active intervals in the polar zone, unsettled with active intervals in the auroral zone, and unsettled in the sub-auroral zone.
- Enhanced geomagnetic activity was likely due to the arrival of a high speed stream associated with coronal holes.

Visit <u>http://www.spaceweather.gc.ca/sfst-1-eng.php</u> for the magnetic forecast.

Space Weather Bulletin - 2015-11-04 issued at 20:42 UT (15:42 EST)

Summary

There is currently no major storm watch in effect.

Stormy conditions observed 04 Nov 2015 in the polar cap, auroral, and sub-auroral zones have ended.

The major storm WATCH issued 04 Nov 2015 03:32 UT for the auroral zone ended 04 Nov 2105 10:00 UT.

See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (20:15 UT)

Geomagnetic Activity:

polar cap zone: unsettled auroral zone: active

sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: moderate

Possible Impacts on Technology:

Geostationary satellites: moderate risk of internal charging.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: active with stormy intervals auroral zone: stormy sub-auroral zone: active

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: moderate

Possible Impacts on Technology:

Power Systems: possibility of weak voltage fluctuations in the polar cap and auroral zones. Aeromagnetic surveys: Potential for significant disruptions in the polar cap and auroral zones. Directional Drilling: Potential for significant deviations in the polar cap and auroral zones.

Detailed Information

Solar

Solar activity has been moderate.

Interplanetary

Interplanetary activity has been moderate.

The solar wind speed is currently moderate (500-700 km/s).

Moderate solar wind speeds are due to high speed streams from coronal holes.

The interplanetary magnetic field has been fluctuating at moderate (|Bz|<10 nT) levels.

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit was at a low level yesterday and is expected to be at a moderate level tomorrow.

Visit <u>http://www.spaceweather.gc.ca/sffl-eng.php</u> for the electron forecast.

Geomagnetic

Over the last 24 hours geomagnetic activity has been active with stormy intervals in the polar zone, active with stormy intervals in the auroral zone, and active with stormy intervals in the subauroral zone.

Over the next 24 hours geomagnetic activity is forecast to be active with stormy intervals in the polar zone, stormy in the auroral zone, and active in the sub-auroral zone.

Visit <u>http://www.spaceweather.gc.ca/sfst-1-eng.php</u> for the magnetic forecast.

Space Weather Bulletin - 2015-11-05 issued at 20:19 UT (15:19 EST)

Summary

There is currently no major storm watch in effect.

A slow Earth-directed CME erupted on 04 Nov 2015 ~14:24 UT and is expected to reach the Earth on 07 Nov 2015 ~ 14:00, resulting in disturbed geomagnetic activity.

See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (20:00 UT)

Geomagnetic Activity:

polar cap zone: unsettled auroral zone: unsettled

sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: moderate

Possible Impacts on Technology:

Geostationary satellites: moderate risk of internal charging.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: unsettled

auroral zone: unsettled with active intervals

sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: moderate

Possible Impacts on Technology:

Geostationary satellites: moderate risk of internal charging.

Detailed Information

Solar

A slow Earth-directed CME erupted on 04 Nov 2015 ~14:24 UT and is expected to reach the Earth on 07 Nov 2015 ~14:00 , resulting in disturbed geomagnetic activity.

Interplanetary

Interplanetary activity has been moderate.

The solar wind speed is currently moderate (500-700 km/s).

Moderate solar wind speeds are due to high speed streams from coronal holes.

The interplanetary magnetic field has been fluctuating at low (|Bz|<5 nT) levels.

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit was at a moderate level yesterday and is expected to be at a moderate level tomorrow.

Visit <u>http://www.spaceweather.gc.ca/sffl-eng.php</u> for the electron forecast.

Geomagnetic

Over the last 24 hours geomagnetic activity has been unsettled with active intervals in the polar zone, unsettled with stormy intervals in the auroral zone, and quiet with active intervals in the sub-auroral zone.

Over the next 24 hours geomagnetic activity is forecast to be unsettled in the polar zone, unsettled with active intervals in the auroral zone, and quiet in the sub-auroral zone.

Visit <u>http://www.spaceweather.gc.ca/sfst-1-eng.php</u> for the magnetic forecast.

Space Weather Bulletin - 2015-11-06 issued at 19:03 UT (14:03 EST)

Summary

There is currently no major storm watch in effect.

A slow Earth-directed CME erupted on 04 Nov 2015 ~14:24 UT and is expected to reach the Earth on 07 Nov 2015 ~ 14:00 UT, resulting in disturbed geomagnetic activity.

See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (18:45 UT)

Geomagnetic Activity:

polar cap zone: stormy

auroral zone: active sub-auroral zone: unsettled

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: moderate

Possible Impacts on Technology:

Geostationary satellites: moderate risk of internal charging. Aeromagnetic surveys: Potential for significant disruptions in the polar cap zone. Directional Drilling: Potential for significant deviations in the polar cap zone. Aeromagnetic surveys: Potential for disruptions in the auroral zone.

Directional Drilling: Potential for deviations in the auroral zone.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: active with stormy intervals auroral zone: unsettled with active intervals

sub-auroral zone: guiet with active intervals

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Geostationary satellites: moderate risk of internal charging.

Aeromagnetic surveys: Potential for significant disruptions in the polar cap and auroral zones.

Directional Drilling: Potential for significant deviations in the polar cap and auroral zones.

Detailed Information

Solar

Solar activity has been low.

Interplanetary

Interplanetary activity has been high.

The solar wind speed is currently moderate (500-700 km/s).

Moderate solar wind speeds are due to high speed streams from coronal holes.

The interplanetary magnetic field has been fluctuating at high (|Bz|<20 nT) levels.

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit was at a moderate level yesterday and is expected to be at a normal level tomorrow.

Visit <u>http://www.spaceweather.gc.ca/sffl-eng.php</u> for the electron forecast.

Geomagnetic

Over the last 24 hours geomagnetic activity has been quiet with active intervals in the polar zone, unsettled with active intervals in the auroral zone, and quiet with active intervals in the subauroral zone.

Over the next 24 hours geomagnetic activity is forecast to be active with stormy intervals in the polar zone, unsettled with active intervals in the auroral zone, and quiet with active intervals in the sub-auroral zone.

Visit <u>http://www.spaceweather.gc.ca/sfst-1-eng.php</u> for the magnetic forecast.

Space Weather Bulletin - 2015-11-07 issued at 23:41 UT (18:41 EST)

Summary

A slow Earth-directed CME erupted on 04 Nov 2015, resulting in disturbed geomagnetic activity. See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (23:30 UT)

Geomagnetic Activity:

polar cap zone: quiet auroral zone: quiet sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: moderate

Possible Impacts on Technology:

Geostationary satellites: moderate risk of internal charging.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: active with stormy intervals auroral zone: stormy sub-auroral zone: active

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Power Systems: possibility of weak voltage fluctuations in the auroral zone. Aeromagnetic surveys: Potential for significant disruptions in the polar cap and auroral zones.

Directional Drilling: Potential for significant deviations in the polar cap and autoral zones.

Detailed Information

Solar

Solar activity has been low.

Interplanetary

Interplanetary activity has been high.

The solar wind speed is currently moderate (500-700 km/s).

Moderate solar wind speeds are due to a CME observed at 04 Nov 2015.

The interplanetary magnetic field has been fluctuating at high (|Bz|<20 nT) levels.

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit was at a moderate level yesterday and is expected to be at a normal level tomorrow.

Visit <u>http://www.spaceweather.gc.ca/sffl-eng.php</u> for the electron forecast.

Geomagnetic

Over the last 24 hours geomagnetic activity has been active with stormy intervals in the polar zone, stormy in the auroral zone, and unsettled with stormy intervals in the sub-auroral zone.

Over the next 24 hours geomagnetic activity is forecast to be active with stormy intervals in the polar zone, stormy in the auroral zone, and active in the sub-auroral zone.

Visit <u>http://www.spaceweather.gc.ca/sfst-1-eng.php</u> for the magnetic forecast.

Space Weather Bulletin - 2015-11-08 issued at 20:44 UT (15:44 EST)

Summary

Disturbed conditions observed 08 Nov 2015 in the polar cap, auroral, and sub-auroral zones have ended.

See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (20:30 UT)

Geomagnetic Activity:

polar cap zone: active auroral zone: unsettled sub-auroral zone: unsettled

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: moderate

Possible Impacts on Technology:

Impacts are not expected.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: unsettled auroral zone: unsettled with active intervals sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: moderate

Possible Impacts on Technology:

Impacts are not expected.

Detailed Information

Solar

Solar activity has been low.

Interplanetary

Interplanetary activity has been low.

The solar wind speed is currently slow (400-500 km/s).

The interplanetary magnetic field has been fluctuating at low (|Bz|<5 nT) levels.

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit for 07 NOV 2015 is unavailable but is expected to be at a moderate level tomorrow.

Visit <u>http://www.spaceweather.gc.ca/sffl-eng.php</u> for the electron forecast.

Geomagnetic

Over the last 24 hours geomagnetic activity has been quiet with active intervals in the polar zone, quiet with stormy intervals in the auroral zone, and quiet with active intervals in the sub-auroral zone.

Over the next 24 hours geomagnetic activity is forecast to be unsettled in the polar zone, unsettled with active intervals in the auroral zone, and quiet in the sub-auroral zone.

Visit <u>http://www.spaceweather.gc.ca/sfst-1-eng.php</u> for the magnetic forecast.

Space Weather Bulletin - 2015-11-09 issued at 18:28 UT (13:28 EST) Summary

The major storm WATCH issued 09 Nov 2015 04:57 UT for the auroral zone ended 09 Nov 2015 07:02 UT.

See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (18:15 UT)

Geomagnetic Activity:

polar cap zone: unsettled auroral zone: active

sub-auroral zone: unsettled

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: moderate

Possible Impacts on Technology:

Geostationary satellites: moderate risk of internal charging. Aeromagnetic surveys: Potential for disruptions in the auroral zone. Directional Drilling: Potential for deviations in the auroral zone.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: unsettled with active intervals auroral zone: active with stormy intervals sub-auroral zone: unsettled

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Aeromagnetic surveys: Potential for disruptions in the auroral zone.

Directional Drilling: Potential for deviations in the auroral zone.

Detailed Information

Solar

Solar activity has been moderate.

A moderate CME was observed on 09 Nov 2015 13:00, and is expected to deliver a glancing blow to the Earth on 11 Nov 2015, resulting in disturbed geomagnetic activity.

Interplanetary

Interplanetary activity has been moderate.

The solar wind speed is currently moderate (500-700 km/s).

The interplanetary magnetic field has been fluctuating at moderate (|Bz|<10 nT) levels.

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit was at a moderate level yesterday and is expected to be at a normal level tomorrow.

Visit <u>http://www.spaceweather.gc.ca/sffl-eng.php</u> for the electron forecast.

Geomagnetic

Over the last 24 hours geomagnetic activity has been unsettled with active intervals in the polar zone, stormy in the auroral zone, and unsettled with active intervals in the sub-auroral zone.

Over the next 24 hours geomagnetic activity is forecast to be unsettled with active intervals in the polar zone, active with stormy intervals in the auroral zone, and unsettled in the sub-auroral zone.

Visit <u>http://www.spaceweather.gc.ca/sfst-1-eng.php</u> for the magnetic forecast.

Space Weather Bulletin - 2015-11-10 issued at 19:01 UT (14:01 EST) Summary

There is currently no major storm watch in effect.

A moderate CME was observed on 09 Nov 2015 13:36, and is expected to deliver a glancing blow to the Earth on 11 Nov 2015, resulting in disturbed geomagnetic activity.

See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (18:45 UT)

Geomagnetic Activity:

polar cap zone: active auroral zone: active sub-auroral zone: unsettled

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: moderate

Possible Impacts on Technology:

Geostationary satellites: moderate risk of internal charging.

Aeromagnetic surveys: Potential for disruptions in the polar cap and auroral zones.

Directional Drilling: Potential for deviations in the polar cap and auroral zones.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: active with stormy intervals

auroral zone: stormy

sub-auroral zone: unsettled with stormy intervals

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: moderate

Possible Impacts on Technology:

Geostationary satellites: moderate risk of internal charging.

Aeromagnetic surveys: Potential for significant disruptions in the polar cap and auroral zones.

Directional Drilling: Potential for significant deviations in the polar cap and auroral zones.

Detailed Information

Solar

Solar activity has been moderate.

A moderate CME was observed on 09 Nov 2015 13:36, and is expected to deliver a glancing blow to the Earth on 11 Nov 2015, resulting in disturbed geomagnetic activity.

Interplanetary

Interplanetary activity has been moderate.

The solar wind speed is currently moderate (500-700 km/s).

The interplanetary magnetic field has been fluctuating at moderate (|Bz|<10 nT) levels.

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit was at a moderate level yesterday and is expected to be at a moderate level tomorrow.

Visit <u>http://www.spaceweather.gc.ca/sffl-eng.php</u> for the electron forecast.

Geomagnetic

Over the last 24 hours geomagnetic activity has been active with stormy intervals in the polar zone, active with major storm intervals in the auroral zone, and unsettled with stormy intervals in the sub-auroral zone.

Over the next 24 hours geomagnetic activity is forecast to be active with stormy intervals in the polar zone, stormy in the auroral zone, and unsettled with stormy intervals in the sub-auroral zone.

Visit <u>http://www.spaceweather.gc.ca/sfst-1-eng.php</u> for the magnetic forecast.

Space Weather Bulletin - 2015-11-11 issued at 20:25 UT (15:25 EST)

Summary

There is currently no major storm watch in effect.

A moderate CME was observed on 09 Nov 2015 13:36, and is expected to deliver a glancing blow to the Earth on 11-12 Nov 2015, resulting in disturbed geomagnetic activity.

See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (20:00 UT)

Geomagnetic Activity:

polar cap zone: unsettled

auroral zone: quiet

sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: high

Possible Impacts on Technology:

Geostationary satellites: high risk of internal charging.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: unsettled with stormy intervals

auroral zone: active with stormy intervals

sub-auroral zone: unsettled with stormy intervals

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: moderate

Possible Impacts on Technology:

Geostationary satellites: moderate risk of internal charging.

Aeromagnetic surveys: Potential for significant disruptions in the polar cap, auroral, and sub-auroral zones.

Directional Drilling: Potential for significant deviations in the polar cap, auroral, and sub-auroral zones.

Detailed Information

Solar

Solar activity has been moderate.

A moderate CME was observed on 09 Nov 2015 13:36, and is expected to deliver a glancing blow to the Earth on 11-12 Nov 2015, resulting in disturbed geomagnetic activity.

Interplanetary

Interplanetary activity has been moderate.

The solar wind speed is currently moderate (500-700 km/s).

Moderate solar wind speeds are due to high speed streams from coronal holes.

The interplanetary magnetic field has been fluctuating at low (|Bz|<5 nT) levels.

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit was at a high level yesterday and is expected to be at a moderate level tomorrow.

Visit <u>http://www.spaceweather.gc.ca/sffl-eng.php</u> for the electron forecast.

Geomagnetic

- Over the last 24 hours geomagnetic activity has been unsettled with stormy intervals in the polar zone, active with stormy intervals in the auroral zone, and unsettled with stormy intervals in the sub-auroral zone.
- Over the next 24 hours geomagnetic activity is forecast to be unsettled with stormy intervals in the polar zone, active with stormy intervals in the auroral zone, and unsettled with stormy intervals in the sub-auroral zone.

Visit <u>http://www.spaceweather.gc.ca/sfst-1-eng.php</u> for the magnetic forecast.

Space Weather Bulletin - 2015-11-12 issued at 19:19 UT (14:19 EST)

Summary

There is currently no major storm watch in effect.

Disturbed conditions observed 11 Nov 2015 in the polar cap and sub-auroral zones have ended. See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (19:00 UT)

Geomagnetic Activity:

polar cap zone: quiet auroral zone: quiet

sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: high

Possible Impacts on Technology:

Geostationary satellites: high risk of internal charging.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: quiet

auroral zone: quiet with unsettled intervals

sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: moderate

Possible Impacts on Technology:

Geostationary satellites: moderate risk of internal charging.

Detailed Information

Solar

Solar activity has been low.

Interplanetary

Interplanetary activity has been low.

The solar wind speed is currently slow (400-500 km/s).

The interplanetary magnetic field has been fluctuating at low (|Bz|<5 nT) levels.

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit was at a high level yesterday and is expected to be at a moderate level tomorrow.

Visit <u>http://www.spaceweather.gc.ca/sffl-eng.php</u> for the electron forecast.

Geomagnetic

Over the last 24 hours geomagnetic activity has been quiet with active intervals in the polar zone, quiet with active intervals in the auroral zone, and quiet in the sub-auroral zone.

Over the next 24 hours geomagnetic activity is forecast to be quiet in the polar zone, quiet with unsettled intervals in the auroral zone, and quiet in the sub-auroral zone.

Visit <u>http://www.spaceweather.gc.ca/sfst-1-eng.php</u> for the magnetic forecast.

Space Weather Bulletin - 2015-11-13 issued at 18:39 UT (13:39 EST)

Summary

There is currently no major storm watch in effect.

See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (18:30 UT)

Geomagnetic Activity:

polar cap zone: active auroral zone: unsettled sub-auroral zone: unsettled

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: high

Possible Impacts on Technology:

Geostationary satellites: high risk of internal charging.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: quiet with active intervals auroral zone: unsettled sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Impacts are not expected.

Detailed Information

Solar

Solar activity has been low.

Interplanetary

Interplanetary activity has been moderate.

The solar wind speed is currently slow (400-500 km/s).

The interplanetary magnetic field has been fluctuating at moderate (|Bz|<10 nT) levels.

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit was at a high level yesterday and is expected to be at a normal level tomorrow.

Visit <u>http://www.spaceweather.gc.ca/sffl-eng.php</u> for the electron forecast.

Geomagnetic

Over the last 24 hours geomagnetic activity has been quiet with unsettled intervals in the polar zone, quiet with stormy intervals in the auroral zone, and quiet with unsettled intervals in the sub-auroral zone.

Over the next 24 hours geomagnetic activity is forecast to be quiet with active intervals in the polar zone, unsettled in the auroral zone, and quiet in the sub-auroral zone.

Visit <u>http://www.spaceweather.gc.ca/sfst-1-eng.php</u> for the magnetic forecast.

Space Weather Bulletin - 2015-11-14 issued at 19:13 UT (14:13 EST)

Summary

There is currently no major storm watch in effect.

See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (19:00 UT)

Geomagnetic Activity:

polar cap zone: unsettled

auroral zone: quiet

sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: moderate

Possible Impacts on Technology:

Geostationary satellites: moderate risk of internal charging.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: quiet with unsettled intervals auroral zone: unsettled with active intervals sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Impacts are not expected.

Detailed Information

Solar

Solar activity has been low.

Interplanetary

Interplanetary activity has been low.

The solar wind speed is currently slow (400-500 km/s).

The interplanetary magnetic field has been fluctuating at low (|Bz|<5 nT) levels.

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit was at a high level yesterday and is expected to be at a normal level tomorrow.

Visit <u>http://www.spaceweather.gc.ca/sffl-eng.php</u> for the electron forecast.

Geomagnetic

Over the last 24 hours geomagnetic activity has been quiet with active intervals in the polar zone, unsettled with stormy intervals in the auroral zone, and quiet with active intervals in the subauroral zone.
Over the next 24 hours geomagnetic activity is forecast to be quiet with unsettled intervals in the polar zone, unsettled with active intervals in the auroral zone, and quiet in the sub-auroral zone. Visit <u>http://www.spaceweather.gc.ca/sfst-1-eng.php</u> for the magnetic forecast.

Space Weather Bulletin - 2015-11-15 issued at 17:58 UT (12:58 EST) Summary

There is currently no major storm watch in effect.

See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (17:45 UT)

Geomagnetic Activity:

polar cap zone: quiet auroral zone: quiet sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: moderate

Possible Impacts on Technology:

Geostationary satellites: moderate risk of internal charging.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: quiet with unsettled intervals auroral zone: quiet with unsettled intervals sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Impacts are not expected.

Detailed Information

Solar

Solar activity has been low.

Interplanetary

Interplanetary activity has been moderate.

The solar wind speed is currently slow (400-500 km/s).

The interplanetary magnetic field has been fluctuating at moderate (|Bz|<10 nT) levels.

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit was at a moderate level yesterday and is expected to be at a normal level tomorrow.

Visit <u>http://www.spaceweather.gc.ca/sffl-eng.php</u> for the electron forecast.

Geomagnetic

Over the last 24 hours geomagnetic activity has been quiet with unsettled intervals in the polar zone, quiet with stormy intervals in the auroral zone, and quiet with unsettled intervals in the sub-auroral zone.

Over the next 24 hours geomagnetic activity is forecast to be quiet with unsettled intervals in the polar zone, quiet with unsettled intervals in the auroral zone, and quiet in the sub-auroral zone. Visit http://www.spaceweather.gc.ca/sfst-1-eng.php for the magnetic forecast.

Space Weather Bulletin - 2015-11-16 issued at 19:37 UT (14:37 EST) Summary

There is currently no major storm watch in effect.

See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (19:15 UT)

Geomagnetic Activity:

polar cap zone: quiet auroral zone: quiet sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: moderate

Possible Impacts on Technology:

Geostationary satellites: moderate risk of internal charging.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: quiet with unsettled intervals auroral zone: unsettled with active intervals sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Impacts are not expected.

Detailed Information

Solar

Solar activity has been moderate.

A moderate CME was observed on 15 Nov 2015, and is expected to deliver a glancing blow to the Earth on 17 Nov 2015, resulting in disturbed geomagnetic activity.

Interplanetary

Interplanetary activity has been low.

The solar wind speed is currently very slow (< 400 km/s).

The interplanetary magnetic field has been fluctuating at low (|Bz|<5 nT) levels.

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit was at a moderate level yesterday and is expected to be at a normal level tomorrow.

Visit <u>http://www.spaceweather.gc.ca/sffl-eng.php</u> for the electron forecast.

Geomagnetic

Over the last 24 hours geomagnetic activity has been quiet with unsettled intervals in the polar zone, unsettled with stormy intervals in the auroral zone, and quiet with active intervals in the sub-auroral zone.

Over the next 24 hours geomagnetic activity is forecast to be quiet with unsettled intervals in the polar zone, unsettled with active intervals in the auroral zone, and quiet in the sub-auroral zone. Visit http://www.spaceweather.gc.ca/sfst-1-eng.php for the magnetic forecast.

Space Weather Bulletin - 2015-11-17 issued at 20:56 UT (15:56 EST)

Summary

There is currently no major storm watch in effect.

A moderate CME was observed on 15 NOV 2015 23:24 UT, and is expected to deliver a glancing blow to the Earth on 18-19 NOV 2015, resulting in increased geomagnetic activity.

See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (19:30 UT)

Geomagnetic Activity:

polar cap zone: unsettled auroral zone: unsettled

sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Impacts are not expected.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: quiet with active intervals auroral zone: quiet with stormy intervals sub-auroral zone: quiet with unsettled intervals

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Power Systems: possibility of weak voltage fluctuations in the auroral zone. Aeromagnetic surveys: Potential for significant disruptions in the auroral zone. Directional Drilling: Potential for significant deviations in the auroral zone. Aeromagnetic surveys: Potential for disruptions in the polar cap zone. Directional Drilling: Potential for deviations in the polar cap zone.

Detailed Information

Solar

One medium coronal hole is located near the centre of the solar disk.

A moderate CME was observed on 15 NOV 2015 23:24 UT, and is expected to deliver a glancing blow to the Earth on 18-19 NOV 2015, resulting in increased geomagnetic activity.

Interplanetary

The solar wind speed is currently very slow (< 400 km/s).

The interplanetary magnetic field has been fluctuating at low (|Bz|<5 nT) levels.

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit was at a moderate level yesterday and is expected to be at a normal level tomorrow.

Visit <u>http://www.spaceweather.gc.ca/sffl-eng.php</u> for the electron forecast.

Geomagnetic

Over the last 24 hours geomagnetic activity has been quiet with unsettled intervals in the polar zone, quiet with active intervals in the auroral zone, and quiet with unsettled intervals in the sub-auroral zone.

Over the next 24 hours geomagnetic activity is forecast to be quiet with unsettled intervals in the polar zone, quiet with unsettled intervals in the auroral zone, and quiet in the sub-auroral zone. Visit <u>http://www.spaceweather.gc.ca/sfst-1-eng.php</u> for the magnetic forecast.

Space Weather Bulletin - 2015-11-18 issued at 22:04 UT (17:04 EST) Summary

There is currently no major storm watch in effect.

Stormy conditions are possible in the polar cap and auroral zones within the next 24 hours. See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (21:45 UT)

Geomagnetic Activity:

polar cap zone: active

auroral zone: active

sub-auroral zone: unsettled

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Aeromagnetic surveys: Potential for disruptions in the polar cap and auroral zones. Directional Drilling: Potential for deviations in the polar cap and auroral zones.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: unsettled with stormy intervals auroral zone: unsettled with stormy intervals

sub-auroral zone: quiet with unsettled intervals

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Power Systems: possibility of weak voltage fluctuations in the auroral zone.

Aeromagnetic surveys: Potential for significant disruptions in the polar cap and auroral zones.

Directional Drilling: Potential for significant deviations in the polar cap and auroral zones.

Detailed Information

Solar

Solar activity has been low.

One medium coronal hole is located near the centre of the solar disk.

A moderate CME was observed on 15 NOV 2015 23:24 UT, and is expected to deliver a glancing blow to the Earth on 18-19 NOV 2015, resulting in increased geomagnetic activity.

Interplanetary

The solar wind speed is currently slow (400-500 km/s).

The interplanetary magnetic field has been fluctuating at high (|Bz|<20 nT) levels.

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit was at a normal level yesterday and is expected to be at a normal level tomorrow.

Visit <u>http://www.spaceweather.gc.ca/sffl-eng.php</u> for the electron forecast.

Geomagnetic

Over the last 24 hours geomagnetic activity has been quiet with unsettled intervals in the polar zone, quiet with stormy intervals in the auroral zone, and quiet with unsettled intervals in the sub-auroral zone.

Over the next 24 hours geomagnetic activity is forecast to be unsettled with active intervals in the polar zone, unsettled in the auroral zone, and quiet with unsettled intervals in the sub-auroral zone.

Visit <u>http://www.spaceweather.gc.ca/sfst-1-eng.php</u> for the magnetic forecast.

Space Weather Bulletin - 2015-11-19 issued at 19:23 UT (14:23 EST)
Summary
There is currently no major storm watch in effect.
See our website for current information: http://www.spaceweather.gc.ca (updated every 15

minutes)

Current Conditions (19:00 UT)

Geomagnetic Activity:

polar cap zone: quiet auroral zone: quiet

sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Impacts are not expected.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: quiet with unsettled intervals auroral zone: unsettled sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Impacts are not expected.

Detailed Information

Solar

Solar activity has been low.

Interplanetary

The solar wind speed is currently slow (400-500 km/s).

The interplanetary magnetic field has been fluctuating at low (|Bz|<5 nT) levels.

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit was at a normal level yesterday and is expected to be at a normal level tomorrow.

Visit <u>http://www.spaceweather.gc.ca/sffl-eng.php</u> for the electron forecast.

Geomagnetic

Over the last 24 hours geomagnetic activity has been quiet with active intervals in the polar zone, quiet with stormy intervals in the auroral zone, and quiet with active intervals in the sub-auroral zone.

Over the next 24 hours geomagnetic activity is forecast to be quiet with unsettled intervals in the polar zone, unsettled in the auroral zone, and quiet in the sub-auroral zone. Visit <u>http://www.spaceweather.gc.ca/sfst-1-eng.php</u> for the magnetic forecast.

Space Weather Bulletin - 2015-11-20 issued at 19:27 UT (14:27 EST) Summary

There is currently no major storm watch in effect.

See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (19:15 UT)

Geomagnetic Activity:

polar cap zone: quiet auroral zone: quiet sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Impacts are not expected.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: quiet auroral zone: quiet

sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Impacts are not expected.

Detailed Information

Solar

Solar activity has been low.

Interplanetary

The solar wind speed is currently very slow (< 400 km/s).

The interplanetary magnetic field has been fluctuating at moderate (|Bz|<10 nT) levels.

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit was at a normal level yesterday and is expected to be at a normal level tomorrow.

Visit <u>http://www.spaceweather.gc.ca/sffl-eng.php</u> for the electron forecast.

Geomagnetic

Over the last 24 hours geomagnetic activity has been quiet with unsettled intervals in the polar zone, quiet with active intervals in the auroral zone, and quiet with unsettled intervals in the sub-auroral zone.

Over the next 24 hours geomagnetic activity is forecast to be quiet in the polar zone, quiet in the auroral zone, and quiet in the sub-auroral zone.

Visit <u>http://www.spaceweather.gc.ca/sfst-1-eng.php</u> for the magnetic forecast.

Space Weather Bulletin - 2015-11-21 issued at 20:42 UT (15:42 EST)
Summary
See our website for surrent information, http://www.speecoweether.ge.co./updated.every.15
see our website for current information: <u>mtp://www.spaceweatner.gc.ca</u> (updated every 15
Current Conditions (20:20 LIT)
Company tio Activity
Geomagnetic Activity:
polar cap zone: quiet
autoral zone: quiet
Sub-autoral zone: quiet
Environment at Geostationary orbit:
energetic electron nuence at geostationary orbit: normal
Possible impacts on reciniology:
Impacts are not expected.
24 Hour Forecast
Geomagnetic Activity:
polar cap zone: quiet
autoral zone, quiet
Sub-autoral zone, quiet
energetic electron fluence at geostationany orbit, normal
Possible Impacts on Technology:
Impacts are not expected
Impacts are not expected.
Solar
Solar activity has been low
Internanceary
The color wind speed is currently yory slow (< 400 km/c)
The interplanetary magnetic field has been fluctuating at low (1Pz1 z5 pT) levels
Environment at Constationary orbit
Environment at deostationary orbit was at a normal lovel vestorday and is expected to
be at a permational temperature
Visit http://www.spacoweather.gc.ca/sffl.opg.php.for.the.electrop.forecast
Coomagnetic
Over the last 24 hours geomegnetic activity has been guidt in the polar zone, guidt with upsettled
intervals in the auroral zone, and quiet in the sub auroral zone.
Over the pays 24 hours geomegnetic activity is forecast to be quiet in the polar zone, quiet in the
over the next 24 hours yeomagnetic activity is forecast to be quiet in the polar zone, quiet in the
Visit http://www.spacoweathor.gc.ca/sfst 1 ong.php.for.the.magnetic forecast
visit <u>mup.//www.spaceweamer.gc.ca/sist-i-eng.php</u> itor the magnetic forecast.
Change Weathar Bulletin 2015 11 22 insued at 21.22 UT (1/,22 FCT)

Space Weather Bulletin - 2015-11-22 issued at 21:33 UT (16:33 EST) Summary

There is currently no major storm watch in effect.

See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (21:15 UT)

Geomagnetic Activity:

polar cap zone: quiet auroral zone: quiet sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Impacts are not expected.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: quiet auroral zone: quiet sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Impacts are not expected.

Detailed Information

Solar

Solar activity has been low.

Interplanetary

The solar wind speed is currently very slow (< 400 km/s).

The interplanetary magnetic field has been fluctuating at low (|Bz|<5 nT) levels.

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit was at a normal level yesterday and is expected to be at a normal level tomorrow.

Visit <u>http://www.spaceweather.gc.ca/sffl-eng.php</u> for the electron forecast.

Geomagnetic

Over the last 24 hours geomagnetic activity has been quiet in the polar zone, quiet in the auroral zone, and quiet in the sub-auroral zone.

Over the next 24 hours geomagnetic activity is forecast to be quiet in the polar zone, quiet in the auroral zone, and quiet in the sub-auroral zone.

Visit <u>http://www.spaceweather.gc.ca/sfst-1-eng.php</u> for the magnetic forecast.

Space	Weather	Bulletin	2015-11-23	3 issued a	nt 18:40 UT	(13:40	EST)
Summ	arv						

There is currently no major storm watch in effect.

See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (18:15 UT)

Geomagnetic Activity:

polar cap zone: quiet

auroral zone: quiet

sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: unavailable

Possible Impacts on Technology:

Impacts are not expected.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: quiet auroral zone: quiet sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Impacts are not expected.

Detailed Information

Solar

Solar activity has been low.

Interplanetary

The solar wind speed is currently very slow (< 400 km/s).

The interplanetary magnetic field has been fluctuating at low (|Bz|<5 nT) levels.

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit was at a normal level yesterday and is expected to be at a normal level tomorrow.

Visit <u>http://www.spaceweather.gc.ca/sffl-eng.php</u> for the electron forecast.

Geomagnetic

Over the last 24 hours geomagnetic activity has been quiet in the polar zone, quiet with unsettled intervals in the auroral zone, and quiet in the sub-auroral zone.

Over the next 24 hours geomagnetic activity is forecast to be quiet in the polar zone, quiet in the auroral zone, and quiet in the sub-auroral zone.

Visit http://www.spaceweather.gc.ca/sfst-1-eng.php for the magnetic forecast.

Space Weather Bulletin - 2015-11-24 issued at 18:22 UT (13:22 EST)

Summary

There is currently no major storm watch in effect.

See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (18:00 UT)

Geomagnetic Activity:

polar cap zone: quiet

auroral zone: quiet

sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Impacts are not expected.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: quiet auroral zone: quiet sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Impacts are not expected.

Detailed Information

Solar

Solar activity has been low.

Interplanetary

The solar wind speed is currently very slow (< 400 km/s).

The interplanetary magnetic field has been fluctuating at very low (|Bz|<2 nT) levels.

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit for 23 NOV 2015 is unavailable but is expected to be at a normal level tomorrow.

Visit <u>http://www.spaceweather.gc.ca/sffl-eng.php</u> for the electron forecast.

Geomagnetic

Over the last 24 hours geomagnetic activity has been quiet in the polar zone, quiet in the auroral zone, and quiet in the sub-auroral zone.

Over the next 24 hours geomagnetic activity is forecast to be quiet in the polar zone, quiet in the auroral zone, and quiet in the sub-auroral zone.

Visit <u>http://www.spaceweather.gc.ca/sfst-1-eng.php</u> for the magnetic forecast.

Space Weather Bulletin - 2015-11-25 issued at 18:51 UT (13:51 EST)

Summary

There is currently no major storm watch in effect.

See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (18:30 UT)

Geomagnetic Activity:

polar cap zone: quiet

auroral zone: quiet

sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Impacts are not expected.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: quiet auroral zone: quiet

sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Impacts are not expected.

Detailed Information

Solar

Solar activity has been low.

Interplanetary

The solar wind speed is currently very slow (< 400 km/s).

The interplanetary magnetic field has been fluctuating at very low (|Bz|<2 nT) levels.

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit was at a normal level yesterday and is expected to be at a normal level tomorrow.

Visit <u>http://www.spaceweather.gc.ca/sffl-eng.php</u> for the electron forecast.

Geomagnetic

Over the last 24 hours geomagnetic activity has been quiet in the polar zone, quiet in the auroral zone, and quiet in the sub-auroral zone.

Over the next 24 hours geomagnetic activity is forecast to be quiet in the polar zone, quiet in the auroral zone, and quiet in the sub-auroral zone.

Visit <u>http://www.spaceweather.gc.ca/sfst-1-eng.php</u> for the magnetic forecast.

Space Weather Bulletin - 2015-11-26 issued at 18:39 UT (13:39 EST)

Summary

There is currently no major storm watch in effect.

See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (18:15 UT)

Geomagnetic Activity:

polar cap zone: quiet

auroral zone: quiet

sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Impacts are not expected.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: quiet auroral zone: quiet sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Impacts are not expected.

Detailed Information

Solar

Solar activity has been low.

Interplanetary

The solar wind speed is currently very slow (< 400 km/s).

The interplanetary magnetic field has been fluctuating at low (|Bz|<5 nT) levels.

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit was at a normal level yesterday and is expected to be at a normal level tomorrow.

Visit <u>http://www.spaceweather.gc.ca/sffl-eng.php</u> for the electron forecast.

Geomagnetic

Over the last 24 hours geomagnetic activity has been quiet in the polar zone, quiet in the auroral zone, and quiet in the sub-auroral zone.

Over the next 24 hours geomagnetic activity is forecast to be quiet in the polar zone, quiet in the auroral zone, and quiet in the sub-auroral zone.

Visit <u>http://www.spaceweather.gc.ca/sfst-1-eng.php</u> for the magnetic forecast.

Space Weather Bulletin - 2015-11-27 issued at 20:02 UT (15:02 EST)

Summary

There is currently no major storm watch in effect.

See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (19:45 UT)

Geomagnetic Activity:

polar cap zone: quiet auroral zone: quiet

sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Impacts are not expected.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: quiet auroral zone: quiet sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Impacts are not expected.

Detailed Information

Solar

Solar activity has been low.

Interplanetary

The solar wind speed is currently very slow (< 400 km/s).

The interplanetary magnetic field has been fluctuating at moderate (|Bz|<10 nT) levels. **Environment at Geostationary orbit**

Energetic electron fluence at geostationary orbit was at a normal level yesterday and is expected to be at a normal level tomorrow.

Visit <u>http://www.spaceweather.gc.ca/sffl-eng.php</u> for the electron forecast.

Geomagnetic

Over the last 24 hours geomagnetic activity has been quiet in the polar zone, quiet with active intervals in the auroral zone, and quiet in the sub-auroral zone.

Over the next 24 hours geomagnetic activity is forecast to be quiet in the polar zone, quiet in the auroral zone, and quiet in the sub-auroral zone.

Visit <u>http://www.spaceweather.gc.ca/sfst-1-eng.php</u> for the magnetic forecast.

Space Weather Bulletin - 2015-11-28 issued at 21:16 UT (16:16 EST)

Summary

There is currently no major storm watch in effect.

See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (21:00 UT)

Geomagnetic Activity:

polar cap zone: unsettled auroral zone: quiet sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: low

Possible Impacts on Technology:

Impacts are not expected.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: quiet with unsettled intervals auroral zone: quiet with unsettled intervals sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Impacts are not expected.

Detailed Information

Solar

Solar activity has been low.

One small coronal hole is located near the centre of the solar disk.

Interplanetary

The solar wind speed is currently very slow (< 400 km/s).

The interplanetary magnetic field has been fluctuating at moderate (|Bz|<10 nT) levels.

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit was at a low level yesterday and is expected to be at a normal level tomorrow.

Visit <u>http://www.spaceweather.gc.ca/sffl-eng.php</u> for the electron forecast.

Geomagnetic

Over the last 24 hours geomagnetic activity has been quiet with unsettled intervals in the polar zone, quiet with stormy intervals in the auroral zone, and quiet with unsettled intervals in the sub-auroral zone.

Over the next 24 hours geomagnetic activity is forecast to be quiet with unsettled intervals in the polar zone, quiet with unsettled intervals in the auroral zone, and quiet in the sub-auroral zone. Visit <u>http://www.spaceweather.gc.ca/sfst-1-eng.php</u> for the magnetic forecast.

Space Weather Bulletin - 2015-11-29 issued at 21:48 UT (16:48 EST) Summary

There is currently no major storm watch in effect.

See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (21:30 UT)

Geomagnetic Activity:

polar cap zone: quiet auroral zone: unsettled sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: low

Possible Impacts on Technology:

Impacts are not expected.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: quiet with unsettled intervals auroral zone: quiet with unsettled intervals

sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Impacts are not expected.

Detailed Information

Solar

Solar activity has been low.

One small coronal hole is located near the centre of the solar disk.

Interplanetary

The solar wind speed is currently slow (400-500 km/s).

The interplanetary magnetic field has been fluctuating at moderate (|Bz|<10 nT) levels.

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit was at a low level yesterday and is expected to be at a normal level tomorrow.

Visit <u>http://www.spaceweather.gc.ca/sffl-eng.php</u> for the electron forecast.

Geomagnetic

Over the last 24 hours geomagnetic activity has been quiet with unsettled intervals in the polar zone, quiet with unsettled intervals in the auroral zone, and quiet with unsettled intervals in the sub-auroral zone.

Over the next 24 hours geomagnetic activity is forecast to be quiet with unsettled intervals in the polar zone, quiet with unsettled intervals in the auroral zone, and quiet in the sub-auroral zone. Visit http://www.spaceweather.gc.ca/sfst-1-eng.php for the magnetic forecast.

Space Weather Bulletin - 2015-11-30 issued at 18:54 UT (13:54 EST)

Summary

There is currently no major storm watch in effect.

See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (18:30 UT)

Geomagnetic Activity:

polar cap zone: quiet auroral zone: quiet sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: low

Possible Impacts on Technology:

Impacts are not expected.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: quiet with unsettled intervals auroral zone: active with stormy intervals sub-auroral zone: quiet with unsettled intervals

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Aeromagnetic surveys: Potential for disruptions in the auroral zone.

Directional Drilling: Potential for deviations in the auroral zone.

Detailed Information

Solar

Solar activity has been low.

Interplanetary

The solar wind speed is currently slow (400-500 km/s).

The interplanetary magnetic field has been fluctuating at low (|Bz|<5 nT) levels.

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit was at a low level yesterday and is expected to be at a normal level tomorrow.

Visit <u>http://www.spaceweather.gc.ca/sffl-eng.php</u> for the electron forecast.

Geomagnetic

Over the last 24 hours geomagnetic activity has been quiet with active intervals in the polar zone, unsettled with stormy intervals in the auroral zone, and quiet with stormy intervals in the subauroral zone. Over the next 24 hours geomagnetic activity is forecast to be quiet with unsettled intervals in the polar zone, active with stormy intervals in the auroral zone, and quiet with unsettled intervals in the sub-auroral zone.

Visit <u>http://www.spaceweather.gc.ca/sfst-1-eng.php</u> for the magnetic forecast.

Space Weather Bulletin - 2015-12-01 issued at 20:01 UT (15:01 EST)

Summary

There is currently no major storm watch in effect.

See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (19:30 UT)

Geomagnetic Activity:

polar cap zone: quiet auroral zone: quiet

sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Impacts are not expected.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: quiet with unsettled intervals auroral zone: unsettled with active intervals sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: moderate

Possible Impacts on Technology:

Impacts are not expected.

Detailed Information

Solar

Solar activity has been low.

Two medium coronal holes are located near the centre of the solar disk.

Interplanetary

Interplanetary activity has been moderate.

The solar wind speed has been increasing over the last 72 hours (currently ~ 600 km/s).

Moderate solar wind speeds are due to high speed streams from coronal holes.

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit was at a low level yesterday and is expected to be at a moderate level tomorrow.

Visit <u>http://www.spaceweather.gc.ca/sffl-eng.php</u> for the electron forecast.

Geomagnetic

Over the last 24 hours geomagnetic activity has been quiet with active intervals in the polar zone, unsettled with stormy intervals in the auroral zone, and quiet with unsettled intervals in the sub-auroral zone.

Over the next 24 hours geomagnetic activity is forecast to be quiet with unsettled intervals in the polar zone, unsettled with active intervals in the auroral zone, and quiet in the sub-auroral zone. Visit http://www.spaceweather.gc.ca/sfst-1-eng.php for the magnetic forecast.

Space Weather Bulletin - 2015-12-02 issued at 20:04 UT (15:04 EST)

Summary

There is currently no major storm watch in effect.

See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (19:45 UT)

Geomagnetic Activity:

polar cap zone: quiet auroral zone: quiet sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Impacts are not expected.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: quiet auroral zone: unsettled sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Impacts are not expected.

Detailed Information

Solar

Solar activity has been low.

Three small coronal holes are located near the centre of the solar disk.

Interplanetary

Interplanetary activity has been low.

Moderate solar wind speeds are due to high speed streams from coronal holes.

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit was at a normal level yesterday and is expected to be at a normal level tomorrow.

Visit <u>http://www.spaceweather.gc.ca/sffl-eng.php</u> for the electron forecast.

Geomagnetic

Over the last 24 hours geomagnetic activity has been quiet with unsettled intervals in the polar zone, unsettled with stormy intervals in the auroral zone, and quiet with active intervals in the sub-auroral zone.

Over the next 24 hours geomagnetic activity is forecast to be quiet in the polar zone, unsettled in the auroral zone, and quiet in the sub-auroral zone.

Visit <u>http://www.spaceweather.gc.ca/sfst-1-eng.php</u> for the magnetic forecast.

Space Weather Bulletin - 2015-12-03 issued at 19:46 UT (14:46 EST) Summary

There is currently no major storm watch in effect.

See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (19:30 UT)

Geomagnetic Activity:

polar cap zone: quiet auroral zone: quiet sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: moderate

Possible Impacts on Technology:

Geostationary satellites: moderate risk of internal charging.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: quiet auroral zone: quiet with unsettled intervals sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Impacts are not expected.

Detailed Information

Solar

Solar activity has been low.

Interplanetary

Interplanetary activity has been low.

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit was at a normal level yesterday and is expected to be at a normal level tomorrow.

Visit <u>http://www.spaceweather.gc.ca/sffl-eng.php</u> for the electron forecast.

Geomagnetic

Over the last 24 hours geomagnetic activity has been quiet with unsettled intervals in the polar zone, quiet with stormy intervals in the auroral zone, and quiet in the sub-auroral zone.Over the next 24 hours geomagnetic activity is forecast to be quiet in the polar zone, quiet with unsettled intervals in the auroral zone, and quiet in the sub-auroral zone.

Visit <u>http://www.spaceweather.gc.ca/sfst-1-eng.php</u> for the magnetic forecast.

Space Weather Bulletin - 2015-12-04 issued at 21:32 UT (16:32 EST)

Summary

There is currently no major storm watch in effect.

See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (21:15 UT)

Geomagnetic Activity:

polar cap zone: quiet auroral zone: quiet sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: unavailable

Possible Impacts on Technology:

Impacts are not expected.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: quiet auroral zone: quiet sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Impacts are not expected.

Detailed Information

Solar

Solar activity has been low.

Three small coronal holes are located near the centre of the solar disk.

Interplanetary

Interplanetary activity has been low.

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit was at a moderate level yesterday and is expected to be at a normal level tomorrow.

Visit <u>http://www.spaceweather.gc.ca/sffl-eng.php</u> for the electron forecast.

Geomagnetic

Over the last 24 hours geomagnetic activity has been quiet in the polar zone, quiet with active intervals in the auroral zone, and quiet with unsettled intervals in the sub-auroral zone.

Over the next 24 hours geomagnetic activity is forecast to be quiet in the polar zone, quiet in the auroral zone, and quiet in the sub-auroral zone.

Visit <u>http://www.spaceweather.gc.ca/sfst-1-eng.php</u> for the magnetic forecast.

Space Weather Bulletin - 2015-12-05 issued at 21:48 UT (16:48 EST)

Summary

There is currently no major storm watch in effect.

See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (21:30 UT)

Geomagnetic Activity:

polar cap zone: active auroral zone: quiet

sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Impacts are not expected.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: unsettled auroral zone: unsettled sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Impacts are not expected.

Detailed Information

Solar

Solar activity has been low.

Three medium coronal holes are located near the centre of the solar disk.

Interplanetary

Interplanetary activity has been moderate.

Moderate solar wind speeds are due to high speed streams from coronal holes.

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit for 04 DEC 2015 is unavailable but is expected to be at a normal level tomorrow.

Visit <u>http://www.spaceweather.gc.ca/sffl-eng.php</u> for the electron forecast.

Geomagnetic

Over the last 24 hours geomagnetic activity has been quiet with active intervals in the polar zone, quiet with stormy intervals in the auroral zone, and quiet with active intervals in the sub-auroral zone.

Over the next 24 hours geomagnetic activity is forecast to be unsettled in the polar zone, unsettled in the auroral zone, and quiet in the sub-auroral zone.

Visit <u>http://www.spaceweather.gc.ca/sfst-1-eng.php</u> for the magnetic forecast.

Space Weather Bulletin - 2015-12-06 issued at 21:02 UT (16:02 EST)

Summary

There is currently no major storm watch in effect.

Stormy conditions are possible in the auroral zone within the next 24 hours.

See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (20:45 UT)

Geomagnetic Activity:

polar cap zone: active

auroral zone: active sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Aeromagnetic surveys: Potential for disruptions in the polar cap and auroral zones. Directional Drilling: Potential for deviations in the auroral zone.

Power Systems: possibility of weak voltage fluctuations in the auroral zone.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: unsettled with active intervals

auroral zone: active with stormy intervals

sub-auroral zone: quiet with unsettled intervals

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Power Systems: possibility of weak voltage fluctuations in the auroral zone. Aeromagnetic surveys: Potential for disruptions in the auroral zone.

Directional Drilling: Potential for deviations in the auroral zone.

Detailed Information

Solar

Solar activity has been low.

Three medium coronal holes are located near the centre of the solar disk.

Interplanetary

Interplanetary activity has been moderate.

Moderate solar wind speeds are due to high speed streams from coronal holes.

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit was at a normal level yesterday and is expected to be at a normal level tomorrow.

Visit <u>http://www.spaceweather.gc.ca/sffl-eng.php</u> for the electron forecast.

Geomagnetic

Over the last 24 hours geomagnetic activity has been unsettled with stormy intervals in the polar zone, active with stormy intervals in the auroral zone, and unsettled with active intervals in the sub-auroral zone.

Over the next 24 hours geomagnetic activity is forecast to be unsettled with active intervals in the polar zone, active with stormy intervals in the auroral zone, and quiet with unsettled intervals in the sub-auroral zone.

Visit http://www.spaceweather.gc.ca/sfst-1-eng.php for the magnetic forecast.

Space Weather Bulletin - 2015-12-07 issued at 20:55 UT (15:55 EST)

Summary

There is currently no major storm watch in effect.

An ionospheric absorption event is currently in progress for the auroral zone, and is anticipated to end at 08 Dec 03:00 UT.

Stormy conditions are possible in the auroral zone within the next 24 hours.

See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (20:30 UT)

Geomagnetic Activity:

polar cap zone: unsettled auroral zone: unsettled sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: moderate

Possible Impacts on Technology:

HF radio: lonospheric and polar cap absorptions events may affect radio communications for transpolar flights and other arctic operations.

Geostationary satellites: moderate risk of internal charging.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: unsettled with active intervals auroral zone: active with stormy intervals

sub-auroral zone: quiet with unsettled intervals

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: moderate

Possible Impacts on Technology:

Power Systems: possibility of weak voltage fluctuations in the auroral zone.

HF radio: lonospheric and polar cap absorptions events may affect radio communications for transpolar flights and other arctic operations.

Geostationary satellites: moderate risk of internal charging.

Aeromagnetic surveys: Potential for disruptions in the auroral zone.

Directional Drilling: Potential for deviations in the auroral zone.

Detailed Information

Solar

Solar activity has been low.

Three medium coronal holes are located near the centre of the solar disk.

Interplanetary

Interplanetary activity has been moderate.

Moderate solar wind speeds are due to high speed streams from coronal holes.

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit was at a normal level yesterday and is expected to be at a moderate level tomorrow.

Visit <u>http://www.spaceweather.gc.ca/sffl-eng.php</u> for the electron forecast.

Geomagnetic

Over the last 24 hours geomagnetic activity has been unsettled with active intervals in the polar zone, active with stormy intervals in the auroral zone, and unsettled with active intervals in the sub-auroral zone.

Over the next 24 hours geomagnetic activity is forecast to be unsettled with active intervals in the polar zone, active with stormy intervals in the auroral zone, and quiet with unsettled intervals in the sub-auroral zone.

Visit <u>http://www.spaceweather.gc.ca/sfst-1-eng.php</u> for the magnetic forecast.

Space Weather Bulletin - 2015-12-08 issued at 19:46 UT (14:46 EST)

Summary

There is currently no major storm watch in effect.

See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (19:30 UT)

Geomagnetic Activity:

polar cap zone: quiet auroral zone: quiet sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: moderate

Possible Impacts on Technology:

Impacts are not expected.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: quiet with unsettled intervals auroral zone: unsettled with active intervals sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: moderate

Possible Impacts on Technology:

Impacts are not expected.

Detailed Information

Solar

Solar activity has been low.

Two medium coronal holes are located near the centre of the solar disk.

Interplanetary

Interplanetary activity has been moderate.

Moderate solar wind speeds are due to high speed streams from coronal holes.

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit was at a moderate level yesterday and is expected to be at a moderate level tomorrow.

Visit <u>http://www.spaceweather.gc.ca/sffl-eng.php</u> for the electron forecast.

Geomagnetic

Over the last 24 hours geomagnetic activity has been unsettled with active intervals in the polar zone, unsettled with stormy intervals in the auroral zone, and quiet with active intervals in the sub-auroral zone.

Over the next 24 hours geomagnetic activity is forecast to be quiet with unsettled intervals in the polar zone, unsettled with active intervals in the auroral zone, and quiet in the sub-auroral zone. Visit <u>http://www.spaceweather.gc.ca/sfst-1-eng.php</u> for the magnetic forecast.

Space Weather Bulletin - 2015-12-09 issued at 22:12 UT (17:12 EST) Summary

There is currently no major storm watch in effect.

An ionospheric absorption event is currently in progress for the auroral zone from 09 Dec 2015 17:00 UT to 10 Dec 2015 03:00 UT.

See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (22:00 UT)

Geomagnetic Activity:

polar cap zone: unsettled auroral zone: quiet

sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: moderate

Possible Impacts on Technology:

HF radio: lonospheric and polar cap absorptions events may affect radio communications for transpolar flights and other arctic operations.

Geostationary satellites: moderate risk of internal charging.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: quiet with unsettled intervals auroral zone: unsettled with active intervals sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Aeromagnetic surveys: Potential for disruptions in the auroral zone.

Directional Drilling: Potential for deviations in the auroral zone.

Detailed Information

Solar

Solar activity has been low.

Three small coronal holes are located near the centre of the solar disk.

Interplanetary

Interplanetary activity has been low.

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit was at a moderate level yesterday and is expected to be at a normal level tomorrow.

Visit <u>http://www.spaceweather.gc.ca/sffl-eng.php</u> for the electron forecast.

Geomagnetic

Over the last 24 hours geomagnetic activity has been quiet with unsettled intervals in the polar zone, quiet with stormy intervals in the auroral zone, and quiet with unsettled intervals in the sub-auroral zone.

Over the next 24 hours geomagnetic activity is forecast to be quiet with unsettled intervals in the polar zone, unsettled with active intervals in the auroral zone, and quiet in the sub-auroral zone. Visit http://www.spaceweather.gc.ca/sfst-1-eng.php for the magnetic forecast.

Space Weather Bulletin - 2015-12-10 issued at 21:58 UT (16:58 EST) Summary

There is currently no major storm watch in effect.

An ionospheric absorption event is currently in progress for the auroral zone from 10 Dec 2015 15:00 UT to 11 Dec 2015 00:00 UT.

Stormy conditions are possible in the auroral zone within the next 24 hours.

See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (21:45 UT)

Geomagnetic Activity:

polar cap zone: unsettled auroral zone: unsettled

sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: moderate

Possible Impacts on Technology:

HF radio: lonospheric and polar cap absorptions events may affect radio communications for transpolar flights and other arctic operations.

Geostationary satellites: moderate risk of internal charging.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: unsettled with active intervals

auroral zone: active with stormy intervals

sub-auroral zone: quiet with unsettled intervals

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

HF radio: lonospheric and polar cap absorptions events may affect radio communications for transpolar flights and other arctic operations.

Power Systems: possibility of weak voltage fluctuations in the auroral zone.

Aeromagnetic surveys: Potential for disruptions in the auroral zone.

Directional Drilling: Potential for deviations in the auroral zone.

Detailed Information

Solar

Solar activity has been low.

Two small coronal holes are located near the centre of the solar disk.

Interplanetary

Interplanetary activity has been high.

Fast solar wind speeds are due to high speed streams from coronal holes.

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit was at a moderate level yesterday and is expected to be at a normal level tomorrow.

Visit <u>http://www.spaceweather.gc.ca/sffl-eng.php</u> for the electron forecast.

Geomagnetic

Over the last 24 hours geomagnetic activity has been unsettled with active intervals in the polar zone, active with stormy intervals in the auroral zone, and quiet with stormy intervals in the sub-auroral zone.

Over the next 24 hours geomagnetic activity is forecast to be unsettled with active intervals in the polar zone, active with stormy intervals in the auroral zone, and quiet with unsettled intervals in the sub-auroral zone.

Visit <u>http://www.spaceweather.gc.ca/sfst-1-eng.php</u> for the magnetic forecast.

Space Weather Bulletin - 2015-12-11 issued at 21:00 UT (16:00 EST)

Summary

There is currently no major storm watch in effect.

An ionospheric absorption event is currently in progress for the auroral zone from 11Dec 2015 07:00 UT to 12 Dec 2015 03:00 UT.

Stormy conditions are possible in the auroral zone within the next 24 hours.

See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (20:45 UT)

Geomagnetic Activity:

polar cap zone: unsettled auroral zone: unsettled sub-auroral zone: unsettled

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: moderate

Possible Impacts on Technology:

HF radio: lonospheric and polar cap absorptions events may affect radio communications for transpolar flights and other arctic operations.

Geostationary satellites: moderate risk of internal charging.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: unsettled with active intervals

auroral zone: active

sub-auroral zone: quiet with unsettled intervals

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: moderate

Possible Impacts on Technology:

HF radio: lonospheric and polar cap absorptions events may affect radio communications for transpolar flights and other arctic operations.

Detailed Information

Solar

Solar activity has been low.

Four small coronal holes are located near the centre of the solar disk.

Interplanetary

Interplanetary activity has been moderate.

Moderate solar wind speeds are due to high speed streams from coronal holes.

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit was at a moderate level yesterday and is expected to be at a moderate level tomorrow.

Visit <u>http://www.spaceweather.gc.ca/sffl-eng.php</u> for the electron forecast.

Geomagnetic

Over the last 24 hours geomagnetic activity has been unsettled with stormy intervals in the polar zone, active with stormy intervals in the auroral zone, and unsettled with active intervals in the sub-auroral zone.

Over the next 24 hours geomagnetic activity is forecast to be unsettled with active intervals in the polar zone, active in the auroral zone, and quiet with unsettled intervals in the sub-auroral zone. Visit <u>http://www.spaceweather.gc.ca/sfst-1-eng.php</u> for the magnetic forecast.

Space Weather Bulletin - 2015-12-12 issued at 20:32 UT (15:32 EST)

Summary

There is currently no major storm watch in effect.

An ionospheric absorption event is possible.

See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (20:15 UT)

Geomagnetic Activity:

polar cap zone: quiet auroral zone: quiet

sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: moderate

Possible Impacts on Technology:

Impacts are not expected.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: quiet with unsettled intervals auroral zone: unsettled with active intervals

sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: moderate

Possible Impacts on Technology:

Geostationary satellites: moderate risk of internal charging.

HF radio: lonospheric and polar cap absorptions events may affect radio communications for transpolar flights and other arctic operations.

Detailed Information

Solar

Solar activity has been low.

Three small coronal holes are located near the centre of the solar disk.

Interplanetary

Interplanetary activity has been moderate.

Moderate solar wind speeds are due to high speed streams from coronal holes.

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit was at a moderate level yesterday and is expected to be at a moderate level tomorrow.

Visit <u>http://www.spaceweather.gc.ca/sffl-eng.php</u> for the electron forecast.

Geomagnetic

Over the last 24 hours geomagnetic activity has been unsettled with active intervals in the polar zone, unsettled with stormy intervals in the auroral zone, and quiet with active intervals in the sub-auroral zone.

Over the next 24 hours geomagnetic activity is forecast to be quiet with unsettled intervals in the polar zone, unsettled with active intervals in the auroral zone, and quiet in the sub-auroral zone. Visit <u>http://www.spaceweather.qc.ca/sfst-1-eng.php</u> for the magnetic forecast.

Space Weather Bulletin - 2015-12-13 issued at 22:04 UT (17:04 EST) Summary

There is currently no major storm watch in effect.

See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (21:45 UT)

Geomagnetic Activity:

polar cap zone: quiet auroral zone: quiet

sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: moderate

Possible Impacts on Technology:

Geostationary satellites: moderate risk of internal charging.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: quiet auroral zone: unsettled with active intervals sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Impacts are not expected.

Detailed Information

Solar

Solar activity has been low.

One medium coronal hole is located near the centre of the solar disk.

Interplanetary

Interplanetary activity has been low.

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit was at a moderate level yesterday and is expected to be at a normal level tomorrow.

Visit <u>http://www.spaceweather.gc.ca/sffl-eng.php</u> for the electron forecast.

Geomagnetic

Over the last 24 hours geomagnetic activity has been quiet with unsettled intervals in the polar zone, unsettled with stormy intervals in the auroral zone, and quiet with unsettled intervals in the sub-auroral zone.

Over the next 24 hours geomagnetic activity is forecast to be quiet in the polar zone, unsettled with active intervals in the auroral zone, and quiet in the sub-auroral zone.

Visit <u>http://www.spaceweather.gc.ca/sfst-1-eng.php</u> for the magnetic forecast.

Space Weather Bulletin - 2015-12-14 issued at 21:10 UT (16:10 EST) Summary

There is currently no major storm watch in effect.

Stormy conditions are possible in the polar cap, auroral, and sub-auroral zones within the next 24 hours.

An ionospheric absorption event is possible.

See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (21:00 UT)

Geomagnetic Activity:

polar cap zone: active

auroral zone: active

sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: moderate

Possible Impacts on Technology:

HF radio: lonospheric and polar cap absorptions events may affect radio communications for transpolar flights and other arctic operations.

Geostationary satellites: moderate risk of internal charging.

Aeromagnetic surveys: Potential for disruptions in the auroral zone.

Directional Drilling: Potential for deviations in the auroral zone.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: quiet with unsettled intervals auroral zone: unsettled with active intervals sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

HF radio: lonospheric and polar cap absorptions events may affect radio communications for transpolar flights and other arctic operations.

Aeromagnetic surveys: Potential for disruptions in the auroral zone.

Directional Drilling: Potential for deviations in the auroral zone.

Detailed Information

Solar

Solar activity has been low.

One medium coronal hole is located near the centre of the solar disk.

Interplanetary

Interplanetary activity has been moderate.

The solar wind speed has been increasing over the last hour (currently ~ 550 km/s).

The interplanetary magnetic field has been fluctuating at moderate (|Bz|<10 nT) levels.

An interplanetary shock has been observed on 14 Dec 2015 12:30 UT.

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit was at a moderate level yesterday and is expected to be at a normal level tomorrow.

Visit <u>http://www.spaceweather.gc.ca/sffl-eng.php</u> for the electron forecast.

Geomagnetic

Over the last 24 hours geomagnetic activity has been quiet with active intervals in the polar zone, quiet with stormy intervals in the auroral zone, and quiet with active intervals in the sub-auroral zone.

Over the next 24 hours geomagnetic activity is forecast to be quiet with unsettled intervals in the polar zone, unsettled with active intervals in the auroral zone, and quiet in the sub-auroral zone.

Enhanced geomagnetic activity is likely due to the arrival of a high speed stream associated with coronal holes.

Visit <u>http://www.spaceweather.gc.ca/sfst-1-eng.php</u> for the magnetic forecast.

Space Weather Bulletin - 2015-12-15 issued at 20:22 UT (15:22 EST)

Summary

The ionospheric absorption event reported yesterday has ended.

Stormy conditions are possible in the auroral zone within the next 24 hours.

See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (20:15 UT)

Geomagnetic Activity:

polar cap zone: unsettled auroral zone: quiet

sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Impacts are not expected.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: unsettled

auroral zone: unsettled with active intervals

sub-auroral zone: quiet with unsettled intervals

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Impacts are not expected.

Detailed Information

Solar

Solar activity has been low.

One medium coronal hole is located near the edge of the solar disk.

Interplanetary

Moderate solar wind speeds are due to high speed streams from coronal holes.

The interplanetary magnetic field has been fluctuating at moderate (|Bz|<10 nT) levels. Prolonged periods of negative interplanetary magnetic field are often associated with increased geomagnetic activity.

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit was at a moderate level yesterday and is expected to be at a normal level tomorrow.

Visit <u>http://www.spaceweather.gc.ca/sffl-eng.php</u> for the electron forecast.

Geomagnetic

Over the last 24 hours geomagnetic activity has been unsettled with active intervals in the polar zone, unsettled with stormy intervals in the auroral zone, and quiet with active intervals in the sub-auroral zone.

Over the next 24 hours geomagnetic activity is forecast to be unsettled in the polar zone, unsettled with active intervals in the auroral zone, and quiet with unsettled intervals in the sub-auroral zone.

Visit <u>http://www.spaceweather.gc.ca/sfst-1-eng.php</u> for the magnetic forecast.

Space Weather Bulletin - 2015-12-16 issued at 21:45 UT (16:45 EST)

Summary

There is currently no major storm watch in effect.

See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (21:30 UT)

Geomagnetic Activity:

polar cap zone: quiet auroral zone: quiet sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Impacts are not expected.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: quiet

auroral zone: quiet with unsettled intervals

sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Impacts are not expected.

Detailed Information

Solar

A slow Earth-directed CME erupted on 16 DEC 2015 15:12 UT and is expected to reach the Earth on 20 DEC 2015.

Interplanetary

The interplanetary magnetic field has been fluctuating at low (|Bz|<5 nT) levels.

The solar wind speed is currently slow (400-500 km/s).

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit was at a normal level yesterday and is expected to be at a normal level tomorrow.

Visit <u>http://www.spaceweather.gc.ca/sffl-eng.php</u> for the electron forecast.

Geomagnetic

Over the last 24 hours geomagnetic activity has been quiet with unsettled intervals in the polar zone, quiet with stormy intervals in the auroral zone, and quiet with unsettled intervals in the sub-auroral zone.

Over the next 24 hours geomagnetic activity is forecast to be quiet in the polar zone, quiet with unsettled intervals in the auroral zone, and quiet in the sub-auroral zone.

Visit <u>http://www.spaceweather.gc.ca/sfst-1-eng.php</u> for the magnetic forecast.

Space Weather Bulletin - 2015-12-17 issued at 21:01 UT (16:01 EST)

Summary

There is currently no major storm watch in effect.

See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (20:45 UT)

Geomagnetic Activity:

polar cap zone: unsettled auroral zone: unsettled

sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Impacts are not expected.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: quiet with unsettled intervals

auroral zone: quiet

sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Impacts are not expected.

Detailed Information

Solar

Two Earth-directed CMEs erupted on 16 DEC 2015 at 09:48 UT and 15:12 UT and is expected to reach the Earth on 19 DEC 2015, resulting in disturbed geomagnetic activity.

Interplanetary

The solar wind speed is currently slow (400-500 km/s).

The interplanetary magnetic field has been fluctuating at low (|Bz|<5 nT) levels.

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit was at a normal level yesterday and is expected to be at a normal level tomorrow.

Visit <u>http://www.spaceweather.gc.ca/sffl-eng.php</u> for the electron forecast.

Geomagnetic

Over the last 24 hours geomagnetic activity has been quiet with unsettled intervals in the polar zone, quiet with unsettled intervals in the auroral zone, and quiet in the sub-auroral zone. Over the next 24 hours geomagnetic activity is forecast to be quiet with unsettled intervals in the

polar zone, quiet in the auroral zone, and quiet in the sub-auroral zone.

Visit <u>http://www.spaceweather.gc.ca/sfst-1-eng.php</u> for the magnetic forecast.

Space Weather Bulletin - 2015-12-18 issued at 19:12 UT (14:12 EST)

Summary

There is currently no major storm watch in effect.

Stormy conditions are possible in the polar cap, auroral, and sub-auroral zones within the next 24 hours.

See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (19:00 UT)

Geomagnetic Activity:

polar cap zone: quiet auroral zone: quiet sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Impacts are not expected.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: quiet with stormy intervals auroral zone: quiet with stormy intervals sub-auroral zone: quiet with stormy intervals

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Aeromagnetic surveys: Potential for disruptions in the polar cap, auroral, and sub-auroral zones. Directional Drilling: Potential for deviations in the polar cap, auroral, and sub-auroral zones.

Detailed Information

Solar

Two Earth-directed CMEs erupted on 16 DEC 2015 at 09:48 UT and 15:12 UT and is expected to reach the Earth on 19 DEC 2015, resulting in disturbed geomagnetic activity.

Interplanetary

The solar wind speed is currently slow (400-500 km/s).

The interplanetary magnetic field has been fluctuating at low (|Bz|<5 nT) levels.

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit was at a normal level yesterday and is expected to be at a normal level tomorrow.

Visit http://www.spaceweather.gc.ca/sffl-eng.php for the electron forecast.

Geomagnetic

- Over the last 24 hours geomagnetic activity has been guiet with active intervals in the polar zone, quiet with active intervals in the auroral zone, and quiet with unsettled intervals in the subauroral zone.
- Over the next 24 hours geomagnetic activity is forecast to be guiet with stormy intervals in the polar zone, quiet with stormy intervals in the auroral zone, and quiet with stormy intervals in the subauroral zone.

Visit http://www.spaceweather.gc.ca/sfst-1-eng.php for the magnetic forecast.

Space Weather Bulletin - 2015-12-19 issued at 19:07 UT (14:07 EST)

Summarv

Stormy conditions are possible in the polar cap, auroral, and sub-auroral zones within the next 24 hours.

- Two Earth-directed CMEs erupted on 16 DEC 2015 at 09:48 UT and 15:12 UT , resulting in disturbed geomagnetic activity.
- See our website for current information: http://www.spaceweather.gc.ca (updated every 15 minutes)

Current Conditions (18:45 UT)

Geomagnetic Activity:

polar cap zone: active

auroral zone: stormy

sub-auroral zone: unsettled

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Aeromagnetic surveys: Potential for significant disruptions in the auroral zone.

Directional Drilling: Potential for significant deviations in the auroral zone.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: unsettled with stormy intervals auroral zone: unsettled with stormy intervals

sub-auroral zone: unsettled with stormy intervals

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Power Systems: possibility of weak voltage fluctuations in the polar cap, auroral, and sub-auroral zones.

Aeromagnetic surveys: Potential for significant disruptions in the polar cap, auroral, and sub-auroral zones.

Directional Drilling: Potential for significant deviations in the polar cap, auroral, and sub-auroral zones.

Detailed Information

Solar

Two Earth-directed CMEs erupted on 16 DEC 2015 at 09:48 UT and 15:12 UT, resulting in disturbed geomagnetic activity.

Interplanetary

An interplanetary shock has been observed on 19 DEC 2015 15:30 UT.

The interplanetary magnetic field has been fluctuating at moderate (|Bz|<10 nT) levels. Prolonged periods of negative interplanetary magnetic field are often associated with increased

geomagnetic activity.

The solar wind speed is currently slow (400-500 km/s).

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit was at a normal level yesterday and is expected to be at a normal level tomorrow.

Visit <u>http://www.spaceweather.gc.ca/sffl-eng.php</u> for the electron forecast.

Geomagnetic

Over the last 24 hours geomagnetic activity has been quiet with active intervals in the polar zone, quiet with stormy intervals in the auroral zone, and quiet with unsettled intervals in the subauroral zone.

Over the next 24 hours geomagnetic activity is forecast to be unsettled with stormy intervals in the polar zone, unsettled with stormy intervals in the auroral zone, and unsettled with stormy intervals in the sub-auroral zone.

Visit <u>http://www.spaceweather.gc.ca/sfst-1-eng.php</u> for the magnetic forecast.

Space Weather Bulletin - 2015-12-20 issued at 12:30 UT (07:30 EST)

Summary

The major storm WATCH issued 20 DEC 2015 05:17 UT for the auroral zone ended 20 DEC 2015 07:23 UT.

Stormy conditions are possible in the auroral zone within the next 24 hours.

See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (12:15 UT)

Geomagnetic Activity:

polar cap zone: active auroral zone: unsettled

sub-auroral zone: stormy

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Aeromagnetic surveys: Potential for significant disruptions in the polar cap and sub-auroral zones. Directional Drilling: Potential for significant deviations in the polar cap and sub-auroral zones.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: active with stormy intervals auroral zone: active with stormy intervals sub-auroral zone: unsettled with stormy intervals

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Power Systems: possibility of weak voltage fluctuations in the polar cap, auroral, and sub-auroral zones.

Aeromagnetic surveys: Potential for significant disruptions in the polar cap, auroral, and sub-auroral zones.

Directional Drilling: Potential for significant deviations in the polar cap, auroral, and sub-auroral zones.

Detailed Information

Solar

Solar activity has been moderate.

Interplanetary

The interplanetary magnetic field has been primarily negative at high (|Bz|<20 nT) levels. The solar wind speed is currently slow (400-500 km/s).

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit was at a normal level yesterday and is expected to be at a normal level tomorrow.

Visit <u>http://www.spaceweather.gc.ca/sffl-eng.php</u> for the electron forecast.

Geomagnetic

Over the last 24 hours geomagnetic activity has been unsettled with major storm intervals in the polar zone, unsettled with major storm intervals in the auroral zone, and unsettled with stormy intervals in the sub-auroral zone.

Over the next 24 hours geomagnetic activity is forecast to be active with stormy intervals in the polar zone, active with stormy intervals in the auroral zone, and unsettled with stormy intervals in the sub-auroral zone.

Visit <u>http://www.spaceweather.gc.ca/sfst-1-eng.php</u> for the magnetic forecast.

Space Weather Bulletin - 2015-12-20 issued at 19:26 UT (14:26 EST)

Summary

Stormy conditions are possible in the polar cap, auroral, and sub-auroral zones within the next 24 hours.

See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (19:15 UT)

Geomagnetic Activity:

polar cap zone: unsettled

auroral zone: unsettled

sub-auroral zone: active

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Impacts are not expected.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: active
auroral zone: active with stormy intervals sub-auroral zone: active

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Aeromagnetic surveys: Potential for disruptions in the polar cap, auroral, and sub-auroral zones. Directional Drilling: Potential for deviations in the polar cap, auroral, and sub-auroral zones.

Detailed Information

Solar

Solar activity has been moderate.

Interplanetary

The interplanetary magnetic field has been primarily negative at high (|Bz|<20 nT) levels. The solar wind speed is currently slow (400-500 km/s).

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit was at a normal level yesterday and is expected to be at a normal level tomorrow.

Visit <u>http://www.spaceweather.gc.ca/sffl-eng.php</u> for the electron forecast.

Geomagnetic

Over the last 24 hours geomagnetic activity has been unsettled with major storm intervals in the polar zone, stormy with major storm intervals in the auroral zone, and unsettled with stormy intervals in the sub-auroral zone.

Over the next 24 hours geomagnetic activity is forecast to be active in the polar zone, active with stormy intervals in the auroral zone, and active in the sub-auroral zone.

Visit <u>http://www.spaceweather.gc.ca/sfst-1-eng.php</u> for the magnetic forecast.

Space Weather Bulletin - 2015-12-21 issued at 20:15 UT (15:15 EST)

Summary

There is currently no major storm watch in effect.

Stormy conditions are possible in the auroral zone within the next 24 hours.

See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (20:00 UT)

Geomagnetic Activity:

polar cap zone: quiet auroral zone: quiet sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Impacts are not expected.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: unsettled auroral zone: active with stormy intervals sub-auroral zone: active

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: moderate

Possible Impacts on Technology:

Geostationary satellites: moderate risk of internal charging. Aeromagnetic surveys: Potential for disruptions in the auroral zone.

Directional Drilling: Potential for deviations in the auroral zone.

Detailed Information

Solar

Solar activity has been moderate.

The active region located near the east limb of the solar disk has produced solar x-ray flares and has the potential to produce subsequent solar eruptions.

Interplanetary

The interplanetary magnetic field has been fluctuating at moderate (|Bz|<10 nT) levels.

The solar wind speed is currently slow (400-500 km/s).

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit was at a low level yesterday and is expected to be at a moderate level tomorrow.

Visit <u>http://www.spaceweather.gc.ca/sffl-eng.php</u> for the electron forecast.

Geomagnetic

Over the last 24 hours geomagnetic activity has been unsettled with active intervals in the polar zone, active with stormy intervals in the auroral zone, and active with stormy intervals in the sub-auroral zone.

Over the next 24 hours geomagnetic activity is forecast to be unsettled in the polar zone, active with stormy intervals in the auroral zone, and active in the sub-auroral zone.

Visit <u>http://www.spaceweather.gc.ca/sfst-1-eng.php</u> for the magnetic forecast.

Space Weather Bulletin - 2015-12-22 issued at 19:43 UT (14:43 EST)

Summary

There is currently no major storm watch in effect.

See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (19:30 UT)

Geomagnetic Activity:

polar cap zone: unsettled auroral zone: quiet sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: moderate

Possible Impacts on Technology:

Geostationary satellites: moderate risk of internal charging.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: quiet with unsettled intervals auroral zone: quiet with unsettled intervals sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: moderate

Possible Impacts on Technology:

Geostationary satellites: moderate risk of internal charging.

Detailed Information

Solar

Solar activity has been high.

The active region located near the east limb of the solar disk has produced solar x-ray flares and has the potential to produce subsequent solar eruptions.

Interplanetary

The interplanetary magnetic field has been fluctuating at moderate (|Bz|<10 nT) levels.

The solar wind speed is currently slow (400-500 km/s).

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit was at a normal level yesterday and is expected to be at a moderate level tomorrow.

Visit <u>http://www.spaceweather.gc.ca/sffl-eng.php</u> for the electron forecast.

Geomagnetic

Over the last 24 hours geomagnetic activity has been quiet with active intervals in the polar zone, quiet with stormy intervals in the auroral zone, and quiet with active intervals in the sub-auroral zone.

Over the next 24 hours geomagnetic activity is forecast to be quiet with unsettled intervals in the polar zone, quiet with unsettled intervals in the auroral zone, and quiet in the sub-auroral zone. Visit http://www.spaceweather.gc.ca/sfst-1-eng.php for the magnetic forecast.

Space Weather Bulletin - 2015-12-23 issued at 20:20 UT (15:20 EST)

Summary

There is currently no major storm watch in effect.

See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (20:00 UT)

Geomagnetic Activity:

polar cap zone: unsettled auroral zone: unsettled sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: moderate

Possible Impacts on Technology:

Geostationary satellites: moderate risk of internal charging.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: quiet with unsettled intervals

auroral zone: quiet with unsettled intervals

sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Impacts are not expected.

Detailed Information

Solar

The active region located near the east limb of the solar disk has produced solar x-ray flares and has the potential to produce subsequent solar eruptions.

Interplanetary

The solar wind speed is currently slow (400-500 km/s).

The interplanetary magnetic field has been fluctuating at low (|Bz|<5 nT) levels.

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit was at a moderate level yesterday and is expected to be at a normal level tomorrow.

Visit <u>http://www.spaceweather.gc.ca/sffl-eng.php</u> for the electron forecast.

Geomagnetic

Over the last 24 hours geomagnetic activity has been quiet with unsettled intervals in the polar zone, quiet with stormy intervals in the auroral zone, and quiet in the sub-auroral zone.

Over the next 24 hours geomagnetic activity is forecast to be quiet with unsettled intervals in the polar zone, quiet with unsettled intervals in the auroral zone, and quiet in the sub-auroral zone. Visit <u>http://www.spaceweather.gc.ca/sfst-1-eng.php</u> for the magnetic forecast.

Space Weather Bulletin - 2015-12-24 issued at 19:16 UT (14:16 EST)

Summary

There is currently no major storm watch in effect.

See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (19:00 UT)

Geomagnetic Activity:

polar cap zone: quiet auroral zone: quiet sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: moderate

Possible Impacts on Technology:

Geostationary satellites: moderate risk of internal charging.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: quiet with unsettled intervals auroral zone: unsettled with active intervals sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Impacts are not expected.

Detailed Information

Solar

Solar activity has been moderate.

The active region located near the east limb of the solar disk has produced solar x-ray flares and associated CMEs and has the potential to produce subsequent solar eruptions.

A slow non-Earth-directed CME erupted on 24 DEC 2015 06:36 UT.

Interplanetary

The solar wind speed is currently slow (400-500 km/s).

The interplanetary magnetic field has been fluctuating at moderate (|Bz|<10 nT) levels.

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit was at a moderate level yesterday and is expected to be at a normal level tomorrow.

Visit <u>http://www.spaceweather.gc.ca/sffl-eng.php</u> for the electron forecast.

Geomagnetic

Over the last 24 hours geomagnetic activity has been quiet with active intervals in the polar zone, unsettled with stormy intervals in the auroral zone, and quiet with active intervals in the subauroral zone.

Over the next 24 hours geomagnetic activity is forecast to be quiet with unsettled intervals in the polar zone, unsettled with active intervals in the auroral zone, and quiet in the sub-auroral zone. Visit <u>http://www.spaceweather.gc.ca/sfst-1-eng.php</u> for the magnetic forecast.

Space Weather Bulletin - 2015-12-25 issued at 20:20 UT (15:20 EST)

Summary

There is currently no major storm watch in effect.

See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (20:00 UT)

Geomagnetic Activity:

polar cap zone: unsettled auroral zone: quiet sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: moderate

Possible Impacts on Technology:

Geostationary satellites: moderate risk of internal charging.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: quiet with unsettled intervals auroral zone: quiet with unsettled intervals

sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Impacts are not expected.

Detailed Information

Solar

The active region located near the central region of the solar disk has produced long duration solar x-ray flares and has the potential to produce subsequent solar eruptions.

Interplanetary

An interplanetary shock has been observed on 25 DEC 2015 19:45 UT.

The solar wind speed is currently moderate (500-700 km/s).

Moderate solar wind speeds are due to high speed streams from coronal holes.

The interplanetary magnetic field has been fluctuating at moderate (|Bz|<10 nT) levels.

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit was at a moderate level yesterday and is expected to be at a normal level tomorrow.

Visit <u>http://www.spaceweather.gc.ca/sffl-eng.php</u> for the electron forecast.

Geomagnetic

Over the last 24 hours geomagnetic activity has been quiet with active intervals in the polar zone, quiet with stormy intervals in the auroral zone, and quiet with unsettled intervals in the subauroral zone.

Over the next 24 hours geomagnetic activity is forecast to be quiet with unsettled intervals in the polar zone, quiet with unsettled intervals in the auroral zone, and quiet in the sub-auroral zone. Visit <u>http://www.spaceweather.gc.ca/sfst-1-eng.php</u> for the magnetic forecast.

Space Weather Bulletin - 2015-12-26 issued at 18:37 UT (13:37 EST)

Summary

There is currently no major storm watch in effect.

See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (18:30 UT)

Geomagnetic Activity:

polar cap zone: unsettled auroral zone: unsettled sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: moderate

Possible Impacts on Technology:

Geostationary satellites: moderate risk of internal charging.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: quiet with unsettled intervals auroral zone: quiet with unsettled intervals sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Impacts are not expected.

Detailed Information

Solar

Solar activity has been moderate.

Interplanetary

The solar wind speed is currently moderate (500-700 km/s).

The interplanetary magnetic field has been fluctuating at low (|Bz|<5 nT) levels.

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit was at a moderate level yesterday and is expected to be at a normal level tomorrow.

Visit <u>http://www.spaceweather.gc.ca/sffl-eng.php</u> for the electron forecast.

Geomagnetic

Over the last 24 hours geomagnetic activity has been quiet with unsettled intervals in the polar zone, quiet with active intervals in the auroral zone, and quiet with unsettled intervals in the sub-auroral zone.

Over the next 24 hours geomagnetic activity is forecast to be quiet with unsettled intervals in the polar zone, quiet with unsettled intervals in the auroral zone, and quiet in the sub-auroral zone. Visit http://www.spaceweather.gc.ca/sfst-1-eng.php for the magnetic forecast.

Space Weather Bulletin - 2015-12-27 issued at 19:39 UT (14:39 EST)

Summary

There is currently no major storm watch in effect.

See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (19:30 UT)

Geomagnetic Activity:

polar cap zone: quiet

auroral zone: quiet

sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: moderate

Possible Impacts on Technology:

Geostationary satellites: moderate risk of internal charging.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: quiet with unsettled intervals auroral zone: unsettled with active intervals sub-auroral zone: quiet with unsettled intervals

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Geostationary satellites: moderate risk of internal charging.

Detailed Information

Solar

Solar activity has been low.

Interplanetary

The solar wind speed is currently moderate (500-700 km/s). Moderate solar wind speeds are due to high speed streams from coronal holes. The interplanetary magnetic field has been fluctuating at low (|Bz|<5 nT) levels.

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit was at a moderate level yesterday and is expected to be at a normal level tomorrow.

Visit <u>http://www.spaceweather.gc.ca/sffl-eng.php</u> for the electron forecast.

Geomagnetic

- Over the last 24 hours geomagnetic activity has been quiet with active intervals in the polar zone, unsettled with active intervals in the auroral zone, and quiet with stormy intervals in the subauroral zone.
- Over the next 24 hours geomagnetic activity is forecast to be quiet with unsettled intervals in the polar zone, unsettled with active intervals in the auroral zone, and quiet with unsettled intervals in the sub-auroral zone.

Visit <u>http://www.spaceweather.gc.ca/sfst-1-eng.php</u> for the magnetic forecast.

Space Weather Bulletin - 2015-12-28 issued at 19:54 UT (14:54 EST)

Summary

There is currently no major storm watch in effect.

See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (19:45 UT)

Geomagnetic Activity:

polar cap zone: quiet auroral zone: quiet

sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: moderate

Possible Impacts on Technology:

Geostationary satellites: moderate risk of internal charging.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: quiet auroral zone: quiet

sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Impacts are not expected.

Detailed Information

Solar

- An Earth-directed CME erupted on 28 DEC 2015 12:00 UT and is expected to reach the Earth on 30 DEC 2015.
- The active region located near the central region of the solar disk has produced a long duration solar x-ray flare and an associated CME.
- A long duration M (medium) solar x-ray flare erupted at 28 DEC 2015 13:03 UT near the centre of the solar disk.

Interplanetary

The solar wind speed is currently slow (400-500 km/s).

The interplanetary magnetic field has been fluctuating at low (|Bz|<5 nT) levels.

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit was at a moderate level yesterday and is expected to be at a normal level tomorrow.

Visit <u>http://www.spaceweather.gc.ca/sffl-eng.php</u> for the electron forecast.

Geomagnetic

Over the last 24 hours geomagnetic activity has been quiet with unsettled intervals in the polar zone, quiet with unsettled intervals in the auroral zone, and quiet in the sub-auroral zone.

Over the next 24 hours geomagnetic activity is forecast to be quiet in the polar zone, quiet in the auroral zone, and quiet in the sub-auroral zone.

Visit <u>http://www.spaceweather.gc.ca/sfst-1-eng.php</u> for the magnetic forecast.

Space Weather Bulletin - 2015-12-29 issued at 17:35 UT (12:35 EST)

Summary

A moderate CME was observed on 28 DEC 2015, and is expected to deliver a glancing blow to the Earth on 30 DEC 2015, resulting in disturbed geomagnetic activity.

There is currently no major storm watch in effect.

See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (17:15 UT)

Geomagnetic Activity:

polar cap zone: quiet

auroral zone: quiet

sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: moderate

Possible Impacts on Technology:

Geostationary satellites: moderate risk of internal charging.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: quiet auroral zone: quiet with unsettled intervals sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Detailed Information

Solar

Solar activity has been moderate.

A slow CME was observed on 28 DEC 2015, and is expected to deliver a glancing blow to the Earth on 30 DEC 2015, resulting in disturbed geomagnetic activity.

The active region located near the central region of the solar disk has produced a long duration solar x-ray flare and an associated CME and has the potential to produce subsequent solar eruptions.

Interplanetary

The solar wind speed is currently slow (400-500 km/s).

The interplanetary magnetic field has been fluctuating at low (|Bz|<5 nT) levels.

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit was at a moderate level yesterday and is expected to be at a normal level tomorrow.

Visit <u>http://www.spaceweather.gc.ca/sffl-eng.php</u> for the electron forecast.

Geomagnetic

Over the last 24 hours geomagnetic activity has been quiet with unsettled intervals in the polar zone, quiet with unsettled intervals in the auroral zone, and quiet in the sub-auroral zone.

Over the next 24 hours geomagnetic activity is forecast to be quiet in the polar zone, quiet with unsettled intervals in the auroral zone, and quiet in the sub-auroral zone.

Visit <u>http://www.spaceweather.gc.ca/sfst-1-eng.php</u> for the magnetic forecast.

Space Weather Bulletin - 2015-12-30 issued at 17:56 UT (12:56 EST)

Summary

A moderate CME was observed on 28 DEC 2015, and is expected to deliver a glancing blow to the Earth on 30-31 DEC 2015, resulting in disturbed geomagnetic activity.

See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (17:45 UT)

Geomagnetic Activity:

polar cap zone: quiet auroral zone: quiet

sub-auroral zone: quiet

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: moderate

Possible Impacts on Technology:

Geostationary satellites: moderate risk of internal charging.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: quiet with stormy intervals

auroral zone: quiet with stormy intervals

sub-auroral zone: quiet with stormy intervals

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Power Systems: possibility of weak voltage fluctuations in the polar cap, auroral, and sub-auroral zones.

Aeromagnetic surveys: Potential for significant disruptions in the polar cap, auroral, and sub-auroral zones.

Directional Drilling: Potential for significant deviations in the polar cap, auroral, and sub-auroral zones.

Detailed Information

Solar

Solar activity has been low.

A moderate CME was observed on 28 DEC 2015, and is expected to deliver a glancing blow to the Earth on 30-31 DEC 2015, resulting in disturbed geomagnetic activity.

One large coronal hole elongated in longitude is located near the centre of the solar disk.

Interplanetary

The solar wind speed is currently very slow (< 400 km/s).

The interplanetary magnetic field has been fluctuating at low (|Bz|<5 nT) levels.

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit was at a moderate level yesterday and is expected to be at a normal level tomorrow.

Visit <u>http://www.spaceweather.gc.ca/sffl-eng.php</u> for the electron forecast.

Geomagnetic

Over the last 24 hours geomagnetic activity has been quiet with unsettled intervals in the polar zone, quiet with unsettled intervals in the auroral zone, and quiet in the sub-auroral zone.

Over the next 24 hours geomagnetic activity is forecast to be quiet with stormy intervals in the polar zone, quiet with stormy intervals in the auroral zone, and quiet with stormy intervals in the subauroral zone.

Visit <u>http://www.spaceweather.gc.ca/sfst-1-eng.php</u> for the magnetic forecast.

Space Weather Bulletin - 2015-12-31 issued at 02:03 UT (21:03 EST) Summary

Stormy conditions are possible in the polar cap, auroral, and sub-auroral zones within the next 24 hours.

Possibility of impacts to power systems, aeromagnetic surveys, and directional drilling. There is currently no major storm watch in effect.

See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (01:45 UT)

Geomagnetic Activity:

polar cap zone: active auroral zone: unsettled sub-auroral zone: unsettled

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: quiet with stormy intervals auroral zone: quiet with stormy intervals sub-auroral zone: quiet with stormy intervals

Possible Impacts on Technology:

Power Systems: possibility of weak voltage fluctuations in the polar cap, auroral, and sub-auroral zones.

Aeromagnetic surveys: Potential for significant disruptions in the polar cap, auroral, and sub-auroral zones.

Directional Drilling: Potential for significant deviations in the polar cap, auroral, and sub-auroral zones.

Detailed Information

Solar

A moderate CME was observed on 28 DEC 2015, and is expected to deliver a glancing blow to the Earth on 30-31 DEC 2015, resulting in disturbed geomagnetic activity.

Interplanetary

The solar wind speed is currently slow (400-500 km/s).

The interplanetary magnetic field has been fluctuating at moderate (|Bz|<10 nT) levels.

An interplanetary shock has been observed on 30 DEC 2015 23:50 UT.

Geomagnetic

A geomagnetic sudden impulse due to a shock in the solar wind was observed on 31 DEC 2015 00:51 UT.

Visit <u>http://www.spaceweather.gc.ca/sfst-1-eng.php</u> for the magnetic forecast.

Space Weather Bulletin - 2015-12-31 issued at 11:49 UT (06:49 EST)

Summary

Stormy conditions are possible in the polar cap, auroral, and sub-auroral zones within the next 24 hours.

Possibility of impacts to power systems, aeromagnetic surveys, and directional drilling.

See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: unsettled with stormy intervals

auroral zone: unsettled with stormy intervals

sub-auroral zone: quiet with stormy intervals

Possible Impacts on Technology:

Power Systems: possibility of weak voltage fluctuations in the polar cap, auroral, and sub-auroral zones.

Aeromagnetic surveys: Potential for significant disruptions in the polar cap, auroral, and sub-auroral zones.

Directional Drilling: Potential for significant deviations in the polar cap, auroral, and sub-auroral zones.

Detailed Information

Interplanetary

The solar wind speed is currently slow (400-500 km/s).

The interplanetary magnetic field has been primarily negative at high (|Bz|<20 nT) levels. Prolonged periods of negative interplanetary magnetic field are often associated with increased geomagnetic activity.

Space Weather Bulletin - 2015-12-31 issued at 17:36 UT (12:36 EST) Summary

Stormy conditions are possible in the polar cap, auroral, and sub-auroral zones within the next 24 hours.

There is currently no major storm watch in effect.

See our website for current information: <u>http://www.spaceweather.gc.ca</u> (updated every 15 minutes)

Current Conditions (17:15 UT)

Geomagnetic Activity:

polar cap zone: active auroral zone: active sub-auroral zone: unsettled

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Impacts are not expected.

24 Hour Forecast

Geomagnetic Activity:

polar cap zone: unsettled with stormy intervals

auroral zone: active with stormy intervals

sub-auroral zone: unsettled with stormy intervals

Environment at Geostationary orbit:

energetic electron fluence at geostationary orbit: normal

Possible Impacts on Technology:

Power Systems: possibility of weak voltage fluctuations in the polar cap, auroral, and sub-auroral zones.

Aeromagnetic surveys: Potential for significant disruptions in the polar cap, auroral, and sub-auroral zones.

Directional Drilling: Potential for significant deviations in the polar cap, auroral, and sub-auroral zones.

Detailed Information

Solar

Solar activity has been low.

One large coronal hole elongated in longitude is located near the centre of the solar disk.

Interplanetary

The solar wind speed is currently slow (400-500 km/s).

The interplanetary magnetic field has been fluctuating at high (|Bz|<20 nT) levels.

Environment at Geostationary orbit

Energetic electron fluence at geostationary orbit was at a moderate level yesterday and is expected to be at a normal level tomorrow.

Visit <u>http://www.spaceweather.gc.ca/sffl-eng.php</u> for the electron forecast.

Geomagnetic

Over the last 24 hours geomagnetic activity has been unsettled with stormy intervals in the polar zone, unsettled with stormy intervals in the auroral zone, and quiet with stormy intervals in the sub-auroral zone.

- Over the next 24 hours geomagnetic activity is forecast to be unsettled with stormy intervals in the polar zone, active with stormy intervals in the auroral zone, and unsettled with stormy intervals in the sub-auroral zone.
- Enhanced geomagnetic activity is likely associated with the arrival of a CME that erupted 28 DEC 2015 and reached the Earth at 31 DEC 2015 00:51 UT.

Visit http://www.spaceweather.gc.ca/sfst-1-eng.php for the magnetic forecast.