



**GEOLOGICAL SURVEY OF CANADA
OPEN FILE 7197**

Space Weather Bulletin - 2011

**R.A.D. Fiori, H.-L. Lam, L. Trichtchenko,
L. McKee, D. Danskin, L. Nikolic**

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1. Summary

Space weather refers to the conditions and processes occurring in space which have the potential to affect the near Earth environment. Space weather processes can include changes in the interplanetary magnetic field, coronal mass ejections from the Sun, and disturbances in Earth's magnetic field. The effects of space weather 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.

The Canadian Space Weather Forecast Centre monitors, analyzes, and forecasts space weather and dispatches warnings and alerts across Canada. This includes tracking solar disturbances from the Sun to the Earth and monitoring the Earth's magnetic field on the ground using a network of magnetometers distributed throughout Canada.

The Space Weather Bulletin is generated by the Canadian Space Weather Forecast Centre and provides recipients with daily descriptions of current space weather conditions, including solar, interplanetary, near-Earth environment and geomagnetic conditions, and forecasts of future activity. Descriptions of solar conditions include the observation of coronal mass ejections, coronal holes, active regions, and solar flares. Where possible, the time at which effects are expected to be observed at the Earth are provided. Interplanetary conditions refer to the solar wind speed, and the magnitude and polarity of the north / south (perpendicular to the ecliptic plane) component of the interplanetary magnetic field. In the near-Earth environment, the observed and predicted (forecast for the next 24 hours) values of the electron fluence at geostationary orbit with respect to threshold levels are provided. Geomagnetic activity levels for the past and future 24 hours in the polar cap, auroral, and sub-auroral zones are also provided. All descriptions are based on data products and links available at www.spaceweather.gc.ca.

This report provides a description of the Space Weather Bulletin and documents the bulletin from its implementation April 06, 2011 until December 31, 2011. Sections 2 and 3 provide an introduction and description of the evolution of the bulletin. A listing of typical bulletin statements is provided in Section 4. Section 5 contains tables of values used to select descriptive statements (very low / low / moderate / high / very high). Beginning July 06, 2011 a glossary of terms was included in the bulletin. This glossary is presented in Section 6. Sample bulletins are presented in Section 7.

2. Introduction

Purpose

The purpose of the daily space weather bulletin is to provide a simplified description of the 24-hour review and 24-hour prediction of solar, interplanetary, and geomagnetic conditions and observed events.

Email Recipients

Canadian Hazards Information Service (CHIS) officials
Defence Research and Development Canada (DRDC) officials
Public Safety Canada officials
Space Weather Duty Forecasters

Audience

Government officials not trained in space physics.

3. Chronology

The Space Weather Bulletin began distribution April 06, 2011, and has been distributed daily in 2011 by duty forecasters Lorne McKee, Hing-Lan Lam, Donald Danskin, Larisa Trichtchenko, and Robyn Fiori. Bulletin statements evolved over time, adapting to incorporate new levels of activity. Generic statements have been developed for describing typical conditions.

Throughout the April 06, 2011-December 31, 2011 interval a variety of space weather conditions were present.

See bulletins for the following days for examples of quiet solar and geomagnetic activity:

April 18, 2011
June 16, 2011
August 26, 2011
September 19, 2011
October 07, 2011
November 07, 2011
December 02, 2011

See bulletins for the following days for examples of high solar activity:

August 04, 2011
August 09, 2011
September 05-09, 2011
September 22-25, 2011
November 05, 2011

See bulletins for the following days for examples of high geomagnetic activity:

April 12-13, 2011
May 27-June 15, 2011
August 05-10, 2011
September 29, 2011
October 25, 2011
November 01, 2011

4. Outline of the Bulletin - 2011

The space weather bulletin is broken into several sections: *Preamble*, *Overview*, *Solar*, *Interplanetary*, *Near-Earth Environment*, and *Geomagnetic*. In the *Preamble*, the date and time the bulletin was issued is indicated in both Universal Time (UT), and either Eastern Standard Time (EST) or Eastern Daylight Savings Time (EDT). The *Overview* provides a brief summary of solar or geomagnetic activity that may be of importance to the user, including a listing of events that are likely to impact the Earth and the expected time of impact. The remaining sections provide detailed information about activity on the sun (*Solar*), the solar wind speed and orientation of the z component of the interplanetary magnetic field (IMF) (*Interplanetary*), an indication of the magnitude of the energetic electron fluence (*Near Earth Environment*), and a 24 hour review and forecast of geomagnetic activity levels (*Geomagnetic*).

The statements listed below have been generated to provide potential descriptions in each section. The duty forecaster reviews conditions and selects appropriate statements for such a list to describe current or forecasted activity levels. If the current situation cannot be adequately described, new statements are developed.

PREAMBLE

Space Weather Bulletin – June 23, 2011 issued by the Canadian Space Weather Forecast Centre at 12:00 UT (16:00 EDT)

This is for testing purposes. The final bulletin will also be produced in both official languages.

OVERVIEW

- A geomagnetic storm is currently in effect.
- A geomagnetic storm is expected within the next 24 hours.
- A storm watch is currently in effect.
- There is currently no storm watch in effect.

- CMEs have been observed but are not expected to have effects on the Earth.
- Geomagnetic effects from CMEs are expected to be observed on the Earth between June 24, 2011 and June 25, 2011.
- Geomagnetic effects from CMEs are expected today.
- Several Earth-directed CMEs have been observed between September 06, 2011 and September 09, 2011.
- Several non-Earth-directed CMEs have been observed between September 06, 2011 and September 09, 2011.
- Geomagnetic effects from coronal holes are expected to be observed on the Earth between June 24, 2011 and June 24, 2011.

- Geomagnetic effects from (coronal holes / CMEs / coronal holes and CMEs) are currently observed in (polar (_____) / auroral (_____) / subauroral (_____)) zones.
- See our website for current information: <http://www.spaceweather.gc.ca>

SOLAR

- Solar activity has been (very low / low / moderate / high / very high).
- There are 3 active regions visible on the solar disk.
- An Earth-directed CME erupted at June 23, 2011 16:10 UT.
- A non-Earth-directed CME erupted at June 23, 2011 16:10 UT.
- Two coronal holes is/are located near the (centre / edge)¹ of the solar disk.
- An (M (medium) / X (large)) flare erupted at June 23, 2011 16:10 UT near the (centre / edge)¹ of the solar disk.
- (Ten) (M (medium) / X (large)) flare(s) have erupted over the past 24 hours.

¹[Center is defined as +/- 35° latitude and +/- 35° longitude. Edge is defined as +/- 35° latitude and <-35° or >+35° longitude. Top/bottom will be defined as any latitude poleward of +/- 35°. Top/bottom events can be ignored.]

INTERPLANETARY

- Interplanetary activity has been (very low / low / moderate / high / very high).
- 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).
- The solar wind speed is (increasing / decreasing) (currently ~ 500 km/s).
- (Moderate / fast) solar wind speeds are due to a CME observed June 21, 2011 16:10 UT.
- (Moderate / fast) solar wind speeds are due to (high speed streams from coronal holes / a CME).
- The interplanetary magnetic field has been fluctuating at (very low ($|B_z| < 2$ nT) / low ($2 < |B_z| < 5$ nT) / moderate ($5 < |B_z| < 10$ nT) / high ($10 < |B_z| < 20$ nT) / very high ($|B_z| > 20$ nT)) levels.
- The interplanetary magnetic field has been primarily negative at (very low ($|B_z| < 2$ nT) / low ($2 < |B_z| < 5$ nT) / moderate ($5 < |B_z| < 10$ nT) / high ($10 < |B_z| < 20$ nT) / very high ($|B_z| > 20$ nT)) levels.
- The interplanetary magnetic field has been fluctuating between -3 nT and 5 nT.
- The interplanetary magnetic field is currently 15 nT.
- Prolonged periods of negative interplanetary magnetic field are often associated with increased geomagnetic activity.

NEAR-EARTH ENVIRONMENT

- Energetic electron fluence at geostationary orbit was (**below / above**) threshold level **June 22, 2011** and is expected to be (**below / above**) threshold level today.
- Visit <http://www.spaceweather.gc.ca/sffl-eng.php> for the electron forecast.
- The 5-minute integral energetic electron flux is currently high.

GEOMAGNETIC

- Geomagnetic activity has been¹ (____) in the polar zone, (____) in the auroral zone, and (____) in the subauroral zone. Activity is forecast² to be (____) in the polar zone, (____) in the auroral zone, and (____) in the subauroral zone.
- Visit <http://www.spaceweather.gc.ca/sfst-1-eng.php> for the magnetic forecast.

¹ Based on the 24 hour review.

² Based on the 24 hour forecast.

5. Table of Values – 2011

In Section 4, descriptors *very low*, *low*, *moderate*, *high*, and *very high* are used to describe the solar and interplanetary activity levels. Tables 1 and 2 provides criteria for determining which descriptor to use for the solar and interplanetary conditions, respectively.

Table 1: Criteria for describing solar conditions.

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

Table 2: Criteria for describing interplanetary conditions.

Very low	Low	Moderate	High	Very high
$V < 400$ km/s	$400 < v < 500$ km/s	$500 < v < 700$ km/s	$700 < v < 1000$ km/s	$v > 1000$ km/s
$ B_z < 2$ nT	$2 < B_z < 5$ nT	$5 < B_z < 10$ nT	$10 < B_z < 20$ nT	$ B_z > 20$ nT

6. Glossary of Terms - 2011

Space Weather refers to the collection of physical processes beginning at the Sun and ultimately affecting human activities on Earth and in space.

Solar Flare is a burst of electromagnetic radiation across the electromagnetic spectrum, notably in visible light, and x-rays. It can last from a few minutes to a few hours. Long duration flares can last for more than 3 hours. Flares are one indicator of possible solar plasma eruptions, and can be classified according to x-ray intensities into 3 categories : C, M, and X flares (in increasing order). Each category has 9 subdivisions ranging from, e.g., M1 to M9.

Coronal Mass Ejections (CME) are ejections of plasma from the corona of the Sun. Their arrival at Earth is the main cause for large geomagnetic disturbances. CMEs travel at speeds from 400 to 2000 km/sec and their travel time to Earth varies from 1 to 4 days.

Coronal Holes are regions in the corona where the magnetic field lines are open to space allowing high speed streams of plasma to escape from the Sun. High speed streams interacting with the Earth are the cause of long lasting (3 or 4 days) periods of geomagnetic activity, particularly in the auroral zone.

Solar Wind is the background stream of plasma continually flowing out from the Sun. Typical speeds are 300 – 400 km/sec.

Interplanetary Magnetic Field (IMF) is the solar magnetic field carried out into interplanetary space by the escaping plasma. Bz, the north-south component of the IMF, has a strong influence on the occurrence of geomagnetic activity: Positive Bz gives quiet conditions, Negative Bz gives disturbed conditions.

Ionospheric Disturbances are produced by particles precipitating into the high latitude ionosphere. These particles create extra ionisation that causes absorption of radio waves.

Geomagnetic Disturbances are produced by electric currents in the ionosphere and magnetosphere. These currents are generated by the interaction of high speed solar wind (CMEs or high speed streams) with the Earth's magnetic field. The strongest currents are associated with the aurora and produce the largest geomagnetic disturbances in the auroral zone across the middle of Canada.

Electron fluence, a daily value in units of electrons/cm²-sr-day, is an accumulation over 24 hours of the 5-minute integral flux of energetic electrons with energies >2 MeV in geosynchronous orbit of 6.6 Earth radii.

7. Daily Bulletins

This section provides a chronological listing of the daily space weather bulletin issued from April 06, 2011 to December 31, 2011. Alterations made to the original bulletins include (1) removing the list of email recipients, (2) altering the font to be consistent with the document, (3) removing the list of glossary terms included at the end of the email after July 06, 2011. All other formatting and content have been maintained.

From: McKee, Lorne [mailto:Lorne.McKee@NRCan-RNCan.gc.ca]

Sent: April-06-11 11:34 AM

To:

Subject: Apr 6, 2011 update

April 6, 2011 DAILY BULLETIN issued at 15:30UTC

Overview:

Solar Activity is LOW. No significant flares or CME's have been observed in the past 48 hours.

Interplanetary activity is MODERATE. The solar wind is moderate and fluctuating. This activity follows an observed shock in the solar wind data, possibly associated with the CME from April 2 @ 2347UT. High speed electrons (> 2MeV) have been at high levels for the past 48 hours and are forecast to continue to be at high levels.

Ionospheric activity is MODERATE due to the fluctuations observed in the solar wind. HF radio absorptions have been observed in the auroral zone Apr 5 22:00UT - Apr 6 2:00UT and again from Apr 6 10UT to ongoing.

Geomagnetic activity is currently QUIET to STORMY due to the fluctuations in the solar wind. For the next 24 hours, activity is forecast to be UNSETTLED in the sub-auroral zone, UNSETTLED with STORMY intervals in the auroral zone and UNSETTLED with ACTIVE intervals in the polar cap.

Please consult our website for the most current information: www.spaceweather.gc.ca

A brief explanation of terms and space weather effects is attached (well it will be in the future...)

Lorne McKee

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<http://spaceweather.gc.ca>

From: McKee, Lorne [mailto:Lorne.McKee@NRCan-RNCan.gc.ca]

Sent: April-07-11 10:00 AM

To:

Subject: Apr 7, 2011 update

April 7, 2011 DAILY BULLETIN issued at 14:00UTC

Overview:

Solar Activity is LOW. A coronal hole is approaching geoeffective position.

Interplanetary activity is QUIET. Increases in the solar wind speed are expected in 2 days due to coronal hole and a sector boundary transition.

Ionospheric /Magnetospheric activity is QUIET. Energetic electrons (> 2MeV) have been at high levels for the past 48 hours and are forecast to diminish.

Geomagnetic activity is currently QUIET to ACTIVE. For the next 24 hours, activity is forecast to be QUIET with UNSETTLED intervals in the sub-auroral zone, ACTIVE in the auroral zone and QUIET with ACTIVE intervals in the polar cap.

Please consult our website for the most current information: www.spaceweather.gc.ca

A brief explanation of terms and space weather effects is attached (well it will be in the future...)

From: McKee, Lorne [mailto:Lorne.McKee@NRCan-RNCan.gc.ca]

Sent: April-07-11 10:00 AM

To:

Subject: Apr 7, 2011 update

April 7, 2011 DAILY BULLETIN issued at 14:00UTC

Overview:

Solar Activity is LOW. A coronal hole is approaching geoeffective position.

Interplanetary activity is QUIET. Increases in the solar wind speed are expected in 2 days due to coronal hole and a sector boundary transition.

Ionospheric /Magnetospheric activity is QUIET. Energetic electrons (> 2MeV) have been at high levels for the past 48 hours and are forecast to diminish.

Geomagnetic activity is currently QUIET to ACTIVE. For the next 24 hours, activity is forecast to be QUIET with UNSETTLED intervals in the sub-auroral zone, ACTIVE in the auroral zone and QUIET with ACTIVE intervals in the polar cap.

Please consult our website for the most current information: www.spaceweather.gc.ca

A brief explanation of terms and space weather effects is attached (well it will be in the future...)

-----Original Message-----

From: McKee, Lorne [<mailto:Lorne.McKee@NRCan-RNCan.gc.ca>]

Sent: April-09-11 8:14 AM

To:

Subject: Apr 8, 2011 update

April 8 , 2011 DAILY BULLETIN issued at 12: 00UTC

Overview:

Solar Activity is LOW. A coronal hole is in geoeffective position. A back-sided CME is not expected to be geoeffective.

Interplanetary activity is QUIET . Increases in the solar wind speed are expected within the next day due to coronal hole and a sector boundary transition.

Ionospheric /Magnetospheric activity is QUIET. Energetic electrons (> 2MeV) are below threshold levels and are forecast to be moderate.

Geomagnetic activity is currently QUIET to ACTIVE. For the next 24 hours, activity is forecast to be QUIET in the sub-auroral zone, UNSETTLED with ACTIVE intervals in the auroral zone and QUIET with ACTIVE intervals in the polar cap.

Please consult our website for the most current information: www.spaceweather.gc.ca
<<file://www.spaceweather.gc.ca/>>

A brief explanation of terms and space weather effects is attached (well it will be in the future...)

-----Original Message-----

From: McKee, Lorne [<mailto:Lorne.McKee@NRCan-RNCan.gc.ca>]

Sent: April-10-11 9:14 AM

To:

Subject: Apr 9, 2011 update

April 9 , 2011 DAILY BULLETIN issued at 13: 00UTC

Overview:

Solar Activity is LOW. A coronal hole is in geoeffective position.

Interplanetary activity is QUIET . Increases in the solar wind speed are expected today due to coronal hole and a sector boundary transition.

Ionospheric /Magnetospheric activity is QUIET. Energetic electrons (> 2MeV) are below threshold levels and are forecast to be moderate.

Geomagnetic activity is currently QUIET to ACTIVE. For the next 24 hours, activity is forecast to be QUIET in the sub-auroral zone, QUIET in the auroral zone and QUIET in the polar cap.

Please consult our website for the most current information: www.spaceweather.gc.ca
<<file://www.spaceweather.gc.ca/>>

A brief explanation of terms and space weather effects is attached (well it will be in the future...)

-----Original Message-----

From: McKee, Lorne [<mailto:Lorne.McKee@NRCan-RNCan.gc.ca>]

Sent: April-11-11 9:32 AM

To:

Subject: RE: Apr 11, 2011 update

April 11 , 2011 DAILY BULLETIN issued at 13: 00UTC

Overview:

* Solar Activity is LOW.

* Interplanetary activity is UNSETTLED.

The solar wind density and temperature increased April 11 at ~6UT and the IMF magnetic field is fluctuating +/- 5nT. This activity is likely associated with the coronal hole activity.

* Ionospheric /Magnetospheric activity is QUIET.

Energetic electrons (> 2MeV) are below threshold levels and are forecast to be at threshold levels.

* Geomagnetic activity is currently QUIET to UNSETTLED.

For the next 24 hours, activity is forecast to be QUIET in the sub-auroral zone, QUIET in the auroral zone and QUIET with unsettled intervals in the polar cap.

Please consult our website for the most current information:

www.spaceweather.gc.ca <<file:///www.spaceweather.gc.ca/>>

A brief explanation of terms and space weather effects is attached (well it will be in the future...)

From: Lam, Hing-Lan [mailto:Hing-Lan.Lam@NRCan-RNCan.gc.ca]

Sent: April-12-11 11:33 AM

To:

Subject: Apr 12, 2011 Update

Apr 12, 2011 DAILY BULLETEN

SOLAR: Solar activity has been low.

INTERPLANETARY: Solar wind speed has been elevating from a low of ~300 km/s to the current 550 km/s, with IMF sustaining southward at ~ -10 nT for several hours. The high-speed solar wind stream has been emanating from a coronal hole.

NEAR-EARTH ENVIRONMENT: Energetic electron fluence at geostationary orbit was at nominal level for Apr 11.

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

GEOMAGNETIC: Geomagnetic activity has been quiet but with stormy conditions in the auroral zone during 6-11 UT of Apr12, concomitant with the interval of southward IMF and high solar wind speed, and coinciding with storm warning issued for the auroral zone during 0635 - 0905 UT.

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

.....
A brief explanation of terms and space weather effects is attached (well it will be in the future, as mentioned by Lorne)

Hing-Lan Lam

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Government of Canada *Gouvernement du Canada*

From: Lam, Hing-Lan [mailto:Hing-Lan.Lam@NRCan-RNCan.gc.ca]

Sent: April-13-11 10:28 AM

To:

Subject: Apr 13, 2011 Update

Apr 13, 2011 DAILY BULLETIN

SOLAR: Solar activity has been low.

INTERPLANETARY: Solar wind speed has been decreasing from a high of ~700 km/s yesterday to the current 450 km/s, with IMF sustaining southward at ~ -5 nT for several hours. The high-speed solar wind stream has been emanating from a coronal hole, and its effect is waning.

NEAR-EARTH ENVIRONMENT: Energetic electron fluence at geostationary orbit was at low level for Apr 12. Visit <http://www.spaceweather.gc.ca/sffl-eng.php> for electron forecast.

GEOMAGNETIC: Geomagnetic activity has been generally unsettled but with stormy conditions in the auroral zone due to substorm activities around local midnight, concomitant with interval of southward IMF and high solar wind speed. Visit <http://www.spaceweather.gc.ca/sfst-1-eng.php> for magnetic forecast.

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From: Lam, Hing-Lan [mailto:Hing-Lan.Lam@NRCan-RNCan.gc.ca]

Sent: April-14-11 10:52 AM

To:

Subject: Apr 14. 2011 Update

Apr 14, 2011 DAILY BULLETIN

SOLAR: Although solar activity has been low, there are now 7 sunspot groups on the Sun, probably a record number so far in the new cycle, with one near the solar disc center having complex magnetic configuration that could render a M-class solar eruption.

INTERPLANETARY: Solar wind speed has been gradually decreasing back to normal values of ~400 km/s, with a predominantly +ve IMF Bz fluctuating between +/- 5 nT, as the coronal hole high-speed solar wind stream is rotating away from the Earth.

NEAR-EARTH ENVIRONMENT: Energetic electron fluence at geostationary orbit was at normal level for Apr 13 but the integral flux has been increasing, exceeding 1000 pfu threshold on Apr 14 at 1150 UT. Visit <http://www.spaceweather.gc.ca/sffl-eng.php> for electron forecast.

GEOMAGNETIC: Geomagnetic activity has been mostly quiet but with unsettled intervals in the auroral zone due to substorm activities around local midnight, and with stormy conditions in the polar cap during local afternoon yesterday due to the combined effects of the coronal hole high-speed solar wind stream and the season. Visit <http://www.spaceweather.gc.ca/sfst-1-eng.php> for magnetic forecast.

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From: Lam, Hing-Lan [mailto:Hing-Lan.Lam@NRCan-RNCan.gc.ca]

Sent: April-15-11 10:30 AM

To:

Subject: Apr 15, 2011 Update

Apr 15, 2011 DAILY BULLETIN

SOLAR: Solar activity has been low, despite the presence of 7 sunspot groups on the Sun.

INTERPLANETARY: Solar wind has been steady with a normal speed of ~400 km/s, and a predominantly +ve IMF Bz hovering above zero.

NEAR-EARTH ENVIRONMENT: Energetic electron fluence at geostationary orbit was at high level on Apr 14. Visit <http://www.spaceweather.gc.ca/sffl-eng.php> for electron forecast.

GEOMAGNETIC: Geomagnetic activity has been quiet. Visit <http://www.spaceweather.gc.ca/sfst-1-eng.php> for magnetic forecast.

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From: Lam, Hing-Lan [mailto:Hing-Lan.Lam@NRCan-RNCan.gc.ca]

Sent: April-16-11 2:41 PM

To:

Subject: Apr 16, 2011 Update

Apr 16, 2011 DAILY BULLETIN

SOLAR: Solar activity has been moderate with an M1.3 flare peaking at 1712 UT on Apr 15 from N13W26.

INTERPLANETARY: Solar wind speed has been declining from 400 to 350 km/s. The IMF Bz has been hovering between +/- 2 nT.

NEAR-EARTH ENVIRONMENT: Energetic electron fluence at geostationary orbit was at high level on Apr 15. Visit <http://www.spaceweather.gc.ca/sffl-eng.php> for electron forecast.

GEOMAGNETIC: Geomagnetic activity has been quiet. Visit <http://www.spaceweather.gc.ca/sfst-1-eng.php> for magnetic forecast.

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From: Lam, Hing-Lan [mailto:Hing-Lan.Lam@NRCan-RNCan.gc.ca]

Sent: April-17-11 2:45 PM

To:

Subject: Apr 17, 2011 Update

Apr 17, 2011 DAILY BULLETIN

SOLAR: Solar activity has been low.

INTERPLANETARY: The slow solar wind speed has been steady at ~320 km/s. The IMF Bz has been fluctuating about zero.

EAR-EARTH ENVIRONMENT: Energetic electron fluence at geostationary orbit was at high level on Apr 15. Visit <http://www.spaceweather.gc.ca/sfl-eng.php> for electron forecast.

GEOMAGNETIC: Geomagnetic activity has been quiet. Visit <http://www.spaceweather.gc.ca/sfst-1-eng.php> for magnetic forecast.

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From: Lam, Hing-Lan [mailto:Hing-Lan.Lam@NRCan-RNCan.gc.ca]

Sent: April-18-11 11:16 AM

To:

Subject: Apr 18, 2011 Update

Apr 18, 2011 DAILY BULLETIN

SOLAR: Solar activity has been low.

INTERPLANETARY: The persistent slow solar wind speed of ~320 km/s has been increasing to the current level of ~ 420 km/s after a sudden jump to 380 km/s at ~ 06 UT. The speed's sudden rise, together with a sudden jump in density from 3/cm³ to 40/cm³ concurrently, signalled the arrival of an interplanetary shock due to the glancing blow of a CME of Apr 15. After hovering about zero for most of the time, the IMF Bz has been fluctuating between +/-8 nT after the shock arrival.

EAR-EARTH ENVIRONMENT: Energetic electron fluence at geostationary orbit was at normal level on Apr 17. Visit <http://www.spaceweather.gc.ca/sffl-eng.php> for electron forecast.

GEOMAGNETIC: Geomagnetic activity had been quiet before the the above-mentioned shock arrival that resulted in a sudden impulse at ~ 07 UT. After the occurrence of the SI, the auroral zone has been active with an hour of stormy conditions, while the other 2 zones have been experiencing unsettled conditions. Visit <http://www.spaceweather.gc.ca/sfst-1-eng.php> for magnetic forecast.

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From: Lam, Hing-Lan [mailto:Hing-Lan.Lam@NRCan-RNCan.gc.ca]

Sent: April-19-11 10:38 AM

To:

Subject: Apr 19, 2011 Update

Apr 19, 2011 DAILY BULLETIN

SOLAR: Solar activity has been low.

INTERPLANETARY: The solar wind speed rose to only ~ 420 km/s after the passage of a weak shock around 06 UT yesterday before settling back to around 380 km/s and then slowly increasing to the current value of ~ 400 km/s. The IMF Bz has been fluctuating between +/-5 nT after the shock arrival, and the amplitude of fluctuations appears to be decreasing.

NEAR-EARTH ENVIRONMENT: Energetic electron fluence at geostationary orbit was at low level on Apr 18. Visit <http://www.spaceweather.gc.ca/sffl-eng.php> for electron forecast.

GEOMAGNETIC: Geomagnetic activity has been quiet, aside from some unsettled conditions with active intervals in the polar cap during daytime yesterday due to seasonal effects. Visit <http://www.spaceweather.gc.ca/sfst-1-eng.php> for magnetic forecast.

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From: Lam, Hing-Lan [mailto:Hing-Lan.Lam@NRCan-RNCan.gc.ca]

Sent: April-20-11 11:09 AM

To:

Subject: Apr 20, 2011 Update

Apr 20, 2011 DAILY BULLETIN

SOLAR: Solar activity has been low.

INTERPLANETARY: The solar wind speed had been at ~400 km/s level until around 2000 UT yesterday when the onset of a coronal hole high-speed stream raised it to around 480 km/s. The solar wind speed has been steadily increasing since then, attaining the current value of ~550 km/s. The IMF Bz had been mostly positive until around 00 UT when large fluctuations between +/-10 nT began to occur and persisted till ~07 UT after which the amplitude of fluctuations appears to be decreasing.

NEAR-EARTH ENVIRONMENT: Energetic electron fluence at geostationary orbit was at low level on Apr 19. Visit <http://www.spaceweather.gc.ca/sffl-eng.php> for electron forecast.

GEOMAGNETIC: Geomagnetic activity had been quiet with unsettled levels and active intervals in the polar cap during daytime yesterday because of seasonal effects. Then, concomitant with the arrival of the fast coronal wind stream and large -ve IMF Bz excursion mentioned above, the field became active. Stormy conditions occurred in the auroral zone around local midnight due to substorm activities induced by coronal hole effects. The field has been unsettled since then. Visit <http://www.spaceweather.gc.ca/sfst-1-eng.php> for magnetic forecast.

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From: Lam, Hing-Lan [mailto:Hing-Lan.Lam@NRCan-RNCan.gc.ca]

Sent: April-21-11 10:56 AM

To:

Subject: Apr 12, 2011 Update

Apr 21, 2011 DAILY BULLETIN

SOLAR: Solar activity has been low.

INTERPLANETARY: The solar wind speed has been steadily decreasing from a high of ~550 km/s yesterday to the current ~450 km/s, with IMF Bz hovering between 0 and +4 nT, thus indicating that the coronal hole high-speed stream is subsiding.

NEAR-EARTH ENVIRONMENT: Energetic electron fluence at geostationary orbit was at low level on Apr 20. Visit <http://www.spaceweather.gc.ca/sffl-eng.php> for electron forecast.

GEOMAGNETIC: Geomagnetic activity has been quiet as the influence of the coronal hole high-speed stream reduces, although there were active periods with a stormy interval in the polar cap during daytime yesterday because of seasonal effect and the lingering influence of the diminishing coronal hole effect. Visit <http://www.spaceweather.gc.ca/sfst-1-eng.php> for magnetic forecast.

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From: Lam, Hing-Lan [mailto:Hing-Lan.Lam@NRCan-RNCan.gc.ca]

Sent: April-22-11 12:43 PM

To:

Subject: Apr 22, 2011 Update

Apr 22, 2011 DAILY BULLETIN

SOLAR: Solar activity has been moderate with 2 M1 flares, one erupting at 0457 UT and the other at 1554 UT today.

INTERPLANETARY: The solar wind speed has been steady at ~440 km/s, with IMF Bz hovering between -/+ 4 nT.

NEAR-EARTH ENVIRONMENT: Energetic electron fluence at geostationary orbit was at low level on Apr 21. Visit <http://www.spaceweather.gc.ca/sffl-eng.php> for electron forecast.

GEOMAGNETIC: Geomagnetic activity has been quiet, although the field was active with stormy intervals in the polar cap during daytime yesterday because of seasonal effect. Visit <http://www.spaceweather.gc.ca/sfst-1-eng.php> for magnetic forecast.

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From: Lam, Hing-Lan [mailto:Hing-Lan.Lam@NRCan-RNCan.gc.ca]

Sent: April-23-11 6:02 PM

To:

Subject: Apr 23, 2011 Update

Apr 23, 2011 DAILY BULLETIN

SOLAR: Solar activity has been low, after attaining moderate level yesterday with 2 M1 flares, and numerous C-flares.

INTERPLANETARY: The solar wind speed has been steady at ~420 km/s. After hovering between ± 4 nT, the IMF Bz has been steadily increasing from 0 to the current +7nT from 09 UT onwards.

NEAR-EARTH ENVIRONMENT: Energetic electron fluence at geostationary orbit was at low level on Apr 22. Visit <http://www.spaceweather.gc.ca/sffl-eng.php> for electron forecast.

GEOMAGNETIC: Geomagnetic activity has been quiet, except the polar cap where the field was unsettled with active intervals during daytime yesterday. Visit <http://www.spaceweather.gc.ca/sfst-1-eng.php> for magnetic forecast.

COMMENT: In polar cap, geomagnetic activity is enhanced during summer and depressed during winter. Thus, the current agitated magnetic conditions in polar cap can be attributed to "seasonal effect", which will not be mentioned from now on in order to alleviate confusion that the term may cause.

I am inclined to keep the synopsis brief and concise, as stipulated in my philosophy outlined in my first update, by filtering out information deemed not critical.

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From: Lam, Hing-Lan [mailto:Hing-Lan.Lam@NRCan-RNCan.gc.ca]

Sent: April-24-11 4:13 PM

To:

Subject: Apr 24, 2011 Update

Apr 24, 2011 DAILY BULLETIN

SOLAR: Solar activity has been low.

INTERPLANETARY: The solar wind speed has been increasing from ~420 km/s yesterday to the current ~ 480 km/s. The IMF Bz had been predominantly +ve until around 12 UT today when it started hovering between -/+ 5 nT.

NEAR-EARTH ENVIRONMENT: Energetic electron fluence at geostationary orbit was at low level on Apr 23. Visit <http://www.spaceweather.gc.ca/sffl-eng.php> for electron forecast.

GEOMAGNETIC: Geomagnetic activity has been quiet, except the polar cap where the field was unsettled with active intervals in the afternoon yesterday, and has been unsettled since 12 UT today attaining a short active interval earlier and reaching stormy conditions for the past couple of hours. Visit <http://www.spaceweather.gc.ca/sfst-1-eng.php> for magnetic forecast.

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From: Lam, Hing-Lan [mailto:Hing-Lan.Lam@NRCan-RNCan.gc.ca]

Sent: April-25-11 2:20 PM

To:

Subject: Apr 25, 2011 Update

Apr 25, 2011 DAILY BULLETIN

SOLAR: Solar activity has been low.

INTERPLANETARY: The solar wind speed had been steady at ~ 450 km/s level until around 06 UT today when it increased to 600 km/s. After maintaining at that level for several more hours, the speed has been slowly declining to the current ~500 km/s. The IMF Bz fluctuated between -/+ 5 nT before the increase in solar wind speed, after which it has been predominantly +ve.

NEAR-EARTH ENVIRONMENT: Energetic electron fluence at geostationary orbit was at low level on Apr 24. Visit <http://www.spaceweather.gc.ca/sffl-eng.php> for electron forecast.

GEOMAGNETIC: Geomagnetic activity has been quiet, except in the polar region where the field was unsettled with active and stormy intervals during local daytime yesterday. The auroral zone also experienced an isolated period of stormy conditions around local midnight. Visit <http://www.spaceweather.gc.ca/sfst-1-eng.php> for magnetic forecast.

COMMENT: I have been using the term "polar cap" in accordance with our tradition (for example, see <http://www.spaceweather.gc.ca/sfst-eng.php>). However, upon giving it some thought, I feel that the term may not be appropriate, as "cap" implies that our domain includes Russian arctic territory (what a wishful thinking!). I think "polar region"-meaning the Canadian portion of the polar cap- is more suitable. Hence, the new term is used in this update which is my last one for the current round of forecast duty. Beginning tomorrow, Donald will start firing off his daily updates, to be tailored with his personal touch and style, for us to ponder. So, be prepared to have some fun, Donald.

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From: Danskin, Donald [mailto:Donald.Danskin@NRCan-RNCan.gc.ca]

Sent: April-26-11 11:19 AM

To:

Subject: Apr 26, 2011 DAILY BULLETIN

Apr 26, 2011 DAILY BULLETIN

SOLAR: Solar activity has been low.

INTERPLANETARY: The solar wind speed has decreased to 400 km/s. The IMF Bz is slowly fluctuating between ± 5 nT.

NEAR-EARTH ENVIRONMENT: Energetic electron fluence at geostationary orbit was at a low level on Apr 25. Visit <http://www.spaceweather.gc.ca/sffl-eng.php> for electron forecast.

GEOMAGNETIC: Geomagnetic activity has been quiet with active intervals in the polar and auroral zones. Forecasted geomagnetic activity is expected to be quiet except for the polar zones where active intervals are expected. Visit <http://www.spaceweather.gc.ca/sfst-1-eng.php> for magnetic forecast.

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From: Danskin, Donald [mailto:Donald.Danskin@NRCan-RNCan.gc.ca]

Sent: April-27-11 12:15 PM

To:

Subject: Apr 27, 2011 DAILY BULLETIN

Apr 27, 2011 DAILY BULLETIN

SOLAR: Solar activity has been low with a slow (700 km/s) partial CME starting at 2:48UT which is not expected to be geoeffective.

INTERPLANETARY: The solar wind speed has decreased to 360 km/s. The IMF Bz is slowly fluctuating between -/+ 3 nT.

NEAR-EARTH ENVIRONMENT: Energetic electron fluence at geostationary orbit was at a low level on Apr 26. Visit <http://www.spaceweather.gc.ca/sffl-eng.php> for electron forecast.

GEOMAGNETIC: Geomagnetic activity has been quiet with active intervals in the polar zone. Forecasted geomagnetic activity is expected to be quiet except for the polar zones where unsettled intervals are expected. Visit <http://www.spaceweather.gc.ca/sfst-1-eng.php> for magnetic forecast.

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From: Danskin, Donald [mailto:Donald.Danskin@NRCan-RNCan.gc.ca]

Sent: April-28-11 11:15 AM

To:

Subject: Apr 28, 2011 DAILY BULLETIN

Apr 28, 2011 DAILY BULLETIN

SOLAR: Solar activity has been low.

INTERPLANETARY: The solar wind speed has decreased to 320 km/s. The IMF Bz is slowly fluctuating between ± 2 nT.

NEAR-EARTH ENVIRONMENT: Energetic electron fluence at geostationary orbit was at a low level on Apr 27. Visit <http://www.spaceweather.gc.ca/sffl-eng.php> for electron forecast.

GEOMAGNETIC: Geomagnetic activity has been quiet with active intervals in the polar zone. Forecasted geomagnetic activity is expected to be quiet except for the polar zones where unsettled intervals are expected. Visit <http://www.spaceweather.gc.ca/sfst-1-eng.php> for magnetic forecast.

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From: Danskin, Donald [mailto:Donald.Danskin@NRCan-RNCan.gc.ca]

Sent: April-29-11 11:20 AM

To:

Subject: Apr 29, 2011 DAILY BULLETIN

Apr 29, 2011 DAILY BULLETIN

SOLAR: Solar activity has been low.

INTERPLANETARY: The solar wind speed has been stable at 350 km/s. The IMF Bz is slowly fluctuating between ± 5 nT.

NEAR-EARTH ENVIRONMENT: Energetic electron fluence at geostationary orbit was at a low level on Apr 28. Visit <http://www.spaceweather.gc.ca/sffl-eng.php> for electron forecast.

GEOMAGNETIC: Geomagnetic activity has been predominantly quiet with active intervals in the polar zone and stormy intervals in the auroral zone. Forecasted geomagnetic activity is expected to be quiet except for active intervals in the polar zone and unsettled intervals in the auroral zone. Visit <http://www.spaceweather.gc.ca/sfst-1-eng.php> for magnetic forecast.

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From: Danskin, Donald [mailto:Donald.Danskin@NRCan-RNCan.gc.ca]

Sent: April-30-11 1:57 PM

To:

Subject: Apr 30, 2011 DAILY BULLETIN

Apr 30, 2011 DAILY BULLETIN

SOLAR: Solar activity has been low.

INTERPLANETARY: The solar wind speed is high and has risen over the last day from 350 to 700 km/s due to a coronal hole high speed stream. The IMF Bz is currently fluctuating between -/+ 10 nT.

NEAR-EARTH ENVIRONMENT: Energetic electron fluence at geostationary orbit was at a low level on Apr 29. Visit <http://www.spaceweather.gc.ca/sffl-eng.php> for electron forecast.

GEOMAGNETIC: Geomagnetic activity has been active with stormy intervals in the polar and auroral zones. Forecasted geomagnetic activity is expected to be active with stormy intervals in the polar and auroral zones. Visit <http://www.spaceweather.gc.ca/sfst-1-eng.php> for magnetic forecast.

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-----Original Message-----

From: Danskin, Donald [<mailto:Donald.Danskin@NRCan-RNCan.gc.ca>]

Sent: May-01-11 4:52 PM

To:

Subject: May 1, 2011 DAILY BULLETIN

May 1, 2011 DAILY BULLETIN

SOLAR: Solar activity has been low.

INTERPLANETARY: The solar wind speed is high at ~700 km/s due to a coronal hole high speed stream. The IMF Bz is currently fluctuating between -/+ 5 nT.

NEAR-EARTH ENVIRONMENT: Energetic electron fluence at geostationary orbit was at a low level on Apr 30. Visit <http://www.spaceweather.gc.ca/sffl-eng.php> <<https://email.nrcan.gc.ca/exchweb/bin/redirect.asp?URL=http://www.spaceweather.gc.ca/sffl-eng.php>> for electron forecast.

GEOMAGNETIC: Geomagnetic activity has been active with stormy intervals in the polar and auroral zones. Forecasted geomagnetic activity is expected to be active with stormy intervals in the polar and auroral zones. Visit <http://www.spaceweather.gc.ca/sfst-1-eng.php> <<https://email.nrcan.gc.ca/exchweb/bin/redirect.asp?URL=http://www.spaceweather.gc.ca/sfst-1-eng.php>> for magnetic forecast.

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From: Danskin, Donald [mailto:Donald.Danskin@NRCan-RNCan.gc.ca]

Sent: May-02-11 10:53 AM

To:

Subject: May 2, 2011 DAILY BULLETIN

May 2, 2011 DAILY BULLETIN

SOLAR: Solar activity has been low.

INTERPLANETARY: The solar wind speed is high at ~700 km/s due to a coronal hole high speed stream. The IMF Bz is currently fluctuating between -/+ 4 nT.

NEAR-EARTH ENVIRONMENT: Energetic electron fluence at geostationary orbit was at a high level on May 1. Visit <http://www.spaceweather.gc.ca/sffl-eng.php> for electron forecast.

GEOMAGNETIC: Geomagnetic activity has been active with stormy intervals in the polar and auroral zones. Forecasted geomagnetic activity is expected to be active with stormy intervals in the polar and auroral zones. Visit <http://www.spaceweather.gc.ca/sfst-1-eng.php> for magnetic forecast.

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From: Trichtchenko, Larisa [mailto:Larisa.Trichtchenko@NRCan-RNCan.gc.ca]

Sent: May-03-11 1:14 PM

To:

Subject: May 3, 2011 DAILY BULLETIN

May 3 , 2011 DAILY BULLETIN

SOLAR: Solar eruptive activity has been low. Solar recurrent activity is high with coronal hole #19 just leaving geoeffective position and coronal holes #20, #21 currently coming into the geoeffective positions on the Sun's southern hemisphere.

INTERPLANETARY: The solar wind speed is still high at ~ 6 00 km/s due to a coronal hole 19 high speed stream. The IMF Bz is currently fluctuating between -/+ 4 nT.

NEAR-EARTH ENVIRONMENT: Energetic electron fluence at geostationary orbit continue to be at a high level on due to the high wind streams . Visit <http://www.spaceweather.gc.ca/sffl-eng.php> for electron forecast.

GEOMAGNETIC: Geomagnetic activity in the polar zone has been unsettled to active with short stormy intervals polar ; unsettled in auroral zone and mostly quiet in subauroral zone . Forecasted geomagnetic activity is expected to be a unsettled to active with stormy intervals in the polar and auroral zones due to the effects of high speed streams associated with the coronal holes. Visit <http://www.spaceweather.gc.ca/sfst-1-eng.php> for magnetic forecast.

Duty Forecaster: Larisa Trichtchenko

From: Trichtchenko, Larisa [mailto:Larisa.Trichtchenko@NRCan-RNCan.gc.ca]

Sent: May-04-11 12:09 PM

To:

Subject: May 4, 2011 DAILY BULLETIN

May 4, 2011 SW DAILY BULLETIN

SOLAR: Solar eruptive activity has been low. Several active regions are located in the northern hemisphere with no flaring activity. Solar recurrent activity is moderate with some continuous effects from previous coronal hole #19 seen in solar wind speed. Coronal holes #20, #21 are currently in the geoeffective positions on the Sun's southern hemisphere.

INTERPLANETARY: The solar wind speed is elevated at ~ 500 km/s associated with the high speed streams from just passed coronal hole #19. The IMF Bz is currently fluctuating between ± 4 nT.

NEAR-EARTH ENVIRONMENT: Energetic electron fluence at geostationary orbit continue to be at a high level due to the high speed solar wind streams. Visit <http://www.spaceweather.gc.ca/sffl-eng.php> for electron forecast.

GEOMAGNETIC: Geomagnetic activity in the polar zone has been quiet to unsettled; quiet in auroral and subauroral zones. Forecasted geomagnetic activity is expected to be at unsettled level in the polar and auroral zones due to the effects of high speed streams associated with the coronal holes and quiet in the subauroral zone. Visit <http://www.spaceweather.gc.ca/sfst-1-eng.php> for magnetic forecast.

Duty Forecaster: Larisa Trichtchenko

From: Trichtchenko, Larisa [mailto:Larisa.Trichtchenko@NRCan-RNCan.gc.ca]

Sent: May-05-11 12:52 PM

To:

Subject: Space Weather May 5, 2011 DAILY BULLETIN

May 5, 2011 SW DAILY BULLETIN

SOLAR: Solar eruptive activity has been low. Several active regions are located in the northern hemisphere with no flaring activity. Solar recurrent activity is low. Coronal holes #20, #21 are merged into one coronal hole near south pole, their effects will be seen later.

INTERPLANETARY: The solar wind speed is now ~ 400km/sec, which is close to the background solar wind. The IMF Bz is currently fluctuating between -/+ 4 nT.

NEAR-EARTH ENVIRONMENT: Energetic electron fluence at geostationary orbit continue to be at a high level due to the high speed solar wind streams. Visit <http://www.spaceweather.gc.ca/sffl-eng.php> for electron forecast.

GEOMAGNETIC: Geomagnetic activity in the polar zone has been quiet to unsettled with short active periods; quiet to unsettled in auroral and subauroral zones. Forecasted geomagnetic activity is expected to be at the same level, i.e. quiet to unsettled level in the polar and auroral zones due to the continuous effects of high speed streams associated with the coronal hole and quiet in the subauroral zone. Visit <http://www.spaceweather.gc.ca/sfst-1-eng.php> for magnetic forecast.

Duty Forecaster: Larisa Trichtchenko

From: Trichtchenko, Larisa [mailto:Larisa.Trichtchenko@NRCan-RNCan.gc.ca]

Sent: May-06-11 5:25 PM

To:

Subject: Space Weather May 6, 2011 DAILY BULLETIN

May 6, 2011 SW DAILY BULLETIN

SOLAR: Solar eruptive activity has been low. Several active regions are located in the northern hemisphere with no flaring activity. Solar recurrent activity is low. Effects of southern coronal hole #21 will be seen later.

INTERPLANETARY: The solar wind speed is now ~ 400km/sec, which is close to the background solar wind. The IMF Bz is currently fluctuating between -/+ 4 nT.

NEAR-EARTH ENVIRONMENT: Energetic electron fluence at geostationary orbit continue to be at a high level due to the high speed solar wind streams. Visit <http://www.spaceweather.gc.ca/sffl-eng.php> for electron forecast.

GEOMAGNETIC: Geomagnetic activity in the polar zone has been quiet to unsettled; quiet in auroral and subauroral zones. Forecasted geomagnetic activity is expected to be at quiet to unsettled in all zones due to possible continuous effects of high speed streams associated with the coronal hole. Visit <http://www.spaceweather.gc.ca/sfst-1-eng.php> for the most recent magnetic forecast.

Duty Forecaster: Larisa Trichtchenko

-----Original Message-----

From: Trichtchenko, Larisa [<mailto:Larisa.Trichtchenko@NRCan-RNCan.gc.ca>]

Sent: May-07-11 9:32 AM

To:

Subject: Space Weather May 7, 2011 DAILY BULLETIN

May 7, 2011 SW DAILY BULLETIN

SOLAR: Solar eruptive activity has been low. Several active regions are located in the northern hemisphere with no flaring activity. Solar recurrent activity is low. Effects of southern coronal hole #21 will be seen later today and during following several days.

INTERPLANETARY: The solar wind speed is now ~ 400km/sec, which is close to the background solar wind. The IMF Bz is currently fluctuating between ± 4 nT, with tendency to increase amplitude of fluctuations due to the coronal hole high speed streams arriving at 1 AU.

NEAR-EARTH ENVIRONMENT: Energetic electron fluence at geostationary orbit continue to be at a high level due to the high speed solar wind streams. Visit <http://www.spaceweather.gc.ca/sffl-eng.php> <<http://www.spaceweather.gc.ca/sffl-eng.php>> for electron forecast.

GEOMAGNETIC: Geomagnetic activity in the polar and auroral zones has been quiet to unsettled; quiet in subauroral zone. Forecasted geomagnetic activity is expected to be increasing to unsettled levels with active periods in polar and auroral zones, unsettled in subauroral zone due to effects of high speed streams associated with the coronal hole #21. Visit <http://www.spaceweather.gc.ca/sfst-1-eng.php> <<http://www.spaceweather.gc.ca/sfst-1-eng.php>> for the most recent magnetic forecast.

Duty Forecaster: Larisa Trichtchenko

-----Original Message-----

From: Trichtchenko, Larisa [<mailto:Larisa.Trichtchenko@NRCan-RNCan.gc.ca>]

Sent: May-08-11 7:27 AM

To:

Subject: Space Weather May 8, 2011 DAILY BULLETIN

May 8, 2011 SW DAILY BULLETIN

SOLAR: Solar eruptive activity has been low. Several active regions are located in the northern hemisphere with no flaring activity. Solar recurrent activity is low. Effects of southern coronal hole #21 might be seen during following several days.

INTERPLANETARY: The solar wind speed is now ~ 250km/sec, which is the background solar wind. The IMF Bz is currently fluctuating between -/+ 3 nT.

NEAR-EARTH ENVIRONMENT: Energetic electron fluence at geostationary orbit continue to be at a high level due to the high speed solar wind streams. Visit <http://www.spaceweather.gc.ca/sffl-eng.php> <<http://www.spaceweather.gc.ca/sffl-eng.php>> for electron forecast.

GEOMAGNETIC: Geomagnetic activity in the polar and auroral zones has been quiet to unsettled; quiet in subauroral zone. Forecasted geomagnetic activity is expected to be quiet to unsettled levels with possible active periods in polar and auroral zones, quiet in subauroral zone. Visit <http://www.spaceweather.gc.ca/sfst-1-eng.php> <<http://www.spaceweather.gc.ca/sfst-1-eng.php>> for the most recent magnetic forecast.

Duty Forecaster: Larisa Trichtchenko

-----Original Message-----

From: Trichtchenko, Larisa [<mailto:Larisa.Trichtchenko@NRCan-RNCan.gc.ca>]

Sent: May-09-11 1:47 PM

To:

Subject: Space Weather May 9, 2011 DAILY BULLETIN

May 9, 2011 SW DAILY BULLETIN

SOLAR: Solar eruptive activity has been low. Several active regions are located in the northern hemisphere with no flaring activity. Solar recurrent activity is low. Effects of southern coronal hole #21 might be starting to appear and will be not dramatic due to its southern location.

INTERPLANETARY: The solar wind speed is slowly increasing and is ~ 350km/sec, which is still close to the background solar wind. The IMF Bz is currently fluctuating between -/+ 5 nT.

NEAR-EARTH ENVIRONMENT: Energetic electron fluence at geostationary orbit continue to be at a high level due to the high speed solar wind streams. Visit <http://www.spaceweather.gc.ca/sffl-eng.php> <<http://www.spaceweather.gc.ca/sffl-eng.php>> for electron forecast.

GEOMAGNETIC: Geomagnetic activity in the polar and auroral zones has been quiet to unsettled; quiet in subauroral zone. Forecasted geomagnetic activity is expected to be quiet to unsettled levels with possible active periods in polar and auroral zones. Visit <http://www.spaceweather.gc.ca/sfst-1-eng.php> <<http://www.spaceweather.gc.ca/sfst-1-eng.php>> for the most recent magnetic forecast.

Duty Forecaster: Larisa Trichtchenko

-----Original Message-----

From: Trichtchenko, Larisa [<mailto:Larisa.Trichtchenko@NRCan-RNCan.gc.ca>]

Sent: May-09-11 1:49 PM

To:

Subject: Addition: Space Weather May 9, 2011 DAILY BULLETIN

May 9, 2011 SW DAILY BULLETIN

Addition: SOLAR: C-flare is currently in progress.

Duty Forecaster: Larisa Trichtchenko

From: Danskin, Donald [mailto:Donald.Danskin@NRCan-RNCan.gc.ca]

Sent: May-10-11 11:27 AM

To:

Subject: May 10 , 2011 SW DAILY BULLETIN

May 10 , 2011 SW DAILY BULLETIN

SOLAR: Solar eruptive activity has been low. Solar recurrent activity is elevated with the effects of coronal hole 21 now being felt.

INTERPLANETARY: The solar wind speed is now ~ 400km/sec and increasing. The IMF Bz is currently fluctuating between -/+ 10 nT.

NEAR-EARTH ENVIRONMENT: Energetic electron fluence at geostationary orbit continue to be at a high level. Visit <http://www.spaceweather.gc.ca/sffl-eng.php> for electron fluence forecast.

GEOMAGNETIC: Geomagnetic activity has been quiet with stormy intervals in the polar and auroral zones. Forecasted geomagnetic activity is expected to be quiet to unsettled with unsettled intervals in the auroral zone and stormy intervals in the polar zone. Visit <http://www.spaceweather.gc.ca/sfst-1-eng.php> for the most recent magnetic forecast.

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From: Danskin, Donald [mailto:Donald.Danskin@NRCan-RNCan.gc.ca]

Sent: May-11-11 10:54 AM

To:

Subject: May 11 , 2011 SW DAILY BULLETIN

May 11 , 2011 SW DAILY BULLETIN

SOLAR: Solar eruptive activity has been low. Solar recurrent activity is now low.

INTERPLANETARY: The solar wind speed is now ~ 400km/sec. The IMF Bz is currently between -/+ 2 nT.

NEAR-EARTH ENVIRONMENT: Energetic electron fluence at geostationary orbit dropped to low level on May 10. Visit <http://www.spaceweather.gc.ca/sffl-eng.php> for electron fluence forecast.

GEOMAGNETIC: Geomagnetic activity has been quiet with stormy intervals in the polar and auroral zones. Forecasted geomagnetic activity is expected to be quiet to unsettled with active intervals in the polar zone. Visit <http://www.spaceweather.gc.ca/sfst-1-eng.php> for the most recent magnetic forecast.

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From: Danskin, Donald [mailto:Donald.Danskin@NRCan-RNCan.gc.ca]

Sent: May-12-11 10:49 AM

To:

Subject: May 12 , 2011 SW DAILY BULLETIN

May 12 , 2011 SW DAILY BULLETIN

SOLAR: Solar eruptive activity has been low. Solar recurrent activity is low.

INTERPLANETARY: The solar wind speed is now ~ 360 km/sec. The IMF Bz is currently between -/+ 2 nT.

NEAR-EARTH ENVIRONMENT: Energetic electron fluence at geostationary orbit was low on May 11. Visit <http://www.spaceweather.gc.ca/sffl-eng.php> for electron fluence forecast.

GEOMAGNETIC: Geomagnetic activity has been quiet with unsettled intervals in the polar and auroral zones. Forecasted geomagnetic activity is expected to be quiet with unsettled intervals in the polar zone. Visit <http://www.spaceweather.gc.ca/sfst-1-eng.php> for the most recent magnetic forecast.

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From: Danskin, Donald [mailto:Donald.Danskin@NRCan-RNCan.gc.ca]

Sent: May-13-11 10:54 AM

To:

Subject: May 13 , 2011 SW DAILY BULLETIN

May 13 , 2011 SW DAILY BULLETIN

SOLAR: Solar eruptive activity has been low. Solar recurrent activity is low.

INTERPLANETARY: The solar wind speed is now ~ 360 km/sec. The IMF Bz is currently between -/+ 2 nT.

NEAR-EARTH ENVIRONMENT: Energetic electron fluence at geostationary orbit was low on May 12. Visit <http://www.spaceweather.gc.ca/sffl-eng.php> for electron fluence forecast.

GEOMAGNETIC: Geomagnetic activity has been quiet with active intervals in the polar and auroral zones. Forecasted geomagnetic activity is expected to be quiet with stormy intervals. Visit <http://www.spaceweather.gc.ca/sfst-1-eng.php> for the most recent magnetic forecast.

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From: Danskin, Donald [mailto:Donald.Danskin@NRCan-RNCan.gc.ca]

Sent: May-14-11 12:33 PM

To:

Subject: May 14 , 2011 SW DAILY BULLETIN

May 14 , 2011 SW DAILY BULLETIN

SOLAR: Solar eruptive activity has been low. Solar recurrent activity is low.

INTERPLANETARY: The solar wind speed is now ~ 330 km/sec. The IMF Bz is currently between -/+ 5 nT.

NEAR-EARTH ENVIRONMENT: Energetic electron fluence at geostationary orbit was low on May 13. Visit <http://www.spaceweather.gc.ca/sffl-eng.php> for electron fluence forecast.

GEOMAGNETIC: Geomagnetic activity has been quiet with stormy intervals in the polar zone and unsettled intervals in the auroral zones. Forecasted geomagnetic activity is expected to be quiet with stormy intervals. Visit <http://www.spaceweather.gc.ca/sfst-1-eng.php> for the most recent magnetic forecast.

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From: Danskin, Donald [mailto:Donald.Danskin@NRCan-RNCan.gc.ca]

Sent: May-15-11 2:32 PM

To:

Subject: May 15, 2011 SW DAILY BULLETIN

May 15, 2011 SW DAILY BULLETIN

SOLAR: Solar eruptive activity has been low. Solar recurrent activity is moderate due to a high speed coronal hole stream.

INTERPLANETARY: The solar wind speed has increased to ~600 km/sec due to the effects of the coronal hole. The IMF Bz is currently between -/+ 10 nT.

NEAR-EARTH ENVIRONMENT: Energetic electron fluence at geostationary orbit was low on May 14. Visit <http://www.spaceweather.gc.ca/sffl-eng.php> for electron fluence forecast.

GEOMAGNETIC: Geomagnetic activity has been quiet with unsettled intervals in the subauroral and auroral zones and unsettled with stormy intervals in the polar zone. Forecasted geomagnetic activity is expected to be quiet with unsettled intervals in the subauroral and auroral zones and active with stormy intervals in the polar zone. Visit <http://www.spaceweather.gc.ca/sfst-1-eng.php> for the most recent magnetic forecast.

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From: Fiori, Robyn [mailto:Robyn.Fiori@NRCan-RNCan.gc.ca]

Sent: May-16-11 12:49 PM

To:

Subject: May 16, 2011 SW DAILY BULLETIN

May 16, 2011 SW DAILY BULLETIN

SOLAR: Solar eruptive activity has been low over the last 24 hour period. Solar recurrent activity is moderate due to a high speed coronal hole stream.

INTERPLANETARY: The solar wind speed is moderate at ~590 km/s due to the effects of a coronal hole. The IMF Bz is currently fluctuating between ± 5 nT.

NEAR-EARTH ENVIRONMENT: Energetic fluence at geostationary orbit is low. Visit <http://www.spaceweather.gc.ca/sffl-eng.php> for electron fluence forecast.

GEOMAGNETIC: Geomagnetic activity has been quiet with active intervals in the sub-auroral zone, unsettled with stormy intervals in the auroral zone, and active with stormy intervals in the polar zone. Forecasted geomagnetic activity is expected to be quiet with unsettled intervals in the sub-auroral zone, unsettled with active intervals in the auroral zone, and unsettled with stormy intervals in the polar zone. Visit <http://www.spaceweather.gc.ca/sfst-1-eng.php> for the most recent magnetic forecast.

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Facsimile | Télécopieur : (613) 824-9803

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From: Fiori, Robyn [mailto:Robyn.Fiori@NRCan-RNCan.gc.ca]

Sent: May-17-11 10:00 AM

To:

Subject: May 17, 2011 SW DAILY BULLETIN

May 17, 2011 SW DAILY BULLETIN

SOLAR: Solar eruptive activity has been low over the last 24 hour period. Solar recurrent activity is moderate due to a high speed coronal hole stream.

INTERPLANETARY: The solar wind speed has been relatively constant at a moderate level ~600 km/s over the last 24 hours due to the effects of a coronal hole. The IMF Bz has been fluctuating between -/+ 5 nT.

NEAR-EARTH ENVIRONMENT: Energetic fluence at geostationary orbit was low on May 16, 2011 and is currently moderate. Visit <http://www.spaceweather.gc.ca/sffl-eng.php> for electron fluence forecast.

GEOMAGNETIC: Geomagnetic activity has been quiet with unsettled intervals in the sub-auroral zone, and unsettled with stormy intervals in both the auroral and polar zones. Forecasted geomagnetic activity is expected to be quiet in the sub-auroral zone, unsettled with active intervals in the auroral zone, and unsettled with stormy intervals in the polar zone. Visit <http://www.spaceweather.gc.ca/sfst-1-eng.php> for the most recent magnetic forecast.

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From: Fiori, Robyn [mailto:Robyn.Fiori@NRCan-RNCan.gc.ca]

Sent: May-18-11 9:00 AM

To:

Subject: May 18, 2011 SW DAILY BULLETIN

May 18, 2011 SW DAILY BULLETIN

SOLAR: Solar eruptive activity has been low over the last 24 hour period.

INTERPLANETARY: The solar wind speed has dropped from a moderate level of ~600 km/s to ~450 km/s over the last 24 hours. The magnitude of the IMF Bz is <2 nT.

NEAR-EARTH ENVIRONMENT: Energetic fluence at geostationary orbit was low on May 17th, 2011 and is currently moderate. Visit <http://www.spaceweather.gc.ca/sffl-eng.php> for electron fluence forecast.

GEOMAGNETIC: Geomagnetic activity has been quiet with unsettled intervals in the sub-auroral zone, and unsettled with stormy intervals in both the auroral and polar zones. Forecasted geomagnetic activity is expected to be quiet in the sub-auroral zone, and unsettled with active intervals in both the auroral and polar zones. Visit <http://www.spaceweather.gc.ca/sfst-1-eng.php> for the most recent magnetic forecast.

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From: Fiori, Robyn [mailto:Robyn.Fiori@NRCan-RNCan.gc.ca]

Sent: May-19-11 12:39 PM

To:

Subject: May 19, 2011 SW DAILY BULLETIN

May 18, 2011 S@ DAILY BULLETIN issued at 16:30 UT (12:30 EDT)

SOLAR: Solar activity is currently low. A partial CME was detected at 18:24 UT, but is not expected to be geoeffective.

INTERPLANETARY: Interplanetary activity is quiet following the passage of a high speed stream. The solar wind speed decreased from 450 km/s to the current value of 400 km/s over the last 24 hours. The IMF Bz fluctuated between -4 and +4 nT from May 18 16:30 UT to ongoing.

NEAR-EARTH ENVIRONMENT: Energetic electron fluence at geostationary orbit has been at moderate levels for the past 24 hours and is forecast to decrease to low levels. Visit <http://www.spaceweather.gc.ca/sffl-eng.php> for the electron forecast.

GEOMAGNETIC: Geomagnetic activity has been quiet with unsettled intervals in the sub-auroral zone, quiet with active intervals in the auroral zone, and quiet with active intervals in the polar zone. Activity is forecast to be quiet in the sub-auroral zone, quiet in the auroral zone, and quiet with active intervals in the polar zone. Visit <http://www.spaceweather.gc.ca/sfst-1-eng.php> for magnetic forecast.

Please consult our website for the most current information: www.spaceweather.gc.ca

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From: Fiori, Robyn [mailto:Robyn.Fiori@NRCan-RNCan.gc.ca]

Sent: May-20-11 7:56 AM

To:

Subject: May 20, 2011 SW DAILY BULLETIN

May 20, 2011 @ DAILY BULLETIN issued at 12:00 UT (08:00 EDT)

SOLAR: Solar activity is currently low. Solar recurrent activity is currently low.

INTERPLANETARY: Interplanetary activity is quiet following the passage of a high speed stream. The solar wind speed decreased from 400 km/s to the current value of 360 km/s from May 19 12 UT to May 20 12 UT. The IMF Bz fluctuated between -4 and +4 nT from May 19 12:00 UT to ongoing.

NEAR-EARTH ENVIRONMENT: Energetic electron fluence at geostationary orbit has been at moderate levels for the past 24 hours and is forecast to decrease to low levels. Visit <http://www.spaceweather.gc.ca/sffl-eng.php> for the electron forecast.

GEOMAGNETIC: Geomagnetic activity has been quiet in the sub-auroral zone, quiet with unsettled intervals in the auroral zone, and quiet with stormy intervals in the polar zone. Activity is forecast to be quiet in the sub-auroral zone, quiet in the auroral zone, and quiet with active intervals in the polar zone. Visit <http://www.spaceweather.gc.ca/sfst-1-eng.php> for magnetic forecast.

Please consult our website for the most current information: www.spaceweather.gc.ca

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From: Danskin, Donald [mailto:Donald.Danskin@NRCan-RNCan.gc.ca]

Sent: May-21-11 11:25 AM

To:

Subject: May 21 , 2011 SW DAILY BULLETIN

May 21 , 2011 SW DAILY BULLETIN

SOLAR: Solar eruptive activity has been low. Solar recurrent activity is low.

INTERPLANETARY: The solar wind speed is now ~ 400 km/sec. The IMF Bz is currently between -/+ 5 nT.

NEAR-EARTH ENVIRONMENT: Energetic electron fluence at geostationary orbit was moderate on May 20 and is forecast to be moderate for today. Visit <http://www.spaceweather.gc.ca/sffl-eng.php> for electron fluence forecast.

GEOMAGNETIC: Geomagnetic activity has been quiet with active intervals in the polar zone and with unsettled intervals in the auroral zone. Forecasted geomagnetic activity is expected to be quiet with unsettled intervals in the polar zone. Visit <http://www.spaceweather.gc.ca/sfst-1-eng.php> for the most recent magnetic forecast.

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From: Danskin, Donald [mailto:Donald.Danskin@NRCan-RNCan.gc.ca]

Sent: May-22-11 3:37 PM

To:

Subject: May 22 , 2011 SW DAILY BULLETIN

May 22 , 2011 SW DAILY BULLETIN

SOLAR: Solar eruptive activity has been low. Solar recurrent activity is low.

INTERPLANETARY: The solar wind speed is now ~ 460 km/sec. The IMF Bz is currently between -/+ 5 nT.

NEAR-EARTH ENVIRONMENT: Energetic electron fluence at geostationary orbit was moderate on May 21 and is forecast to be low for today. Visit <http://www.spaceweather.gc.ca/sffl-eng.php> for electron fluence forecast.

GEOMAGNETIC: Geomagnetic activity has been quiet with stormy intervals in the polar zone and with unsettled intervals in the auroral zone. Forecasted geomagnetic activity is expected to be quiet except unsettled with stormy intervals in the polar zone. Visit <http://www.spaceweather.gc.ca/sfst-1-eng.php> for the most recent magnetic forecast.

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From: Danskin, Donald [mailto:Donald.Danskin@NRCan-RNCan.gc.ca]

Sent: May-23-11 10:59 AM

To:

Subject: May 23, 2011 SW DAILY BULLETIN

May 23, 2011 SW DAILY BULLETIN

SOLAR: Solar eruptive activity has been low. Solar recurrent activity is low.

INTERPLANETARY: The solar wind speed is now ~ 440 km/sec. The IMF Bz is currently between -/+ 5 nT.

NEAR-EARTH ENVIRONMENT: Energetic electron fluence at geostationary orbit was low on May 22 and is forecast to be low for today. Visit <http://www.spaceweather.gc.ca/sffl-eng.php> for electron fluence forecast.

GEOMAGNETIC: Geomagnetic activity has been quiet with stormy intervals in the polar zone and with unsettled intervals in the auroral zone. Forecasted geomagnetic activity is expected to be quiet with active intervals in the polar zone. Visit <http://www.spaceweather.gc.ca/sfst-1-eng.php> for the most recent magnetic forecast.

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Government of Canada Gouvernement du Canada

From: Lam, Hing-Lan [mailto:Hing-Lan.Lam@NRCan-RNCan.gc.ca]

Sent: May-24-11 10:49 AM

To:

Subject: May 24 , 2011 SW DAILY BULLETIN

May 24 , 2011 SW DAILY BULLETIN

SOLAR: Solar eruptive activity has been very low. Solar recurrent activity is expected to be high with the approach of a coronal hole high speed stream.

INTERPLANETARY: The solar wind speed is now ~ 350 km/sec. The IMF Bz is currently between -/+ 5 nT.

NEAR-EARTH ENVIRONMENT: Energetic electron fluence at geostationary orbit was low on May 23 and is expected to be low for today. Visit <http://www.spaceweather.gc.ca/sffl-eng.php> for electron fluence forecast.

GEOMAGNETIC: Geomagnetic activity has been quiet with stormy intervals in the polar zone and the auroral zone. Geomagnetic activity is expected to be unsettled with active intervals in the polar zone. Visit <http://www.spaceweather.gc.ca/sfst-1-eng.php> for the most recent magnetic forecast.

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From: Lam, Hing-Lan [mailto:Hing-Lan.Lam@NRCan-RNCan.gc.ca]

Sent: May-25-11 10:26 AM

To:

Subject: May 25, 2011 SW DAILY BULLETIN

May 25, 2011 SW DAILY BULLETIN

SOLAR: Solar eruptive activity has been very low. Solar recurrent activity is expected to be high in the next 2 days due to an anticipated coronal hole high speed stream from an equatorial coronal hole now at geoeffective location.

INTERPLANETARY: The solar wind speed is now ~ 380 km/sec. The IMF Bz is currently ~ 0 nT.

NEAR-EARTH ENVIRONMENT: Energetic electron fluence at geostationary orbit was low on May 24 and is expected to be low for today. Visit <http://www.spaceweather.gc.ca/sffl-eng.php> for electron fluence forecast.

GEOMAGNETIC: Geomagnetic activity has been quiet with stormy intervals in the polar zone, and unsettled intervals in the auroral as well as subauroral zones. Geomagnetic activity is expected to be quiet with active intervals in the polar zone. Visit <http://www.spaceweather.gc.ca/sfst-1-eng.php> for the most recent magnetic forecast.

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From: Lam, Hing-Lan [mailto:Hing-Lan.Lam@NRCan-RNCan.gc.ca]

Sent: May-26-11 10:53 AM

To:

Subject: May 26, 2011 SW DAILY BULLETIN

May 26, 2011 SW DAILY BULLETIN

SOLAR: Solar eruptive activity has been very low. Solar recurrent activity is expected to be high beginning tomorrow as a recurrent coronal hole high speed stream becomes geoeffective.

INTERPLANETARY: The solar wind speed is now ~ 380 km/sec. The IMF Bz is currently between -/+ 4 nT.

NEAR-EARTH ENVIRONMENT: Energetic electron fluence at geostationary orbit was low on May 25 and is expected to be moderate for today. Visit <http://www.spaceweather.gc.ca/sffl-eng.php> for electron fluence forecast.

GEOMAGNETIC: Geomagnetic activity has been quiet with active intervals in the polar as well as auroral zones, and with unsettled intervals in the subauroral zone. Geomagnetic activity is expected to be quiet with active intervals in the polar zone. Visit <http://www.spaceweather.gc.ca/sfst-1-eng.php> for the most recent magnetic forecast.

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From: Lam, Hing-Lan [mailto:Hing-Lan.Lam@NRCan-RNCan.gc.ca]

Sent: May-27-11 11:56 AM

To:

Subject: Space Weather Bulletin - May 27, 2011

Space Weather Bulletin - May 27, 2011 issued by the Canadian Space Weather Forecast Centre at 15:45 UT (10:45 EST)

SOLAR: Solar eruptive activity has been very low. Effects from 2 coronal holes might be felt in 1- 4 days. Currently, the Sunspot number is 40, and the 10.7 cm flux is 83 sfu.

INTERPLANETARY: The solar wind speed has been increasing from 380 km/s to 480 km/s (May 26 1600 UT - current). The IMF B_z was observed to fluctuate between -5 and +8 nT (May 26 1600UT – current).

NEAR-EARTH ENVIRONMENT: Energetic electron fluence at geostationary orbit was low on May 26 and is expected to be low for today. Visit <http://www.spaceweather.gc.ca/sffl-eng.php> for electron fluence forecast.

GEOMAGNETIC: 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 subauroral zone. 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 subauroral zone. Visit <http://www.spaceweather.gc.ca/sfst-1-eng.php> for the most recent magnetic forecast.

Please consult our website for **the most current more** information: www.spaceweather.gc.ca

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From: Lam, Hing-Lan [mailto:Hing-Lan.Lam@NRCan-RNCan.gc.ca]

Sent: May-28-11 2:06 PM

To:

Subject: Space Weather Bulletin - May 28, 2011

Space Weather Bulletin - May 28, 2011 issued by the Canadian Space Weather Forecast Centre at 17:45 UT (12:45 EST)

SOLAR: Solar eruptive activity has been low. Effect from a coronal hole is being felt. Effect from another coronal holes might be felt in 2-4 days. Currently, the Sunspot number is 65, and the 10.7 cm solar flux is 90 sfu.

INTERPLANETARY: The solar wind speed has been increasing from 480 km/s to 550 km/s (May 27 1600 UT - current) due to coronal hole effect. The IMF B_z was observed to fluctuate between -10 and +10 nT (May 27 1600UT – current).

NEAR-EARTH ENVIRONMENT: Energetic electron fluence at geostationary orbit was low on May 27 and is expected to be moderate for today. Visit <http://www.spaceweather.gc.ca/sffl-eng.php> for electron fluence forecast.

GEOMAGNETIC: 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. Major storm watch was issued (9:30-12:00). Activity is forecast to be active with stormy intervals in the polar zone, stormy in the auroral zone, and active in the subauroral zone. Visit <http://www.spaceweather.gc.ca/sfst-1-eng.php> for the most recent magnetic forecast.

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From: Lam, Hing-Lan [mailto:Hing-Lan.Lam@NRCan-RNCan.gc.ca]

Sent: May-29-11 2:38 PM

To:

Subject: Space Weather Bulletin - May 29, 2011

Space Weather Bulletin - May 29, 2011 issued by the Canadian Space Weather Forecast Centre at 18:30 UT (13:30 EST)

SOLAR: Solar activity has been moderate. Effect from an elongated (N-S) equatorial coronal hole is still being felt. Effect from a smaller coronal holes might be felt in 2-3 days. Currently, the Sunspot number is 91, and the 10.7 cm solar flux is 101 sfu.

INTERPLANETARY: The solar wind speed has been increasing from 550 km/s to 700 km/s (May 28 1600 UT - current) due to coronal hole effect. The IMF B_z was observed to fluctuate between -10 and +5 nT (May 28 1600UT – current).

NEAR-EARTH ENVIRONMENT: Energetic electron fluence at geostationary orbit was low on May 28 and is expected to be moderate for today. Energetic electron flux exceeded 1000 pfu threshold on May 29, 2011 12:40 UT. Visit <http://www.spaceweather.gc.ca/sffl-eng.php> for electron fluence forecast.

GEOMAGNETIC: 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. Major storm watch was issued for the auroral zone (06:00-08:00). 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 subauroral zone. Visit <http://www.spaceweather.gc.ca/sfst-1-eng.php> for the most recent magnetic forecast.

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From: Lam, Hing-Lan [mailto:Hing-Lan.Lam@NRCan-RNCan.gc.ca]

Sent: May-30-11 10:32 AM

To:

Subject: Space Weather Bulletin - May 30, 2011

Space Weather Bulletin - May 30, 2011 issued by the Canadian Space Weather Forecast Centre at 14:30 UT (09:30 EST)

SOLAR: Solar activity has been moderate. Effect from an elongated (N-S) equatorial coronal hole is waning. Effect from a smaller coronal holes might be felt in 1-2 days. Currently, the sunspot number is 100, and the 10.7 cm solar flux is 111 sfu.

INTERPLANETARY: The solar wind speed has been decreasing from 700 km/s to 600km/s (May 29 1600 UT - current) as the effect of the coronal hole diminishes. The IMF B_z was observed to fluctuate between -9 and +7 nT (May 29 1600UT – current).

NEAR-EARTH ENVIRONMENT: Energetic electron fluence at geostationary orbit was high on May 29 and is expected to be high for today. Energetic electron flux has been exceeding 1000 pfu threshold since May 29, 2011 12:40 UT. Visit <http://www.spaceweather.gc.ca/sffl-eng.php> for electron fluence forecast.

GEOMAGNETIC: 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. 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 subauroral zone. Visit <http://www.spaceweather.gc.ca/sfst-1-eng.php> for the most recent magnetic forecast.

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From: Lam, Hing-Lan [mailto:Hing-Lan.Lam@NRCan-RNCan.gc.ca]

Sent: May-31-11 10:57 AM

To:

Subject: Space Weather Bulletin - May 31, 2011

Space Weather Bulletin - May 31, 2011 issued by the Canadian Space Weather Forecast Centre at 14:45 UT (09:45 EST)

SOLAR: Solar activity has been low. Effect from a large coronal hole north of the equatorial region might be felt in 3-4 days. Currently, the sunspot number is 105, and the 10.7 cm solar flux is 112 sfu.

INTERPLANETARY: The solar wind speed has been decreasing from ~ 600 km/s to ~ 500km/s (May 30 1600 UT - current). The IMF B_z was observed to fluctuate between -5 and +5 nT (May 30 1600UT – current).

NEAR-EARTH ENVIRONMENT: Energetic electron fluence at geostationary orbit was high on May 30 and is expected to be high for today. Energetic electron flux had been exceeding 1000 pfu threshold since May 29, 2011 12:40 UT before dropping below the threshold on May 31 from 03:00 UT to 10:18 UT. But the flux has been exceeding the threshold since then. Visit <http://www.spaceweather.gc.ca/sffl-eng.php> for electron fluence forecast.

GEOMAGNETIC: Geomagnetic activity has been unsettled with stormy intervals in the polar zone, active with unsettled intervals in the auroral zone, and quiet with active intervals in the subauroral zone. Activity is forecast to be unsettled with stormy intervals in the polar zone, insettled with active intervals in the auroral zone, and quiet in the subauroral zone. Visit <http://www.spaceweather.gc.ca/sfst-1-eng.php> for the most recent magnetic forecast.

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From: Lam, Hing-Lan [mailto:Hing-Lan.Lam@NRCan-RNCan.gc.ca]

Sent: June-01-11 11:05 AM

To:

Subject: Space Weather Bulletin - June 1, 2011

Space Weather Bulletin - June 1, 2011 issued by the Canadian Space Weather Forecast Centre at 15:00 UT (10:00 EST)

SOLAR: Solar activity has been low. Effect from a large coronal hole north of the equatorial region might be felt in 2-3 days. Currently, the sunspot number is 105, and the 10.7 cm solar flux is 112 sfu.

INTERPLANETARY: The solar wind speed has been steady at ~ 550 km/s. The IMF B_z was observed to fluctuate between -5 and +5 nT (May 31 1600UT – current). Enhancement of low energy solar energetic particles was observed to begin at May 30, 2011 22:00 UT and to reach maximum at June 1, 2011 12:00 UT, which can be a precursor to increased geomagnetic activity within the next 36 hours.

NEAR-EARTH ENVIRONMENT: Energetic electron fluence at geostationary orbit was high on May 31 and is expected to be high for today. Aside from a few excursions below the 1000 pfu threshold, energetic electron flux has been exceeding the threshold level since May 29, 2011 12:40 UT. Visit <http://www.spaceweather.gc.ca/sffl-eng.php> for electron fluence forecast.

GEOMAGNETIC: 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. 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 subauroral zone. A sudden impulse occurred at June 1, 2011 08:06 UT. Visit <http://www.spaceweather.gc.ca/sfst-1-eng.php> for the most recent magnetic forecast.

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From: Lam, Hing-Lan [mailto:Hing-Lan.Lam@NRCan-RNCan.gc.ca]

Sent: June-02-11 11:11 AM

To:

Subject: Space Weather Bulletin - June 2, 2011

Space Weather Bulletin - June 2, 2011 issued by the Canadian Space Weather Forecast Centre at 15:00 UT (10:00 EST)

SOLAR: Solar activity has been low. Effect from a large coronal hole north of the equatorial region might be felt in 1-2 days. The sunspot number was 107, and the 10.7 cm solar flux was 114 sfu on June 1.

INTERPLANETARY: The solar wind speed has been steadily decreasing from ~550 km/s to ~400 km/s ((June 1 15:00UT – current). The IMF B_z was observed to fluctuate between -5 and +5 nT (June 1 15:00UT – current), and has remained southward for the past several hours. Enhancement of low energy solar energetic particles began on May 30 22:00 UT and, after reaching a maximum on June 1 12:00 UT, continued to climb until reaching another maximum at the beginning of June 2, which can be a precursor to increased geomagnetic activity within the next 36 hours.

NEAR-EARTH ENVIRONMENT: Energetic electron fluence at geostationary orbit was high on June 1 and is expected to be high for today. Aside from a few excursions below the 1000 pfu threshold, energetic electron flux has been exceeding the threshold level since May 29 12:40 UT. Visit <http://www.spaceweather.gc.ca/sffl-eng.php> for electron fluence forecast.

GEOMAGNETIC: 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 subauroral zone. Activity is forecast to be unsettled with stormy intervals in the polar zone, active in the auroral zone, and quiet in the subauroral zone. Visit <http://www.spaceweather.gc.ca/sfst-1-eng.php> for the most recent magnetic forecast.

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From: Lam, Hing-Lan [mailto:Hing-Lan.Lam@NRCan-RNCan.gc.ca]

Sent: June-03-11 10:50 AM

To:

Subject: Space Weather Bulletin - June 3, 2011

Space Weather Bulletin - June 3, 2011 issued by the Canadian Space Weather Forecast Centre at 14:45 UT (09:45 EST)

SOLAR: Solar activity has been low. Coronal hole effects might be felt in 1-2 days. The sunspot number was 118, and the 10.7 cm solar flux was 112 sfu on June 2.

INTERPLANETARY: The solar wind speed has been steady at ~400 km/s (June 2 15:00UT – current). The IMF B_z was observed to fluctuate between -3 and +3 nT (June 2 15:00UT – current).

NEAR-EARTH ENVIRONMENT: Energetic electron fluence at geostationary orbit was high on June 2, and is expected to be high for today. Aside from a few excursions below the 1000 pfu threshold, energetic electron flux has been exceeding the threshold level since May 29 12:40 UT. Visit <http://www.spaceweather.gc.ca/sffl-eng.php> for electron fluence forecast.

GEOMAGNETIC: 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. 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 subauroral zone. Visit <http://www.spaceweather.gc.ca/sfst-1-eng.php> for the most recent magnetic forecast.

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From: Lam, Hing-Lan [mailto:Hing-Lan.Lam@NRCan-RNCan.gc.ca]

Sent: June-04-11 1:21 PM

To:

Subject: Space Weather Bulletin - June 4, 2011

Space Weather Bulletin - June 4, 2011 issued by the Canadian Space Weather Forecast Centre at 17:15 UT (12:15 EST)

SOLAR: Solar activity has been low. The sunspot number was 122 and the 10.7 cm solar flux was 107 sfu on June 3.

INTERPLANETARY: The solar wind speed has been decreasing from ~400 km/s to ~300 km/s (June 3 15:00UT – current). The IMF B_z was observed to fluctuate between -3 and +3 nT (June 3 15:00UT – current), and has been northward for the past 6 hours.

NEAR-EARTH ENVIRONMENT: Energetic electron fluence at geostationary orbit was high on June 3, and is expected to be high for today. Aside from a few excursions below the 1000 pfu threshold, energetic electron flux has been exceeding the threshold level since May 29 12:40 UT. Visit <http://www.spaceweather.gc.ca/sffl-eng.php> for electron fluence forecast.

GEOMAGNETIC: 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. Activity is forecast to be quiet with active intervals in the polar zone, quiet in the auroral zone, and quiet in the subauroral zone. Visit <http://www.spaceweather.gc.ca/sfst-1-eng.php> for the most recent magnetic forecast.

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From: Lam, Hing-Lan [mailto:Hing-Lan.Lam@NRCan-RNCan.gc.ca]

Sent: June-05-11 2:37 PM

To:

Subject: Space Weather Bulletin - June 5, 2011

Space Weather Bulletin - June 5, 2011 issued by the Canadian Space Weather Forecast Centre at 18:30 UT (01:30 EST)

SOLAR: Solar activity has been low. The sunspot number was 116 and the 10.7 cm solar flux was 103 sfu on June 4.

INTERPLANETARY: The solar wind speed had been increasing from ~300 km/s to ~550 km/s (June 4 15:00UT – transition hours) before steadily decreasing to the current ~450 km/s. The IMF B_z was observed to fluctuate between -20 and +20 nT (June 3 15:00UT – current) with the largest excursions during transition hours. Enhancement of low energy solar energetic particles reached a maximum at ~ June 4 20:00 UT, which was precursor of stormy conditions beginning ~ 00:00 UT that resulted in the issuing of storm watch for 02:00-04:00 UT.

NEAR-EARTH ENVIRONMENT: Energetic electron fluence at geostationary orbit was high on June 4, and is expected to be low for today. Visit <http://www.spaceweather.gc.ca/sffl-eng.php> for electron fluence forecast.

GEOMAGNETIC: 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 subauroral zone. 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 subauroral zone. A sudden impulse occurred June 4 20:45 UT. Storm watch was issued for June 5 02:00-04:00 UT. Visit <http://www.spaceweather.gc.ca/sfst-1-eng.php> for the most recent magnetic forecast.

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From: Lam, Hing-Lan [mailto:Hing-Lan.Lam@NRCan-RNCan.gc.ca]

Sent: June-06-11 10:32 AM

To:

Subject: Space Weather Bulletin - June 6, 2011

Space Weather Bulletin - June 6, 2011 issued by the Canadian Space Weather Forecast Centre at 14:30 UT (09:30 EST)

SOLAR: Solar activity has been very low. The sunspot number was 74 and the 10.7 cm solar flux was 103 sfu on June 5.

INTERPLANETARY: The solar wind speed had been steadily decreasing from ~450 km/s to ~420 km/s (June 5 15:00UT – current). The IMF B_z was observed to fluctuate between -3 and +5 nT (June 5 15:00UT – current).

NEAR-EARTH ENVIRONMENT: Energetic electron fluence at geostationary orbit was low on June 5, and is expected to be moderate for today. Visit <http://www.spaceweather.gc.ca/sffl-eng.php> for electron fluence forecast.

GEOMAGNETIC: 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 subauroral zone. 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 subauroral zone. Visit <http://www.spaceweather.gc.ca/sfst-1-eng.php> for the most recent magnetic forecast.

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From: Fiori, Robyn [mailto:Robyn.Fiori@NRCan-RNCan.gc.ca]

Sent: June-07-11 1:09 PM

To:

Subject: Space Weather Bulletin - June 07, 2011

Space Weather Bulletin - June 07, 2011 issued by the Canadian Space Weather Forecast Centre at 17:15 UT (13:15 EDT)

SOLAR: Solar activity has been moderate. An M2.5 flare erupted at June 06, 2011 06:24 UT, and its effects are expected to be observed on the Earth in approximately 3 days. The sunspot number was 67, and the solar 10.7 cm flux was 102 on June 06, 2011.

INTERPLANETARY: Interplanetary activity is low. The solar wind speed decreased from 450 km/s to 400 km/s from June 06, 2011 15:00 UT to June 07, 2011 15:00 UT. The IMF Bz is currently between +5 nT and -5 nT.

NEAR-EARTH ENVIRONMENT: Energetic electron fluence at geostationary orbit was at moderate levels yesterday and is expected to be at high levels today. Visit <http://www.spaceweather.gc.ca/sffl-eng.php> for the electron forecast.

GEOMAGNETIC: Geomagnetic activity has been quiet with stormy intervals in the polar zone, quiet with unsettled intervals in the auroral zone, and quiet in the subauroral zone. Activity is forecast to be quiet with active intervals in the polar zone, quiet in the auroral zone, and quiet in the subauroral zone. Visit <http://www.spaceweather.gc.ca/sfst-1-eng.php> for magnetic forecast.

Please consult our website for more information: www.spaceweather.gc.ca

Previous bulletins and a brief explanation of terms and space weather effects are available at: [insert link when available](#)

Space weather scientist

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From: Fiori, Robyn [mailto:Robyn.Fiori@NRCan-RNCan.gc.ca]

Sent: June-07-11 1:59 PM

To:

Subject: Space Weather Bulletin - June 07, 2011 - UPDATE

Space Weather Bulletin - June 07, 2011 issued by the Canadian Space Weather Forecast Centre at 17:55 UT (13:55 EDT)

SOLAR: Solar eruptive activity is currently high. A full HALO CME was detected at June 07 06:49 UT, and its effects are expected to be observed on the Earth in approximated 48 hours.

Please consult our website for more information: www.spaceweather.gc.ca

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From: Fiori, Robyn [mailto:Robyn.Fiori@NRCan-RNCan.gc.ca]

Sent: June-08-11 8:48 AM

To:

Subject: Space Weather Bulletin - June 08, 2011

Space Weather Bulletin - June 07, 2011 issued by the Canadian Space Weather Forecast Centre at 12:30 UT (08:30 EDT)

SOLAR: Solar activity has been moderate. An M2.5 flare erupted at June 06, 2011 06:24 UT, and its effects are expected to be observed on the Earth on June 08, 2011. A full HALO CME was detected at Jun 07 06:49 UT, and its effects are expected to be observed on the Earth in on June 08, 2011. The sunspot number was 67, and the solar 10.7 cm flux was 58 on June 07, 2011.

INTERPLANETARY: Interplanetary activity is low. The solar wind speed has been increasing from 400 km/s to 550 km/s from June 06, 2011 13:00 UT to June 07, 2011 12:00 UT. The solar wind speed with variable at a speed of between 350 and 450 km/s for June 07, 2011 08:15 UT to June 07, 2011 10:45 UT. The IMF Bz was observed to fluctuate between -10 nT and +5 nT June 06, 2011 13:00 UT to June 07, 2011 12:30 UT.

NEAR-EARTH ENVIRONMENT: Energetic electron fluence at geostationary orbit was at moderate levels yesterday and is expected to be at moderate levels today. Visit <http://www.spaceweather.gc.ca/sffl-eng.php> for the electron forecast.

GEOMAGNETIC: 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. 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 subauroral zone. Visit <http://www.spaceweather.gc.ca/sfst-1-eng.php> for magnetic forecast.

Please consult our website for more information: www.spaceweather.gc.ca

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From: Fiori, Robyn [mailto:Robyn.Fiori@NRCan-RNCan.gc.ca]

Sent: June-09-11 2:48 PM

To:

Subject: Space Weather Bulletin - June 09, 2011

Space Weather Bulletin - June 09, 2011 issued by the Canadian Space Weather Forecast Centre at 18:45 UT (14:45 EDT)

SOLAR: Solar activity has been low. A coronal hole is detected, and its effects are expected to be observed on the Earth in 3 days. The sunspot number was 45, and the solar 10.7 cm flux was 92 sfu on June 08, 2011.

INTERPLANETARY: The solar wind speed decreased from ~500 km/s to 350 km/s from June 08, 2011 19:00 UT to June 09, 2011 18:30 UT. The IMF Bz was ~-5nT from June 08, 2011 19:00 to June 09, 2011 18:30 UT.

NEAR-EARTH ENVIRONMENT: Energetic electron fluence at geostationary orbit was at low levels yesterday, and is expected to be at low levels today. Visit <http://www.spaceweather.gc.ca/sffl-eng.php> for the electron forecast.

GEOMAGNETIC: 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 subauroral zone. 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 subauroral zone. Visit <http://www.spaceweather.gc.ca/sfst-1-eng.php> for magnetic forecast.

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-----Original Message-----

From: Fiori, Robyn [<mailto:Robyn.Fiori@NRCan-RNCan.gc.ca>]

Sent: June-11-11 11:53 AM

To:

Subject: Space Weather Bulletin - June 11, 2011

Space Weather Bulletin - June 11, 2011 issued by the Canadian Space Weather Forecast Centre at 16:00 UT (12:00 EDT)

SOLAR: Solar activity has been low. A partial-halo CME was detected June 10, 2011 20:00 UT significant effects are not expected to be observed on the Earth. The sunspot number was 35 and the solar 10.7 cm flux was 89 sfu on June 09.

INTERPLANETARY: Interplanetary activity is low. The solar wind speed is slow (<500 m/s). The IMF Bz has been fluctuating between -5 nT and +5 nT from June 10, 2011 16:00 UT to current.

NEAR-EARTH ENVIRONMENT: Energetic electron fluence at geostationary orbit was at high levels yesterday and is expected to be at high levels today. Visit <http://www.spaceweather.gc.ca/sffl-eng.php> <<https://email.nrca.gc.ca/exchweb/bin/redirect.asp?URL=http://www.spaceweather.gc.ca/sffl-eng.php>> for the electron forecast.

GEOMAGNETIC: 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 subauroral zone. 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 subauroral zone. Visit <http://www.spaceweather.gc.ca/sfst-1-eng.php> <<https://email.nrca.gc.ca/exchweb/bin/redirect.asp?URL=http://www.spaceweather.gc.ca/sfst-1-eng.php>> for magnetic forecast.

Please consult our website for more information: www.spaceweather.gc.ca
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-----Original Message-----

From: Fiori, Robyn [<mailto:Robyn.Fiori@NRCan-RNCan.gc.ca>]

Sent: June-12-11 3:07 PM

To:

Subject: Space Weather Bulletin - June 12, 2011

Space Weather Bulletin - June 12, 2011 issued by the Canadian Space Weather Forecast Centre at 19:00 UT (15:00 EDT)

SOLAR: Solar activity has been low.

INTERPLANETARY: Interplanetary activity is low. The solar wind speed is steady and slow (<500 m/s). The IMF Bz has been fluctuating between -4 nT and +4 nT from June 11, 2011 20:00 UT to current.

NEAR-EARTH ENVIRONMENT: Energetic electron fluence at geostationary orbit was at moderate levels yesterday and is expected to be at moderate levels today. Visit <http://www.spaceweather.gc.ca/sffl-eng.php> for the electron forecast.

GEOMAGNETIC: 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 subauroral zone. Activity is forecast to be active with stormy intervals in the polar zone, quiet with unsettled intervals in the auroral zone, and quiet in the subauroral zone. Visit <http://www.spaceweather.gc.ca/sfst-1-eng.php> for magnetic forecast.

Please consult our website for more information: www.spaceweather.gc.ca
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From: Fiori, Robyn [mailto:Robyn.Fiori@NRCan-RNCan.gc.ca]

Sent: June-13-11 1:42 PM

To:

Subject: Space Weather Bulletin - June 13, 2011

Space Weather Bulletin - June 13, 2011 issued by the Canadian Space Weather Forecast Centre at 17:45 UT (13:45 EDT)

SOLAR: Solar activity has been low. A coronal hole is detected and its effects are currently being observed on the Earth.

INTERPLANETARY: Interplanetary activity is low. The solar wind speed is slow (<500 m/s). The IMF Bz was observed to fluctuate between -5 nT and +5 nT from June 12, 18:00 UT to current.

NEAR-EARTH ENVIRONMENT: Energetic electron fluence at geostationary orbit was at moderate levels yesterday and is expected to be at moderate levels today. Visit <http://www.spaceweather.gc.ca/sffl-eng.php> for the electron forecast.

GEOMAGNETIC: 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 subauroral zone. Activity is forecast to be unsettled with stormy intervals in the polar zone, unsettled in the auroral zone, and quiet in the subauroral zone.

Please consult our website for more information: [http:// HYPERLINK](http://HYPERLINK)
["file:///\\www.spaceweather.gc.ca"](file:///\\www.spaceweather.gc.ca) \o ["file:///www.spaceweather.gc.ca/"](file:///www.spaceweather.gc.ca/)
www.spaceweather.gc.ca

Previous bulletins and a brief explanation of terms and space weather effects are available at [\(insert link when available\)](#).

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From: Fiori, Robyn [mailto:Robyn.Fiori@NRCan-RNCan.gc.ca]

Sent: June-14-11 2:38 PM

To:

Subject: Space Weather Bulletin - June 14, 2011

Space Weather Bulletin - June 14, 2011 issued by the Canadian Space Weather Forecast Centre at 18:45 UT (14:45 EDT)

SOLAR: Solar activity has been low.

INTERPLANETARY: Interplanetary activity is moderate. The solar wind speed increased from slow values of ~450 km/s to moderate values of 550 km/s June 12, 2011 19:00 UT to current due to coronal hole effects. The IMF Bz was observed to fluctuate between -5 nT and +5 nT from June 13, 19:00 UT to current.

NEAR-EARTH ENVIRONMENT: Energetic electron fluence at geostationary orbit was at low levels yesterday and is expected to be at moderate levels today. Visit <http://www.spaceweather.gc.ca/sffl-eng.php> for the electron forecast.

GEOMAGNETIC: 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. 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 subauroral zone.

Please consult our website for more information: <http://www.spaceweather.gc.ca>

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From: Fiori, Robyn [mailto:Robyn.Fiori@NRCan-RNCan.gc.ca]

Sent: June-15-11 8:17 AM

To:

Subject: Space Weather Bulletin - June 15, 2011

Space Weather Bulletin - June 15, 2011 issued by the Canadian Space Weather Forecast Centre at 12:30 UT (08:30 EDT)

SOLAR: Solar activity has been low. An M1.3 flare erupted at June 14, 2011 21:42 UT and its effects are expected to be observed on the Earth in approximately 3 days. A CME was detected at June 14, 2011 07:00 UT, significant effects are not expected to be observed on the Earth.

INTERPLANETARY: Interplanetary activity is low. The solar wind speed decreased from moderate values of ~580 km/s to slow values of 480 km/s June 14, 2011 13:00 UT as the effect of the coronal hole diminishes. The IMF Bz was observed to fluctuate between -3 nT and +5 nT from June 14, 13:00 UT to current.

NEAR-EARTH ENVIRONMENT: Energetic electron fluence at geostationary orbit was at moderate levels yesterday and is expected to be at moderate levels today. Visit <http://www.spaceweather.gc.ca/sffl-eng.php> for the electron forecast.

GEOMAGNETIC: Geomagnetic activity has been unsettled with stormy intervals in the polar zone, quiet with stormy intervals in the auroral zone, and quiet in the subauroral zone. Activity is forecast to be unsettled with stormy intervals in the polar zone, quiet with active intervals in the auroral zone, and quiet in the subauroral zone.

Please consult our website for more information: <http://www.spaceweather.gc.ca>

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From: Fiori, Robyn [mailto:Robyn.Fiori@NRCan-RNCan.gc.ca]

Sent: June-15-11 2:57 PM

To:

Subject: Space Weather Bulletin - June 15, 2011 - UPDATE

Space Weather Bulletin - June 15, 2011 issued by the Canadian Space Weather Forecast Centre at 19:30 UT (15:00 EDT)

SOLAR: A partial halo CME was detected at June 14, 2011 07:00 UT effects are expected to be observed at the Earth on June 17, 2011 days.

Space Weather Scientist

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From: Fiori, Robyn [mailto:Robyn.Fiori@NRCan-RNCan.gc.ca]

Sent: June-16-11 3:11 PM

To:

Subject: Space Weather Bulletin - June 16, 2011

Space Weather Bulletin - June 16, 2011 issued by the Canadian Space Weather Forecast Centre at 19:15 UT (15:15 EDT)

Currently, there are no storm watches or warnings in effect.

SOLAR: Solar activity has been low. An M1.3 flare erupted June 14, 2011 21:42 UT. Effects from solar flares are expected to be observed on the Earth in 3 days.

INTERPLANETARY: The solar wind speed is currently slow (<500 km/s). The IMF Bz was observed to fluctuate at low ($|Bz| < 5$ nT) levels.

IONOSPHERIC: Ionospheric activity is moderate.

GEOMAGNETIC: Geomagnetic activity is currently quiet. Visit

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

Please consult our website for more information: [http:// HYPERLINK](http://HYPERLINK)

["file:///\\www.spaceweather.gc.ca" \o "file:///www.spaceweather.gc.ca/"](file:///\\www.spaceweather.gc.ca\)

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-----Original Message-----

From: Trichtchenko, Larisa [<mailto:Larisa.Trichtchenko@NRCan-RNCan.gc.ca>]

Sent: June-17-11 3:29 PM

To:

Subject: Space Weather Bulletin - June 17, 2011

Space Weather Bulletin - June 2, 2011 issued by the Canadian Space Weather Forecast Centre at 19:00 UT (15:00 EST)

SOLAR: Solar activity has been low. Several coronal holes are located near the center of the solar disk. Their effects might be experienced in 3-7 days. The active region near the east part of solar disk has produced two X-ray flares and will be rotating into the central part of the solar disk with some potential to produce more eruptive activity.

INTERPLANETARY: The solar wind speed is elevated (~ 500 km/sec) due to high speed streams from coronal holes. The shock has been observed at about 03:00 today as a result of June 14th partial halo CME.

The IMF Bz is fluctuating between -5 and +5 nT (normally -2 to +2 nT). Enhancements of low energy solar energetic particles began yesterday due to effects of solar activity 3-4 days ago and of high energy particles accelerated by a shock this morning.

NEAR-EARTH ENVIRONMENT: Energetic electron fluence at geostationary orbit is high and is expected to be high for today. Visit <http://www.spaceweather.gc.ca/sffl-eng.php> <<http://www.spaceweather.gc.ca/sffl-eng.php>> for electron fluence forecast.

GEOMAGNETIC and IONOSPHERE : Geomagnetic activity has been quiet with stormy intervals in the polar zone and auroral zone, and quiet with unsettled intervals in the subauroral zone. Ionospheric absorption has been seen at several auroral observatories associated with geomagnetic activity.

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

Please consult our website for more information: www.spaceweather.gc.ca <<file:///www.spaceweather.gc.ca>>

Space weather scientist
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-----Original Message-----

From: Trichtchenko, Larisa [<mailto:Larisa.Trichtchenko@NRCan-RNCan.gc.ca>]

Sent: June-18-11 7:45 PM

To:

Subject: Space Weather Bulletin - June 18, 2011

Space Weather Bulletin - June 18, 2011 issued by the Canadian Space Weather Forecast Centre at 24:00 UT (20:00 EST)

SOLAR: Solar activity has been low. Several coronal holes are located near the center of the solar disk. Their effects might be experienced in 3-7 days. The large active region is rotated to the central part of the solar disk with some potential to produce more eruptive activity.

INTERPLANETARY: The solar wind speed is decreasing (currently ~ 400 km/sec). The IMF Bz is fluctuating between -5 and +5 nT (normally -2 to +2 nT). Enhancements of low energy solar wind energetic particles which began yesterday are decreasing back to normal.

NEAR-EARTH ENVIRONMENT: Energetic electron fluence at geostationary orbit is close to normal. Visit <http://www.spaceweather.gc.ca/sffl-eng.php> <<http://www.spaceweather.gc.ca/sffl-eng.php>> for electron fluence forecast.

GEOMAGNETIC: Geomagnetic activity has been quiet with stormy intervals in polar zone and quiet with unsettled intervals in auroral zone, and quiet in subauroral zone. Geomagnetic activity forecast is quiet with stormy intervals in polar and auroral zones, quiet with unsettled intervals in the subauroral zone.

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

-----Original Message-----

From: Trichtchenko, Larisa [<mailto:Larisa.Trichtchenko@NRCan-RNCan.gc.ca>]

Sent: June-19-11 6:10 PM

To:

Subject: Space Weather Bulletin - June 19, 2011

Space Weather Bulletin - June 19, 2011 issued by the Canadian Space Weather Forecast Centre at 22:00 UT (18:00 EST)

SOLAR: Solar activity has been low. Large coronal hole is located near the center of the solar disk. Its effect might be experienced in 3-4 days. The large active region is rotated to the central part of the solar disk with some potential to produce eruptive activity.

INTERPLANETARY: The solar wind speed is decreasing (currently ~ 400 km/sec). The IMF Bz is fluctuating between -5 and +5 nT (normally -2 to+2 nT). Low energy solar wind energetic particles are decreasing back to normal.

NEAR-EARTH ENVIRONMENT: Energetic electron fluence at geostationary orbit is close to normal. Visit <http://www.spaceweather.gc.ca/sffl-eng.php> <<http://www.spaceweather.gc.ca/sffl-eng.php>> for electron fluence forecast.

GEOMAGNETIC: Geomagnetic activity has been quiet with active intervals in polar zone and quiet with unsettled intervals in auroral zone, and quiet in subauroral zone. Geomagnetic activity forecast is quiet with active intervals in polar and auroral zones, quiet in the subauroral zone.

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

-----Original Message-----

From: Trichtchenko, Larisa [<mailto:Larisa.Trichtchenko@NRCan-RNCan.gc.ca>]

Sent: June-20-11 4:31 PM

To:

Subject: Space Weather Bulletin - June 20, 2011

Space Weather Bulletin - June 20, 2011 issued by the Canadian Space Weather Forecast Centre at 21:00 UT (17:00 EST)

SOLAR: Solar activity has been low. Large coronal hole is located near the center of the solar disk. Its effect might be experienced in 3-4 days. The large active region is located in the central part of the solar disk with some potential to produce eruptive activity.

CORRECTION to solar activity for June 19. Partial halo CME has been observed on the Sun from active region located not at the center of the solar disk (low geoeffectiveness). Some moderate effect might be expected in the interplanetary media and geomagnetic field in 3-5 days.

INTERPLANETARY: The solar wind speed is steady at slightly elevated level ~ 400 km/sec. The IMF Bz is fluctuating between -5 and +5 nT (normally -2 to +2 nT). Low energy solar wind energetic particles are decreasing back to normal.

NEAR-EARTH ENVIRONMENT: Energetic electron fluence at geostationary orbit is close to normal. Visit <http://www.spaceweather.gc.ca/sffl-eng.php> <<http://www.spaceweather.gc.ca/sffl-eng.php>> for electron fluence forecast.

GEOMAGNETIC: Geomagnetic activity has been quiet with stormy intervals in polar zone and quiet with active intervals in auroral zone, and quiet in subauroral zone. Geomagnetic activity forecast is quiet with active intervals in polar and auroral zones, quiet in the subauroral zone.

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

Space weather scientist
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-----Original Message-----

From: Trichtchenko, Larisa [<mailto:Larisa.Trichtchenko@NRCan-RNCan.gc.ca>]

Sent: June-21-11 10:25 PM

To:

Subject: Space Weather Bulletin - June 21, 2011

Space Weather Bulletin - June 21, 2011 issued by the Canadian Space Weather Forecast Centre at 22:26 Ottawa summer time. (confusion has occurred with regard to EST-Eastern Standard or Eastern Summer?)

No storm watch is in effect. Expect increase in geomagnetic activity on 23-24-25 June due to several CME (most geoeffective on June 21 with expected effects on June 24).

SOLAR: Solar activity has been moderate. Large coronal hole is located near the center of the solar disk. Its effect starts to be seen in solar wind speed. The large active region located in the central part of the solar disk has produce long duration flare and earth-directed CME early in the morning.

INTERPLANETARY: The solar wind speed has slightly elevated level ~ 500-450 km/sec. The IMF Bz is fluctuating between -2 and +2 nT.

NEAR-EARTH ENVIRONMENT: Energetic electron fluence at geostationary orbit is normal. Visit <http://www.spaceweather.gc.ca/sffl-eng.php> <<http://www.spaceweather.gc.ca/sffl-eng.php>> for electron fluence forecast.

GEOMAGNETIC: Geomagnetic activity has been unsettled with stormy intervals in polar zone and in auroral zone, and quiet in subauroral zone. Geomagnetic activity forecast is unsettled in polar and auroral zones, quiet in the subauroral zone.

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

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-----Original Message-----

From: Trichtchenko, Larisa [<mailto:Larisa.Trichtchenko@NRCan-RNCan.gc.ca>]

Sent: June-22-11 2:27 PM

To:

Subject: Space Weather Bulletin - June 22, 2011 issued by the Canadian Space Weather Forecast Centre at 18:07 UT (14:07 EDT)

Space Weather Bulletin - June 22, 2011 issued by the Canadian Space Weather Forecast Centre at 14:07 EDT (18:07 UT).

There is currently no storm watch in effect. Expect increase in geomagnetic activity on 23-24-25 June due to several CME (most geoeffective on June 21 with expected effects on June 24).

SOLAR: Solar activity has been low. Large coronal hole is located near the center of the solar disk. Several active region located close the central part of the solar disk.

INTERPLANETARY: Low to moderate. The solar wind speed has elevated level ~ 500 km/sec. The IMF Bz is fluctuating between -5 and +7 nT.

NEAR-EARTH ENVIRONMENT: Energetic electron fluence at geostationary orbit is normal. Visit <http://www.spaceweather.gc.ca/sffl-eng.php> <<http://www.spaceweather.gc.ca/sffl-eng.php>> for electron fluence forecast.

GEOMAGNETIC: Geomagnetic activity has been unsettled with stormy intervals in polar zone and in auroral zone, and quiet with unsettled intervals in subauroral zone. Geomagnetic activity forecast is unsettled with stormy intervals in polar zone, active with stormy intervals in auroral zone, quiet with stormy intervals in the subauroral zone.

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

Space weather scientist
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-----Original Message-----

From: Trichtchenko, Larisa [<mailto:Larisa.Trichtchenko@NRCan-RNCan.gc.ca>]

Sent: June-23-11 12:25 PM

To:

Subject: Space Weather Bulletin - June 23, 2011 issued by the Canadian Space Weather Forecast Centre at 16:07 UT (12:21 EDT)

COMMENT:

Dear duty forecasters. There is some deficit of phrases in the overview part of developed table with regard to description of current activity. L.T.

Space Weather Bulletin - June 23, 2011 issued by the Canadian Space Weather Forecast Centre at 16:21 EDT (12:21 UT).

Overview:

There is currently no storm watch in effect. Effects from CME are expected to be observed on June 24-25. Effects from coronal holes and other CME are currently observed in polar (active) and auroral (stormy) zones. See our website for detailed current information.

SOLAR: Solar activity has been very low. Small coronal hole is located near the center of the solar disk. Several active region located close the central part of the solar disk.

INTERPLANETARY: moderate to high. The solar wind speed has elevated level ~ 500 to 700 km/sec. The IMF Bz is fluctuating between -10 and +10 nT.

NEAR-EARTH ENVIRONMENT: Energetic electron fluence at geostationary orbit is elevated. Visit <http://www.spaceweather.gc.ca/sffl-eng.php> <<http://www.spaceweather.gc.ca/sffl-eng.php>> for electron fluence forecast.

GEOMAGNETIC: Geomagnetic activity has been unsettled with stormy intervals in polar zone and active with stormy intervals in auroral zone, and unsettled with active intervals in subauroral zone. Geomagnetic activity forecast is active with stormy intervals in polar zone, active with stormy intervals in auroral zone, unsettled with stormy intervals in the subauroral zone.

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

Space weather scientist

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-----Original Message-----

From: Trichtchenko, Larisa [<mailto:Larisa.Trichtchenko@NRCan-RNCan.gc.ca>]

Sent: June-24-11 7:40 PM

To:

Subject: Space Weather Bulletin - June 24, 2011 issued by the Canadian Space Weather Forecast Centre at 23:30 UT (19:30 EDT)

Space Weather Bulletin - June 24, 2011 issued by the Canadian Space Weather Forecast Centre at 17:30 UT (13:30 EDT).

Overview:

There is currently no storm watch in effect. Effects from coronal holes are currently observed in polar (active)zone.

SOLAR: Solar activity has been very low. There are 4 active regions visible on the solar disk. One coronal holes is located near the centre of the solar disk. One coronal hole is located near the edge of the solar disk.

INTERPLANETARY: moderate. The solar wind speed is decreasing (currently ~ 600 km/s). The interplanetary magnetic field has been fluctuating at moderate ($5 < |B_z| < 5$ nT) levels.

NEAR-EARTH ENVIRONMENT: Energetic electron fluence at geostationary orbit is elevated. Visit <http://www.spaceweather.gc.ca/sffl-eng.php> <<http://www.spaceweather.gc.ca/sffl-eng.php>> for electron fluence forecast.

GEOMAGNETIC: Geomagnetic activity has been unsettled with stormy intervals in polar zone and unsettled with active intervals in auroral zone, and quiet with unsettled intervals in subauroral zone. Geomagnetic activity forecast is active with stormy intervals in polar zone, active with stormy intervals in auroral zone, quiet in the subauroral zone.

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

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-----Original Message-----

From: Trichtchenko, Larisa [<mailto:Larisa.Trichtchenko@NRCan-RNCan.gc.ca>]

Sent: June-25-11 3:32 PM

To:

Subject: Space Weather Bulletin - June 25, 2011 issued by the Canadian Space Weather Forecast Centre at 19:30 UT (15:30 EDT)

Space Weather Bulletin - June 25, 2011 issued by the Canadian Space Weather Forecast Centre at 19:30 UT (15:30 EDT).

OVERVIEW: There is currently no storm watch in effect. Effects from coronal holes are currently observed in polar (stormy)zone.

SOLAR: Solar activity has been very low. There are 4 active regions visible on the solar disk. Two coronal holea are located near the centre of the solar disk.

INTERPLANETARY: moderate. The solar wind speed is decreasing (currently ~ 600 km/s). The interplanetary magnetic field has been fluctuating at moderate ($5 < |B_z| < 5$ nT) levels.

NEAR-EARTH ENVIRONMENT: Energetic electron fluence at geostationary orbit was at high level June 24, 2011 and is expected to be at high levels today. Visit <http://www.spaceweather.gc.ca/sffl-eng.php> for electron fluence forecast.

GEOMAGNETIC: Geomagnetic activity has been unsettled with stormy intervals in polar zone and unsettled with active intervals in auroral zone, and quiet with unsettled intervals in subauroral zone. Geomagnetic activity forecast is active with stormy intervals in polar zone, unsettled with active intervals in auroral zone, quiet in the subauroral zone.

Visit <http://www.spaceweather.gc.ca/sfst-1-eng.php> for the most recent geomagnetic forecast.

Space weather scientist
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-----Original Message-----

From: Trichtchenko, Larisa [<mailto:Larisa.Trichtchenko@NRCan-RNCan.gc.ca>]

Sent: June-26-11 11:36 AM

To:

Subject: Space Weather Bulletin - June 26, 2011 issued by the Canadian Space Weather Forecast Centre at 15:30 UT (11:30 EDT)

Space Weather Bulletin - June 26, 2011 issued by the Canadian Space Weather Forecast Centre at 15:30 UT (11:30 EDT).

OVERVIEW: There is currently no storm watch in effect. Effects from coronal holes are currently observed in polar zone.

SOLAR: Solar activity has been very low. There are 2 active regions visible on the solar disk. One coronal hole is located near the centre of the solar disk.

INTERPLANETARY: moderate to low. The solar wind speed is decreasing (currently ~ 500 km/s). The interplanetary magnetic field has been fluctuating at moderate ($5 < |B_z| < 5$ nT) levels.

NEAR-EARTH ENVIRONMENT: Energetic electron fluence at geostationary orbit was at high level June 25, 2011 and is expected to be at high levels today. Visit <http://www.spaceweather.gc.ca/sffl-eng.php> for electron fluence forecast.

GEOMAGNETIC: Geomagnetic activity has been unsettled with stormy intervals in polar zone and quiet with active intervals in auroral zone, and quiet with active intervals in subauroral zone. Geomagnetic activity forecast is unsettled with stormy intervals in polar zone, quiet with unsettled intervals in auroral zone, quiet in the subauroral zone.

Visit <http://www.spaceweather.gc.ca/sfst-1-eng.php> for the most recent geomagnetic forecast.

Space weather scientist
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-----Original Message-----

From: Trichtchenko, Larisa [<mailto:Larisa.Trichtchenko@NRCan-RNCan.gc.ca>]

Sent: June-27-11 10:01 AM

To:

Subject: Space Weather Bulletin - June 27, 2011 issued by the Canadian Space Weather Forecast Centre at 10:00 UT (10:00 EDT)

Space Weather Bulletin - June 26, 2011 issued by the Canadian Space Weather Forecast Centre at 14:00 UT (10:00 EDT).

OVERVIEW: There is currently no storm watch in effect. Effects from coronal holes are currently observed in polar zone.

SOLAR: Solar activity has been very low. There are 2 active regions visible on the solar disk. One coronal hole is located near the centre of the solar disk.

INTERPLANETARY: low. The solar wind speed is decreasing (currently ~ 450 km/s). The interplanetary magnetic field has been fluctuating at moderate ($|B_z| < 2$ nT) levels.

NEAR-EARTH ENVIRONMENT: Energetic electron fluence at geostationary orbit was at high level June 26, 2011 and is expected to be at high levels today. Visit <http://www.spaceweather.gc.ca/sffl-eng.php> for electron fluence forecast.

GEOMAGNETIC: Geomagnetic activity has been quiet with stormy intervals in polar zone and quiet with stormy intervals in auroral zone, and quiet with unsettled intervals in subauroral zone. Geomagnetic activity forecast is quiet with active intervals in polar zone, quiet with unsettled intervals in auroral zone, quiet in the subauroral zone.

Visit <http://www.spaceweather.gc.ca/sfst-1-eng.php> for the most recent geomagnetic forecast.

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-----Original Message-----

From: Trichtchenko, Larisa [<mailto:Larisa.Trichtchenko@NRCan-RNCan.gc.ca>]

Sent: June-28-11 1:35 PM

To:

Subject: Space Weather Bulletin - June 28, 2011 issued by the Canadian Space Weather Forecast Centre at 17:00 UT (13:00 EDT)

Space Weather Bulletin - June 28, 2011 issued by the Canadian Space Weather Forecast Centre at 17:00 UT (13:00 EDT).

OVERVIEW: There is currently no storm watch in effect.

SOLAR: Solar activity has been very low. There is 1 active region visible on the solar disk. One coronal hole is located near the centre of the solar disk.

INTERPLANETARY: low. The solar wind speed is decreasing (currently ~ 400 km/s). The interplanetary magnetic field has been fluctuating at low ($|B_z| < 2$ nT) levels.

NEAR-EARTH ENVIRONMENT:

Energetic electron fluence at geostationary orbit was above threshold level June 22, 2011 and is expected to be above threshold level today. Visit <http://www.spaceweather.gc.ca/sffl-eng.php> for fluence forecast

GEOMAGNETIC: Geomagnetic activity has been quiet with stormy intervals in polar zone and quiet with active intervals in auroral zone, and quiet with unsettled intervals in subauroral zone. Geomagnetic activity forecast is quiet with active intervals in polar zone, quiet in auroral zone, quiet in the subauroral zone.

Visit <http://www.spaceweather.gc.ca/sfst-1-eng.php> for the most recent geomagnetic forecast.

Space weather scientist
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-----Original Message-----

From: Trichtchenko, Larisa [<mailto:Larisa.Trichtchenko@NRCan-RNCan.gc.ca>]

Sent: June-29-11 9:31 AM

To:

Subject: Space Weather Bulletin - June 29, 2011 issued by the Canadian Space Weather Forecast Centre at 13:30 UT (09:30 EDT)

Space Weather Bulletin - June 29, 2011 issued by the Canadian Space Weather Forecast Centre at 13:30 UT (09:30 EDT).

OVERVIEW: There is currently no storm watch in effect.

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

INTERPLANETARY: low. The solar wind speed is decreasing (currently ~ 300 km/s). The interplanetary magnetic field has been fluctuating at low ($|B_z| < 2$ nT) levels.

NEAR-EARTH ENVIRONMENT:

Energetic electron fluence at geostationary orbit was above threshold level June 28, 2011 and is expected to be above threshold level today. Visit <http://www.spaceweather.gc.ca/sffl-eng.php> for fluence forecast

GEOMAGNETIC: Geomagnetic activity has been quiet with active intervals in polar zone and quiet in auroral zone, and quiet with unsettled intervals in subauroral zone. Geomagnetic activity forecast is quiet with unsettled intervals in polar zone, quiet in auroral zone, quiet in the subauroral zone.

Visit <http://www.spaceweather.gc.ca/sfst-1-eng.php> for the most recent geomagnetic forecast.

Space weather scientist
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-----Original Message-----

From: Trichtchenko, Larisa [<mailto:Larisa.Trichtchenko@NRCan-RNCan.gc.ca>]

Sent: June-30-11 9:31 AM

To:

Cc: Hayek, Khalil

Subject: Space Weather Bulletin - June 30, 2011 issued by the Canadian Space Weather Forecast Centre at 13:30 UT (09:30 EDT)

Space Weather Bulletin - June 30, 2011 issued by the Canadian Space Weather Forecast Centre at 13:30 UT (09:30 EDT).

OVERVIEW: There is currently no storm watch in effect.

SOLAR: Solar activity has been very low. Two active regions and two coronal holes are located near the centre of the solar disk.

INTERPLANETARY: low. The solar wind speed is slow (~ 300 km/s). The interplanetary magnetic field has been fluctuating at medium ($|B_z| < 5$ nT) levels.

NEAR-EARTH ENVIRONMENT:

Energetic electron fluence at geostationary orbit was above threshold level June 29, 2011 and is expected to be below threshold level today. Visit <http://www.spaceweather.gc.ca/sffl-eng.php> for fluence forecast

GEOMAGNETIC: Geomagnetic activity has been quiet with active intervals in polar zone and quiet with unsettled intervals in auroral zone, and quiet in subauroral zone. Geomagnetic activity forecast is quiet with unsettled intervals in polar zone, quiet in auroral zone, quiet in the subauroral zone.

Visit <http://www.spaceweather.gc.ca/sfst-1-eng.php> for the most recent geomagnetic forecast.

Space weather scientist
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-----Original Message-----

From: Trichtchenko, Larisa [<mailto:Larisa.Trichtchenko@NRCan-RNCan.gc.ca>]

Sent: July-01-11 1:31 PM

To:

Cc:

Subject: Space Weather Bulletin - July 01, 2011 issued by the Canadian Space Weather Forecast Centre at 17:30 UT (13:30 EDT)

Space Weather Bulletin – July 1, 2011 issued by the Canadian Space Weather Forecast Centre at 17:30 UT (13:30 EDT).

OVERVIEW: There is currently no storm watch in effect. Effects from coronal holes are currently observed in polar (stormy), auroral (active) and subauroral (unsettled) zones.

SOLAR: Solar activity has been very low. There are 2 active regions visible on the solar disk. Two coronal holes are located near the center of the solar disk.

INTERPLANETARY: moderate to high. The solar wind speed is increasing (currently ~ 400 km/s). The interplanetary magnetic field has been fluctuating at high ($|B_z| < 10$ nT) levels.

NEAR-EARTH ENVIRONMENT: Energetic electron fluence at geostationary orbit was at high level June 30, 2011 and is expected to be at high levels today. Visit <http://www.spaceweather.gc.ca/sffl-eng.php> for electron fluence forecast.

GEOMAGNETIC: Geomagnetic activity has been unsettled with stormy intervals in polar zone and unsettled with stormy intervals in auroral zone, and quiet with unsettled intervals in subauroral zone. Geomagnetic activity forecast is unsettled with stormy intervals in polar zone, unsettled with stormy intervals in auroral zone, quiet with unsettled intervals in the subauroral zone.

Visit <http://www.spaceweather.gc.ca/sfst-1-eng.php> for the most recent geomagnetic forecast.

Space weather scientist
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-----Original Message-----

From: Trichtchenko, Larisa [<mailto:Larisa.Trichtchenko@NRCan-RNCan.gc.ca>]

Sent: July-02-11 9:26 AM

To:

Cc:

Subject: Space Weather Bulletin - July 02, 2011 issued by the Canadian Space Weather Forecast Centre at 13:30 UT (09:30 EDT)

Space Weather Bulletin - July 02, 2011 issued by the Canadian Space Weather Forecast Centre at 13:30 UT (09:30 EDT).

OVERVIEW: There is currently no storm watch in effect.

SOLAR: Solar activity has been very low. Two active regions and two coronal holes are located near the centre of the solar disk.

INTERPLANETARY: low. The solar wind speed is slow (~ 350 km/s). The interplanetary magnetic field has been fluctuating at medium ($|Bz| < 5$ nT) levels.

NEAR-EARTH ENVIRONMENT:

Energetic electron fluence at geostationary orbit was below threshold level July 01, 2011 and is expected to be below threshold level today. Visit <http://www.spaceweather.gc.ca/sffl-eng.php> for fluence forecast

GEOMAGNETIC: Geomagnetic activity has been quiet with stormy intervals in polar zone and quiet with stormy intervals in auroral zone, and quiet with unsettled intervals in subauroral zone. Geomagnetic activity forecast is quiet with active intervals in polar zone, quiet with unsettled intervals in auroral zone, quiet in the subauroral zone.

Visit <http://www.spaceweather.gc.ca/sfst-1-eng.php> for the most recent geomagnetic forecast.

Space weather scientist
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-----Original Message-----

From: Trichtchenko, Larisa [<mailto:Larisa.Trichtchenko@NRCan-RNCan.gc.ca>]

Sent: July-03-11 11:39 AM

To:

Cc:

Subject: Space Weather Bulletin - July 03, 2011 issued by the Canadian Space Weather Forecast Centre at 15:30 UT (11:30 EDT)

Space Weather Bulletin – July 3, 2011 issued by the Canadian Space Weather Forecast Centre at 15:30 UT (11:30 EDT).

OVERVIEW: There is currently no storm watch in effect. Effects from coronal holes are currently observed in polar (stormy) zone.

SOLAR: Solar activity has been medium. There are 2 active regions visible on the solar disk. Two small coronal holes are located near the centre of the solar disk.

INTERPLANETARY: moderate. The solar wind speed is slow (currently ~ 400 km/s). The interplanetary magnetic field has been fluctuating at medium ($|B_z| < 5$ nT) levels.

NEAR-EARTH ENVIRONMENT: Energetic electron fluence at geostationary orbit was below threshold level July 01, 2011 and is expected to be above threshold level today. Visit <http://www.spaceweather.gc.ca/sffl-eng.php> for fluence forecast

GEOMAGNETIC: Geomagnetic activity has been unsettled with active intervals in polar zone and quiet with stormy intervals in auroral zone and quiet with unsettled intervals in subauroral zone. Geomagnetic activity forecast is unsettled with stormy intervals in polar zone, unsettled in auroral zone, quiet in the subauroral zone.

Visit <http://www.spaceweather.gc.ca/sfst-1-eng.php> for the most recent geomagnetic forecast.

Space weather scientist
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-----Original Message-----

From: Trichtchenko, Larisa [<mailto:Larisa.Trichtchenko@NRCan-RNCan.gc.ca>]

Sent: July-04-11 9:51 AM

To:

Cc:

Subject: Space Weather Bulletin - July 04, 2011 issued by the Canadian Space Weather Forecast Centre at 13:30 UT (09:30 EDT)

Space Weather Bulletin – July 4, 2011 issued by the Canadian Space Weather Forecast Centre at 13:30 UT (09:30 EDT).

OVERVIEW: There is currently no storm watch in effect. Effects from coronal holes are currently observed in polar (active) and auroral (active) zones.

SOLAR: Solar activity has been medium. There are 3 active regions visible on the solar disk. Two small coronal holes are located near the centre of the solar disk.

INTERPLANETARY: moderate to low. The solar wind speed is slow (~ 400 km/s). The interplanetary magnetic field has been fluctuating at medium ($|B_z| < 5$ nT) levels.

NEAR-EARTH ENVIRONMENT: Energetic electron fluence at geostationary orbit was below threshold level July 01, 2011 and is expected to be below threshold level today. Visit <http://www.spaceweather.gc.ca/sffl-eng.php> for fluence forecast

GEOMAGNETIC: Geomagnetic activity has been unsettled with stormy intervals in polar zone and quiet with unsettled intervals in auroral zone and quiet with unsettled intervals in subauroral zone. Geomagnetic activity forecast is unsettled with stormy intervals in polar zone, quiet with unsettled intervals in auroral zone, quiet in the subauroral zone.

Visit <http://www.spaceweather.gc.ca/sfst-1-eng.php> for the most recent geomagnetic forecast

Space weather scientist
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-----Original Message-----

From: McKee, Lorne [<mailto:Lorne.McKee@NRCan-RNCan.gc.ca>]

Sent: July-05-11 11:05 AM

To:

Subject: Space Weather Bulletin - July 05, 2011 issued by the Canadian Space Weather Forecast Centre at 15:00 UT (11:00 EDT)

Space Weather Bulletin - July 5, 2011 issued by the Canadian Space Weather Forecast Centre at 15:00 UT (11:00 EDT).

This is for testing purposes. The final bulletin will also be produced in both official languages.

OVERVIEW: There is currently no storm watch in effect. Effects from coronal holes are currently observed in polar (active) and auroral (unsettled) zones.

SOLAR: Solar activity has been low. There are 3 active regions visible on the solar disk. Two small coronal holes are located near the centre of the solar disk.

INTERPLANETARY: Conditions moderate to low. The solar wind speed is slow (~ 400 km/s). The interplanetary magnetic field has been primarily negative at moderate ($5\text{nT} < |B_z| < 10\text{ nT}$) levels. Prolonged periods of negative interplanetary magnetic field are often associated with increased geomagnetic activity.

NEAR-EARTH ENVIRONMENT: Energetic electron fluence at geostationary orbit was below threshold level July 04, 2011 and is expected to be below threshold level today. Visit <http://www.spaceweather.gc.ca/sffl-eng.php> for fluence forecast

GEOMAGNETIC: Geomagnetic activity has been unsettled with stormy intervals in polar zone and unsettled with stormy intervals in auroral zone and quiet with stormy intervals in subauroral zone. Geomagnetic activity forecast is unsettled with active intervals in polar zone, unsettled with stormy intervals in auroral zone, quiet with unsettled intervals in the subauroral zone.

Visit <http://www.spaceweather.gc.ca/sfst-1-eng.php> for the most recent geomagnetic forecast

Space weather scientist
Lorne McKee

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Government of Canada/ Gouvernement du Canada

-----Original Message-----

From: McKee, Lorne [<mailto:Lorne.McKee@NRCan-RNCan.gc.ca>]

Sent: July-06-11 10:56 AM

To:

Cc:

Subject: Space Weather Bulletin - July 06, 2011 issued by the Canadian Space Weather Forecast Centre at 15:00 UT (11:00 EDT)

Space Weather Bulletin - July 6, 2011 issued by the Canadian Space Weather Forecast Centre at 15:00 UT (11:00 EDT).

This is for testing purposes. The final bulletin will also be produced in both official languages.

OVERVIEW: There is currently no storm watch in effect. Effects from coronal holes are currently observed in polar (active) and auroral (unsettled) zones. CMEs have been observed but are not expected to have effects on the Earth.

SOLAR: Solar activity has been low to moderate. There are 3 active regions visible on the solar disk. 2 small coronal holes are located near the centre of the solar disk.

INTERPLANETARY: Conditions moderate to low. The solar wind speed is slow (~ 400 km/s). The interplanetary magnetic field has been primarily negative at low ($2\text{nT} < |B_z| < 5\text{ nT}$) levels.

NEAR-EARTH ENVIRONMENT: Energetic electron fluence at geostationary orbit was below threshold level July 05, 2011 and is expected to be above threshold level today. Visit <http://www.spaceweather.gc.ca/sffl-eng.php> for fluence forecast

GEOMAGNETIC: Geomagnetic activity has been unsettled with stormy intervals in polar zone and unsettled with stormy intervals in auroral zone and quiet with active intervals in subauroral zone. Geomagnetic activity forecast is unsettled with active intervals in polar zone, unsettled with active intervals in auroral zone, quiet in the subauroral zone.

Visit <http://www.spaceweather.gc.ca/sfst-1-eng.php> for the most recent geomagnetic forecast

Space weather scientist
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-----Original Message-----

From: McKee, Lorne [<mailto:Lorne.McKee@NRCan-RNCan.gc.ca>]

Sent: July-07-11 12:01 PM

To:

Cc:

Subject: RE: Space Weather Bulletin - July 07, 2011 issued by the Canadian Space Weather Forecast Centre at 16:00 UT (12:00 EDT)

Space Weather Bulletin - July 7, 2011 issued by the Canadian Space Weather Forecast Centre at 16:00 UT (12:00 EDT).

This is for testing purposes. The final bulletin will also be produced in both official languages.

OVERVIEW: There is currently no storm watch in effect. CMEs have been observed but are not expected to have effects on the Earth.

SOLAR: Solar activity has been low to moderate. There are 2 active regions visible on the solar disk. 2 small coronal holes are located near the centre of the solar disk.

INTERPLANETARY: Conditions moderate to low. The solar wind speed is slow (~ 360 km/s).

NEAR-EARTH ENVIRONMENT: Energetic electron fluence at geostationary orbit was above threshold level July 06, 2011 and is expected to be above threshold level today. Visit <http://www.spaceweather.gc.ca/sffl-eng.php> for fluence forecast

GEOMAGNETIC: Geomagnetic activity has been quiet with stormy intervals in polar zone and quiet with active intervals in auroral zone and quiet with unsettled intervals in subauroral zone. Geomagnetic activity forecast is quiet with active intervals in polar zone, quiet with unsettled intervals in auroral zone, quiet in the subauroral zone.

Visit <http://www.spaceweather.gc.ca/sfst-1-eng.php> for the most recent geomagnetic forecast

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-----Original Message-----

From: McKee, Lorne [<mailto:Lorne.McKee@NRCan-RNCan.gc.ca>]

Sent: July-08-11 9:15 AM

To:

Cc:

Subject: RE: Space Weather Bulletin - July 08, 2011 issued by the Canadian Space Weather Forecast Centre at 13:15 UT (9:15 EDT)

Space Weather Bulletin - July 8, 2011 issued by the Canadian Space Weather Forecast Centre at 13:15 UT (9:15 EDT).

This is for testing purposes. The final bulletin will also be produced in both official languages.

OVERVIEW: There is currently no storm watch in effect.

SOLAR: Solar activity has been low. Two coronal holes are located near the centre of the solar disk.

INTERPLANETARY: Interplanetary activity has been low. The solar wind speed is slow (~ 350 km/s).

NEAR-EARTH ENVIRONMENT: Energetic electron fluence at geostationary orbit was above threshold level July 07, 2011 and is expected to be above threshold level today. Visit <http://www.spaceweather.gc.ca/sffl-eng.php> for fluence forecast

GEOMAGNETIC: Geomagnetic activity has been quiet with active intervals in polar zone and quiet with stormy intervals in auroral zone and quiet with unsettled intervals in subauroral zone. Geomagnetic activity forecast is quiet with active intervals in polar zone, quiet with unsettled intervals in auroral zone, quiet in the subauroral zone.

Visit <http://www.spaceweather.gc.ca/sfst-1-eng.php> for the most recent geomagnetic forecast

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-----Original Message-----

From: McKee, Lorne [<mailto:Lorne.McKee@NRCan-RNCan.gc.ca>]

Sent: July-09-11 10:14 AM

To:

Cc:

Subject: Space Weather Bulletin - July 09, 2011 issued by the Canadian Space Weather Forecast Centre at 14:15 UT (10:15 EDT)

Space Weather Bulletin - July 9, 2011 issued by the Canadian Space Weather Forecast Centre at 14:15 UT (10:15 EDT).

This is for testing purposes. The final bulletin will also be produced in both official languages.

OVERVIEW: There is currently no storm watch in effect.

SOLAR: Solar activity has been low to moderate. There are 5 active regions visible on the solar disk. 2 coronal holes are located near the centre of the solar disk.

INTERPLANETARY: Conditions moderate. The solar wind speed is slow (~ 400 km/s).

NEAR-EARTH ENVIRONMENT: Energetic electron fluence at geostationary orbit was above threshold level July 08, 2011 and is expected to be above threshold level today. Visit <http://www.spaceweather.gc.ca/sffl-eng.php> for fluence forecast

GEOMAGNETIC: Geomagnetic activity has been unsettled with active intervals in polar zone and quiet with stormy intervals in auroral zone and quiet with active intervals in subauroral zone. Geomagnetic activity forecast is quiet with active intervals in polar zone, unsettled with active intervals in auroral zone, quiet in the subauroral zone.

Visit <http://www.spaceweather.gc.ca/sfst-1-eng.php> for the most recent geomagnetic forecast

Space weather scientist
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-----Original Message-----

From: McKee, Lorne [<mailto:Lorne.McKee@NRCan-RNCan.gc.ca>]

Sent: July-10-11 11:10 AM

To:

Cc:

Subject: Space Weather Bulletin - July 10, 2011 issued by the Canadian Space Weather Forecast Centre at 15:15 UT (11:15 EDT)

Space Weather Bulletin - July 10, 2011 issued by the Canadian Space Weather Forecast Centre at 15:15 UT (11:15 EDT).

This is for testing purposes. The final bulletin will also be produced in both official languages.

OVERVIEW: There is currently no storm watch in effect.

SOLAR: Solar activity has been low to moderate. There are 6 active regions visible on the solar disk. 2 coronal holes are located near the centre of the solar disk.

INTERPLANETARY: Conditions moderate. The solar wind speed is slow (~ 500 km/s).

NEAR-EARTH ENVIRONMENT: Energetic electron fluence at geostationary orbit was above threshold level July 09, 2011 and is expected to be above threshold level today. Visit <http://www.spaceweather.gc.ca/sffl-eng.php> for fluence forecast

GEOMAGNETIC: Geomagnetic activity has been unsettled with stormy intervals in polar zone and unsettled with stormy intervals in auroral zone and quiet with active intervals in subauroral zone. Geomagnetic activity forecast is unsettled with stormy intervals in polar zone, unsettled with active intervals in auroral zone, quiet with unsettled intervals in the subauroral zone.

Visit <http://www.spaceweather.gc.ca/sfst-1-eng.php> for the most recent geomagnetic forecast

Space weather scientist

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From: McKee, Lorne [mailto:Lorne.McKee@NRCan-RNCan.gc.ca]

Sent: July-11-11 9:37 AM

To:

Cc:

Subject: Space Weather Bulletin - July 11, 2011 issued by the Canadian Space Weather Forecast Centre at 13:30 UT (9:30 EDT)

Space Weather Bulletin - July 11 , 2011 issued by the Canadian Space Weather Forecast Centre at 13:30 UT (9 :30 EDT).

This is for testing purposes. The final bulletin will also be produced in both official languages.

OVERVIEW: There is currently no storm watch in effect. CMEs have been observed but are not expected to have effects on the Earth.

SOLAR: Solar activity has been low. There are 6 active regions visible on the solar disk. 2 coronal holes are located near the centre of the solar disk.

INTERPLANETARY: Conditions moderate. The solar wind speed is slow (~ 475 km/s). The interplanetary magnetic field has been fluctuating at moderate ($5 \text{ nT} < |Bz| < 10 \text{ nT}$) levels likely due to a CME observed July 9, 2011.

NEAR-EARTH ENVIRONMENT: Energetic electron fluence at geostationary orbit was above threshold level July 10 , 2011 and is expected to be above threshold level today. Visit <http://www.spaceweather.gc.ca/sffl-eng.php> for fluence forecast

GEOMAGNETIC: Geomagnetic activity has been active with stormy intervals in polar zone and unsettled with stormy intervals in auroral zone and quiet with active intervals in subauroral zone. Geomagnetic activity forecast is unsettled with stormy intervals in polar zone, unsettled with active intervals in auroral zone, quiet with unsettled intervals in the subauroral zone.

Visit <http://www.spaceweather.gc.ca/sfst-1-eng.php> for the most recent geomagnetic forecast

Space weather scientist

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From: McKee, Lorne [mailto:Lorne.McKee@NRCan-RNCan.gc.ca]

Sent: July-12-11 10:00 AM

To:

Cc:

Subject: Space Weather Bulletin - July 12, 2011 issued by the Canadian Space Weather Forecast Centre at 14:00 UT (10:00 EDT)

Space Weather Bulletin - July 12, 2011 issued by the Canadian Space Weather Forecast Centre at 14:00 UT (10:00 EDT).

This is for testing purposes. The final bulletin will also be produced in both official languages.

OVERVIEW: There is currently no storm watch in effect. CMEs have been observed but are not expected to have effects on the Earth.

SOLAR: Solar activity has been low. There are 7 active regions visible on the solar disk. 2 small coronal holes are located near the centre of the solar disk.

INTERPLANETARY: Conditions moderate. The solar wind speed is moderate (~ 700 km/s).

NEAR-EARTH ENVIRONMENT: Energetic electron fluence at geostationary orbit was above threshold level July 11, 2011 and is expected to be below threshold level today. Visit <http://www.spaceweather.gc.ca/sffl-eng.php> for fluence forecast

GEOMAGNETIC: Geomagnetic activity has been unsettled with stormy intervals in polar zone and unsettled with stormy intervals in auroral zone and quiet with active intervals in subauroral zone. Geomagnetic activity forecast is unsettled with stormy intervals in polar zone, unsettled with active intervals in auroral zone, quiet with unsettled intervals in the subauroral zone.

Visit <http://www.spaceweather.gc.ca/sfst-1-eng.php> for the most recent geomagnetic forecast

Space weather scientist
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From: Danskin, Donald [mailto:Donald.Danskin@NRCan-RNCan.gc.ca]

Sent: July-13-11 11:47 AM

To:

Cc:

Subject: Space Weather Bulletin - July 13, 2011 issued by the Canadian Space Weather Forecast Centre at 15:30 UT (11:30 EDT).

Space Weather Bulletin - July 13, 2011 issued by the Canadian Space Weather Forecast Centre at 15:30 UT (11:30 EDT).

This is for testing purposes. The final bulletin will also be produced in both official languages.

OVERVIEW: There is currently no storm watch in effect. Effects from coronal holes are currently observed in polar (active) zone. See our website for current information:

<http://www.spaceweather.gc.ca>

SOLAR: Solar activity has been low.

INTERPLANETARY: Conditions moderate. The solar wind speed is currently moderate (~ 500 km/s).

NEAR-EARTH ENVIRONMENT: Energetic electron fluence at geostationary orbit was at threshold level July 12, 2011 and is expected to be at threshold level today. Visit

<http://www.spaceweather.gc.ca/sffl-eng.php> for fluence forecast

GEOMAGNETIC: Geomagnetic activity has been unsettled with stormy intervals in polar zone and unsettled with stormy intervals in auroral zone and quiet with unsettled intervals in subauroral zone. Geomagnetic activity forecast is active with stormy intervals in polar zone, unsettled with active intervals in auroral zone, quiet in the subauroral zone.

Visit <http://www.spaceweather.gc.ca/sfst-1-eng.php> for the most recent geomagnetic forecast

Space weather scientist

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Scientist

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Gouvernement du Canada

From: Danskin, Donald [mailto:Donald.Danskin@NRCan-RNCan.gc.ca]

Sent: July-14-11 10:02 AM

To:

Cc:

Subject: Space Weather Bulletin - July 14, 2011 issued by the Canadian Space Weather Forecast Centre at 14:00 UT (10:00 EDT).

Space Weather Bulletin - July 14, 2011 issued by the Canadian Space Weather Forecast Centre at 14:00 UT (10:00 EDT).

This is for testing purposes. The final bulletin will also be produced in both official languages.

OVERVIEW: There is currently no storm watch in effect. Effects from coronal holes are currently observed in polar (active) zone. See our website for current information:

<http://www.spaceweather.gc.ca>

SOLAR: Solar activity has been low.

INTERPLANETARY: Conditions moderate. The solar wind speed is currently moderate (~ 500 km/s).

NEAR-EARTH ENVIRONMENT: Energetic electron fluence at geostationary orbit was above threshold level July 13, 2011 and is expected to be above threshold level today. Visit

<http://www.spaceweather.gc.ca/sffl-eng.php> for fluence forecast

GEOMAGNETIC: Geomagnetic activity has been unsettled with stormy intervals in polar zone and quiet with stormy intervals in auroral zone and quiet with unsettled intervals in subauroral zone. Geomagnetic activity forecast is unsettled with stormy intervals in polar zone, unsettled with active intervals in auroral zone, quiet in the subauroral zone.

Visit <http://www.spaceweather.gc.ca/sfst-1-eng.php> for the most recent geomagnetic forecast

Space weather scientist

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Ottawa (Ontario) Canada

From: Danskin, Donald [mailto:Donald.Danskin@NRCan-RNCan.gc.ca]

Sent: July-15-11 11:39 AM

To:

Cc:

Subject: Space Weather Bulletin - July 15, 2011 issued by the Canadian Space Weather Forecast Centre at 15:30 UT (11:30 EDT).

Space Weather Bulletin - July 15, 2011 issued by the Canadian Space Weather Forecast Centre at 15:30 UT (11:30 EDT).

This is for testing purposes. The final bulletin will also be produced in both official languages.

OVERVIEW: There is currently no storm watch in effect. See our website for current information: <http://www.spaceweather.gc.ca>

SOLAR: Solar activity has been low.

INTERPLANETARY: Conditions low. The solar wind speed is currently moderate (~ 450 km/s).

NEAR-EARTH ENVIRONMENT: Energetic electron fluence at geostationary orbit was above threshold level July 14, 2011 and is expected to be above threshold level today. Visit <http://www.spaceweather.gc.ca/sffl-eng.php> for fluence forecast

GEOMAGNETIC: Geomagnetic activity has been unsettled with active intervals in polar zone and quiet with active intervals in auroral zone and quiet with unsettled intervals in subauroral zone. Geomagnetic activity forecast is quiet with active intervals in polar zone, quiet with unsettled intervals in auroral zone, quiet in the subauroral zone.

Visit <http://www.spaceweather.gc.ca/sfst-1-eng.php> for the most recent geomagnetic forecast

Space weather scientist

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Government of Canada Gouvernement du Canada

-----Original Message-----

From: McKee, Lorne [<mailto:Lorne.McKee@NRCan-RNCan.gc.ca>]

Sent: July-17-11 8:26 AM

To:

Cc:

Subject: Space Weather Bulletin - July 17, 2011 issued by the Canadian Space Weather Forecast Centre at 12:30 UT (8:30 EDT).

Space Weather Bulletin - July 17, 2011 issued by the Canadian Space Weather Forecast Centre at 12:30 UT (8:30 EDT).

This is for testing purposes. The final bulletin will also be produced in both official languages.

OVERVIEW: There is currently no storm watch in effect. See our website for current information: <http://www.spaceweather.gc.ca> <<http://www.spaceweather.gc.ca/>>

SOLAR: Solar activity has been low.

INTERPLANETARY: Conditions low. The solar wind speed is currently low (~ 360 km/s).

NEAR-EARTH ENVIRONMENT: Energetic electron fluence at geostationary orbit was above threshold level July 16, 2011 and is expected to be below threshold level today. Visit <http://www.spaceweather.gc.ca/sffl-eng.php> <<http://www.spaceweather.gc.ca/sffl-eng.php>> for fluence forecast

GEOMAGNETIC: Geomagnetic activity has been quiet with unsettled intervals in polar zone and quiet with active intervals in auroral zone and quiet with unsettled intervals in subauroral zone. Geomagnetic activity forecast is quiet with unsettled intervals in polar zone, quiet in auroral zone, quiet in the subauroral zone.

Visit <http://www.spaceweather.gc.ca/sfst-1-eng.php> <<http://www.spaceweather.gc.ca/sfst-1-eng.php>> for the most recent geomagnetic forecast

Space weather scientist

Donald Danskin

ddanskin@NRCan.gc.ca

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-----Original Message-----

From: McKee, Lorne [<mailto:Lorne.McKee@NRCan-RNCan.gc.ca>]

Sent: July-18-11 9:34 AM

To:

Subject: Space Weather Bulletin - July 17, 2011 issued by the Canadian Space Weather Forecast Centre at 13:30 UT (9:30 EDT).

Space Weather Bulletin - July 18, 2011 issued by the Canadian Space Weather Forecast Centre at 13:30 UT (9:30 EDT).

This is for testing purposes. The final bulletin will also be produced in both official languages.

OVERVIEW: There is currently no storm watch in effect. See our website for current information: <http://www.spaceweather.gc.ca> <<http://www.spaceweather.gc.ca>>

SOLAR: Solar activity has been low. A large coronal hole is located near the centre of the solar disk.

INTERPLANETARY: Conditions moderate. The interplanetary magnetic field has been fluctuating at moderate ($5\text{nT} < |B_z| < 10\text{nT}$). The solar wind speed is currently slow (~ 450 km/s).

NEAR-EARTH ENVIRONMENT: Energetic electron fluence at geostationary orbit was above threshold level July 17, 2011 and is expected to be below threshold level today. Visit <http://www.spaceweather.gc.ca/sffl-eng.php> <<http://www.spaceweather.gc.ca/sffl-eng.php>> for fluence forecast

GEOMAGNETIC: Geomagnetic activity has been unsettled with active intervals in the polar zone and quiet with active intervals in the auroral zone and quiet with unsettled intervals in the subauroral zone. Geomagnetic activity forecast is quiet with active intervals in the polar zone, quiet with unsettled intervals in the auroral zone, quiet in the subauroral zone.

Visit <http://www.spaceweather.gc.ca/sfst-1-eng.php> <<http://www.spaceweather.gc.ca/sfst-1-eng.php>> for the most recent geomagnetic forecast

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From: Danskin, Donald [mailto:Donald.Danskin@NRCan-RNCan.gc.ca]

Sent: July-19-11 11:56 AM

To:

Cc:

Subject: Space Weather Bulletin - July 19, 2011 issued by the Canadian Space Weather Forecast Centre at 15:45 UT (11:45 EDT).

Space Weather Bulletin - July 19, 2011 issued by the Canadian Space Weather Forecast Centre at 15:45 UT (11:45 EDT).

This is for testing purposes. The final bulletin will also be produced in both official languages.

OVERVIEW: There is currently no storm watch in effect. Effects from coronal holes are currently observed in polar (active) zone. See our website for current information:

<http://www.spaceweather.gc.ca>

SOLAR: Solar activity has been low.

INTERPLANETARY: Conditions moderate. The solar wind speed is currently moderate (~ 550 km/s).

NEAR-EARTH ENVIRONMENT: Energetic electron fluence at geostationary orbit was below threshold level July 18, 2011 and is expected to be at threshold level today. Visit

<http://www.spaceweather.gc.ca/sffl-eng.php> for fluence forecast

GEOMAGNETIC: Geomagnetic activity has been unsettled with stormy intervals in polar zone and quiet with stormy intervals in auroral zone and quiet with unsettled intervals in subauroral zone. Geomagnetic activity forecast is unsettled with stormy intervals in polar zone, unsettled in auroral zone, quiet in the subauroral zone.

Visit <http://www.spaceweather.gc.ca/sfst-1-eng.php> for the most recent geomagnetic forecast

Space weather scientist

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From: Danskin, Donald [mailto:Donald.Danskin@NRCan-RNCan.gc.ca]

Sent: July-20-11 10:49 AM

To:

Cc:

Subject: Space Weather Bulletin - July 20, 2011 issued by the Canadian Space Weather Forecast Centre at 14:45 UT (10:45 EDT).

Space Weather Bulletin - July 20, 2011 issued by the Canadian Space Weather Forecast Centre at 14:45 UT (10:45 EDT).

This is for testing purposes. The final bulletin will also be produced in both official languages.

OVERVIEW: There is currently no storm watch in effect. Effects from coronal holes are currently observed in polar (active) and auroral (unsettled) zones. See our website for current information: <http://www.spaceweather.gc.ca>

SOLAR: Solar activity has been low.

INTERPLANETARY: Conditions moderate. The solar wind speed is currently high (~ 700 km/s).

NEAR-EARTH ENVIRONMENT: Energetic electron fluence at geostationary orbit was below threshold level July 19, 2011 and is expected to be at threshold level today. Visit <http://www.spaceweather.gc.ca/sffl-eng.php> for fluence forecast

GEOMAGNETIC: Geomagnetic activity has been active with stormy intervals in polar zone and active with stormy intervals in auroral zone and unsettled with active intervals in subauroral zone. Geomagnetic activity forecast is active with stormy intervals in polar zone, active in auroral zone, unsettled in the subauroral zone.

Visit <http://www.spaceweather.gc.ca/sfst-1-eng.php> for the most recent geomagnetic forecast

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From: Danskin, Donald [mailto:Donald.Danskin@NRCan-RNCan.gc.ca]

Sent: July-21-11 10:59 AM

To:

Cc:

Subject: Space Weather Bulletin - July 21, 2011 issued by the Canadian Space Weather Forecast Centre at 15:00 UT (11:00 EDT).

Space Weather Bulletin - July 21, 2011 issued by the Canadian Space Weather Forecast Centre at 15:00 UT (11:00 EDT).

This is for testing purposes. The final bulletin will also be produced in both official languages.

OVERVIEW: There is currently no storm watch in effect. Effects from coronal holes are currently observed in polar (active) and auroral (unsettled) zones. See our website for current information: <http://www.spaceweather.gc.ca>

SOLAR: Solar activity has been low.

INTERPLANETARY: Conditions high. The solar wind speed is currently high (~ 700 km/s).

NEAR-EARTH ENVIRONMENT: Energetic electron fluence at geostationary orbit was at threshold level July 20, 2011 and is expected to be at threshold level today. Visit <http://www.spaceweather.gc.ca/sffl-eng.php> for fluence forecast

GEOMAGNETIC: Geomagnetic activity has been active with stormy intervals in polar zone and active with stormy intervals in auroral zone and quiet with unsettled intervals in subauroral zone. Geomagnetic activity forecast is unsettled with stormy intervals in polar zone, unsettled with active intervals in auroral zone, quiet with unsettled intervals in the subauroral zone.

Visit <http://www.spaceweather.gc.ca/sfst-1-eng.php> for the most recent geomagnetic forecast

Space weather scientist

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From: Danskin, Donald [mailto:Donald.Danskin@NRCan-RNCan.gc.ca]

Sent: July-22-11 11:01 AM

To:

Cc:

Subject: Space Weather Bulletin - July 22, 2011 issued by the Canadian Space Weather Forecast Centre at 15:00 UT (11:00 EDT).

Space Weather Bulletin - July 22, 2011 issued by the Canadian Space Weather Forecast Centre at 15:00 UT (11:00 EDT).

This is for testing purposes. The final bulletin will also be produced in both official languages.

OVERVIEW: There is currently no storm watch in effect. Effects from coronal holes are currently observed in polar (active) zone. See our website for current information:

<http://www.spaceweather.gc.ca>

SOLAR: Solar activity has been low.

INTERPLANETARY: Conditions moderate. The solar wind speed is currently moderate (~ 650 km/s). Moderate solar wind speeds are due to high speed streams from coronal holes.

NEAR-EARTH ENVIRONMENT: Energetic electron fluence at geostationary orbit was above threshold level July 21, 2011 and is expected to be above threshold level today. Visit

<http://www.spaceweather.gc.ca/sffl-eng.php> for fluence forecast

GEOMAGNETIC: Geomagnetic activity has been unsettled with stormy intervals in polar zone and unsettled with stormy intervals in auroral zone and unsettled with active intervals in subauroral zone. Geomagnetic activity forecast is unsettled with stormy intervals in polar zone, unsettled with active intervals in auroral zone, quiet with unsettled intervals in the subauroral zone.

Visit <http://www.spaceweather.gc.ca/sfst-1-eng.php> for the most recent geomagnetic forecast

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From: Danskin, Donald [mailto:Donald.Danskin@NRCan-RNCan.gc.ca]

Sent: July-23-11 10:04 AM

To:

Cc:

Subject: Space Weather Bulletin - July 23, 2011 issued by the Canadian Space Weather Forecast Centre at 14:00 UT (10:00 EDT).

Space Weather Bulletin - July 23, 2011 issued by the Canadian Space Weather Forecast Centre at 14:00 UT (10:00 EDT).

This is for testing purposes. The final bulletin will also be produced in both official languages.

OVERVIEW: There is currently no storm watch in effect. Effects from coronal holes are currently observed in polar (unsettled) zone. See our website for current information:

<http://www.spaceweather.gc.ca>

SOLAR: Solar activity has been low.

INTERPLANETARY: Conditions moderate. The solar wind speed is currently moderate (~ 600 km/s). Moderate solar wind speeds are due to high speed streams from coronal holes.

NEAR-EARTH ENVIRONMENT: Energetic electron fluence at geostationary orbit was above threshold level July 22, 2011 and is expected to be above threshold level today. Visit

<http://www.spaceweather.gc.ca/sffl-eng.php> for fluence forecast.

GEOMAGNETIC: Geomagnetic activity has been unsettled with stormy intervals in polar zone and unsettled with stormy intervals in auroral zone and quiet with unsettled intervals in subauroral zone. Geomagnetic activity forecast is unsettled with stormy intervals in polar zone, unsettled with active intervals in auroral zone, quiet in the subauroral zone.

Visit <http://www.spaceweather.gc.ca/sfst-1-eng.php> for the most recent geomagnetic forecast

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From: Danskin, Donald [mailto:Donald.Danskin@NRCan-RNCan.gc.ca]

Sent: July-24-11 2:06 PM

To:

Cc:

Subject: Space Weather Bulletin - July 24, 2011 issued by the Canadian Space Weather Forecast Centre at 18:00 UT (14:00 EDT).

Space Weather Bulletin - July 24, 2011 issued by the Canadian Space Weather Forecast Centre at 18:00 UT (14:00 EDT).

This is for testing purposes. The final bulletin will also be produced in both official languages.

OVERVIEW: There is currently no storm watch in effect. See our website for current information: <http://www.spaceweather.gc.ca>

SOLAR: Solar activity has been low.

INTERPLANETARY: Conditions low. The solar wind speed is currently low (~ 400 km/s).

NEAR-EARTH ENVIRONMENT: Energetic electron fluence at geostationary orbit was above threshold level July 23, 2011 and is expected to be above threshold level today. Visit <http://www.spaceweather.gc.ca/sffl-eng.php> for fluence forecast.

GEOMAGNETIC: Geomagnetic activity has been quiet with active intervals in polar zone and quiet with active intervals in auroral zone and quiet with active intervals in subauroral zone. Geomagnetic activity forecast is quiet with active intervals in polar zone, quiet in auroral zone, quiet in the subauroral zone.

Visit <http://www.spaceweather.gc.ca/sfst-1-eng.php> for the most recent geomagnetic forecast

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From: Danskin, Donald [mailto:Donald.Danskin@NRCan-RNCan.gc.ca]

Sent: July-25-11 10:12 AM

To:

Cc:

Subject: Space Weather Bulletin - July 25, 2011 issued by the Canadian Space Weather Forecast Centre at 14:00 UT (10:00 EDT).

Space Weather Bulletin - July 25, 2011 issued by the Canadian Space Weather Forecast Centre at 14:00 UT (10:00 EDT).

This is for testing purposes. The final bulletin will also be produced in both official languages.

OVERVIEW: There is currently no storm watch in effect. See our website for current information: <http://www.spaceweather.gc.ca>

SOLAR: Solar activity has been low.

INTERPLANETARY: Conditions moderate. The solar wind speed is currently moderate (~ 550 km/s). Moderate solar wind speeds are due to high speed streams from coronal holes.

NEAR-EARTH ENVIRONMENT: Energetic electron fluence at geostationary orbit was above threshold level July 24, 2011 and is expected to be above threshold level today. Visit <http://www.spaceweather.gc.ca/sffl-eng.php> for fluence forecast.

GEOMAGNETIC: Geomagnetic activity has been unsettled with active intervals in polar zone and quiet with stormy intervals in auroral zone and quiet with unsettled intervals in subauroral zone. Geomagnetic activity forecast is unsettled with stormy intervals in polar zone, unsettled with active intervals in auroral zone, quiet with unsettled intervals in the subauroral zone.

Visit <http://www.spaceweather.gc.ca/sfst-1-eng.php> for the most recent geomagnetic forecast

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From: Danskin, Donald [mailto:Donald.Danskin@NRCan-RNCan.gc.ca]

Sent: July-26-11 11:15 AM

To:

Cc:

Subject: Space Weather Bulletin - July 26, 2011 issued by the Canadian Space Weather Forecast Centre at 11:00 UT (11:00 EDT).

Space Weather Bulletin - July 26, 2011 issued by the Canadian Space Weather Forecast Centre at 11:00 UT (11:00 EDT).

This is for testing purposes. The final bulletin will also be produced in both official languages.

OVERVIEW: There is currently no storm watch in effect. See our website for current information: <http://www.spaceweather.gc.ca>

SOLAR: Solar activity has been low.

INTERPLANETARY: Conditions moderate. The solar wind speed is currently moderate (~ 500 km/s). Moderate solar wind speeds are due to high speed streams from coronal holes.

NEAR-EARTH ENVIRONMENT: Energetic electron fluence at geostationary orbit was above threshold level July 25, 2011 and is expected to be below threshold level today. Visit <http://www.spaceweather.gc.ca/sffl-eng.php> for fluence forecast.

GEOMAGNETIC: Geomagnetic activity has been unsettled with stormy intervals in polar zone and unsettled with stormy intervals in auroral zone and quiet with unsettled intervals in subauroral zone. Geomagnetic activity forecast is unsettled with stormy intervals in polar zone, unsettled in auroral zone, quiet in the subauroral zone.

Visit <http://www.spaceweather.gc.ca/sfst-1-eng.php> for the most recent geomagnetic forecast

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From: Danskin, Donald [mailto:Donald.Danskin@NRCan-RNCan.gc.ca]

Sent: July-27-11 10:06 AM

To:

Cc:

Subject: Space Weather Bulletin - July 27, 2011 issued by the Canadian Space Weather Forecast Centre at 14:00 UT (10:00 EDT).

Space Weather Bulletin - July 27, 2011 issued by the Canadian Space Weather Forecast Centre at 14:00 UT (10:00 EDT).

This is for testing purposes. The final bulletin will also be produced in both official languages.

OVERVIEW: There is currently no storm watch in effect. See our website for current information: <http://www.spaceweather.gc.ca>

SOLAR: Solar activity has been low.

INTERPLANETARY: Conditions low. The solar wind speed is currently low (~ 400 km/s).

NEAR-EARTH ENVIRONMENT: Energetic electron fluence at geostationary orbit was above threshold level July 25, 2011 and is expected to be at threshold level today. Visit <http://www.spaceweather.gc.ca/sffl-eng.php> for fluence forecast.

GEOMAGNETIC: Geomagnetic activity has been quiet with active intervals in polar zone and quiet with unsettled intervals in auroral zone and quiet in subauroral zone. Geomagnetic activity forecast is quiet with active intervals in polar zone, quiet in auroral zone, quiet in the subauroral zone.

Visit <http://www.spaceweather.gc.ca/sfst-1-eng.php> for the most recent geomagnetic forecast

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From: Danskin, Donald [mailto:Donald.Danskin@NRCan-RNCan.gc.ca]

Sent: July-28-11 11:52 AM

To:

Cc:

Subject: Space Weather Bulletin - July 28, 2011 issued by the Canadian Space Weather Forecast Centre at 15:45 UT (11:45 EDT).

Space Weather Bulletin - July 28, 2011 issued by the Canadian Space Weather Forecast Centre at 15:45 UT (11:45 EDT).

This is for testing purposes. The final bulletin will also be produced in both official languages.

OVERVIEW: There is currently no storm watch in effect. See our website for current information: <http://www.spaceweather.gc.ca>

SOLAR: Solar activity has been low.

INTERPLANETARY: Conditions low. The solar wind speed is currently low (~ 380 km/s).

NEAR-EARTH ENVIRONMENT: Energetic electron fluence at geostationary orbit was above threshold level July 27, 2011 and is expected to be at threshold level today. Visit <http://www.spaceweather.gc.ca/sffl-eng.php> for fluence forecast.

GEOMAGNETIC: Geomagnetic activity has been quiet with unsettled intervals in polar zone and quiet with unsettled intervals in auroral zone and quiet with unsettled internals in subauroral zone. Geomagnetic activity forecast is quiet with unsettled intervals in polar zone, quiet in auroral zone, quiet in the subauroral zone.

Visit <http://www.spaceweather.gc.ca/sfst-1-eng.php> for the most recent geomagnetic forecast

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From: Danskin, Donald [mailto:Donald.Danskin@NRCan-RNCan.gc.ca]

Sent: July-29-11 11:05 AM

To:

Cc:

Subject: Space Weather Bulletin - July 29, 2011 issued by the Canadian Space Weather Forecast Centre at 15:15 UT (11:15 EDT).

Space Weather Bulletin - July 29, 2011 issued by the Canadian Space Weather Forecast Centre at 15:15 UT (11:15 EDT).

This is for testing purposes. The final bulletin will also be produced in both official languages.

OVERVIEW: There is currently no storm watch in effect. See our website for current information: <http://www.spaceweather.gc.ca>

SOLAR: Solar activity has been low.

INTERPLANETARY: Conditions low. The solar wind speed is currently low (~ 380 km/s).

NEAR-EARTH ENVIRONMENT: Energetic electron fluence at geostationary orbit was above threshold level July 28, 2011 and is expected to be below threshold level today. Visit <http://www.spaceweather.gc.ca/sffl-eng.php> for fluence forecast.

GEOMAGNETIC: Geomagnetic activity has been quiet with stormy intervals in polar zone and quiet with unsettled intervals in auroral zone and quiet with unsettled internals in subauroral zone. Geomagnetic activity forecast is quiet with active intervals in polar zone, quiet in auroral zone, quiet in the subauroral zone.

Visit <http://www.spaceweather.gc.ca/sfst-1-eng.php> for the most recent geomagnetic forecast

Space weather scientist

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From: Danskin, Donald [mailto:Donald.Danskin@NRCan-RNCan.gc.ca]

Sent: July-30-11 12:13 PM

To:

Cc:

Subject: Space Weather Bulletin - July 30, 2011 issued by the Canadian Space Weather Forecast Centre at 16:00 UT (12:00 EDT).

Space Weather Bulletin - July 30, 2011 issued by the Canadian Space Weather Forecast Centre at 16:00 UT (12:00 EDT).

This is for testing purposes. The final bulletin will also be produced in both official languages.

OVERVIEW: There is currently no storm watch in effect. See our website for current information: <http://www.spaceweather.gc.ca>

SOLAR: Solar activity has been low.

INTERPLANETARY: Conditions moderate. The solar wind speed is currently moderate (~ 450 km/s). Moderate solar wind speeds are due to high speed streams from coronal holes.

NEAR-EARTH ENVIRONMENT: Energetic electron fluence at geostationary orbit was above threshold level July 29, 2011 and is expected to be below threshold level today. Visit <http://www.spaceweather.gc.ca/sffl-eng.php> for fluence forecast.

GEOMAGNETIC: Geomagnetic activity has been unsettled with stormy intervals in polar zone and quiet with active intervals in auroral zone and quiet with active intervals in subauroral zone. Geomagnetic activity forecast is unsettled with stormy intervals in polar zone, quiet with unsettled intervals in auroral zone, quiet with unsettled intervals in the subauroral zone.

Visit <http://www.spaceweather.gc.ca/sfst-1-eng.php> for the most recent geomagnetic forecast

Space weather scientist

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From: Danskin, Donald [mailto:Donald.Danskin@NRCan-RNCan.gc.ca]

Sent: July-31-11 1:46 PM

To:

Cc:

Subject: Space Weather Bulletin - July 31, 2011 issued by the Canadian Space Weather Forecast Centre at 17:30 UT (13:30 EDT).

Space Weather Bulletin - July 31, 2011 issued by the Canadian Space Weather Forecast Centre at 17:30 UT (13:30 EDT).

This is for testing purposes. The final bulletin will also be produced in both official languages.

OVERVIEW: There is currently no storm watch in effect. See our website for current information: <http://www.spaceweather.gc.ca>

SOLAR: Solar activity has been low.

INTERPLANETARY: Conditions moderate. The solar wind speed is currently moderate (~ 700 km/s). Moderate solar wind speeds are due to high speed streams from coronal holes.

NEAR-EARTH ENVIRONMENT: Energetic electron fluence at geostationary orbit was below threshold level July 30, 2011 and is expected to be below threshold level today. Visit <http://www.spaceweather.gc.ca/sffl-eng.php> for fluence forecast.

GEOMAGNETIC: Geomagnetic activity has been unsettled with stormy intervals in polar zone and unsettled with stormy intervals in auroral zone and quiet with active internals in subauroral zone. Geomagnetic activity forecast is active with stormy intervals in polar zone, unsettled with active intervals in auroral zone, unsettled in the subauroral zone.

Visit <http://www.spaceweather.gc.ca/sfst-1-eng.php> for the most recent geomagnetic forecast

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From: Danskin, Donald [mailto:Donald.Danskin@NRCan-RNCan.gc.ca]

Sent: August-01-11 11:01 AM

To:

Cc:

Subject: Space Weather Bulletin - August1, 2011 issued by the Canadian Space Weather Forecast Centre at 15:00 UT (11:00 EDT).

Space Weather Bulletin - August1, 2011 issued by the Canadian Space Weather Forecast Centre at 15:00 UT (11:00 EDT).

This is for testing purposes. The final bulletin will also be produced in both official languages.

OVERVIEW: There is currently no storm watch in effect. See our website for current information: <http://www.spaceweather.gc.ca>

SOLAR: Solar activity has been low.

INTERPLANETARY: Conditions moderate. The solar wind speed is currently moderate (~ 600 km/s). Moderate solar wind speeds are due to high speed streams from coronal holes.

NEAR-EARTH ENVIRONMENT: Energetic electron fluence at geostationary orbit was below threshold level July 30, 2011 and is expected to be at threshold level today. Visit <http://www.spaceweather.gc.ca/sffl-eng.php> for fluence forecast.

GEOMAGNETIC: Geomagnetic activity has been unsettled with stormy intervals in polar zone and unsettled with stormy intervals in auroral zone and quiet with unsettled internals in subauroral zone. Geomagnetic activity forecast is unsettled with stormy intervals in polar zone, unsettled with active intervals in auroral zone, quiet in the subauroral zone.

Visit <http://www.spaceweather.gc.ca/sfst-1-eng.php> for the most recent geomagnetic forecast

Space weather scientist

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From: Lam, Hing-Lan [mailto:Hing-Lan.Lam@NRCan-RNCan.gc.ca]
Sent: August-02-11 11:30 AM
To:
Cc:
Subject: Space Weather Bulletin - 2011-08-02

Space Weather Bulletin – August 2, 2011 issued by the Canadian Space Weather Forecast Centre at 15:30 UT (11:30 EDT)

This is for testing purposes. The final bulletin will also be produced in both official languages.

OVERVIEW: There is currently no storm watch in effect. A CME has been observed, and may have an effect on Earth on August 5. See our website for current information:

<http://www.spaceweather.gc.ca>

SOLAR: Solar activity has been moderate. An M (medium) flare erupted at August 2, 2011 0648 UT near the center of the solar disk.

INTERPLANETARY: Conditions low. The solar wind speed is currently slow (~ 450 km/s).

NEAR-EARTH ENVIRONMENT: Energetic electron fluence at geostationary orbit was at threshold level August 1, 2011 and is expected to be below threshold level today. Visit <http://www.spaceweather.gc.ca/sffl-eng.php> for fluence forecast.

GEOMAGNETIC: Geomagnetic activity has been unsettled (with stormy intervals) in polar zone, quiet (with active intervals) in auroral zone, and quiet (with unsettled internals) in subauroral zone. Geomagnetic activity is expected to be unsettled in polar zone, unsettled in auroral zone, and quiet in subauroral zone.

Visit <http://www.spaceweather.gc.ca/sfst-1-eng.php> for the most recent geomagnetic forecast

Space weather scientist

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From: Lam, Hing-Lan [mailto:Hing-Lan.Lam@NRCan-RNCan.gc.ca]
Sent: August-03-11 10:50 AM
To:
Cc:
Subject: Space Weather Bulletin - 2011-08-03

Space Weather Bulletin – August 3, 2011 issued by the Canadian Space Weather Forecast Centre at 14:45 UT (10:45 EDT)

This is for testing purposes. The final bulletin will also be produced in both official languages.

OVERVIEW: There is currently no storm watch in effect. Effects from CME (erupted on August 2) are expected to be observed on Earth between August 4 and August 6, 2011. See our website for current information: <http://www.spaceweather.gc.ca>

SOLAR: Solar activity has been moderate. An M (medium) flare erupted at August 3, 2011 1348 UT near the center of the solar disk.

INTERPLANETARY: Conditions very low. The solar wind speed is currently very slow (~ 350 km/s).

NEAR-EARTH ENVIRONMENT: Energetic electron fluence at geostationary orbit was below threshold level August 2, 2011 and is expected to be below threshold level today. Visit <http://www.spaceweather.gc.ca/sffl-eng.php> for fluence forecast.

GEOMAGNETIC: Geomagnetic activity has been quiet (with unsettled intervals) in polar zone, quiet in auroral zone, and quiet in subauroral zone. Geomagnetic activity is expected to be quiet (with unsettled intervals) in polar zone, quiet in auroral zone, and quiet in subauroral zone. Visit <http://www.spaceweather.gc.ca/sfst-1-eng.php> for the most recent geomagnetic forecast

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From: Lam, Hing-Lan [mailto:Hing-Lan.Lam@NRCan-RNCan.gc.ca]
Sent: August-04-11 10:56 AM
To:
Cc:
Subject: Space Weather Bulletin - 2011-08-04

Space Weather Bulletin – August 3, 2011 issued by the Canadian Space Weather Forecast Centre at 14:55 UT (10:55 EDT)

This is for testing purposes. The final bulletin will also be produced in both official languages.

OVERVIEW: There is currently no storm watch in effect. Effects from CMEs (erupted on August 2, 3, and 4) are expected to be observed on Earth between August 4 and August 6, 2011. See our website for current information: <http://www.spaceweather.gc.ca>

SOLAR: Solar activity has been high. An M (large) flare erupted at August 4, 2011 0357 UT near the center of the solar disk.

INTERPLANETARY: Conditions very low. The solar wind speed is currently very slow (~ 350 km/s).

NEAR-EARTH ENVIRONMENT: Energetic electron fluence at geostationary orbit was below threshold level August 3, 2011 and is expected to be below threshold level today. Visit <http://www.spaceweather.gc.ca/sffl-eng.php> for fluence forecast.

GEOMAGNETIC: Geomagnetic activity has been quiet (with stormy intervals) in polar zone, quiet in auroral zone, and quiet (with unsettled intervals) in subauroral zone. Geomagnetic activity is expected to be active (with stormy intervals) in polar zone, quiet (with stormy intervals) in auroral zone, and quiet (with stormy intervals) in subauroral zone. Visit <http://www.spaceweather.gc.ca/sfst-1-eng.php> for the most recent geomagnetic forecast

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From: Lam, Hing-Lan [mailto:Hing-Lan.Lam@NRCan-RNCan.gc.ca]

Sent: August-04-11 11:04 AM

To:

Cc:

Subject: Space Weather Bulletin - 2011-08-04 (Correction)

The date in "Space Weather Bulletin - 2011-08-04" sent a few minutes ago is wrong.

"Space Weather Bulletin – August 3, 2011 issued by the Canadian Space Weather Forecast Centre at 14:55 UT (10:55 EDT)" should have been

"Space Weather Bulletin – August 4, 2011 issued by the Canadian Space Weather Forecast Centre at 14:55 UT (10:55 EDT)"

Sorry for the inconvenience.

Sincerely,
Hing-Lan Lam

From: Lam, Hing-Lan [mailto:Hing-Lan.Lam@NRCan-RNCan.gc.ca]
Sent: August-05-11 10:52 AM
To:
Cc:
Subject: Space Weather Bulletin - 2011-08-05

Space Weather Bulletin – August 5, 2011 issued by the Canadian Space Weather Forecast Centre at 14:50 UT (10:50 EDT)

This is for testing purposes. The final bulletin will be produced in both official languages.

OVERVIEW: There is currently no storm watch. Effects from CMEs (erupted on August 2, 3, and 4) have been weak. Impact from the last CME may still yet to be felt. See our website for current information: <http://www.spaceweather.gc.ca>.

SOLAR: Solar activity has been low.

INTERPLANETARY: Conditions low. The solar wind speed is currently slow (~ 420 km/s).

NEAR-EARTH ENVIRONMENT: Energetic electron fluence at geostationary orbit was below threshold level August 4, 2011 and is expected to be below threshold level today. Visit <http://www.spaceweather.gc.ca/sffl-eng.php> for fluence forecast.

GEOMAGNETIC: Geomagnetic activity has been quiet (with stormy intervals) in polar zone, quiet (with active intervals) in auroral zone, and quiet (with unsettled intervals) in subauroral zone. Geomagnetic activity is expected to be quiet (with active intervals) in polar zone, quiet (with unsettled intervals) in auroral zone, and quiet in subauroral zone. Visit <http://www.spaceweather.gc.ca/sfst-1-eng.php> for the most recent geomagnetic forecast.

Space weather scientist

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From: Lam, Hing-Lan [mailto:Hing-Lan.Lam@NRCan-RNCan.gc.ca]

Sent: August-05-11 5:15 PM

To:

Cc:

Subject: Space Weather Bulletin - 2011-08-05 (Update)

Space Weather Bulletin Update – August 5, 2011 issued by the Canadian Space Weather Forecast Centre at 21:15 UT (17:15 EDT)

Currently, major stormy conditions exist in polar and auroral zone, and stormy conditions exist in subauroral zone. The solar wind speed is currently fast at ~ 620 km/s.

A magnetic storm watch has been issued covering a period from now to 10 UT tomorrow.

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-----Original Message-----

From: Lam, Hing-Lan [<mailto:Hing-Lan.Lam@NRCan-RNCan.gc.ca>]

Sent: August-05-11 5:32 PM

To:

Cc:

Subject: Magnetic Storm Alert

RWC CANADA
MAGNETIC STORM ALERT
ALERT EXTENSION

issued at 2120 Universal Time

Major magnetic storm conditions which began on August 5 at 20UT
are now expected to end on August 6 at 10 UT

UT=Universal Time

Newfoundland	NST=UT-3.5 h
Atlantic	AST=UT-4 h
Eastern	EST=UT-5 h
Central	CST=UT-6 h
Mountain	MST=UT-7 h
Pacific	PST=UT-8 h

PROLONGATION D'ALERTE
ALERTE D'ORAGE MAGNÉTIQUE

émis le 2120 Temps Universel

Les conditions d'orage magnétique majeur qui ont débuté
le Aout 5 à 20 TU
sont maintenant prévues de terminer
le Aout 6 à 10 TU

TU=Temps Universel

Terre Neuve	HNTN=TU- 3.5 h
Atlantique	HNA=UT-4 h
Est	HNE=UT-5 h
Centre	HNC=UT-6 h
Rocheuses	HNR=UT-7 h
Pacifique	HNP=UT-8 h

-----Original Message-----

From: Lam, Hing-Lan [<mailto:Hing-Lan.Lam@NRCan-RNCan.gc.ca>]

Sent: August-06-11 2:01 PM

To:

Cc:

Subject: Magnetic Storm Alert Termination

RWC CANADA

MAGNETIC STORM ALERT TERMINATION

issued at 1745 Universal Time

Major magnetic storm conditions have ended on August 6 at 15 UT

UT=Universal Time

Newfoundland	NST=UT-3.5 h
Atlantic	AST=UT-4 h
Eastern	EST=UT-5 h
Central	CST=UT-6 h
Mountain	MST=UT-7 h
Pacific	PST=UT-8 h

FIN D'ALERTE D'ORAGE MAGNÉTIQUE

émis le 1745 Temps Universel

Conditions d'orage magnétique majeur ont terminé
le Aout à 15 TU

TU=Temps Universel

Terre Neuve	HNTN=TU- 3.5 h
Atlantique	HNA=UT-4 h
Est	HNE=UT-5 h
Centre	HNC=UT-6 h
Rocheuses	HNR=UT-7 h
Pacifique	HNP=UT-8 h

From: Lam, Hing-Lan [mailto:Hing-Lan.Lam@NRCan-RNCan.gc.ca]
Sent: August-06-11 2:17 PM
To:
Cc:
Subject: Space Weather Bulletin - 2011-08-06

Space Weather Bulletin – August 6, 2011 issued by the Canadian Space Weather Forecast Centre at 18:00 UT (14:00 EDT)

This is for testing purposes. The final bulletin will be produced in both official languages.

OVERVIEW: There is currently no storm watch. The magnetic storm, which started late yesterday and persisted till early today, has subsided. Effects from a coronal hole located near the solar center are expected to be observed on Earth between August 8-9, 2011. See our website for current information: <http://www.spaceweather.gc.ca>.

SOLAR: Solar activity has been low.

INTERPLANETARY: Conditions low. The solar wind speed is currently slow (~ 400 km/s).

NEAR-EARTH ENVIRONMENT: Energetic electron fluence at geostationary orbit was below threshold level August 5, 2011 and is expected to be below threshold level today. Visit <http://www.spaceweather.gc.ca/sffl-eng.php> for fluence forecast.

GEOMAGNETIC: Geomagnetic activity has been active (with major storm intervals) in polar zone, active (with major storm intervals) in auroral zone, and active (with stormy intervals) in subauroral zone. Geomagnetic activity is expected to be stormy in polar zone, stormy in auroral zone, and active (with stormy intervals) in subauroral zone. Visit <http://www.spaceweather.gc.ca/sfst-1-eng.php> for the most recent geomagnetic forecast.

Space weather scientist

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From: Lam, Hing-Lan [mailto:Hing-Lan.Lam@NRCan-RNCan.gc.ca]
Sent: August-07-11 12:58 PM
To:
Cc:
Subject: Space Weather Bulletin - 2011-08-07

Space Weather Bulletin – August 7, 2011 issued by the Canadian Space Weather Forecast Centre at 16:55 UT (12:55 EDT)

This is for testing purposes. The final bulletin will be produced in both official languages.

OVERVIEW: There is currently no storm watch. Effects from a coronal hole are expected to be observed on Earth between August 8-9, 2011. See our website for current information:
<http://www.spaceweather.gc.ca>.

SOLAR: Solar activity has been low.

INTERPLANETARY: Conditions low. The solar wind speed is currently slow (~ 500 km/s).

NEAR-EARTH ENVIRONMENT: Energetic electron fluence at geostationary orbit was below threshold level August 6, 2011 and is expected to be below threshold level today. Visit <http://www.spaceweather.gc.ca/sffl-eng.php> for fluence forecast.

GEOMAGNETIC: Geomagnetic activity has been quiet (with stormy intervals) in polar zone, unsettled (with stormy intervals) in auroral zone, and quiet (with active intervals) in subauroral zone. Geomagnetic activity is expected to be unsettled (with stormy intervals) in polar zone, unsettled (with active intervals) in auroral zone, and quiet in subauroral zone. Visit <http://www.spaceweather.gc.ca/sfst-1-eng.php> for the most recent geomagnetic forecast.

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From: Lam, Hing-Lan [mailto:Hing-Lan.Lam@NRCan-RNCan.gc.ca]
Sent: August-08-11 11:02 AM
To:
Cc:
Subject: Space Weather Bulletin - 2011-08-08

Space Weather Bulletin – August 8, 2011 issued by the Canadian Space Weather Forecast Centre at 15:00 UT (11:00 EDT)

This is for testing purposes. The final bulletin will be produced in both official languages.

OVERVIEW: There is currently no storm watch. Effects from a coronal hole are expected to be observed on Earth between August 8-9, 2011. See our website for current information:
<http://www.spaceweather.gc.ca>.

SOLAR: Solar activity has been low.

INTERPLANETARY: Conditions moderate. The solar wind speed is currently moderate (~ 600 km/s) due to the high speed streams from the coronal hole.

NEAR-EARTH ENVIRONMENT: Energetic electron fluence at geostationary orbit was below threshold level August 7, 2011 and is expected to be above threshold level today. Visit <http://www.spaceweather.gc.ca/sffl-eng.php> for fluence forecast.

GEOMAGNETIC: Geomagnetic activity has been quiet (with active intervals) in polar zone, unsettled (with stormy intervals) in auroral zone, and quiet (with unsettled intervals) in subauroral zone. Geomagnetic activity is expected to be quiet (with active intervals) in polar zone, unsettled (with active intervals) in auroral zone, and quiet in subauroral zone. Visit <http://www.spaceweather.gc.ca/sfst-1-eng.php> for the most recent geomagnetic forecast.

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From: Lam, Hing-Lan [mailto:Hing-Lan.Lam@NRCan-RNCan.gc.ca]
Sent: August-09-11 11:11 AM
To:
Cc:
Subject: Space Weather Bulletin - 2011-08-09

Space Weather Bulletin – August 9, 2011 issued by the Canadian Space Weather Forecast Centre at 15:10 UT (11:10 EDT)

This is for testing purposes. The final bulletin will be produced in both official languages.

OVERVIEW: There is currently no storm watch. CMEs associated with recent flares are likely to be directed away from Earth, with a glancing blow if effects are to be felt on Earth at all. See our website for current information: <http://www.spaceweather.gc.ca>.

SOLAR: Solar activity has been high. A large X7 flare erupted on August 9, 2011 at 0805 UT. Two medium flares occurred earlier: M3.5 flare on August 8 at 1810 UT and M2.6 flare on August 9 at 0354 UT. All three flares erupted near the western limb of the solar disk.
INTERPLANETARY: Conditions moderate. The solar wind speed is currently moderate (~ 570 km/s).

NEAR-EARTH ENVIRONMENT: Energetic electron fluence at geostationary orbit was above threshold level August 8, 2011 and is expected to be above threshold level today. Visit <http://www.spaceweather.gc.ca/sffl-eng.php> for fluence forecast.

GEOMAGNETIC: Geomagnetic activity has been unsettled (with stormy intervals) in polar zone, quiet (with stormy intervals) in auroral zone, and quiet (with unsettled intervals) in subauroral zone. Geomagnetic activity is expected to be unsettled (with stormy intervals) in polar zone, unsettled (with active intervals) in auroral zone, and quiet in subauroral zone. Visit <http://www.spaceweather.gc.ca/sfst-1-eng.php> for the most recent geomagnetic forecast.

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From: Lam, Hing-Lan [mailto:Hing-Lan.Lam@NRCan-RNCan.gc.ca]
Sent: August-10-11 10:48 AM
To:
Cc:
Subject: Space Weather Bulletin - 2011-08-10

Space Weather Bulletin – August 10, 2011 issued by the Canadian Space Weather Forecast Centre at 14:45 UT (10:45 EDT)

This is for testing purposes. The final bulletin will be produced in both official languages.

OVERVIEW: There is currently no storm watch. See our website for current information:
<http://www.spaceweather.gc.ca>.

SOLAR: Solar activity has been low.

INTERPLANETARY: Conditions moderate. The solar wind speed is currently moderate (~ 540 km/s).

NEAR-EARTH ENVIRONMENT: Energetic electron fluence at geostationary orbit was above threshold level August 9, 2011 and is expected to be above threshold level today. Visit <http://www.spaceweather.gc.ca/sffl-eng.php> for fluence forecast.

GEOMAGNETIC: Geomagnetic activity has been unsettled (with stormy intervals) in polar zone, quiet (with stormy intervals) in auroral zone, and quiet (with active intervals) in subauroral zone. Geomagnetic activity is expected to be unsettled (with active intervals) in polar zone, unsettled (with active intervals) in auroral zone, and quiet in subauroral zone. Visit <http://www.spaceweather.gc.ca/sfst-1-eng.php> for the most recent geomagnetic forecast.

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From: Lam, Hing-Lan [mailto:Hing-Lan.Lam@NRCan-RNCan.gc.ca]
Sent: August-11-11 12:26 PM
To:
Cc:
Subject: Space Weather Bulletin - 2011-08-11

Space Weather Bulletin – August 11, 2011 issued by the Canadian Space Weather Forecast Centre at 16:25 UT (12:25 EDT)

This is for testing purposes. The final bulletin will be produced in both official languages.

OVERVIEW: There is currently no storm watch. Effects from a coronal hole located near the center of the solar disk are expected to be observed on Earth on or about August 14. See our website for current information: <http://www.spaceweather.gc.ca>.

SOLAR: Solar activity has been low.

INTERPLANETARY: Conditions low. The solar wind speed is currently slow (~ 400 km/s).

NEAR-EARTH ENVIRONMENT: Energetic electron fluence at geostationary orbit was above threshold level August 10, 2011 and is expected to be above threshold level today. Visit <http://www.spaceweather.gc.ca/sffl-eng.php> for fluence forecast.

GEOMAGNETIC: Geomagnetic activity has been quiet (with active intervals) in polar zone, quiet (with active intervals) in auroral zone, and quiet in subauroral zone. Geomagnetic activity is expected to be quiet (with unsettled intervals) in polar zone, quiet (with unsettled intervals) in auroral zone, and quiet in subauroral zone. Visit <http://www.spaceweather.gc.ca/sfst-1-eng.php> for the most recent geomagnetic forecast.

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From: Lam, Hing-Lan [mailto:Hing-Lan.Lam@NRCan-RNCan.gc.ca]
Sent: August-12-11 10:35 AM
To:
Cc:
Subject: Space Weather Bulletin - 2011-08-12

Space Weather Bulletin – August 12, 2011 issued by the Canadian Space Weather Forecast Centre at 14:35 UT (10:35 EDT)

This is for testing purposes. The final bulletin will be produced in both official languages.

OVERVIEW: There is currently no storm watch. Effects from a coronal hole located near the center of the solar disk are expected to be observed on Earth on or about August 14. See our website for current information: <http://www.spaceweather.gc.ca>.

SOLAR: Solar activity has been very low.

INTERPLANETARY: Conditions low. The solar wind speed is currently slow (~ 400 km/s).

NEAR-EARTH ENVIRONMENT: Energetic electron fluence at geostationary orbit was above threshold level August 11, 2011 and is expected to be above threshold level today. Visit <http://www.spaceweather.gc.ca/sffl-eng.php> for fluence forecast.

GEOMAGNETIC: Geomagnetic activity has been quiet (with active intervals) in polar zone, quiet (with active intervals) in auroral zone, and quiet in subauroral zone. Geomagnetic activity is expected to be quiet (with active intervals) in polar zone, quiet (with unsettled intervals) in auroral zone, and quiet in subauroral zone. Visit <http://www.spaceweather.gc.ca/sfst-1-eng.php> for the most recent geomagnetic forecast.

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From: Lam, Hing-Lan [mailto:Hing-Lan.Lam@NRCan-RNCan.gc.ca]
Sent: August-13-11 1:01 PM
To:
Cc:
Subject: Space Weather Bulletin - 2011-08-13

Space Weather Bulletin – August 13, 2011 issued by the Canadian Space Weather Forecast Centre at 17:00 UT (13:00 EDT)

This is for testing purposes. The final bulletin will be produced in both official languages.

OVERVIEW: There is currently no storm watch. Geomagnetic effects due to high-speed solar wind streams emanating from a coronal hole are expected on or about August 14. See our website for current information: <http://www.spaceweather.gc.ca>.

SOLAR: Solar activity has been very low.

INTERPLANETARY: Conditions very low. The solar wind speed is currently very slow (~ 300 km/s).

NEAR-EARTH ENVIRONMENT: Energetic electron fluence at geostationary orbit was above threshold level August 12, 2011 and is expected to be above threshold level today. Visit <http://www.spaceweather.gc.ca/sffl-eng.php> for fluence forecast.

GEOMAGNETIC: Geomagnetic activity has been quiet (with stormy intervals) in polar zone, quiet (with active intervals) in auroral zone, and quiet in subauroral zone. Geomagnetic activity is expected to be quiet (with unsettled intervals) in polar zone, quiet in auroral zone, and quiet in subauroral zone. Visit <http://www.spaceweather.gc.ca/sfst-1-eng.php> for the most recent geomagnetic forecast.

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From: Lam, Hing-Lan [mailto:Hing-Lan.Lam@NRCan-RNCan.gc.ca]
Sent: August-14-11 1:03 PM
To:
Cc:
Subject: Space Weather Bulletin - 2011-08-14

Space Weather Bulletin – August 14, 2011 issued by the Canadian Space Weather Forecast Centre at 17:00 UT (13:00 EDT)

This is for testing purposes. The final bulletin will be produced in both official languages.

OVERVIEW: There is currently no storm watch. Mild geomagnetic effects due to high-speed solar wind streams emanating from a coronal hole are expected later today or on August 15. See our website for current information: <http://www.spaceweather.gc.ca>.

SOLAR: Solar activity has been very low.

INTERPLANETARY: Conditions low. The solar wind speed is currently slow (~ 460 km/s).

NEAR-EARTH ENVIRONMENT: Energetic electron fluence at geostationary orbit was above threshold level August 13, 2011 and is expected to be at threshold level today. Visit <http://www.spaceweather.gc.ca/sffl-eng.php> for fluence forecast.

GEOMAGNETIC: Geomagnetic activity has been quiet (with active intervals) in polar zone, quiet (with active intervals) in auroral zone, and quiet (with unsettled intervals) in subauroral zone. Geomagnetic activity is expected to be quiet (with active intervals) in polar zone, quiet (with unsettled intervals) in auroral zone, and quiet in subauroral zone. Visit <http://www.spaceweather.gc.ca/sfst-1-eng.php> for the most recent geomagnetic forecast.

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From: Lam, Hing-Lan [mailto:Hing-Lan.Lam@NRCan-RNCan.gc.ca]
Sent: August-15-11 10:40 AM
To:
Cc:
Subject: Space Weather Bulletin - 2011-08-15

Space Weather Bulletin – August 15, 2011 issued by the Canadian Space Weather Forecast Centre at 14:40 UT (10:40 EDT)

This is for testing purposes. The final bulletin will be produced in both official languages.

OVERVIEW: There is currently no storm watch in effect. Active conditions in polar zone and stormy intervals in both auroral and subauroral zones have been due to the influence of the coronal hole mentioned in the previous bulletins. See our website for current information:
<http://www.spaceweather.gc.ca>.

SOLAR: Solar activity has been very low.

INTERPLANETARY: Conditions low. The solar wind speed is currently slow (~ 450 km/s) after reaching a moderate speed of 550 km/s earlier today.

NEAR-EARTH ENVIRONMENT: Energetic electron fluence at geostationary orbit was at threshold level August 14, 2011 and is expected to be below threshold level today. Visit <http://www.spaceweather.gc.ca/sffl-eng.php> for fluence forecast.

GEOMAGNETIC: Geomagnetic activity has been active in polar zone, unsettled (with stormy intervals) in auroral zone, and quiet (with stormy intervals) in subauroral zone. Geomagnetic activity is expected to be active in polar zone, unsettled in auroral zone, and unsettled in subauroral zone. Visit <http://www.spaceweather.gc.ca/sfst-1-eng.php> for the most recent geomagnetic forecast.

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From: Trichtchenko, Larisa [mailto:Larisa.Trichtchenko@NRCan-RNCan.gc.ca]
Sent: August-17-11 11:26 AM
To:
Cc:
Subject: RE: Space Weather Bulletin - 2011-08-17

Space Weather Bulletin – August 17, 2011 issued by the Canadian Space Weather Forecast Centre at 11 : 30 UT (07 : 30 EDT)

This is for testing purposes. The final bulletin will be produced in both official languages.

OVERVIEW: There is currently no storm watch in effect. Unsettled conditions in polar zone have been due to the influence of the coronal hole mentioned in the previous bulletins. See our website for current information: <http://www.spaceweather.gc.ca>.

SOLAR: Solar activity has been low.

INTERPLANETARY: Conditions low. The solar wind speed is currently slow (~ 400 km/s).

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

NEAR-EARTH ENVIRONMENT: Energetic electron fluence at geostationary orbit was below threshold level August 16 , 2011 and is expected to be just above the threshold level today.

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

GEOMAGNETIC: Geomagnetic activity has been quiet with active intervals in polar zone, quiet with stormy intervals in auroral zone, and quiet with stormy intervals in subauroral zone. Geomagnetic activity is expected to be quiet with active intervals in polar zone, unsettled with active intervals in auroral zone, and quiet in subauroral zone. Visit <http://www.spaceweather.gc.ca/sfst-1-eng.php> for the most recent geomagnetic forecast.

Space weather scientist

Larisa Trichtchenko ltrichtc@nrca.gc.ca

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From: Trichtchenko, Larisa [mailto:Larisa.Trichtchenko@NRCan-RNCan.gc.ca]
Sent: August-18-11 1:06 PM
To:
Cc:
Subject: Space Weather Bulletin - 2011-08-18

Space Weather Bulletin – August 18, 2011 issued by the Canadian Space Weather Forecast Centre at 13:00 UT (09:00 EDT)

This is for testing purposes. The final bulletin will be produced in both official languages.

OVERVIEW: There is currently no storm watch in effect. See our website for current information: <http://www.spaceweather.gc.ca>.

SOLAR: Solar activity has been low.

INTERPLANETARY: Conditions low. The solar wind speed is currently slow (~ 350 km/s).

The interplanetary magnetic field has been fluctuating at low ($|B_z| < 2$ nT) levels.

NEAR-EARTH ENVIRONMENT: Energetic electron fluence at geostationary orbit was at the threshold level August 17, 2011 and is expected to be just above the threshold level today.

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

GEOMAGNETIC: Geomagnetic activity has been quiet with active intervals in polar zone, quiet in auroral zone, and quiet in subauroral zone. Geomagnetic activity is expected to be quiet with active intervals in polar zone, quiet in auroral zone, and quiet in subauroral zone. Visit <http://www.spaceweather.gc.ca/sfst-1-eng.php> for the most recent geomagnetic forecast.

Space weather scientist

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Government of Canada *Gouvernement du Canada*

From: Trichtchenko, Larisa [mailto:Larisa.Trichtchenko@NRCan-RNCan.gc.ca]

Sent: August-19-11 10:39 AM

To:

Cc:

Subject: Space Weather Bulletin - 2011-08-19

Space Weather Bulletin – August 19 , 2011 issued by the Canadian Space Weather Forecast Centre at 14 : 30 UT (10 : 30 EDT)

This is for testing purposes. The final bulletin will be produced in both official languages.

OVERVIEW: There is currently no storm watch in effect. See our website for current information: <http://www.spaceweather.gc.ca>.

SOLAR: Solar activity has been low.

INTERPLANETARY: Conditions low. The solar wind speed is currently slow (~ 350 km/s).

The interplanetary magnetic field has been fluctuating at low ($|Bz| < 2$ nT) levels.

NEAR-EARTH ENVIRONMENT: Energetic electron fluence at geostationary orbit was just above the threshold level August 18 , 2011 and is expected to be below the threshold level today. Visit <http://www.spaceweather.gc.ca/sffl-eng.php> for fluence forecast.

GEOMAGNETIC: Geomagnetic activity has been quiet with active intervals in polar zone, quiet in auroral zone, and quiet in subauroral zone. Geomagnetic activity is expected to be quiet with unsettled intervals in polar zone, quiet in auroral zone, and quiet in subauroral zone. Visit <http://www.spaceweather.gc.ca/sfst-1-eng.php> for the most recent geomagnetic forecast.

Space weather scientist

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Government of Canada *Gouvernement du Canada*

-----Original Message-----

From: Trichtchenko, Larisa [<mailto:Larisa.Trichtchenko@NRCan-RNCan.gc.ca>]

Sent: August-20-11 8:38 AM

To:

Cc:

Subject: Space Weather Bulletin - 2011-08-20

Space Weather Bulletin – August 20, 2011 issued by the Canadian Space Weather Forecast Centre at 12: 30 UT (08 : 30 EDT) *This is for testing purposes. The final bulletin will be produced in both official languages.*

OVERVIEW: There is currently no storm watch in effect. See our website for current information: <http://www.spaceweather.gc.ca>.

SOLAR: Solar activity has been low.

INTERPLANETARY: Conditions low. The solar wind speed is currently slow (~ 400 km/s). The interplanetary magnetic field has been fluctuating at low ($|B_z| < 5$ nT) levels.

NEAR-EARTH ENVIRONMENT: Energetic electron fluence at geostationary orbit was just above the threshold level August 19, 2011 and is expected to be just below the threshold level today. Visit <http://www.spaceweather.gc.ca/sffl-eng.php> for fluence forecast.

GEOMAGNETIC: Geomagnetic activity has been a quiet with active intervals in polar zone, quiet with unsettled intervals in auroral zone, and quiet in subauroral zone. Geomagnetic activity is expected to be quiet with unsettled intervals in polar zone, quiet in auroral zone, and quiet in subauroral zone. Visit <http://www.spaceweather.gc.ca/sfst-1-eng.php> for the most recent geomagnetic forecast.

Space weather scientist

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-----Original Message-----

From: Trichtchenko, Larisa [<mailto:Larisa.Trichtchenko@NRCan-RNCan.gc.ca>]

Sent: August-21-11 8:08 AM

To:

Cc:

Subject: Space Weather Bulletin - 2011-08-21

Space Weather Bulletin – August 21, 2011 issued by the Canadian Space Weather Forecast Centre at 12: 30 UT (08: 30 EDT) *This is for testing purposes. The final bulletin will be produced in both official languages.*

OVERVIEW: There is currently no storm watch in effect. See our website for current information: <http://www.spaceweather.gc.ca>.

SOLAR: Solar activity has been low.

INTERPLANETARY: Conditions low. The solar wind speed is currently slow (~ 400 km/s). The interplanetary magnetic field has been fluctuating at low ($|Bz| < 5$ nT) levels.

NEAR-EARTH ENVIRONMENT: Energetic electron fluence at geostationary orbit was just below the threshold level August 20, 2011 and is expected to be just below the threshold level today. Visit <http://www.spaceweather.gc.ca/sffl-eng.php> for fluence forecast.

GEOMAGNETIC: Geomagnetic activity has been a quiet with stormy intervals in polar zone, quiet with unsettled intervals in auroral zone, and quiet with unsettled intervals in subauroral zone. Geomagnetic activity is expected to be quiet with active intervals in polar zone, quiet in auroral zone, and quiet in subauroral zone. Visit <http://www.spaceweather.gc.ca/sfst-1-eng.php> for the most recent geomagnetic forecast.

Space weather scientist

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-----Original Message-----

From: Trichtchenko, Larisa [<mailto:Larisa.Trichtchenko@NRCan-RNCan.gc.ca>]

Sent: August-22-11 10:25 AM

To:

Cc:

Subject: Space Weather Bulletin - 2011-08-22

Space Weather Bulletin - August 22, 2011 issued by the Canadian Space Weather Forecast Centre at 14: 30 UT (10 : 30 EDT) *This is for testing purposes. The final bulletin will be produced in both official languages.*

OVERVIEW: There is currently no storm watch in effect. See our website for current information: <http://www.spaceweather.gc.ca>.

SOLAR: Solar activity has been low.

INTERPLANETARY: Conditions low. The solar wind speed is currently slow (~ 400 km/s). The interplanetary magnetic field has been fluctuating at low ($|Bz| < 5$ nT) levels.

NEAR-EARTH ENVIRONMENT: Energetic electron fluence at geostationary orbit was below the threshold level August 21, 2011 and is expected to be below the threshold level today. Visit <http://www.spaceweather.gc.ca/sffl-eng.php> for fluence forecast.

GEOMAGNETIC: Geomagnetic activity has been a quiet with stormy intervals in polar zone, quiet with active intervals in auroral zone, and quiet with unsettled intervals in subauroral zone. Geomagnetic activity is expected to be quiet with unsettled intervals in polar zone, quiet with unsettled intervals in auroral zone, and quiet in subauroral zone. Visit <http://www.spaceweather.gc.ca/sfst-1-eng.php> for the most recent geomagnetic forecast.

Space weather scientist

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-----Original Message-----

From: Trichtchenko, Larisa [<mailto:Larisa.Trichtchenko@NRCan-RNCan.gc.ca>]

Sent: August-23-11 10:13 AM

To:

Cc:

Subject: RE: Space Weather Bulletin - 2011-08-23

Space Weather Bulletin - August 23, 2011 issued by the Canadian Space Weather Forecast Centre at 14: 30 UT (10 : 30 EDT) *This is for testing purposes. The final bulletin will be produced in both official languages.*

OVERVIEW: There is currently no storm watch in effect. See our website for current information: <http://www.spaceweather.gc.ca>.

SOLAR: Solar activity has been low. Several coronal holes are near the center of the disc.

INTERPLANETARY: Conditions low. The solar wind speed is currently slow (~ 500 km/s) and increasing due to the high speed stream from coronal hole. The interplanetary magnetic field has been fluctuating at low ($|B_z| < 5$ nT) levels.

NEAR-EARTH ENVIRONMENT: Energetic electron fluence at geostationary orbit was below the threshold level August 22, 2011 and is expected to be below the threshold level today. Visit <http://www.spaceweather.gc.ca/sffl-eng.php> for fluence forecast.

GEOMAGNETIC: Geomagnetic activity has been a quiet with stormy intervals in polar zone, quiet with unsettled intervals in auroral zone, and quiet with unsettled intervals in subauroral zone. Geomagnetic activity is expected to be quiet with active intervals in polar zone, quiet with unsettled intervals in auroral zone, and quiet in subauroral zone. Visit <http://www.spaceweather.gc.ca/sfst-1-eng.php> for the most recent geomagnetic forecast.

Space weather scientist

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-----Original Message-----

From: Trichtchenko, Larisa [<mailto:Larisa.Trichtchenko@NRCan-RNCan.gc.ca>]

Sent: August-24-11 8:58 AM

To:

Cc:

Subject: Space Weather Bulletin - 2011-08-24

Space Weather Bulletin – August 24, 2011 issued by the Canadian Space Weather Forecast Centre at 13: 00 UT (09: 00 EDT) *This is for testing purposes. The final bulletin will be produced in both official languages.*

OVERVIEW: There is currently no storm watch in effect. See our website for current information: <http://www.spaceweather.gc.ca>.

SOLAR: Solar activity has been low.

INTERPLANETARY: Conditions low. The solar wind speed is currently slow (~ 500 km/s). The interplanetary magnetic field has been fluctuating at low ($|B_z| < 5$ nT) levels.

NEAR-EARTH ENVIRONMENT: Energetic electron fluence at geostationary orbit was below the threshold level August 23, 2011 and is expected to be above the threshold level today. Visit <http://www.spaceweather.gc.ca/sffl-eng.php> for fluence forecast.

GEOMAGNETIC: Geomagnetic activity has been unsettled with stormy intervals in polar zone, quiet with active intervals in auroral zone, and quiet with unsettled intervals in subauroral zone. Geomagnetic activity is expected to be unsettled with stormy intervals in polar zone, quiet with unsettled intervals in auroral zone, and quiet in subauroral zone. Visit <http://www.spaceweather.gc.ca/sfst-1-eng.php> for the most recent geomagnetic forecast.

Space weather scientist

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-----Original Message-----

From: Trichtchenko, Larisa [<mailto:Larisa.Trichtchenko@NRCan-RNCan.gc.ca>]

Sent: August-25-11 12:28 PM

To:

Cc:

Subject: Space Weather Bulletin - 2011-08-25

Space Weather Bulletin – August 25, 2011 issued by the Canadian Space Weather Forecast Centre at 16: 30 UT (12: 30 EDT) *This is for testing purposes. The final bulletin will be produced in both official languages.*

OVERVIEW: There is currently no storm watch in effect. See our website for current information: <http://www.spaceweather.gc.ca>.

SOLAR: Solar activity has been low.

INTERPLANETARY: Conditions low. The solar wind speed is currently slow (~ 400 km/s). The interplanetary magnetic field has been fluctuating at low ($|Bz| < 5$ nT) levels.

NEAR-EARTH ENVIRONMENT: Energetic electron fluence at geostationary orbit was below the threshold level August 24, 2011 and is expected to be just above the threshold level today. Visit <http://www.spaceweather.gc.ca/sffl-eng.php> for fluence forecast.

GEOMAGNETIC: Geomagnetic activity has been quiet with active intervals in polar zone, quiet with unsettled intervals in auroral zone, and quiet with unsettled intervals in subauroral zone. Geomagnetic activity is expected to be quiet with active intervals in polar zone, quiet with unsettled intervals in auroral zone, and quiet in subauroral zone. Visit <http://www.spaceweather.gc.ca/sfst-1-eng.php> for the most recent geomagnetic forecast.

Space weather scientist

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From: Trichtchenko, Larisa [mailto:Larisa.Trichtchenko@NRCan-RNCan.gc.ca]
Sent: August-26-11 9:41 AM
To:
Cc:
Subject: RE: Space Weather Bulletin - 2011-08-26

Space Weather Bulletin – August 26, 2011 issued by the Canadian Space Weather Forecast Centre at 13: 30 UT (09: 30 EDT)

This is for testing purposes. The final bulletin will be produced in both official languages.

OVERVIEW: There is currently no storm watch in effect. See our website for current information: <http://www.spaceweather.gc.ca>.

SOLAR: Solar activity has been low.

INTERPLANETARY: Conditions low. The solar wind speed is currently slow (~ 400 km/s). The interplanetary magnetic field has been fluctuating at low ($|B_z| < 5$ nT) levels.

NEAR-EARTH ENVIRONMENT: Energetic electron fluence at geostationary orbit was below the threshold level August 25, 2011 and is expected to be below the threshold level today. Visit <http://www.spaceweather.gc.ca/sffl-eng.php> for fluence forecast.

GEOMAGNETIC: Geomagnetic activity has been quiet with unsettled intervals in polar zone, quiet with active intervals in auroral zone, and quiet with unsettled intervals in subauroral zone.

Geomagnetic activity is expected to be quiet with active intervals in polar zone, quiet in auroral zone, and quiet in subauroral zone. Visit <http://www.spaceweather.gc.ca/sfst-1-eng.php> for the most recent geomagnetic forecast.

Space weather scientist
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-----Original Message-----

From: Trichtchenko, Larisa [<mailto:Larisa.Trichtchenko@NRCan-RNCan.gc.ca>]

Sent: August-29-11 8:53 AM

To:

Cc:

Subject: Space Weather Bulletin - 2011-08-29

Space Weather Bulletin – August 29, 2011 issued by the Canadian Space Weather Forecast Centre at 13: 00 UT (09: 00 EDT)

This is for testing purposes. The final bulletin will be produced in both official languages.

OVERVIEW: There is currently no storm watch in effect. See our website for current information: <http://www.spaceweather.gc.ca>.

SOLAR: Solar activity has been low.

INTERPLANETARY: Conditions low. The solar wind speed data are not available at this time. The interplanetary magnetic field has been fluctuating at low ($|Bz| < 5$ nT) levels.

NEAR-EARTH ENVIRONMENT: Energetic electron fluence at geostationary orbit was below the threshold level August 28, 2011 and is expected to be below the threshold level today. Visit <http://www.spaceweather.gc.ca/sffl-eng.php> for fluence forecast.

GEOMAGNETIC: Geomagnetic activity has been quiet with stormy intervals in polar zone, quiet with stormy intervals in auroral zone, and quiet with unsettled intervals in subauroral zone. Geomagnetic activity is expected to be quiet with active intervals in polar zone, quiet with unsettled intervals in auroral zone, and quiet in subauroral zone. Visit <http://www.spaceweather.gc.ca/sfst-1-eng.php> for the most recent geomagnetic forecast.

Space weather scientist

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From: Fiori, Robyn [mailto:Robyn.Fiori@NRCan-RNCan.gc.ca]
Sent: August-30-11 2:53 PM
To:
Cc:
Subject: Space Weather Bulletin - June 23, 2011

Space Weather Bulletin – August 30, 2011 issued by the Canadian Space Weather Forecast Centre at 11:00 UT (15:00 EDT)

This is for testing purposes. The final bulletin will also be produced in both official languages.

OVERVIEW: There is currently no storm watch in effect. See our website for current information: <http://www.spaceweather.gc.ca>

SOLAR: Solar activity has been low.

INTERPLANETARY: Interplanetary activity has been low. The solar wind speed is decreasing (currently ~ 380 km/s). The interplanetary magnetic field has been fluctuating low ($2 < |B_z| < 5$ nT) levels.

NEAR-EARTH ENVIRONMENT: Energetic electron fluence at geostationary orbit was below the threshold level August 29, 2011 and is expected to be below threshold level today. Visit <http://www.spaceweather.gc.ca/sffl-eng.php> for the electron forecast.

GEOMAGNETIC: 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. Activity is forecast to be quiet with active intervals in the polar zone, quiet in the auroral zone, and quiet in the subauroral zone. Visit <http://www.spaceweather.gc.ca/sfst-1-eng.php> for the magnetic forecast.

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From: Fiori, Robyn [mailto:Robyn.Fiori@NRCan-RNCan.gc.ca]

Sent: August-31-11 8:56 AM

To:

Subject: Space Weather Bulletin - August 31, 2011

Space Weather Bulletin – August 31, 2011 issued by the Canadian Space Weather Forecast Centre at 13:00 UT (09:00 EDT)

This is for testing purposes. The final bulletin will also be produced in both official languages.

OVERVIEW: There is currently no storm watch in effect. See our website for current information: <http://www.spaceweather.gc.ca>. Geomagnetic effects from coronal holes are expected to be observed on the Earth between September 02, 2011 and September 03, 2011.

SOLAR: Solar activity has been low. One 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 very low ($|B_z| < 2$ nT) levels.

NEAR-EARTH ENVIRONMENT: Energetic electron fluence at geostationary orbit was below threshold level August 30, 2011 and is expected to be below threshold level today. Visit <http://www.spaceweather.gc.ca/sffl-eng.php> for the electron forecast. The 5-minute integral energetic electron flux is currently high.

GEOMAGNETIC: 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. Activity is forecast to be quiet with unsettled intervals in the polar zone, quiet in the auroral zone, and quiet in the subauroral zone. Visit <http://www.spaceweather.gc.ca/sfst-1-eng.php> for the magnetic forecast.

Space weather scientist

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From: Danskin, Donald [mailto:Donald.Danskin@NRCan-RNCan.gc.ca]

Sent: September-01-11 11:04 AM

To:

Subject: Space Weather Bulletin - September 1, 2011

Space Weather Bulletin - September 1, 2011 issued by the Canadian Space Weather Forecast Centre at 15:00 UT (11:00 EDT).

This is for testing purposes. The final bulletin will also be produced in both official languages.

OVERVIEW: There is currently no storm watch in effect. See our website for current information: <http://www.spaceweather.gc.ca>

SOLAR: Solar activity has been low.

INTERPLANETARY: Conditions low. The solar wind speed is currently very low (300 km/s).
NEAR-EARTH ENVIRONMENT: Energetic electron fluence at geostationary orbit was below threshold level August 31, 2011 and is expected to be below threshold level today. Visit <http://www.spaceweather.gc.ca/sffl-eng.php> for fluence forecast.

GEOMAGNETIC: Geomagnetic activity has been quiet in polar zone and quiet with active intervals in auroral zone and quiet in subauroral zone. Geomagnetic activity forecast is quiet in polar zone, quiet in auroral zone, quiet in the subauroral zone.

Visit <http://www.spaceweather.gc.ca/sfst-1-eng.php> for the most recent geomagnetic forecast

Space weather scientist

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From: Danskin, Donald [mailto:Donald.Danskin@NRCan-RNCan.gc.ca]

Sent: September-02-11 11:01 AM

To:

Subject: Weather Bulletin - September 2, 2011

Weather Bulletin - September 2, 2011 issued by the Canadian Space Weather Forecast Centre at 15:00 UT (11:00 EDT).

This is for testing purposes. The final bulletin will also be produced in both official languages.

OVERVIEW: There is currently no storm watch in effect. See our website for current information: <http://www.spaceweather.gc.ca>

SOLAR: Solar activity has been low.

INTERPLANETARY: Conditions low. The solar wind speed is currently very low (300 km/s).

NEAR-EARTH ENVIRONMENT: Energetic electron fluence at geostationary orbit was below threshold level September 1, 2011 and is expected to be below threshold level today. Visit <http://www.spaceweather.gc.ca/sffl-eng.php> for fluence forecast.

GEOMAGNETIC: Geomagnetic activity has been quiet with unsettled intervals in polar zone and quiet with active intervals in auroral zone and quiet in subauroral zone. Geomagnetic activity forecast is quiet in polar zone, quiet in auroral zone, quiet in the subauroral zone.

Visit <http://www.spaceweather.gc.ca/sfst-1-eng.php> for the most recent geomagnetic forecast

Space weather scientist

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From: Fiori, Robyn [mailto:Robyn.Fiori@NRCan-RNCan.gc.ca]

Sent: September-03-11 9:23 AM

To:

Subject: Space Weather Bulletin - September 3, 2011

Space Weather Bulletin – September 3, 2011 issued by the Canadian Space Weather Forecast Centre at 13:30 UT (09:30 EDT)

This is for testing purposes. The final bulletin will also be produced in both official languages.

OVERVIEW: There is currently no storm watch in effect. CMEs have been observed but are not expected to have effects on the Earth. Geomagnetic effects from coronal holes are expected to be observed on the Earth between September 03, 2011 and September 05, 2011. See our website for current information: <http://www.spaceweather.gc.ca>

SOLAR: Solar activity has been low. A non-Earth-directed CME erupted at September 02, 2011 06:30 UT. One 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 between -7 nT and 7 nT.

NEAR-EARTH ENVIRONMENT: Energetic electron fluence at geostationary orbit was below threshold level September 02, 2011 and is expected to be below threshold level today. Visit <http://www.spaceweather.gc.ca/sffl-eng.php> for the electron forecast.

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

Space weather scientist

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From: Fiori, Robyn [<mailto:Robyn.Fiori@NRCan-RNCan.gc.ca>]

Sent: September-04-11 1:15 PM

To:

Subject: Space Weather Bulletin - September 4, 2011

Space Weather Bulletin - September 4, 2011 issued by the Canadian Space Weather Forecast Centre at 17:15 UT (13:15 EDT)

This is for testing purposes. The final bulletin will also be produced in both official languages.

OVERVIEW: There is currently no storm watch in effect. Geomagnetic effects from coronal holes are expected to be observed on the Earth between present and September 05, 2011. See our website for current information: <http://www.spaceweather.gc.ca>
<<http://www.spaceweather.gc.ca>>

SOLAR: Solar activity has been low. An M (medium) class flare erupted at September 04, 2011 11:40 UT near the edge 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 ($2 <|B_z| < 5$ nT) levels.

NEAR-EARTH ENVIRONMENT: Energetic electron fluence at geostationary orbit was below threshold level September 03, 2011 and is expected to be below threshold level today. Visit <http://www.spaceweather.gc.ca/sffl-eng.php> <<http://www.spaceweather.gc.ca/sffl-eng.php>> for the electron forecast.

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

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From: Fiori, Robyn [mailto:Robyn.Fiori@NRCan-RNCan.gc.ca]

Sent: September-05-11 9:59 AM

To:

Subject: Space Weather Bulletin - September 05, 2011

Space Weather Bulletin – September 05, 2011 issued by the Canadian Space Weather Forecast Centre at 14:00 UT (10:00 EDT)

This is for testing purposes. The final bulletin will also be produced in both official languages.

OVERVIEW: There is currently no storm watch in effect. Geomagnetic effects from coronal holes are expected to be observed on the Earth between present and September 05, 2011. See our website for current information: <http://www.spaceweather.gc.ca>

SOLAR: Solar activity has been high. A CME erupted September 04, 2011, 11:40 UT. A coronal hole is located near the centre of the solar disk. An M flare erupted at September 04, 2011 11:40 UT near the edge of the solar disk. An M flare erupted at September 05, 2011 04:28 UT near the edge of the solar disk. An M flare erupted at September 05, 2011 07:52 UT near the edge 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 ($2 < |B_z| < 5$ nT).

NEAR-EARTH ENVIRONMENT: Energetic electron fluence at geostationary orbit was below threshold level September 04, 2011 and is expected to be above threshold level today. Visit <http://www.spaceweather.gc.ca/sffl-eng.php> for the electron forecast.

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

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From: Fiori, Robyn [mailto:Robyn.Fiori@NRCan-RNCan.gc.ca]

Sent: September-06-11 8:34 AM

To:

Subject: Space Weather Bulletin - September 06, 2011

Space Weather Bulletin – September 06, 2011 issued by the Canadian Space Weather Forecast Centre at 12:35 UT (08:35 EDT)

This is for testing purposes. The final bulletin will also be produced in both official languages.

OVERVIEW: There is currently no storm watch in effect. CMEs have been observed but are not expected to have effects on the Earth. See our website for current information:

<http://www.spaceweather.gc.ca>

SOLAR: Solar activity has been high. A non-Earth-directed CME erupted at September 06, 2011 01:50 UT. A coronal hole is located near the edge of the solar disk. An M (medium) flare erupted at September 05, 2011 04:01 UT near the edge of the solar disk. An M (medium) flare erupted at September 05, 2011 07:52 UT near the edge of the solar disk. An M (medium) flare erupted at September 06, 2011 01:38 UT 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 ($2 < |B_z| < 5$ nT) levels.

NEAR-EARTH ENVIRONMENT: Energetic electron fluence at geostationary orbit was below threshold level September 05, 2011 and is expected to be above threshold level today. Visit <http://www.spaceweather.gc.ca/sffl-eng.php> for the electron forecast.

GEOMAGNETIC: Geomagnetic activity has been quiet with major storm intervals in the polar zone, quiet with stormy intervals in the auroral zone, and quiet with unsettled intervals in the subauroral zone. 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 subauroral zone. Visit <http://www.spaceweather.gc.ca/sfst-1-eng.php> for the magnetic forecast.

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From: Fiori, Robyn [mailto:Robyn.Fiori@NRCan-RNCan.gc.ca]
Sent: September-06-11 2:49 PM
To:
Subject: Space Weather Bulletin - September 06, 2011 -UPDATE

Space Weather Bulletin – September 06, 2011 issued by the Canadian Space Weather Forecast Centre at 18:50 UT (14:50 EDT)

This is for testing purposes. The final bulletin will also be produced in both official languages.

OVERVIEW: There is currently no storm watch in effect. Geomagnetic effects from CMEs are expected to be observed on the Earth between September 09, 2011 and September 11, 2011. See our website for current information: <http://www.spaceweather.gc.ca>

SOLAR: Solar activity has been high. An Earth-directed CME erupted at September 06, 2011 02:24 UT. A coronal hole is located near the edge of the solar disk. An M (medium) flare erupted at September 06, 2011 01:38 UT near the centre of the solar disk. Non-Earth-directed solar flares erupted September 05, 2011.

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 ($2 < |B_z| < 5$ nT) levels.

NEAR-EARTH ENVIRONMENT: Energetic electron fluence at geostationary orbit was below threshold level September 05, 2011 and is expected to be above threshold level today. Visit <http://www.spaceweather.gc.ca/sffl-eng.php> for the electron forecast.

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

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From: Fiori, Robyn [mailto:Robyn.Fiori@NRCan-RNCan.gc.ca]

Sent: September-07-11 9:20 AM

To:

Subject: Space Weather Bulletin - September 07, 2011

Space Weather Bulletin – September 07, 2011 issued by the Canadian Space Weather Forecast Centre at 13:20 UT (09:20 EDT)

This is for testing purposes. The final bulletin will be produced in both official languages.

OVERVIEW: There is currently no storm watch in effect. Geomagnetic effects from CMEs are expected to be observed on the Earth between September 09, 2011 and September 11, 2011. See our website for current information: <http://www.spaceweather.gc.ca>

SOLAR: Solar activity has been high. An Earth-directed CME erupted at September 06, 2011 01:50 UT. An Earth-directed CME erupted at September 06, 2011 22:36 UT. One coronal hole is located near the edge of the solar disk. An X (large) flare erupted at September 06, 2011 22:16 UT 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 very low ($|B_z| < 2$ nT) levels.

NEAR-EARTH ENVIRONMENT: Energetic electron fluence at geostationary orbit was above threshold level September 06, 2011 and is expected to be above threshold level today. Visit <http://www.spaceweather.gc.ca/sffl-eng.php> for the electron forecast.

GEOMAGNETIC: 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 subauroral zone. Activity is forecast to be quiet with active intervals in the polar zone, unsettled in the auroral zone, and quiet in the subauroral zone. Visit <http://www.spaceweather.gc.ca/sfst-1-eng.php> for the magnetic forecast.

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From: Fiori, Robyn [mailto:Robyn.Fiori@NRCan-RNCan.gc.ca]

Sent: September-08-11 9:30 AM

To:

Subject: Space Weather Bulletin - September 08, 2011

Space Weather Bulletin – September 08, 2011 issued by the Canadian Space Weather Forecast Centre at 13:30 UT (09:30 EDT)

This is for testing purposes. The final bulletin will be produced in both official languages.

OVERVIEW: There is currently no storm watch in effect. CMEs have been observed but are not expected to have effects on the Earth. Geomagnetic effects from CMEs are expected to be observed on the Earth between September 09, 2011 and September 11, 2011. Geomagnetic effects from coronal holes are expected to be observed on the Earth between September 10, 2011 and September 12, 2011. See our website for current information:

<http://www.spaceweather.gc.ca>

SOLAR: Solar activity has been high. An Earth-directed CME erupted at September 06, 2011 22:36 UT. A non-Earth-directed CME erupted at September 07, 2011 22:35 UT. One coronal hole is located near the centre of the solar disk. An X (large) flare erupted at September 06, 2011 22:16 UT near the centre of the solar disk. An X (large) flare erupted at September 07, 2011 22:35 UT near the edge of the solar disk.

INTERPLANETARY: Interplanetary activity has been very low. The solar wind speed is currently very slow (<400 km/s). The interplanetary magnetic field has been fluctuating at very low ($|B_z| < 2$ nT) levels.

NEAR-EARTH ENVIRONMENT: Energetic electron fluence at geostationary orbit was above threshold level September 07, 2011 and is expected to be above threshold level today. Visit

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

GEOMAGNETIC: Geomagnetic activity has been quiet with unsettled intervals in the polar zone, quiet with active intervals in the auroral zone, and quiet in the subauroral zone. Activity is forecast to be quiet with unsettled intervals in the polar zone, quiet in the auroral zone, and quiet in the subauroral zone. Visit <http://www.spaceweather.gc.ca/sfst-1-eng.php> for the magnetic forecast.

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From: Fiori, Robyn [mailto:Robyn.Fiori@NRCan-RNCan.gc.ca]

Sent: September-09-11 8:35 AM

To:

Subject: Space Weather Bulletin - September 09, 2011

Space Weather Bulletin – September 09, 2011 issued by the Canadian Space Weather Forecast Centre at 12:30 UT (08:30 EDT)

This is for testing purposes. The final bulletin will be produced in both official languages.

OVERVIEW: There is currently no storm watch in effect. CMEs have been observed but are not expected to have effects on the Earth. Geomagnetic effects from coronal holes are expected to be observed on the Earth between September 11, 2011 and September 13, 2011. See our website for current information: <http://www.spaceweather.gc.ca>

SOLAR: Solar activity has been high. A non-Earth-directed CME erupted at September 07, 2011 22:35 UT. One coronal hole is located near the centre of the solar disk. A non-Earth directed M (medium) flare erupted at September 08, 2011 15:37.

INTERPLANETARY: Interplanetary activity is moderate. The solar wind speed is currently slow (400-500 km/s). The interplanetary magnetic field is fluctuating at moderate ($5 < |B_z| < 10$ nT) levels. A shock was observed in the ACE solar wind parameters at September 09, 2011 12:00 UT indicating the arrival of the CME from September 06, 2011.

NEAR-EARTH ENVIRONMENT: Energetic electron fluence at geostationary orbit was above threshold level September 08, 2011 and is expected to be above threshold level today. Visit <http://www.spaceweather.gc.ca/sffl-eng.php> for the electron forecast.

GEOMAGNETIC: Geomagnetic activity has been quiet in the polar zone, quiet with active intervals in the auroral zone, and quiet with unsettled intervals in the subauroral zone. 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 subauroral zone. Visit <http://www.spaceweather.gc.ca/sfst-1-eng.php> for the magnetic forecast.

Space weather scientist

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From: Fiori, Robyn [mailto:Robyn.Fiori@NRCan-RNCan.gc.ca]

Sent: September-09-11 11:10 AM

To:

Subject: Space Weather Bulletin - September 09, 2011

Updated to remove contradictory statements in the initial bulletin.

Space Weather Bulletin – September 09, 2011 issued by the Canadian Space Weather Forecast Centre at 12:30 UT (08:30 EDT)

This is for testing purposes. The final bulletin will be produced in both official languages.

OVERVIEW: There is currently no storm watch in effect. Geomagnetic effects from CMEs are expected to be observed on the Earth between current and September 11, 2011. Geomagnetic effects from coronal holes are expected to be observed on the Earth between September 11, 2011 and September 13, 2011. See our website for current information:

<http://www.spaceweather.gc.ca>

SOLAR: Solar activity has been high. One coronal hole is located near the centre of the solar disk. A non-Earth directed M (medium) flare erupted at September 08, 2011 15:37. Several CMEs have been observed between September 06, 2011 and September 09, 2011.

INTERPLANETARY: Interplanetary activity is moderate. The solar wind speed is currently slow (400-500 km/s). The interplanetary magnetic field has been fluctuating between +15 nT and -20 nT. A shock was observed in the ACE solar wind parameters at September 09, 2011 12:00 UT indicating the arrival of CMEs.

NEAR-EARTH ENVIRONMENT: Energetic electron fluence at geostationary orbit was above threshold level September 08, 2011 and is expected to be above threshold level today. Visit <http://www.spaceweather.gc.ca/sffl-eng.php> for the electron forecast.

GEOMAGNETIC: Geomagnetic activity has been quiet in the polar zone, quiet with active intervals in the auroral zone, and quiet with unsettled intervals in the subauroral zone. 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 subauroral zone. Visit <http://www.spaceweather.gc.ca/sfst-1-eng.php> for the magnetic forecast.

Space weather scientist

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From: Fiori, Robyn [mailto:Robyn.Fiori@NRCan-RNCan.gc.ca]

Sent: September-10-11 9:07 AM

To:

Subject: Space Weather Bulletin - June 23, 2011

Space Weather Bulletin – September 10, 2011 issued by the Canadian Space Weather Forecast Centre at 13:00 UT (09:00 EDT)

This is for testing purposes. The final bulletin will be produced in both official languages.

OVERVIEW: There is currently no storm watch in effect. Geomagnetic effects from coronal holes are expected to be observed on the Earth between September 11, 2011 and September 13, 2011. See our website for current information: <http://www.spaceweather.gc.ca>

SOLAR: Solar activity has been moderate. A CME erupted at September 10, 2011 03:40 UT. It is not yet known if it will affect the Earth. Two coronal holes are located near the centre of the solar disk. A non-Earth directed M (medium) flare erupted at September 09, 2011 12:49 UT. A non-Earth directed M (medium) flare erupted at September 10, 2011 07:18 UT.

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 ($5 < |B_z| < 10$ nT) levels.

NEAR-EARTH ENVIRONMENT: Energetic electron fluence at geostationary orbit was above threshold level September 09, 2011 and is expected to be below threshold level today. Visit <http://www.spaceweather.gc.ca/sffl-eng.php> for the electron forecast.

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

Space weather scientist

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From: Fiori, Robyn [<mailto:Robyn.Fiori@NRCan-RNCan.gc.ca>]

Sent: September-11-11 8:11 AM

To:

Subject: Space Weather Bulletin - September 11, 2011

Space Weather Bulletin - September 11, 2011 issued by the Canadian Space Weather Forecast Centre at 12:10 UT (08:10 EDT)

This is for testing purposes. The final bulletin will be produced in both official languages.

OVERVIEW: There is currently no storm watch in effect. Geomagnetic effects from coronal holes are expected to be observed on the Earth between September 11, 2011 and September 14, 2011. See our website for current information: <http://www.spaceweather.gc.ca>
<<https://email.nrcan.gc.ca/exchweb/bin/redirect.asp?URL=http://www.spaceweather.gc.ca>>

SOLAR: Solar activity has been moderate. A non-Earth directed CME erupted at September 10, 2011 03:40 UT. Two coronal holes are located near the centre of the solar disk. A non-Earth directed M (medium) flare erupted at September 10, 2011 07:18 UT.

INTERPLANETARY: Interplanetary activity has been low. 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 ($2 < |B_z| < 5$ nT) levels.

NEAR-EARTH ENVIRONMENT: Energetic electron fluence at geostationary orbit was below threshold level September 10, 2011 and is expected to be above threshold level today. Visit <http://www.spaceweather.gc.ca/sffl-eng.php> for the electron forecast.

GEOMAGNETIC: Geomagnetic activity has been unsettled with stormy intervals in the polar zone, unsettled with stormy intervals in the auroral zone, and unsettled with stormy intervals in the subauroral zone. 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 subauroral zone. Visit <http://www.spaceweather.gc.ca/sfst-1-eng.php> for the magnetic forecast.

Space weather scientist

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From: Fiori, Robyn [mailto:Robyn.Fiori@NRCan-RNCan.gc.ca]

Sent: September-12-11 10:02 AM

To:

Subject: Space Weather Bulletin - September 12, 2011

Space Weather Bulletin – September 12, 2011 issued by the Canadian Space Weather Forecast Centre at 14:00 UT (10:00 EDT)

This is for testing purposes. The final bulletin will be produced in both official languages.

OVERVIEW: There is currently no storm watch in effect. Geomagnetic effects from coronal holes are expected to be observed on the Earth between current and September 14, 2011. See our website for current information: <http://www.spaceweather.gc.ca>

SOLAR: Solar activity has been low. One 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. 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 ($2 < |B_z| < 5$ nT) levels.

NEAR-EARTH ENVIRONMENT: Energetic electron fluence at geostationary orbit was below threshold level September 11, 2011 and is expected to be above threshold level today. Visit <http://www.spaceweather.gc.ca/sffl-eng.php> for the electron forecast.

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

Space weather scientist

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From: McKee, Lorne [mailto:Lorne.McKee@NRCan-RNCan.gc.ca]

Sent: September-13-11 9:52 AM

To:

Subject: Space Weather Bulletin - September 13, 2011

Space Weather Bulletin – September 13, 2011 issued by the Canadian Space Weather Forecast Centre at 13:45 UT (9:45 EDT)

This is for testing purposes. The final bulletin will also be produced in both official languages.

OVERVIEW: There is currently no storm watch in effect. CMEs have been observed but are not expected to have effects on the Earth. Geomagnetic effects from coronal holes are expected to be observed on the Earth between September 13, 2011 and September 14, 2011. See our website for current information: <http://www.spaceweather.gc.ca>

SOLAR: Solar activity has been moderate. A non-Earth-directed CME erupted at September 10, 2011 03:12 UT.

INTERPLANETARY: Interplanetary activity has been low. The solar wind speed is currently moderate (500-700 km/s). Moderate solar wind speeds are due to high speed streams from coronal holes .

NEAR-EARTH ENVIRONMENT: Energetic electron fluence at geostationary orbit was above threshold level September 12, 2011 and is expected to be below threshold level today. Visit <http://www.spaceweather.gc.ca/sffl-eng.php> for the electron forecast.

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

Space weather scientist

Lorne McKee

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From: McKee, Lorne [mailto:Lorne.McKee@NRCan-RNCan.gc.ca]

Sent: September-14-11 9:44 AM

To:

Subject: Space Weather Bulletin - September 14, 2011

Space Weather Bulletin – September 14 , 2011 issued by the Canadian Space Weather Forecast Centre at 13:45 UT (9:45 EDT)

This is for testing purposes. The final bulletin will also be produced in both official languages.

OVERVIEW: There is currently no storm watch in effect. See our website for current information: <http://www.spaceweather.gc.ca>

SOLAR: Solar activity has been low.

INTERPLANETARY: Interplanetary activity has been low. The solar wind speed is currently low (400-500 km/s).

NEAR-EARTH ENVIRONMENT: Energetic electron fluence at geostationary orbit was above threshold level September 13, 2011 and is expected to be above threshold level today. Visit <http://www.spaceweather.gc.ca/sffl-eng.php> for the electron forecast.

GEOMAGNETIC: Geomagnetic activity has been Quiet with Active intervals in the polar zone, Quiet with Active intervals in the auroral zone, and Quiet in the subauroral zone. 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 subauroral zone. Visit <http://www.spaceweather.gc.ca/sfst-1-eng.php> for the magnetic forecast.

Space weather scientist

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From: McKee, Lorne [mailto:Lorne.McKee@NRCan-RNCan.gc.ca]

Sent: September-15-11 10:17 AM

To:

Subject: RE: Space Weather Bulletin - September 15, 2011

Space Weather Bulletin – September 15, 2011 issued by the Canadian Space Weather Forecast Centre at 14:15 UT (10:15 EDT)

This is for testing purposes. The final bulletin will also be produced in both official languages.

OVERVIEW: There is currently no storm watch in effect. Geomagnetic effects from CMEs are expected to be observed on the Earth between September 17 , 2011 and September 18 , 2011 . See our website for current information: <http://www.spaceweather.gc.ca>

SOLAR: Solar activity has been moderate. An Earth-directed CME erupted at September 13 , 2011 23:36 UT.

INTERPLANETARY: Interplanetary activity has been low. The solar wind speed is currently low (400-500 km/s).

NEAR-EARTH ENVIRONMENT: Energetic electron fluence at geostationary orbit was above threshold level September 14 , 2011 and is expected to be above threshold level today. Visit <http://www.spaceweather.gc.ca/sffl-eng.php> for the electron forecast.

GEOMAGNETIC: 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. Activity is forecast to be Unsettled in the polar zone, Quiet in the auroral zone, and Quiet in the subauroral zone. Visit <http://www.spaceweather.gc.ca/sfst-1-eng.php> for the magnetic forecast.

Space weather scientist

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From: McKee, Lorne [mailto:Lorne.McKee@NRCan-RNCan.gc.ca]

Sent: September-16-11 9:15 AM

To:

Subject: Space Weather Bulletin - September 16, 2011

Space Weather Bulletin – September 16 , 2011 issued by the Canadian Space Weather Forecast Centre at 13:15 UT (9:15 EDT)

This is for testing purposes. The final bulletin will also be produced in both official languages.

OVERVIEW: There is currently no storm watch in effect. Geomagnetic effects from CMEs are expected to be observed on the Earth between September 17 , 2011 and September 18 , 2011 . See our website for current information: <http://www.spaceweather.gc.ca>

SOLAR: Solar activity has been moderate. An Earth-directed CME erupted at September 13 , 2011 23:36 UT.

INTERPLANETARY: Interplanetary activity has been low. The solar wind speed is currently low (400-500 km/s).

NEAR-EARTH ENVIRONMENT: Energetic electron fluence at geostationary orbit was above threshold level September 15 , 2011 and is expected to be below threshold level today. Visit <http://www.spaceweather.gc.ca/sffl-eng.php> for the electron forecast.

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

Space weather scientist

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From: McKee, Lorne [<mailto:Lorne.McKee@NRCan-RNCan.gc.ca>]

Sent: September-17-11 7:52 AM

To:

Subject: Space Weather Bulletin - September 17, 2011

Space Weather Bulletin - September 17 , 2011 issued by the Canadian Space Weather Forecast Centre at 12:00 UT (8:00 EDT)

This is for testing purposes. The final bulletin will also be produced in both official languages.

OVERVIEW: There is currently no storm watch in effect. Geomagnetic effects from CMEs are expected to be observed on the Earth between September 17 , 2011 and September 18 , 2011 . See our website for current information: <http://www.spaceweather.gc.ca> <<http://www.spaceweather.gc.ca/>>

SOLAR: Solar activity has been moderate. An Earth-directed CME erupted at September 13 , 2011 23:36 UT.

INTERPLANETARY: Interplanetary activity has been moderate. Moderate solar wind speeds are due to a CME observed September 17, 2011 02:55 UT.

NEAR-EARTH ENVIRONMENT: Energetic electron fluence at geostationary orbit was above threshold level September 16 , 2011 and is expected to be above threshold level today. Visit <http://www.spaceweather.gc.ca/sffl-eng.php> <<http://www.spaceweather.gc.ca/sffl-eng.php>> for the electron forecast.

GEOMAGNETIC: 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 subauroral zone. Activity is forecast to be 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. Visit <http://www.spaceweather.gc.ca/sfst-1-eng.php> <<http://www.spaceweather.gc.ca/sfst-1-eng.php>> for the magnetic forecast.

Space weather scientist

Lorne McKee

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From: McKee, Lorne [<mailto:Lorne.McKee@NRCan-RNCan.gc.ca>]

Sent: September-18-11 9:09 AM

To:

Subject: Space Weather Bulletin - September 18, 2011

Space Weather Bulletin - September 18 , 2011 issued by the Canadian Space Weather Forecast Centre at 13:10 UT (9:10 EDT)

This is for testing purposes. The final bulletin will also be produced in both official languages.

OVERVIEW: There is currently no storm watch in effect. See our website for current information: <http://www.spaceweather.gc.ca> <<http://www.spaceweather.gc.ca/>>
<<http://www.spaceweather.gc.ca/>>

SOLAR: Solar activity has been moderate.

INTERPLANETARY: Interplanetary activity has been moderate. The solar wind speed is decreasing (currently ~ 450 km/s).

NEAR-EARTH ENVIRONMENT: Energetic electron fluence at geostationary orbit was above threshold level September 17 , 2011 and is expected to be above threshold level today. Visit <http://www.spaceweather.gc.ca/sffl-eng.php> <<http://www.spaceweather.gc.ca/sffl-eng.php>> for the electron forecast.

GEOMAGNETIC: Geomagnetic activity has been Unsettled with Stormy intervals in the polar zone, Quiet with Stormy intervals in the auroral zone, and Quiet with Stormy intervals in the subauroral zone. 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 subauroral zone. Visit <http://www.spaceweather.gc.ca/sfst-1-eng.php> <<http://www.spaceweather.gc.ca/sfst-1-eng.php>> for the magnetic forecast.

Space weather scientist

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From: McKee, Lorne [<mailto:Lorne.McKee@NRCan-RNCan.gc.ca>]

Sent: September-19-11 9:37 AM

To:

Subject: Space Weather Bulletin - September 19, 2011

Space Weather Bulletin - September 19, 2011 issued by the Canadian Space Weather Forecast Centre at 13:45 UT (9:45 EDT)

This is for testing purposes. The final bulletin will also be produced in both official languages.

OVERVIEW: There is currently no storm watch in effect. See our website for current information: <http://www.spaceweather.gc.ca> <<http://www.spaceweather.gc.ca/>> <<http://www.spaceweather.gc.ca/>>

SOLAR: Solar activity has been low.

INTERPLANETARY: Interplanetary activity has been low.

NEAR-EARTH ENVIRONMENT: Energetic electron fluence at geostationary orbit was below threshold level September 18, 2011 and is expected to be above threshold level today. Visit <http://www.spaceweather.gc.ca/sffl-eng.php> <<http://www.spaceweather.gc.ca/sffl-eng.php>> for the electron forecast.

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

Space weather scientist

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From: McKee, Lorne [<mailto:Lorne.McKee@NRCan-RNCan.gc.ca>]

Sent: September-20-11 10:08 AM

To:

Subject: Space Weather Bulletin - September 20, 2011

Space Weather Bulletin - September 20 , 2011 issued by the Canadian Space Weather Forecast Centre at 14:00 UT (10:00 EDT)

This is for testing purposes. The final bulletin will also be produced in both official languages.

OVERVIEW: There is currently no storm watch in effect.

See our website for current information: <http://www.spaceweather.gc.ca>

SOLAR: Solar activity has been low.

INTERPLANETARY: Interplanetary activity has been low.

NEAR-EARTH ENVIRONMENT: Energetic electron fluence at geostationary orbit was below threshold level September 19, 2011 and is expected to be below threshold level today.

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

GEOMAGNETIC:

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 subauroral zone. 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 subauroral zone.

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

Space weather scientist

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From: Danskin, Donald [mailto:Donald.Danskin@NRCan-RNCan.gc.ca]

Sent: September-21-11 10:55 AM

To:

Subject: Space Weather Bulletin - September 21 , 2011 issued by the Canadian Space Weather Forecast Centre

Space Weather Bulletin - September 21 , 2011 issued by the Canadian Space Weather Forecast Centre at 15:00 UT (11:00 EDT)

This is for testing purposes. The final bulletin will also be produced in both official languages.

OVERVIEW: There is currently no storm watch in effect.

See our website for current information: <http://www.spaceweather.gc.ca>

SOLAR: Solar activity has been low.

INTERPLANETARY: Interplanetary activity has been low.

NEAR-EARTH ENVIRONMENT: Energetic electron fluence at geostationary orbit was below threshold level September 20, 2011 and is expected to be below threshold level today.

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

GEOMAGNETIC:

Geomagnetic activity has been Quiet with Active intervals in the polar zone, Quiet with Active intervals in the auroral zone, and Quiet in the subauroral zone.

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 subauroral zone.

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

Space weather scientist

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From: McKee, Lorne [<mailto:Lorne.McKee@NRCan-RNCan.gc.ca>]

Sent: September-21-11 11:23 AM

To:

Subject: Space Weather Bulletin - September 21, 2011

Space Weather Bulletin - September 21 , 2011 issued by the Canadian Space Weather Forecast Centre at 15:25 UT (11:25 EDT)

This is for testing purposes. The final bulletin will also be produced in both official languages.

OVERVIEW: There is currently no storm watch in effect.

See our website for current information: <http://www.spaceweather.gc.ca>

SOLAR: Solar activity has been moderate.

INTERPLANETARY: Interplanetary activity has been low.

NEAR-EARTH ENVIRONMENT: Energetic electron fluence at geostationary orbit was below threshold level September 20, 2011 and is expected to be below threshold level today.

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

GEOMAGNETIC:

Geomagnetic activity has been Quiet with Active intervals in the polar zone, Quiet with Active intervals in the auroral zone, and Quiet in the subauroral zone.

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 subauroral zone.

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

Space weather scientist

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From: McKee, Lorne [<mailto:Lorne.McKee@NRCan-RNCan.gc.ca>]

Sent: September-22-11 8:38 AM

To:

Subject: Space Weather Bulletin - September 22, 2011

Space Weather Bulletin - September 22 , 2011 issued by the Canadian Space Weather Forecast Centre at 12:35 UT (08:35 EDT)

This is for testing purposes. The final bulletin will also be produced in both official languages.

OVERVIEW: There is currently no storm watch in effect. CMEs have been observed but are not expected to have effects on the Earth.

See our website for current information: <http://www.spaceweather.gc.ca>

SOLAR: Solar activity has been high. An X (large) flare erupted at September 22, 2011 10:20 UT near the edge of the solar disk.

INTERPLANETARY: Interplanetary activity has been low.

NEAR-EARTH ENVIRONMENT: Energetic electron fluence at geostationary orbit was below threshold level September 21, 2011 and is expected to be above threshold level today.

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

GEOMAGNETIC:

Geomagnetic activity has been Quiet with Active intervals in the polar zone, Quiet with Active intervals in the auroral zone, and Quiet in the subauroral zone.

Activity is forecast to be Quiet with Unsettled intervals in the polar zone, Quiet in the auroral zone, and Quiet in the subauroral zone.

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

Space weather scientist

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From: McKee, Lorne [<mailto:Lorne.McKee@NRCan-RNCan.gc.ca>]

Sent: September-23-11 9:05 AM

To:

Subject: Space Weather Bulletin - September 23, 2011

Space Weather Bulletin - September 23 , 2011 issued by the Canadian Space Weather Forecast Centre at 13:10 UT (09:10 EDT)

This is for testing purposes. The final bulletin will also be produced in both official languages.

OVERVIEW: A geomagnetic storm is expected within the next 24 hours. Geomagnetic effects from CMEs are expected to be observed on the Earth between September 25, 2011 and September 26, 2011. See our website for current information: <http://www.spaceweather.gc.ca> <<http://www.spaceweather.gc.ca/>>

SOLAR: Solar activity has been high. An X (large) flare erupted at September 22, 2011 10:20 UT near the edge of the solar disk.

INTERPLANETARY: Interplanetary activity has been low.

NEAR-EARTH ENVIRONMENT: Energetic electron fluence at geostationary orbit was below threshold level September 22, 2011 and is expected to be below threshold level today. Visit <http://www.spaceweather.gc.ca/sffl-eng.php> for the electron forecast.

GEOMAGNETIC:

Geomagnetic activity has been Quiet with Unsettled intervals in the polar zone, Quiet in the auroral zone, and Quiet in the subauroral zone.

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

Space weather scientist

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From: McKee, Lorne [<mailto:Lorne.McKee@NRCan-RNCan.gc.ca>]

Sent: September-24-11 11:02 AM

To:

Subject: Space Weather Bulletin - September 24, 2011

Space Weather Bulletin - September 24 , 2011 issued by the Canadian Space Weather Forecast Centre at 13:10 UT (09:10 EDT)

This is for testing purposes. The final bulletin will also be produced in both official languages.

OVERVIEW: A geomagnetic storm is expected within the next 24 hours. Geomagnetic effects from CMEs are expected to be observed on the Earth between September 25, 2011 and September 26, 2011. See our website for current information: <http://www.spaceweather.gc.ca> <<http://www.spaceweather.gc.ca/>>

SOLAR: Solar activity has been high. An X (large) flare erupted at September 24, 2011 ~09:40 UT near the edge of the solar disk.

INTERPLANETARY: Interplanetary activity has been low.

NEAR-EARTH ENVIRONMENT: Energetic electron fluence at geostationary orbit was below threshold level September 23, 2011 and is expected to be below threshold level today. Visit <http://www.spaceweather.gc.ca/sffl-eng.php> for the electron forecast.

GEOMAGNETIC:

Geomagnetic activity has been Quiet with Unsettled intervals in the polar zone, Quiet in the auroral zone, and Quiet in the subauroral zone.

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 subauroral zone.

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

Space weather scientist

Lorne McKee

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From: McKee, Lorne [<mailto:Lorne.McKee@NRCan-RNCan.gc.ca>]

Sent: September-25-11 8:56 AM

To:

Subject: Space Weather Bulletin - September 25, 2011

Space Weather Bulletin - September 25 , 2011 issued by the Canadian Space Weather Forecast Centre at 13:00 UT (09:00 EDT)

This is for testing purposes. The final bulletin will also be produced in both official languages.

OVERVIEW: Geomagnetic effects from CMEs are expected to be observed on the Earth between September 25, 2011 and September 26, 2011. See our website for current information: <http://www.spaceweather.gc.ca>

SOLAR: Solar activity has been high. An X (large) flare erupted at September 24, 2011 ~09:40 UT near the edge of the solar disk. Ten M (moderate) flares have erupted over the past 24 hours.

INTERPLANETARY: Interplanetary activity has been moderate. The interplanetary magnetic field has been fluctuating at moderate ($5 < |Bz| < 10$) levels. The solar wind speed is currently very slow (<400km/s).

NEAR-EARTH ENVIRONMENT: Energetic electron fluence at geostationary orbit was below threshold level September 24, 2011 and is expected to be below threshold level today. Visit <http://www.spaceweather.gc.ca/sffl-eng.php> for the electron forecast.

GEOMAGNETIC:

Geomagnetic activity has been Quiet with Unsettled intervals in the polar zone, Quiet with Unsettled intervals in the auroral zone, and Quiet in the subauroral zone.

Activity is forecast to be Quiet with Active Intervals intervals in the polar zone, Quiet with Active intervals in the auroral zone, and Quiet with Active intervals in the subauroral zone.

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

Space weather scientist

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From: McKee, Lorne [<mailto:Lorne.McKee@NRCan-RNCan.gc.ca>]

Sent: September-26-11 10:38 AM

To:

Subject: Space Weather Bulletin - September 26, 2011

Space Weather Bulletin - September 26 , 2011 issued by the Canadian Space Weather Forecast Centre at 14:35 UT (10:35 EDT)

This is for testing purposes. The final bulletin will also be produced in both official languages.

OVERVIEW: Geomagnetic effects from CMEs are currently observed in polar (Stormy), auroral (Active) and subauroral (Active) zones. See our website for current information:

<http://www.spaceweather.gc.ca>

SOLAR: Solar activity has been moderate.

INTERPLANETARY: Interplanetary activity has been moderate to high. The solar wind speed is currently moderate (<550km/s). The interplanetary magnetic field has been fluctuating at high ($10 < |B_z| < 20$) levels.

NEAR-EARTH ENVIRONMENT: Energetic electron fluence at geostationary orbit was below threshold level September 25, 2011 and is expected to be below threshold level today.

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

GEOMAGNETIC:

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 subauroral zone.

Activity is forecast to be Unsettled with Stormy Intervals 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 scientist

Lorne McKee

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From: Danskin, Donald [mailto:Donald.Danskin@NRCan-RNCan.gc.ca]

Sent: September-27-11 10:28 AM

To:

Subject: Space Weather Bulletin - September 27 , 2011

Space Weather Bulletin - September 27 , 2011 issued by the Canadian Space Weather Forecast Centre at 14:30 UT (10:30 EDT)

This is for testing purposes. The final bulletin will also be produced in both official languages.

OVERVIEW: Geomagnetic effects from CMEs are currently observed in polar (Active intervals), auroral (Stormy intervals) and subauroral (Active intervals) zones. See our website for current information: <http://www.spaceweather.gc.ca>

SOLAR: Solar activity has been moderate.

INTERPLANETARY: Interplanetary activity has been moderate to high. The solar wind speed is currently moderate (~600 km/s). The interplanetary magnetic field is moderate ($-5 < |B_z| < 5$) levels.

NEAR-EARTH ENVIRONMENT: Energetic electron fluence at geostationary orbit was below threshold level September 26, 2011 and is expected to be at threshold level today.

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

GEOMAGNETIC:

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 subauroral zone.

Activity is forecast to be Active with Stormy Intervals intervals in the polar zone, Stormy in the auroral zone, and Active with Stormy intervals in the subauroral zone.

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

Space weather scientist

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From: Danskin, Donald [mailto:Donald.Danskin@NRCan-RNCan.gc.ca]

Sent: September-28-11 10:31 AM

To:

Subject: Space Weather Bulletin - September 28 , 2011

Space Weather Bulletin - September 28 , 2011 issued by the Canadian Space Weather Forecast Centre at 14:20 UT (10:20 EDT)

This is for testing purposes. The final bulletin will also be produced in both official languages.

OVERVIEW: There is currently no storm watch in effect. See our website for current information: <http://www.spaceweather.gc.ca>

SOLAR: Solar activity has been low.

INTERPLANETARY: Interplanetary activity has been moderate. The solar wind speed is currently moderate (~450 km/s). The interplanetary magnetic field is moderate ($-5 < |B_z| < 5$) levels.

NEAR-EARTH ENVIRONMENT: Energetic electron fluence at geostationary orbit was below threshold level September 27, 2011 and is expected to be above threshold level today.

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

GEOMAGNETIC:

Geomagnetic activity has been Unsettled in the polar zone, Active with stormy intervals in the auroral zone, and unsettled with Stormy intervals in the subauroral zone.

Activity is forecast to be Unsettled with Stormy Intervals intervals in the polar zone, Stormy in the auroral zone, and Unsettled with Active intervals in the subauroral zone.

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

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Government of Canada Gouvernement du Canada

From: Danskin, Donald [mailto:Donald.Danskin@NRCan-RNCan.gc.ca]

Sent: September-29-11 10:55 AM

To:

Subject: Space Weather Bulletin - September 29 , 2011

Space Weather Bulletin - September 29 , 2011 issued by the Canadian Space Weather Forecast Centre at 14:45 UT (10:45 EDT)

This is for testing purposes. The final bulletin will also be produced in both official languages.

OVERVIEW: There is currently no storm watch in effect. See our website for current information: <http://www.spaceweather.gc.ca>

SOLAR: Solar activity has been low.

INTERPLANETARY: Interplanetary activity has been moderate. The solar wind speed is currently moderate (~600 km/s). The interplanetary magnetic field is moderate ($-5 < |B_z| < 5$) levels.

NEAR-EARTH ENVIRONMENT: Energetic electron fluence at geostationary orbit was below threshold level September 28, 2011 and is expected to be above threshold level today. Visit <http://www.spaceweather.gc.ca/sffl-eng.php> for the electron forecast.

GEOMAGNETIC: Geomagnetic activity has been unsettled with stormy in the polar zone, quiet with stormy intervals in the auroral zone, and quiet with stormy intervals in the subauroral zone. Activity is forecast to be unsettled with active intervals intervals in the polar zone, unsettled with active intervals in the auroral zone, and quiet with unsettled intervals in the subauroral zone.

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

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From: Danskin, Donald [mailto:Donald.Danskin@NRCan-RNCan.gc.ca]

Sent: September-30-11 10:35 AM

To:

Subject: Space Weather Bulletin - September 30, 2011

Space Weather Bulletin - September 30, 2011 issued by the Canadian Space Weather Forecast Centre at 14:30 UT (10:30 EDT)

This is for testing purposes. The final bulletin will also be produced in both official languages.

OVERVIEW: There is currently no storm watch in effect. See our website for current information: <http://www.spaceweather.gc.ca>

SOLAR: Solar activity has been low.

INTERPLANETARY: Interplanetary activity has been moderate. The solar wind speed is currently moderate (~550 km/s). The interplanetary magnetic field is moderate ($-5 < |B_z| < 5$) levels.

NEAR-EARTH ENVIRONMENT: Energetic electron fluence at geostationary orbit was at threshold level September 29, 2011 and is expected to be above threshold level today. Visit <http://www.spaceweather.gc.ca/sffl-eng.php> for the electron forecast.

GEOMAGNETIC: 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. Activity is forecast to be quiet with unsettled intervals in the polar zone, quiet in the auroral zone, and quiet in the subauroral zone.

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

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From: Danskin, Donald [mailto:Donald.Danskin@NRCan-RNCan.gc.ca]

Sent: October-01-11 11:17 AM

To:

Subject: Space Weather Bulletin - October 1, 2011

Space Weather Bulletin - October 1, 2011 issued by the Canadian Space Weather Forecast Centre at 15:15 UT (11:15 EDT)

This is for testing purposes. The final bulletin will also be produced in both official languages.

OVERVIEW: There is currently no storm watch in effect. See our website for current information: <http://www.spaceweather.gc.ca>

SOLAR: Solar activity has been low.

INTERPLANETARY: Interplanetary activity has been moderate. The solar wind speed is currently moderate (~600km/s). The interplanetary magnetic field is moderate ($-5 < |B_z| < 5$) levels.

NEAR-EARTH ENVIRONMENT: Energetic electron fluence at geostationary orbit was above threshold level September 30, 2011 and is expected to be above threshold level today. Visit <http://www.spaceweather.gc.ca/sffl-eng.php> for the electron forecast.

GEOMAGNETIC: 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 subauroral zone. 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 subauroral zone.

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

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From: Danskin, Donald [mailto:Donald.Danskin@NRCan-RNCan.gc.ca]

Sent: October-02-11 10:41 AM

To:

Subject: Space Weather Bulletin - October 2, 2011

Space Weather Bulletin - October 2, 2011 issued by the Canadian Space Weather Forecast Centre at 14:45 UT (10:45 EDT)

This is for testing purposes. The final bulletin will also be produced in both official languages.

OVERVIEW: There is currently no storm watch in effect. See our website for current information: <http://www.spaceweather.gc.ca>

SOLAR: Solar activity has been moderate.

INTERPLANETARY: Interplanetary activity has been moderate. The solar wind speed is currently moderate (~500km/s). The interplanetary magnetic field is moderate ($-5 < |B_z| < 5$) levels.

NEAR-EARTH ENVIRONMENT: Energetic electron fluence at geostationary orbit was below threshold level October 1, 2011 and is expected to be below threshold level today. Visit <http://www.spaceweather.gc.ca/sffl-eng.php> for the electron forecast.

GEOMAGNETIC: 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. Activity is forecast to be quiet with unsettled intervals in the polar zone, active in the auroral zone, and quiet in the subauroral zone.

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

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From: Danskin, Donald [mailto:Donald.Danskin@NRCan-RNCan.gc.ca]

Sent: October-03-11 10:34 AM

To:

Subject: Space Weather Bulletin - October 3, 2011

Space Weather Bulletin - October 3, 2011 issued by the Canadian Space Weather Forecast Centre at 14:30 UT (10:30 EDT)

This is for testing purposes. The final bulletin will also be produced in both official languages.

OVERVIEW: There is currently no storm watch in effect. Effects from CMEs are expected to be observed on the Earth between October 4 and October 6. See our website for current information: <http://www.spaceweather.gc.ca>

SOLAR: Solar activity has been moderate. Earth-directed CMEs erupted on Oct 1 and Oct 2.

INTERPLANETARY: Interplanetary activity has been moderate. The solar wind speed is currently low (~400km/s). The interplanetary magnetic field is moderate ($-5 < |B_z| < 5$) levels.

NEAR-EARTH ENVIRONMENT: Energetic electron fluence at geostationary orbit was at threshold level October 2, 2011 and is expected to be above threshold level today. Visit <http://www.spaceweather.gc.ca/sffl-eng.php> for the electron forecast.

GEOMAGNETIC: 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. 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 subauroral zone.

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

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From: Danskin, Donald [mailto:Donald.Danskin@NRCan-RNCan.gc.ca]

Sent: October-04-11 11:32 AM

To:

Subject: Space Weather Bulletin - October 4, 2011

Space Weather Bulletin - October 4, 2011 issued by the Canadian Space Weather Forecast Centre at 15:30 UT (11:30 EDT)

This is for testing purposes. The final bulletin will be produced in both official languages.

OVERVIEW: There is currently no storm watch in effect. Effects from CMEs are expected to be observed on the Earth between October 5 and October 6. See our website for current information: <http://www.spaceweather.gc.ca>

SOLAR: Solar activity has been moderate. Earth-directed CMEs erupted on Oct 1 and Oct 2.

INTERPLANETARY: Interplanetary activity has been moderate. The solar wind speed is currently low (~360 km/s). The interplanetary magnetic field is moderate ($-5 < |B_z| < 5$) levels.

NEAR-EARTH ENVIRONMENT: Energetic electron fluence at geostationary orbit was above threshold level October 3, 2011 and is expected to be above threshold level today. Visit <http://www.spaceweather.gc.ca/sffl-eng.php> for the electron forecast.

GEOMAGNETIC: Geomagnetic activity has been quiet with unsettled intervals in the polar zone, quiet with stormy intervals in the auroral zone, and quiet in the subauroral zone. 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 subauroral zone.

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

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From: Danskin, Donald [mailto:Donald.Danskin@NRCan-RNCan.gc.ca]

Sent: October-05-11 12:00 PM

To:

Subject: Space Weather Bulletin - October 5, 2011

Space Weather Bulletin - October 5, 2011 issued by the Canadian Space Weather Forecast Centre at 15:45 UT (11:45 EDT)

This is for testing purposes. The final bulletin will be produced in both official languages.

OVERVIEW: There is currently no storm watch in effect. Effects from CMEs are currently observed in polar (active), auroral (active) and subauroral (active) zones.. See our website for current information: <http://www.spaceweather.gc.ca>

SOLAR: Solar activity has been low.

INTERPLANETARY: Interplanetary activity has been high. The solar wind speed is currently low (~500 km/s). The interplanetary magnetic field is high ($-15 < |B_z| < 15$) levels.

NEAR-EARTH ENVIRONMENT: Energetic electron fluence at geostationary orbit was above threshold level October 4, 2011 and is expected to be above threshold level today. Visit <http://www.spaceweather.gc.ca/sffl-eng.php> for the electron forecast.

GEOMAGNETIC: 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 subauroral zone. 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 subauroral zone.

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

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From: Danskin, Donald [mailto:Donald.Danskin@NRCan-RNCan.gc.ca]

Sent: October-06-11 10:14 AM

To:

Subject: Space Weather Bulletin - October 6, 2011

Space Weather Bulletin - October 6, 2011 issued by the Canadian Space Weather Forecast Centre at 14:15 UT (10:15 EDT)

This is for testing purposes. The final bulletin will be produced in both official languages.

OVERVIEW: There is currently no storm watch in effect. Effects from CMEs are currently observed in polar (quiet), auroral (unsettled) and subauroral (quiet) zones. See our website for current information: <http://www.spaceweather.gc.ca>

SOLAR: Solar activity has been low.

INTERPLANETARY: Interplanetary activity has been high. The solar wind speed is currently low (~400 km/s). The interplanetary magnetic field is high ($-10 < |B_z| < 10$) levels.

NEAR-EARTH ENVIRONMENT: Energetic electron fluence at geostationary orbit was at threshold level October 5, 2011 and is expected to be above threshold level today. Visit <http://www.spaceweather.gc.ca/sffl-eng.php> for the electron forecast.

GEOMAGNETIC: 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 subauroral zone. Activity is forecast to be quiet with unsettled intervals in the polar zone, unsettled in the auroral zone, and quiet in the subauroral zone.

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

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From: Danskin, Donald [mailto:Donald.Danskin@NRCan-RNCan.gc.ca]

Sent: October-07-11 9:27 AM

To:

Subject: Space Weather Bulletin - October 7, 2011

Space Weather Bulletin - October 7, 2011 issued by the Canadian Space Weather Forecast Centre at 13:15 UT (9:15 EDT)

This is for testing purposes. The final bulletin will be produced in both official languages.

OVERVIEW: There is currently no storm watch in effect. See our website for current information: <http://www.spaceweather.gc.ca>

SOLAR: Solar activity has been low.

INTERPLANETARY: Interplanetary activity has been moderate. The solar wind speed is currently low (~400 km/s). The interplanetary magnetic field is moderate ($-5 < |B_z| < 5$) levels.

NEAR-EARTH ENVIRONMENT: Energetic electron fluence at geostationary orbit was below threshold level October 6, 2011 and is expected to be above threshold level today. Visit <http://www.spaceweather.gc.ca/sffl-eng.php> for the electron forecast.

GEOMAGNETIC: Geomagnetic activity has been quiet with unsettled intervals in the polar zone, quiet with stormy intervals in the auroral zone, and quiet in the subauroral zone. 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 subauroral zone.

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

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From: Danskin, Donald [mailto:Donald.Danskin@NRCan-RNCan.gc.ca]

Sent: October-08-11 10:54 AM

To:

Subject: Space Weather Bulletin - October 8, 2011

Space Weather Bulletin - October 8, 2011 issued by the Canadian Space Weather Forecast Centre at 15:00 UT (11:00 EDT)

This is for testing purposes. The final bulletin will be produced in both official languages.

OVERVIEW: There is currently no storm watch in effect. See our website for current information: <http://www.spaceweather.gc.ca>

SOLAR: Solar activity has been low.

INTERPLANETARY: Interplanetary activity has been low. The solar wind speed is currently very low (~340 km/s). The interplanetary magnetic field is low ($-5 < |B_z| < 5$) levels.

NEAR-EARTH ENVIRONMENT: Energetic electron fluence at geostationary orbit was below threshold level October 7, 2011 and is expected to be below threshold level today. Visit <http://www.spaceweather.gc.ca/sffl-eng.php> for the electron forecast.

GEOMAGNETIC: Geomagnetic activity has been quiet with unsettled intervals in the polar zone, quiet with active intervals in the auroral zone, and quiet in the subauroral zone. Activity is forecast to be quiet in the polar zone, quiet in the auroral zone, and quiet in the subauroral zone.

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

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From: Danskin, Donald [mailto:Donald.Danskin@NRCan-RNCan.gc.ca]

Sent: October-09-11 9:18 AM

To:

Subject: Space Weather Bulletin - October 9, 2011

Space Weather Bulletin - October 9, 2011 issued by the Canadian Space Weather Forecast Centre at 13:15 UT (9:15 EDT)

This is for testing purposes. The final bulletin will be produced in both official languages.

OVERVIEW: There is currently no storm watch in effect. See our website for current information: <http://www.spaceweather.gc.ca>

SOLAR: Solar activity has been low.

INTERPLANETARY: Interplanetary activity has been low. The solar wind speed is currently very low (~300 km/s). The interplanetary magnetic field is low ($-5 < |B_z| < 5$) levels.

NEAR-EARTH ENVIRONMENT: Energetic electron fluence at geostationary orbit was below threshold level October 8, 2011 and is expected to be at threshold level today. Visit <http://www.spaceweather.gc.ca/sffl-eng.php> for the electron forecast.

GEOMAGNETIC: 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. 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 subauroral zone.

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

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From: Danskin, Donald [mailto:Donald.Danskin@NRCan-RNCan.gc.ca]

Sent: October-10-11 10:58 AM

To:

Subject: Space Weather Bulletin - October 10, 2011

Space Weather Bulletin - October 10, 2011 issued by the Canadian Space Weather Forecast Centre at 14:45 UT (10:45 EDT)

This is for testing purposes. The final bulletin will be produced in both official languages.

OVERVIEW: There is currently no storm watch in effect. See our website for current information: <http://www.spaceweather.gc.ca>

SOLAR: Solar activity has been low.

INTERPLANETARY: Interplanetary activity has been low. The solar wind speed is currently very low (~360 km/s). The interplanetary magnetic field is low ($-5 < |B_z| < 5$) levels.

NEAR-EARTH ENVIRONMENT: Energetic electron fluence at geostationary orbit was below threshold level October 9, 2011 and is expected to be at threshold level today. Visit <http://www.spaceweather.gc.ca/sffl-eng.php> for the electron forecast.

GEOMAGNETIC: Geomagnetic activity has been quiet with unsettled intervals in the polar zone, quiet in the auroral zone, and quiet with unsettled intervals in the subauroral zone. Activity is forecast to be quiet in the polar zone, quiet in the auroral zone, and quiet in the subauroral zone.

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

Space weather scientist

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From: Danskin, Donald [mailto:Donald.Danskin@NRCan-RNCan.gc.ca]

Sent: October-11-11 10:16 AM

To:

Subject: Space Weather Bulletin - October 11, 2011

Space Weather Bulletin - October 11, 2011 issued by the Canadian Space Weather Forecast Centre at 14:15 UT (10:15 EDT)

This is for testing purposes. The final bulletin will be produced in both official languages.

OVERVIEW: There is currently no storm watch in effect. See our website for current information: <http://www.spaceweather.gc.ca>

SOLAR: Solar activity has been low.

INTERPLANETARY: Interplanetary activity has been low. The solar wind speed is currently very low (~360 km/s). The interplanetary magnetic field is low ($-5 < |B_z| < 5$) levels.

NEAR-EARTH ENVIRONMENT: Energetic electron fluence at geostationary orbit was below threshold level October 10, 2011 and is expected to be at threshold level today. Visit <http://www.spaceweather.gc.ca/sffl-eng.php> for the electron forecast.

GEOMAGNETIC: Geomagnetic activity has been quiet with unsettled intervals in the polar zone, quiet in the auroral zone, and quiet in the subauroral zone. Activity is forecast to be quiet in the polar zone, quiet in the auroral zone, and quiet in the subauroral zone.

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

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From: Lam, Hing-Lan [mailto:Hing-Lan.Lam@NRCan-RNCan.gc.ca]

Sent: October-12-11 10:59 AM

To:

Subject: Space Weather Bulletin - 2011-10-12

Space Weather Bulletin – October 12, 2011 issued by the Canadian Space Weather Forecast Centre at 15:00 UT (11:00 EDT)

This is for testing purposes. The final bulletin will be produced in both official languages.

OVERVIEW: There is currently no storm watch. Geomagnetic effects from a coronal hole are expected on Oct 15-16. See our website for current information: <http://www.spaceweather.gc.ca>.

SOLAR: Solar activity has been low. A coronal hole is located near the center of the solar disc.

INTERPLANETARY: Interplanetary activity has been low. The solar wind speed is currently low (~ 400 km/s). The interplanetary magnetic field is low at ($-5 < |B_z| < 5$) levels.

NEAR-EARTH ENVIRONMENT: Energetic electron fluence at geostationary orbit was below threshold level on October 11, 2011 and is expected to be below threshold level today. Visit <http://www.spaceweather.gc.ca/sffl-eng.php> for fluence forecast.

GEOMAGNETIC: Geomagnetic activity has been quiet (with unsettled intervals) in polar zone, quiet (with active intervals) in auroral zone, and quiet (with unsettled intervals) in subauroral zone. Geomagnetic activity is expected to be quiet in polar zone, quiet (with unsettled intervals) in auroral zone, and quiet in subauroral zone. Visit <http://www.spaceweather.gc.ca/sfst-1-eng.php> for the most recent geomagnetic forecast.

Space weather scientist

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From: Lam, Hing-Lan [mailto:Hing-Lan.Lam@NRCan-RNCan.gc.ca]

Sent: October-13-11 10:28 AM

To:

Subject: Space Weather Bulletin - 2011-10-13

Space Weather Bulletin – October 13, 2011 issued by the Canadian Space Weather Forecast Centre at 14:25 UT (10:25 EDT)

This is for testing purposes. The final bulletin will be produced in both official languages.

OVERVIEW: There is currently no storm watch. Geomagnetic effects from a coronal hole are expected on Oct 15-16. See our website for current information: <http://www.spaceweather.gc.ca>.

SOLAR: Solar activity has been low. A coronal hole is located near the center of the solar disc.

INTERPLANETARY: Interplanetary activity has been very low. The solar wind speed is currently very low (~ 350 km/s). The interplanetary magnetic field is very low at $|Bz| < 2$ nT levels.

NEAR-EARTH ENVIRONMENT: Energetic electron fluence at geostationary orbit was below threshold level on October 12, 2011 and is expected to be below threshold level today. Visit <http://www.spaceweather.gc.ca/sffl-eng.php> for fluence forecast.

GEOMAGNETIC: Geomagnetic activity has been quiet (with unsettled intervals) in polar zone, quiet (with stormy intervals) in auroral zone, and quiet in subauroral zone. Geomagnetic activity is expected to be quiet in polar zone, quiet (with unsettled intervals) in auroral zone, and quiet in subauroral zone. Visit <http://www.spaceweather.gc.ca/sfst-1-eng.php> for the most recent geomagnetic forecast.

Space weather scientist

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Government of Canada *Gouvernement du Canada*

From: Lam, Hing-Lan [mailto:Hing-Lan.Lam@NRCan-RNCan.gc.ca]

Sent: October-14-11 10:50 AM

To:

Subject: Space Weather Bulletin - 2011-10-14

Space Weather Bulletin – October 14, 2011 issued by the Canadian Space Weather Forecast Centre at 14:50 UT (10:50 EDT)

This is for testing purposes. The final bulletin will be produced in both official languages.

OVERVIEW: There is currently no storm watch. Geomagnetic effects from a coronal hole are expected on Oct 15-16. See our website for current information: <http://www.spaceweather.gc.ca>.

SOLAR: Solar activity has been low. A coronal hole is located near the center of the solar disc.

INTERPLANETARY: Interplanetary activity has been very low. The solar wind speed is currently very low (~ 360 km/s). The interplanetary magnetic field is very low at $|B_z| < 2$ nT levels.

NEAR-EARTH ENVIRONMENT: Energetic electron fluence at geostationary orbit was below threshold level on October 13, 2011 and is expected to be below threshold level today. Visit <http://www.spaceweather.gc.ca/sffl-eng.php> for fluence forecast.

GEOMAGNETIC: Geomagnetic activity has been quiet in polar zone, quiet in auroral zone, and quiet in subauroral zone. Geomagnetic activity is expected to be quiet in polar zone, quiet in auroral zone, and quiet in subauroral zone. Visit <http://www.spaceweather.gc.ca/sfst-1-eng.php> for the most recent geomagnetic forecast.

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From: Lam, Hing-Lan [mailto:Hing-Lan.Lam@NRCan-RNCan.gc.ca]

Sent: October-15-11 1:05 PM

To:

Subject: Space Weather Bulletin - 2011-10-15

Space Weather Bulletin – October 15, 2011 issued by the Canadian Space Weather Forecast Centre at 16:55 UT (12:55 EDT)

This is for testing purposes. The final bulletin will be produced in both official languages.

OVERVIEW: There is currently no storm watch. Geomagnetic effects from a coronal hole are expected on Oct 15-16. See our website for current information: <http://www.spaceweather.gc.ca>.

SOLAR: Solar activity has been low. A coronal hole is located near the edge of the solar disc.

INTERPLANETARY: Interplanetary activity has been low. The solar wind speed is currently low (~ 460 km/s). The interplanetary magnetic field is low at $|Bz| < 5$ nT levels.

NEAR-EARTH ENVIRONMENT: Energetic electron fluence at geostationary orbit was below threshold level on October 14, 2011 and is expected to be below threshold level today. Visit <http://www.spaceweather.gc.ca/sffl-eng.php> for fluence forecast.

GEOMAGNETIC: Geomagnetic activity has been quiet (with unsettled intervals) in polar zone, quiet in auroral zone, and quiet in subauroral zone. Geomagnetic activity is expected to be quiet (with unsettled intervals) in polar zone, quiet (with unsettled intervals) in auroral zone, and quiet (with unsettled intervals) in subauroral zone. Visit <http://www.spaceweather.gc.ca/sfst-1-eng.php> for the most recent geomagnetic forecast.

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From: Lam, Hing-Lan [mailto:Hing-Lan.Lam@NRCan-RNCan.gc.ca]

Sent: October-16-11 3:12 PM

To:

Subject: Space Weather Bulletin - 2011-10-16

Space Weather Bulletin – October 16, 2011 issued by the Canadian Space Weather Forecast Centre at 19:10 UT (15:10 EDT)

This is for testing purposes. The final bulletin will be produced in both official languages.

OVERVIEW: There is currently no storm watch. See our website for current information:

<http://www.spaceweather.gc.ca>.

SOLAR: Solar activity has been low. A coronal hole is located near the edge of the solar disc.

INTERPLANETARY: Interplanetary activity has been low. The solar wind speed is currently low (~ 450 km/s). The interplanetary magnetic field is low at $|B_z| < 4$ nT levels.

NEAR-EARTH ENVIRONMENT: Energetic electron fluence at geostationary orbit was below threshold level on October 15, 2011 and is expected to be below threshold level today. Visit <http://www.spaceweather.gc.ca/sffl-eng.php> for fluence forecast.

GEOMAGNETIC: Geomagnetic activity has been quiet (with unsettled intervals) in polar zone, quiet (with unsettled intervals) in auroral zone, and quiet in subauroral zone. Geomagnetic activity is expected to be quiet (with unsettled intervals) in polar zone, quiet in auroral zone, and quiet in subauroral zone. Visit <http://www.spaceweather.gc.ca/sfst-1-eng.php> for the most recent geomagnetic forecast.

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From: Lam, Hing-Lan [mailto:Hing-Lan.Lam@NRCan-RNCan.gc.ca]

Sent: October-17-11 10:30 AM

To:

Subject: Space Weather Bulletin - 2011-10-17

Space Weather Bulletin – October 17, 2011 issued by the Canadian Space Weather Forecast Centre at 14:30 UT (10:30 EDT)

This is for testing purposes. The final bulletin will be produced in both official languages.

OVERVIEW: There is currently no storm watch. See our website for current information:

<http://www.spaceweather.gc.ca>.

SOLAR: Solar activity has been low.

INTERPLANETARY: Interplanetary activity has been low. The solar wind speed is currently low (~ 400 km/s). The interplanetary magnetic field is low at $|B_z| < 4$ nT levels.

NEAR-EARTH ENVIRONMENT: Energetic electron fluence at geostationary orbit was below threshold level on October 16, 2011 and is expected to be below threshold level today. Visit <http://www.spaceweather.gc.ca/sffl-eng.php> for fluence forecast.

GEOMAGNETIC: Geomagnetic activity has been quiet (with unsettled intervals) in polar zone, quiet (with unsettled intervals) in auroral zone, and quiet (with unsettled intervals) in subauroral zone. Geomagnetic activity is expected to be quiet (with unsettled intervals) in polar zone, quiet in auroral zone, and quiet in subauroral zone. Visit <http://www.spaceweather.gc.ca/sfst-1-eng.php> for the most recent geomagnetic forecast.

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From: Lam, Hing-Lan [mailto:Hing-Lan.Lam@NRCan-RNCan.gc.ca]

Sent: October-18-11 10:32 AM

To:

Subject: Space Weather Bulletin - 2011-10-18

Space Weather Bulletin – October 18, 2011 issued by the Canadian Space Weather Forecast Centre at 14:30 UT (10:30 EDT)

This is for testing purposes. The final bulletin will be produced in both official languages.

OVERVIEW: There is currently no storm watch. See our website for current information:

<http://www.spaceweather.gc.ca>.

SOLAR: Solar activity has been low.

INTERPLANETARY: Interplanetary activity has been low. The solar wind speed is currently low (~ 400 km/s). The interplanetary magnetic field is low at $|B_z| < 4$ nT levels.

NEAR-EARTH ENVIRONMENT: Energetic electron fluence at geostationary orbit was below threshold level on October 17, 2011 and is expected to be below threshold level today. Visit <http://www.spaceweather.gc.ca/sffl-eng.php> for fluence forecast.

GEOMAGNETIC: Geomagnetic activity has been quiet (with unsettled intervals) in polar zone, quiet (with active intervals) in auroral zone, and quiet in subauroral zone. Geomagnetic activity is expected to be quiet in polar zone, quiet in auroral zone, and quiet in subauroral zone. Visit <http://www.spaceweather.gc.ca/sfst-1-eng.php> for the most recent geomagnetic forecast.

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From: Lam, Hing-Lan [mailto:Hing-Lan.Lam@NRCan-RNCan.gc.ca]

Sent: October-19-11 10:19 AM

To:

Subject: Space Weather Bulletin - 2011-10-19

Space Weather Bulletin – October 19, 2011 issued by the Canadian Space Weather Forecast Centre at 14:20 UT (10:20 EDT)

This is for testing purposes. The final bulletin will be produced in both official languages.

OVERVIEW: There is currently no storm watch. See our website for current information:

<http://www.spaceweather.gc.ca>.

SOLAR: Solar activity has been low.

INTERPLANETARY: Interplanetary activity has been low. The solar wind speed is currently low (~ 400 km/s). The interplanetary magnetic field is very low at $|Bz| < 2$ nT levels.

NEAR-EARTH ENVIRONMENT: Energetic electron fluence at geostationary orbit was below threshold level on October 18, 2011 and is expected to be below threshold level today. Visit <http://www.spaceweather.gc.ca/sffl-eng.php> for fluence forecast.

GEOMAGNETIC: Geomagnetic activity has been quiet (with unsettled intervals) in polar zone, quiet (with stormy intervals) in auroral zone, and quiet in subauroral zone. Geomagnetic activity is expected to be quiet (with unsettled intervals) in polar zone, quiet (with unsettled intervals) in auroral zone, and quiet in subauroral zone. Visit <http://www.spaceweather.gc.ca/sfst-1-eng.php> for the most recent geomagnetic forecast.

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From: Lam, Hing-Lan [mailto:Hing-Lan.Lam@NRCan-RNCan.gc.ca]

Sent: October-20-11 10:10 AM

To:

Subject: Space Weather Bulletin - 2011-10-20

Space Weather Bulletin – October 20, 2011 issued by the Canadian Space Weather Forecast Centre at 14:10 UT (10:10 EDT)

This is for testing purposes. The final bulletin will be produced in both official languages.

OVERVIEW: There is currently no storm watch. See our website for current information:

<http://www.spaceweather.gc.ca>.

SOLAR: Solar activity has been low.

INTERPLANETARY: Interplanetary activity has been low. The solar wind speed is currently low (~ 380 km/s). The interplanetary magnetic field is very low at $|Bz| < 2$ nT levels.

NEAR-EARTH ENVIRONMENT: Energetic electron fluence at geostationary orbit was below threshold level on October 19, 2011 and is expected to be below threshold level today. Visit <http://www.spaceweather.gc.ca/sffl-eng.php> for fluence forecast.

GEOMAGNETIC: Geomagnetic activity has been quiet (with unsettled intervals) in polar zone, quiet (with unsettled intervals) in auroral zone, and quiet in subauroral zone. Geomagnetic activity is expected to be quiet in polar zone, quiet in auroral zone, and quiet in subauroral zone. Visit <http://www.spaceweather.gc.ca/sfst-1-eng.php> for the most recent geomagnetic forecast.

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From: Lam, Hing-Lan [mailto:Hing-Lan.Lam@NRCan-RNCan.gc.ca]

Sent: October-21-11 10:11 AM

To:

Subject: Space Weather Bulletin - 2011-10-21

Space Weather Bulletin – October 21, 2011 issued by the Canadian Space Weather Forecast Centre at 14:10 UT (10:10 EDT)

This is for testing purposes. The final bulletin will be produced in both official languages.

OVERVIEW: There is currently no storm watch. See our website for current information:

<http://www.spaceweather.gc.ca>.

SOLAR: Solar activity has been low.

INTERPLANETARY: Interplanetary activity has been low. The solar wind speed is currently low (~ 350 km/s). The interplanetary magnetic field is very low at $|B_z| < 2$ nT levels.

NEAR-EARTH ENVIRONMENT: Energetic electron fluence at geostationary orbit was below threshold level on October 20, 2011 and is expected to be below threshold level today. Visit <http://www.spaceweather.gc.ca/sffl-eng.php> for fluence forecast.

GEOMAGNETIC: Geomagnetic activity has been quiet (with unsettled intervals) in polar zone, quiet (with stormy intervals) in auroral zone, and quiet in subauroral zone. Geomagnetic activity is expected to be quiet in polar zone, quiet (with unsettled intervals) in auroral zone, and quiet in subauroral zone. Visit <http://www.spaceweather.gc.ca/sfst-1-eng.php> for the most recent geomagnetic forecast.

Space weather scientist

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From: Lam, Hing-Lan [mailto:Hing-Lan.Lam@NRCan-RNCan.gc.ca]

Sent: October-22-11 1:11 PM

To:

Subject: Space Weather Bulletin - 2011-10-22

Space Weather Bulletin – October 22, 2011 issued by the Canadian Space Weather Forecast Centre at 17:10 UT (01:10 EDT)

This is for testing purposes. The final bulletin will be produced in both official languages.

OVERVIEW: There is currently no storm watch. See our website for current information:

<http://www.spaceweather.gc.ca>.

SOLAR: Solar activity has been moderate, with a long duration M1 flare (see Glossary of Terms below) peaking around 11:10 UT Today.

INTERPLANETARY: Interplanetary activity has been very low. The solar wind speed is currently very low (~ 300 km/s). The interplanetary magnetic field is very low at $|Bz| < 2$ nT levels.

NEAR-EARTH ENVIRONMENT: Energetic electron fluence at geostationary orbit was below threshold level on October 21, 2011 and is expected to be below threshold level today. Visit <http://www.spaceweather.gc.ca/sffl-eng.php> for fluence forecast.

GEOMAGNETIC: Geomagnetic activity has been quiet (with unsettled intervals) in polar zone, quiet (with unsettled intervals) in auroral zone, and quiet in subauroral zone. Geomagnetic activity is expected to be quiet in polar zone, quiet in auroral zone, and quiet in subauroral zone. Visit <http://www.spaceweather.gc.ca/sfst-1-eng.php> for the most recent geomagnetic forecast.

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From: Lam, Hing-Lan [mailto:Hing-Lan.Lam@NRCan-RNCan.gc.ca]

Sent: October-23-11 12:45 PM

To:

Subject: Space Weather Bulletin - 2011-10-23

Space Weather Bulletin – October 23, 2011 issued by the Canadian Space Weather Forecast Centre at 16:45 UT (12:45 EDT)

This is for testing purposes. The final bulletin will be produced in both official languages.

OVERVIEW: There is currently no storm watch. See our website for current information:
<http://www.spaceweather.gc.ca>.

SOLAR: Solar activity has been low.

INTERPLANETARY: Interplanetary activity has been very low. The solar wind speed is currently very low (~ 280 km/s). The interplanetary magnetic field is very low at $|Bz| < 2$ nT levels.

NEAR-EARTH ENVIRONMENT: Energetic electron fluence at geostationary orbit was below threshold level on October 22, 2011 and is expected to be below threshold level today. Visit <http://www.spaceweather.gc.ca/sffl-eng.php> for fluence forecast.

GEOMAGNETIC: Geomagnetic activity has been quiet in polar zone, quiet (with unsettled intervals) in auroral zone, and quiet in subauroral zone. Geomagnetic activity is expected to be quiet in polar zone, quiet in auroral zone, and quiet in subauroral zone. Visit <http://www.spaceweather.gc.ca/sfst-1-eng.php> for the most recent geomagnetic forecast.

Space weather scientist

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From: Lam, Hing-Lan [mailto:Hing-Lan.Lam@NRCan-RNCan.gc.ca]

Sent: October-24-11 10:31 AM

To:

Subject: Space Weather Bulletin - 2011-10-24

Space Weather Bulletin – October 24, 2011 issued by the Canadian Space Weather Forecast Centre at 14:30 UT (10:30 EDT)

This is for testing purposes. The final bulletin will be produced in both official languages.

OVERVIEW: There is currently no storm watch. Disturbed geomagnetic conditions are possible on late October 24 and October 25 due to a glancing impact of a partially Earth-directed coronal mass ejection (CME) that occurred on October 22 at 00:58 UT in association with a disappearing solar filament. See our website for current information: <http://www.spaceweather.gc.ca>.

SOLAR: Solar activity has been low.

INTERPLANETARY: Interplanetary activity has been very low. The solar wind speed is currently very low (~ 330 km/s). The interplanetary magnetic field is very low at $|Bz| < 2$ nT levels.

NEAR-EARTH ENVIRONMENT: Energetic electron fluence at geostationary orbit was below threshold level on October 23, 2011 and is expected to be below threshold level today. Visit <http://www.spaceweather.gc.ca/sffl-eng.php> for fluence forecast.

GEOMAGNETIC: Geomagnetic activity has been quiet (with unsettled intervals) in polar zone, quiet (with active intervals) in auroral zone, and quiet in subauroral zone. Geomagnetic activity is expected to be quiet (with unsettled intervals) in polar zone, quiet in auroral zone, and quiet in subauroral zone. Visit <http://www.spaceweather.gc.ca/sfst-1-eng.php> for the most recent geomagnetic forecast.

Space weather scientist

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From: Fiori, Robyn [mailto:Robyn.Fiori@NRCan-RNCan.gc.ca]

Sent: October-25-11 9:40 AM

To:

Subject: Space Weather Bulletin - October 25, 2011

Space Weather Bulletin – October 25, 2011 issued by the Canadian Space Weather Forecast Centre at 14:00 UT (10:00 EDT)

This is for testing purposes. The final bulletin will be produced in both official languages.

OVERVIEW: There is currently no storm watch in effect. Geomagnetic effects from coronal holes are expected to be observed on the Earth between October 27, 2011 and October 30, 2011. Geomagnetic effects from a CME on October 22, 2011 are currently observed in polar (active), auroral (active), and subauroral (unsettled) zones. See our website for current information: <http://www.spaceweather.gc.ca>

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

INTERPLANETARY: Interplanetary activity has been high. The solar wind speed is currently slow (400-500 km/s). The interplanetary magnetic field is currently 15 nT.

NEAR-EARTH ENVIRONMENT: Energetic electron fluence at geostationary orbit was below threshold level October 24, 2011 and is expected to be below threshold level today. Visit <http://www.spaceweather.gc.ca/sffl-eng.php> for the electron forecast.

GEOMAGNETIC: Geomagnetic activity has been active with stormy intervals in the polar zone, stormy in the auroral zone, and active with major storm intervals in the subauroral zone. 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 subauroral zone. Visit <http://www.spaceweather.gc.ca/sfst-1-eng.php> for the magnetic forecast.

Space weather scientist

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From: Fiori, Robyn [mailto:Robyn.Fiori@NRCan-RNCan.gc.ca]

Sent: October-26-11 9:41 AM

To:

Subject: Space Weather Bulletin - October 26, 2011

Space Weather Bulletin – October 26, 2011 issued by the Canadian Space Weather Forecast Centre at 13:45 UT (09:45 EDT)

This is for testing purposes. The final bulletin will be produced in both official languages.

OVERVIEW: There is currently no storm watch in effect. Geomagnetic effects from coronal holes are expected to be observed on the Earth between October 28, 2011 and October 31, 2011. See our website for current information: <http://www.spaceweather.gc.ca>

SOLAR: Solar activity has been low. Two coronal holes are 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 between 0 nT and 8 nT.

NEAR-EARTH ENVIRONMENT: Energetic electron fluence at geostationary orbit was below threshold level October 25, 2011 and is expected to be above threshold level today. Visit <http://www.spaceweather.gc.ca/sffl-eng.php> for the electron forecast.

GEOMAGNETIC: 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. Activity is forecast to be quiet with unsettled intervals in the polar zone, quiet in the auroral zone, and quiet in the subauroral zone. Visit <http://www.spaceweather.gc.ca/sfst-1-eng.php> for the magnetic forecast.

Space weather scientist

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From: Fiori, Robyn [mailto:Robyn.Fiori@NRCan-RNCan.gc.ca]

Sent: October-27-11 8:45 AM

To:

Subject: Space Weather Bulletin - October 27, 2011

Space Weather Bulletin – October 27, 2011 issued by the Canadian Space Weather Forecast Centre at 12:45 UT (08:45 EDT)

This is for testing purposes. The final bulletin will be produced in both official languages.

OVERVIEW: There is currently no storm watch in effect. A CME erupted at October 26, 2011 10:00 UT. It is not yet known if it will affect the Earth. Geomagnetic effects from coronal holes are expected to be observed on the Earth between October 28, 2011 and October 31, 2011. See our website for current information: <http://www.spaceweather.gc.ca>

SOLAR: Solar activity has been low. Two coronal holes are 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 ($2 < |B_z| < 5$ nT) levels.

NEAR-EARTH ENVIRONMENT: Energetic electron fluence at geostationary orbit was below threshold level October 26, 2011 and is expected to be above threshold level today. Visit <http://www.spaceweather.gc.ca/sffl-eng.php> for the electron forecast.

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

Space weather scientist

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From: Fiori, Robyn [mailto:Robyn.Fiori@NRCan-RNCan.gc.ca]

Sent: October-28-11 9:13 AM

To:

Subject: Space Weather Bulletin - October 28, 2011

Space Weather Bulletin – October 28, 2011 issued by the Canadian Space Weather Forecast Centre at 13:15 UT (09:15 EDT)

This is for testing purposes. The final bulletin will be produced in both official languages.

OVERVIEW: There is currently no storm watch in effect. Geomagnetic effects from coronal holes are expected to be observed on the Earth between October 28, 2011 and October 30, 2011. See our website for current information: <http://www.spaceweather.gc.ca>

SOLAR: Solar activity has been low. Two coronal holes are located near the centre of the solar disk.

INTERPLANETARY: Interplanetary activity has been very low. The solar wind speed is currently very slow (<400 km/s). The interplanetary magnetic field has been fluctuating at very low ($|B_z| < 2$ nT).

NEAR-EARTH ENVIRONMENT: Energetic electron fluence at geostationary orbit was below threshold level October 27, 2011 and is expected to be below threshold level today. Visit <http://www.spaceweather.gc.ca/sffl-eng.php> for the electron forecast.

GEOMAGNETIC: Geomagnetic activity has been quiet with unsettled intervals in the polar zone, quiet with unsettled intervals in the auroral zone, and quiet in the subauroral zone. Activity is forecast to be quiet in the polar zone, quiet in the auroral zone, and quiet in the subauroral zone. Visit <http://www.spaceweather.gc.ca/sfst-1-eng.php> for the magnetic forecast.

Space weather scientist

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From: Fiori, Robyn [<mailto:Robyn.Fiori@NRCan-RNCan.gc.ca>]

Sent: October-29-11 8:18 AM

To:

Subject: Space Weather Bulletin - October 29, 2011

Space Weather Bulletin - October 29, 2011 issued by the Canadian Space Weather Forecast Centre at 12:15 UT (08:15 EDT)

This is for testing purposes. The final bulletin will be produced in both official languages.

OVERVIEW: There is currently no storm watch in effect. Geomagnetic effects from coronal holes are expected to be observed on the Earth between October 28, 2011 and October 30, 2011. See our website for current information: <http://www.spaceweather.gc.ca>
<<https://email.nrcan.gc.ca/exchweb/bin/redirect.asp?URL=http://www.spaceweather.gc.ca>>

SOLAR: Solar activity has been low. Two coronal holes are located near the centre of the solar disk.

INTERPLANETARY: Interplanetary activity has been very low. The solar wind speed is currently very slow (<400 km/s). The interplanetary magnetic field has been fluctuating at very low ($|B_z| < 2$ nT).

NEAR-EARTH ENVIRONMENT: Energetic electron fluence at geostationary orbit was below threshold level October 28, 2011 and is expected to be above threshold level today. Visit <http://www.spaceweather.gc.ca/sffl-eng.php> for the electron forecast.

GEOMAGNETIC: Geomagnetic activity has been quiet in the polar zone, quiet in the auroral zone, and quiet in the subauroral zone. Activity is forecast to be quiet in the polar zone, quiet in the auroral zone, and quiet in the subauroral zone. Visit <http://www.spaceweather.gc.ca/sfst-1-eng.php> for the magnetic forecast.

Space weather scientist

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From: Fiori, Robyn [<mailto:Robyn.Fiori@NRCan-RNCan.gc.ca>]

Sent: October-30-11 7:28 AM

To:

Subject: Space Weather Bulletin - October 30, 2011

Space Weather Bulletin - October 30, 2011 issued by the Canadian Space Weather Forecast Centre at 11:25 UT (07:25 EDT)

This is for testing purposes. The final bulletin will be produced in both official languages.

OVERVIEW: There is currently no storm watch in effect. CMEs have been observed but are not expected to have effects on the Earth. See our website for current information:

<http://www.spaceweather.gc.ca>.

SOLAR: Solar activity has been low. A non-Earth-directed CME erupted at June 29, 2011. 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 very low. The solar wind speed is currently very slow (<400 km/s). The interplanetary magnetic field has been fluctuating at low ($2 < |B_z| < 5$ nT) levels.

NEAR-EARTH ENVIRONMENT: Energetic electron fluence at geostationary orbit was below threshold level October 29, 2011 and is expected to be below threshold level today. Visit <http://www.spaceweather.gc.ca/sffl-eng.php> for the electron forecast.

GEOMAGNETIC: Geomagnetic activity has been quiet in the polar zone, quiet in the auroral zone, and quiet in the subauroral zone. Activity is forecast to be quiet in the polar zone, quiet in the auroral zone, and quiet in the subauroral zone. Visit <http://www.spaceweather.gc.ca/sfst-1-eng.php> for the magnetic forecast.

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From: Fiori, Robyn [mailto:Robyn.Fiori@NRCan-RNCan.gc.ca]

Sent: October-31-11 8:17 AM

To:

Subject: Space Weather Bulletin - October 31, 2011

Space Weather Bulletin – October 31, 2011 issued by the Canadian Space Weather Forecast Centre at 12:20 UT (08:20 EDT)

This is for testing purposes. The final bulletin will be produced in both official languages.

OVERVIEW: There is currently no storm watch in effect. Geomagnetic effects from coronal holes are expected to be observed on the Earth between November 03, 2011 and November 05, 2011. See our website for current information: <http://www.spaceweather.gc.ca>

SOLAR: Solar activity has been low. Two coronal holes are 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 ($2 < |B_z| < 5$ nT) levels.

NEAR-EARTH ENVIRONMENT: Energetic electron fluence at geostationary orbit was below threshold level October 30, 2011 and is expected to be below threshold level today. Visit <http://www.spaceweather.gc.ca/sffl-eng.php> for the electron forecast.

GEOMAGNETIC: 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 subauroral zone. Activity is forecast to be quiet in the polar zone, quiet with unsettled intervals in the auroral zone, and quiet in the subauroral zone. Visit <http://www.spaceweather.gc.ca/sfst-1-eng.php> for the magnetic forecast.

Space weather scientist

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From: Fiori, Robyn [mailto:Robyn.Fiori@NRCan-RNCan.gc.ca]

Sent: November-01-11 8:42 AM

To:

Subject: Space Weather Bulletin - November 1, 2011

Space Weather Bulletin – November 1, 2011 issued by the Canadian Space Weather Forecast Centre at 12:45 UT (08:45 EDT)

This is for testing purposes. The final bulletin will be produced in both official languages.

OVERVIEW: A storm watch is currently in effect. CMEs have been observed but are not expected to have effects on the Earth. Geomagnetic effects from coronal holes are expected to be observed on the Earth between November 03, 2011 and November 05, 2011. See our website for current information: <http://www.spaceweather.gc.ca>

SOLAR: Solar activity has been moderate. A non-Earth-directed CME erupted at October 31, 2011 15:10 UT. Two coronal holes are located near the centre of the solar disk. An M (medium) flare erupted at October 31, 2011 15:02 UT near the edge of the solar disk. An M (medium) flare erupted at October 31, 2011 17:56 UT near the edge 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 primarily negative at moderate ($5 < |B_z| < 10$ nT) levels. Prolonged periods of negative interplanetary magnetic field are often associated with increased geomagnetic activity.

NEAR-EARTH ENVIRONMENT: Energetic electron fluence at geostationary orbit was below threshold level October 31, 2011 and is expected to be below threshold level today. Visit <http://www.spaceweather.gc.ca/sffl-eng.php> for the electron forecast.

GEOMAGNETIC: Geomagnetic activity has been quiet with unsettled intervals in the polar zone, quiet with stormy intervals in the auroral zone, and quiet with stormy intervals in the subauroral zone. Activity is forecast to be quiet with unsettled intervals in the polar zone, unsettled with major storm watch in the auroral zone, and unsettled in the subauroral zone. Visit <http://www.spaceweather.gc.ca/sfst-1-eng.php> for the magnetic forecast.

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From: Fiori, Robyn [mailto:Robyn.Fiori@NRCan-RNCan.gc.ca]

Sent: November-01-11 12:25 PM

To:

Subject: Space Weather Bulletin - November 1, 2011 - UPDATE

Space Weather Bulletin – November 1, 2011 issued by the Canadian Space Weather Forecast Centre at 16:30 UT (12:30 EDT)

This is for testing purposes. The final bulletin will be produced in both official languages.

OVERVIEW: There is currently no storm watch in effect. See our website for current information: <http://www.spaceweather.gc.ca>

GEOMAGNETIC: Geomagnetic activity has been quiet with unsettled intervals in the polar zone, quiet with stormy intervals in the auroral zone, and quiet with stormy intervals in the subauroral zone. Activity is forecast to be quiet with unsettled intervals in the polar zone, active in the auroral zone, and unsettled in the subauroral zone. Visit <http://www.spaceweather.gc.ca/sfst-1-eng.php> for the magnetic forecast.

Space weather scientist

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From: Fiori, Robyn [mailto:Robyn.Fiori@NRCan-RNCan.gc.ca]

Sent: November-02-11 9:13 AM

To:

Subject: Space Weather Bulletin - November 02, 2011

Space Weather Bulletin – November 02, 2011 issued by the Canadian Space Weather Forecast Centre at 12:45 UT (08:45 EDT)

This is for testing purposes. The final bulletin will be produced in both official languages.

OVERVIEW: There is currently no storm watch in effect. Geomagnetic effects from CMEs are expected to be observed on the Earth November 04, 2011. See our website for current information: <http://www.spaceweather.gc.ca>

SOLAR: Solar activity has been low. An Earth-directed CME erupted at November 01, 2011 17:00 UT. Two coronal holes are 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 is currently -5 nT. Prolonged periods of negative interplanetary magnetic field are often associated with increased geomagnetic activity.

NEAR-EARTH ENVIRONMENT: Energetic electron fluence at geostationary orbit was below threshold level November 01, 2011 and is expected to be above threshold level today. Visit <http://www.spaceweather.gc.ca/sffl-eng.php> for the electron forecast.

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

Space weather scientist

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From: Trichtchenko, Larisa [<mailto:Larisa.Trichtchenko@NRCan-RNCan.gc.ca>]

Sent: November-03-11 3:34 PM

To:

Subject: Space Weather Bulletin - November 3, 2011

Space Weather Bulletin - November 3, 2011 issued by the Canadian Space Weather Forecast Centre at 19:30 UT (15:30 EDT)

This is for testing purposes. The final bulletin will be produced in both official languages.

OVERVIEW: There is currently no storm watch in effect. Geomagnetic effects from coronal holes are expected to be observed on the Earth between November 3-4 2011. See our website for current information: <http://www.spaceweather.gc.ca> <<http://www.spaceweather.gc.ca>>

SOLAR: Solar activity has been moderate to high. More than 20 C-flares has been produced in the last two days. Huge active region is located near the solar east limb and will be rotating in more geoeffective position during coming week of November 6-13.

INTERPLANETARY: Interplanetary activity has been low. The solar wind speed is currently slow (350 km/s). The interplanetary magnetic field is currently around 4 nT.

NEAR-EARTH ENVIRONMENT: Energetic electron fluence at geostationary orbit was below threshold level November 2, 2011 and is expected to be above threshold level today. Visit <http://www.spaceweather.gc.ca/sffl-eng.php> <<http://www.spaceweather.gc.ca/sffl-eng.php>> for the electron forecast.

GEOMAGNETIC: Geomagnetic activity has been quiet in the polar zone, quiet in the auroral zone, and quiet in the subauroral zone. Activity is forecast to be quiet in the polar zone, quiet in the auroral zone, and quiet in the subauroral zone. Visit <http://www.spaceweather.gc.ca/sfst-1-eng.php> <<http://www.spaceweather.gc.ca/sfst-1-eng.php>> for the magnetic forecast.

Space weather scientist

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From: Trichtchenko, Larisa [<mailto:Larisa.Trichtchenko@NRCan-RNCan.gc.ca>]

Sent: November-04-11 1:01 PM

To:

Subject: Space Weather Bulletin - November 4, 2011

Space Weather Bulletin - November 4, 2011 issued by the Canadian Space Weather Forecast Centre at 17:00 UT (13:00 EDT)

This is for testing purposes. The final bulletin will be produced in both official languages.

OVERVIEW: There is currently no storm watch in effect. See our website for current information: <http://www.spaceweather.gc.ca> <<http://www.spaceweather.gc.ca>>

SOLAR: Solar activity has been moderate to high. Huge active region is located near the solar east limb and will be rotating in more geoeffective position during coming week of November 6-13. Coronal Mass ejection has happened near the east limb last night and more than 20 flares (C- to X- classes) has been produced in the last two days.

INTERPLANETARY: Interplanetary activity has been low. The solar wind speed is currently slow (300 km/s). The interplanetary magnetic field is currently around 5 nT.

NEAR-EARTH ENVIRONMENT: Energetic electron fluence at geostationary orbit was below threshold level November 3, 2011 and is expected to be above threshold level today. Visit <http://www.spaceweather.gc.ca/sffl-eng.php> <<http://www.spaceweather.gc.ca/sffl-eng.php>> for the electron forecast.

Ionospheric absorption events were produced last evening by the solar flares and solar energetic particles.

GEOMAGNETIC: Geomagnetic activity has been quiet in the polar zone, quiet with unsettled intervals in the auroral zone, and quiet in the subauroral zone. Activity is forecast to be quiet in the polar zone, quiet in the auroral zone, and quiet in the subauroral zone. Visit <http://www.spaceweather.gc.ca/sfst-1-eng.php> <<http://www.spaceweather.gc.ca/sfst-1-eng.php>> for the magnetic forecast.

Space weather scientist

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From: Fiori, Robyn [mailto:Robyn.Fiori@NRCan-RNCan.gc.ca]

Sent: November-05-11 8:16 AM

To:

Subject: Space Weather Bulletin - November 05, 2011

Space Weather Bulletin – November 05, 2011 issued by the Canadian Space Weather Forecast Centre at 12:15 UT (08:15 EDT)

This is for testing purposes. The final bulletin will be produced in both official languages.

OVERVIEW: There is currently no storm watch in effect. See our website for current information: <http://www.spaceweather.gc.ca>

SOLAR: Solar activity has been high. An Earth-directed CME erupted November 03, 2011. Two coronal holes are located near the edge of the solar disk. Several M (medium) flares have erupted over the past 24 hours.

INTERPLANETARY: Interplanetary activity has been very low. The solar wind speed is currently very slow (<400 km/s). The interplanetary magnetic field is currently 5 nT.

NEAR-EARTH ENVIRONMENT: Energetic electron fluence at geostationary orbit was above threshold level November 04, 2011 and is expected to be below threshold level today. Visit <http://www.spaceweather.gc.ca/sffl-eng.php> for the electron forecast.

GEOMAGNETIC: Geomagnetic activity has been quiet in the polar zone, quiet with unsettled intervals in the auroral zone, and quiet in the subauroral zone. Activity is forecast to be quiet in the polar zone, quiet in the auroral zone, and quiet in the subauroral zone. Visit <http://www.spaceweather.gc.ca/sfst-1-eng.php> for the magnetic forecast.

Space weather scientist

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From: Fiori, Robyn [mailto:Robyn.Fiori@NRCan-RNCan.gc.ca]

Sent: November-06-11 8:08 AM

To:

Subject: Space Weather Bulletin - November 06, 2011

Space Weather Bulletin – November 06, 2011 issued by the Canadian Space Weather Forecast Centre at 12:10 UT (08:10 EDT)

This is for testing purposes. The final bulletin will be produced in both official languages.

OVERVIEW: There is currently no storm watch in effect. See our website for current information: <http://www.spaceweather.gc.ca>

SOLAR: Solar activity has been moderate. One coronal holes is located near the edge of the solar disk. Several M (medium) flares have erupted over the past 24 hours.

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 ($2 < |B_z| < 5$ nT) levels.

NEAR-EARTH ENVIRONMENT: Energetic electron fluence at geostationary orbit was below threshold level November 05, 2011 and is expected to be below threshold level today. Visit <http://www.spaceweather.gc.ca/sffl-eng.php> for the electron forecast.

GEOMAGNETIC: Geomagnetic activity has been quiet in the polar zone, quiet in the auroral zone, and quiet in the subauroral zone. Activity is forecast to be quiet in the polar zone, quiet in the auroral zone, and quiet in the subauroral zone. Visit <http://www.spaceweather.gc.ca/sfst-1-eng.php> for the magnetic forecast.

Space weather scientist

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From: Fiori, Robyn [mailto:Robyn.Fiori@NRCan-RNCan.gc.ca]

Sent: November-07-11 8:46 AM

To:

Subject: Space Weather Bulletin - November 07, 2011

Space Weather Bulletin – November 07, 2011 issued by the Canadian Space Weather Forecast Centre at 12:45 UT (08:45 EDT)

This is for testing purposes. The final bulletin will be produced in both official languages.

OVERVIEW: There is currently no storm watch in effect. See our website for current information: <http://www.spaceweather.gc.ca>

SOLAR: Solar activity has been low. One coronal hole is located near the edge of the solar disk. An M (medium) flare erupted at November 06, 2011 06:32 UT near the edge 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 ($2 < |B_z| < 5$ nT) levels.

NEAR-EARTH ENVIRONMENT: Energetic electron fluence at geostationary orbit was below threshold level November 06, 2011 and is expected to be below threshold level today. Visit <http://www.spaceweather.gc.ca/sffl-eng.php> for the electron forecast.

GEOMAGNETIC: Geomagnetic activity has been quiet in the polar zone, quiet with active intervals in the auroral zone, and quiet with unsettled intervals in the subauroral zone. Activity is forecast to be quiet in the polar zone, quiet in the auroral zone, and quiet in the subauroral zone. Visit <http://www.spaceweather.gc.ca/sfst-1-eng.php> for the magnetic forecast.

Space weather scientist

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From: Trichtchenko, Larisa [<mailto:Larisa.Trichtchenko@NRCan-RNCan.gc.ca>]

Sent: November-08-11 12:10 PM

To:

Subject: 2011-11-8

Space Weather Bulletin - November 08 , 2011 issued by the Canadian Space Weather Forecast Centre at 17:00 UT (12:00 EST)

This is for testing purposes. The final bulletin will be produced in both official languages.

OVERVIEW: There is currently no storm watch in effect. See our website for current information: <http://www.spaceweather.gc.ca> <<http://www.spaceweather.gc.ca>>

SOLAR: Solar activity has been low.

INTERPLANETARY: Interplanetary activity has been low. The solar wind speed is currently slow (~450 km/s). The interplanetary magnetic field has been fluctuating at medium ($10 < |B_z| < 10$ nT) levels.

NEAR-EARTH ENVIRONMENT: Energetic electron fluence at geostationary orbit was just above threshold level November 7, 2011 and is expected to be below threshold level today. Visit <http://www.spaceweather.gc.ca/sffl-eng.php> <<http://www.spaceweather.gc.ca/sffl-eng.php>> for the electron forecast.

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

Space weather scientist

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From: Trichtchenko, Larisa [<mailto:Larisa.Trichtchenko@NRCan-RNCan.gc.ca>]

Sent: November-09-11 11:56 AM

To:

Subject: Space Weather Bulletin-2011-11-9

Space Weather Bulletin - November 09 , 2011 issued by the Canadian Space Weather Forecast Centre at 17:00 UT (12:00 EST)

This is for testing purposes. The final bulletin will be produced in both official languages.

OVERVIEW: There is currently no storm watch in effect. See our website for current information: <http://www.spaceweather.gc.ca> <<http://www.spaceweather.gc.ca>>

SOLAR: Solar activity has been low. Possible CME is associated with M-class flare will have to be confirmed later and will not affect Earth until November 11.

INTERPLANETARY: Interplanetary activity has been low. The solar wind speed is currently slow (<400 km/s). The interplanetary magnetic field has been fluctuating at medium ($|Bz| < 5$ nT) levels.

NEAR-EARTH ENVIRONMENT: Energetic electron fluence at geostationary orbit was just below threshold level November 8, 2011 and is expected to be below threshold level today. Visit <http://www.spaceweather.gc.ca/sffl-eng.php> <<http://www.spaceweather.gc.ca/sffl-eng.php>> for the electron forecast.

GEOMAGNETIC: 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 subauroral zone. Activity is forecast to be quiet in the polar zone, quiet in the auroral zone, and quiet in the subauroral zone. Visit <http://www.spaceweather.gc.ca/sfst-1-eng.php> <<http://www.spaceweather.gc.ca/sfst-1-eng.php>> for the magnetic forecast.

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From: Trichtchenko, Larisa [<mailto:Larisa.Trichtchenko@NRCan-RNCan.gc.ca>]

Sent: November-10-11 11:54 AM

To:

Subject: Space Weather Bulletin-2011-11-10

Space Weather Bulletin - November 10 , 2011 issued by the Canadian Space Weather Forecast Centre at 17:00 UT (12:00 EST)

This is for testing purposes. The final bulletin will be produced in both official languages.

OVERVIEW: There is currently no storm watch in effect. See our website for current information: <http://www.spaceweather.gc.ca> <<http://www.spaceweather.gc.ca>>

SOLAR: Solar activity has been low. Possible CME associated with M-class flare still have to be confirmed later and will not affect Earth until late November 12.

INTERPLANETARY: Interplanetary activity has been low. The solar wind speed is currently slow (<400 km/s). The interplanetary magnetic field has been fluctuating at medium ($|Bz| < 7$ nT) levels.

NEAR-EARTH ENVIRONMENT: Energetic electron fluence at geostationary orbit was just below threshold level November 9, 2011 and is expected to be above threshold level today. Visit <http://www.spaceweather.gc.ca/sffl-eng.php> <<http://www.spaceweather.gc.ca/sffl-eng.php>> for the electron forecast.

GEOMAGNETIC: Geomagnetic activity has been quiet in the polar zone, quiet in the auroral zone, and quiet in the subauroral zone. Activity is forecast to be quiet in the polar zone, quiet in the auroral zone, and quiet in the subauroral zone. Visit <http://www.spaceweather.gc.ca/sfst-1-eng.php> <<http://www.spaceweather.gc.ca/sfst-1-eng.php>> for the magnetic forecast.

Space weather scientist

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From: Trichtchenko, Larisa
Sent: November 11, 2011 10:31
To:
Subject: Space Weather Bulletin-2011-11-11

Space Weather Bulletin - November 11 , 2011 issued by the Canadian Space Weather Forecast Centre at 15:30 UT (10:30 EST)

This is for testing purposes. The final bulletin will be produced in both official languages.

OVERVIEW: There is currently no storm watch in effect. See our website for current information: <http://www.spaceweather.gc.ca> <<http://www.spaceweather.gc.ca>>

SOLAR: Solar activity has been low. CMEs have been observed but are expected to have low impact on Earth around November 12.

INTERPLANETARY: Interplanetary activity has been low. The solar wind speed is currently slow (<450 km/s). The interplanetary magnetic field has been fluctuating at medium ($|Bz| < 7$ nT) levels.

NEAR-EARTH ENVIRONMENT: Energetic electron fluence at geostationary orbit was below threshold level November 9, 2011 and is expected to be below threshold level today. Visit <http://www.spaceweather.gc.ca/sffl-eng.php> <<http://www.spaceweather.gc.ca/sffl-eng.php>> for the electron forecast.

GEOMAGNETIC: Geomagnetic activity has been quiet with unsettled intervals in the polar zone, quiet with unsettled intervals in the auroral zone, and quiet in the subauroral zone. Activity is forecast to be quiet in the polar zone, quiet in the auroral zone, and quiet in the subauroral zone. Visit <http://www.spaceweather.gc.ca/sfst-1-eng.php> <<http://www.spaceweather.gc.ca/sfst-1-eng.php>> for the magnetic forecast.

Space weather scientist
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From: Trichtchenko, Larisa [<mailto:Larisa.Trichtchenko@NRCan-RNCan.gc.ca>]

Sent: November-12-11 10:53 AM

To:

Subject: Space Weather Bulletin-2011-11-12

Space Weather Bulletin - November 12, 2011 issued by the Canadian Space Weather Forecast Centre at 16:00 UT (11:00 EST)

This is for testing purposes. The final bulletin will be produced in both official languages.

OVERVIEW: There is currently no storm watch in effect. Shock produced by CME has been observed around 05:00 UT but have no impact on Earth so far. See our website for current information: <http://www.spaceweather.gc.ca> <<http://www.spaceweather.gc.ca>>

SOLAR: Solar activity has been low.

INTERPLANETARY: Interplanetary activity has been medium. The solar wind speed is currently at medium level (~500 km/s) following shock produced by CME. The interplanetary magnetic field has been positive, fluctuating at medium (10nT) levels.

NEAR-EARTH ENVIRONMENT: Energetic electron fluence at geostationary orbit was below threshold level November 11, 2011 and is expected to be below threshold level today. Visit <http://www.spaceweather.gc.ca/sffl-eng.php> <<http://www.spaceweather.gc.ca/sffl-eng.php>> for the electron forecast.

GEOMAGNETIC: Geomagnetic activity has been quiet in the polar zone, quiet in the auroral zone, and quiet in the subauroral zone. Activity is forecast to be quiet in the polar zone, quiet in the auroral zone, and quiet in the subauroral zone. Visit <http://www.spaceweather.gc.ca/sfst-1-eng.php> <<http://www.spaceweather.gc.ca/sfst-1-eng.php>> for the magnetic forecast.

Space weather scientist

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From: Trichtchenko, Larisa [<mailto:Larisa.Trichtchenko@NRCan-RNCan.gc.ca>]

Sent: November-13-11 10:23 AM

To:

Subject: Space Weather Bulletin-2011-11-13

Space Weather Bulletin - November 13, 2011 issued by the Canadian Space Weather Forecast Centre at 16:00 UT (11:00 EST)

This is for testing purposes. The final bulletin will be produced in both official languages.

OVERVIEW: There is currently no storm watch in effect. See our website for current information: <http://www.spaceweather.gc.ca> <<http://www.spaceweather.gc.ca>>

SOLAR: Solar activity has been low.

INTERPLANETARY: Interplanetary activity has been medium. The solar wind speed is currently at low level (<450 km/s). The interplanetary magnetic field has been fluctuating at low (<5nT) levels.

NEAR-EARTH ENVIRONMENT: Energetic electron fluence at geostationary orbit was below threshold level November 12, 2011 and is expected to be below threshold level today. Visit <http://www.spaceweather.gc.ca/sffl-eng.php> <<http://www.spaceweather.gc.ca/sffl-eng.php>> for the electron forecast.

GEOMAGNETIC: Geomagnetic activity has been quiet in the polar zone, quiet in the auroral zone, and quiet with unsettled intervals in the subauroral zone. Activity is forecast to be quiet in the polar zone, quiet in the auroral zone, and quiet in the subauroral zone. Visit <http://www.spaceweather.gc.ca/sfst-1-eng.php> <<http://www.spaceweather.gc.ca/sfst-1-eng.php>> for the magnetic forecast.

Space weather scientist

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From: Trichtchenko, Larisa [<mailto:Larisa.Trichtchenko@NRCan-RNCan.gc.ca>]

Sent: November-14-11 10:09 AM

To:

Subject: Space Weather Bulletin-2011-11-14

Space Weather Bulletin - November 14, 2011 issued by the Canadian Space Weather Forecast Centre at 15:00 UT (10:00 EST)

This is for testing purposes. The final bulletin will be produced in both official languages.

OVERVIEW: There is currently no storm watch in effect. See our website for current information: <http://www.spaceweather.gc.ca> <<http://www.spaceweather.gc.ca>>

SOLAR: Solar activity has been low.

INTERPLANETARY: Interplanetary activity is most likely at low levels. There is currently no data from the ACE satellite on the interplanetary and solar wind parameters.

NEAR-EARTH ENVIRONMENT: Energetic electron fluence at geostationary orbit was below threshold level November 13, 2011 and is expected to be below threshold level today. Visit <http://www.spaceweather.gc.ca/sffl-eng.php> <<http://www.spaceweather.gc.ca/sffl-eng.php>> for the electron forecast.

GEOMAGNETIC: Geomagnetic activity has been quiet in the polar zone, quiet in the auroral zone, and quiet in the subauroral zone. Activity is forecast to be quiet in the polar zone, quiet in the auroral zone, and quiet in the subauroral zone. Visit <http://www.spaceweather.gc.ca/sfst-1-eng.php> <<http://www.spaceweather.gc.ca/sfst-1-eng.php>> for the magnetic forecast.

Space weather scientist

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From: Trichtchenko, Larisa [<mailto:Larisa.Trichtchenko@NRCan-RNCan.gc.ca>]

Sent: November-15-11 11:36 AM

To:

Subject: Space Weather Bulletin-2011-11-15

Space Weather Bulletin - November 15, 2011 issued by the Canadian Space Weather Forecast Centre at 16:30 UT (11:30 EST)

This is for testing purposes. The final bulletin will be produced in both official languages.

OVERVIEW: There is currently no storm watch in effect. Overnight activity might be caused by solar wind shock produced by CME launched on November 12. See our website for current information: <http://www.spaceweather.gc.ca> <<http://www.spaceweather.gc.ca>>

SOLAR: Solar activity has been low.

INTERPLANETARY: Interplanetary activity is currently at low levels. The solar wind speed is currently is low (<450 km/s). The interplanetary magnetic field has been fluctuating at low (<5nT) levels.

NEAR-EARTH ENVIRONMENT: Energetic electron fluence at geostationary orbit was below threshold level November 14, 2011 and is expected to be below threshold level today. Visit <http://www.spaceweather.gc.ca/sffl-eng.php> <<http://www.spaceweather.gc.ca/sffl-eng.php>> for the electron forecast.

GEOMAGNETIC: 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 subauroral zone. Activity is forecast to be quiet in the polar zone, quiet with unsettled intervals in the auroral zone, and quiet in the subauroral zone. Visit <http://www.spaceweather.gc.ca/sfst-1-eng.php> <<http://www.spaceweather.gc.ca/sfst-1-eng.php>> for the magnetic forecast.

Space weather scientist

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From: Trichtchenko, Larisa [<mailto:Larisa.Trichtchenko@NRCan-RNCan.gc.ca>]

Sent: November-16-11 9:36 AM

To:

Subject: Space Weather Bulletin-2011-11-16

Space Weather Bulletin - November 16, 2011 issued by the Canadian Space Weather Forecast Centre at 14:30 UT (09:30 EST)

This is for testing purposes. The final bulletin will be produced in both official languages.

OVERVIEW: There is currently no storm watch in effect. See our website for current information: <http://www.spaceweather.gc.ca> <<http://www.spaceweather.gc.ca>>

SOLAR: Solar activity has been low.

INTERPLANETARY: Data on the interplanetary activity are very sparse due to the satellite communication problems. Interplanetary activity is at low levels. The solar wind speed is low (<450 km/s). The interplanetary magnetic field has been fluctuating at low (<5nT) levels.

NEAR-EARTH ENVIRONMENT: Energetic electron fluence at geostationary orbit was below threshold level November 15, 2011 and is expected to be below threshold level today. Visit <http://www.spaceweather.gc.ca/sffl-eng.php> <<http://www.spaceweather.gc.ca/sffl-eng.php>> for the electron forecast.

GEOMAGNETIC: 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 subauroral zone. Activity is forecast to be quiet in the polar zone, quiet in the auroral zone, and quiet in the subauroral zone. Visit <http://www.spaceweather.gc.ca/sfst-1-eng.php> <<http://www.spaceweather.gc.ca/sfst-1-eng.php>> for the magnetic forecast.

Space weather scientist

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From: Trichtchenko, Larisa [<mailto:Larisa.Trichtchenko@NRCan-RNCan.gc.ca>]

Sent: November-17-11 2:49 PM

To:

Subject: Space Weather Bulletin-2011-11-17

Space Weather Bulletin - November 17, 2011 issued by the Canadian Space Weather Forecast Centre at 20:00 UT (15:00 EST)

This is for testing purposes. The final bulletin will be produced in both official languages.

OVERVIEW: There is currently no storm watch in effect. See our website for current information: <http://www.spaceweather.gc.ca> <<http://www.spaceweather.gc.ca>>

SOLAR: Solar activity has been low.

INTERPLANETARY: Data on the interplanetary activity are very sparse due to the satellite communication problems. Interplanetary activity is at low levels. The solar wind speed is low (<500 km/s). The interplanetary magnetic field has been fluctuating at low (<5nT) levels.

NEAR-EARTH ENVIRONMENT: Energetic electron fluence at geostationary orbit was below threshold level November 16, 2011 and is expected to be just above the threshold level today. Visit <http://www.spaceweather.gc.ca/sffl-eng.php> <<http://www.spaceweather.gc.ca/sffl-eng.php>> for the electron forecast.

GEOMAGNETIC: Geomagnetic activity has been quiet with unsettled intervals in the polar zone, quiet with active intervals in the auroral zone, and quiet in the subauroral zone. Activity is forecast to be quiet in the polar zone, quiet in the auroral zone, and quiet in the subauroral zone. Visit <http://www.spaceweather.gc.ca/sfst-1-eng.php> <<http://www.spaceweather.gc.ca/sfst-1-eng.php>> for the magnetic forecast.

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From: Trichtchenko, Larisa [<mailto:Larisa.Trichtchenko@NRCan-RNCan.gc.ca>]

Sent: November-18-11 11:02 AM

To:

Subject: Space Weather Bulletin-2011-11-18

Space Weather Bulletin - November 18, 2011 issued by the Canadian Space Weather Forecast Centre at 20:00 UT (15:00 EST)

This is for testing purposes. The final bulletin will be produced in both official languages.

OVERVIEW: There is currently no storm watch in effect. See our website for current information: <http://www.spaceweather.gc.ca> <<http://www.spaceweather.gc.ca>>

SOLAR: Solar activity has been low.

INTERPLANETARY: Interplanetary activity is at low levels. The solar wind speed is low (<450 km/s). The interplanetary magnetic field has been fluctuating at low (<5nT) levels.

NEAR-EARTH ENVIRONMENT: Energetic electron fluence at geostationary orbit was below threshold level November 17, 2011 and is expected to be below the threshold level today. Visit <http://www.spaceweather.gc.ca/sffl-eng.php> <<http://www.spaceweather.gc.ca/sffl-eng.php>> for the electron forecast.

GEOMAGNETIC: Geomagnetic activity has been quiet in the polar zone, quiet in the auroral zone, and quiet in the subauroral zone. Activity is forecast to be quiet in the polar zone, quiet in the auroral zone, and quiet in the subauroral zone. Visit <http://www.spaceweather.gc.ca/sfst-1-eng.php> <<http://www.spaceweather.gc.ca/sfst-1-eng.php>> for the magnetic forecast.

Space weather scientist

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From: Trichtchenko, Larisa [<mailto:Larisa.Trichtchenko@NRCan-RNCan.gc.ca>]

Sent: November-19-11 8:48 AM

To:

Subject: Space Weather Bulletin-2011-11-19

Space Weather Bulletin - November 19, 2011 issued by the Canadian Space Weather Forecast Centre at 14:00 UT (09:00 EST)

This is for testing purposes. The final bulletin will be produced in both official languages.

OVERVIEW: There is currently no storm watch in effect. See our website for current information: <http://www.spaceweather.gc.ca> <<http://www.spaceweather.gc.ca>>

SOLAR: Solar activity has been low.

INTERPLANETARY: Interplanetary activity has been low. The solar wind speed is currently at low level (<400 km/s). The interplanetary magnetic field has been fluctuating at low (<5nT) levels.

NEAR-EARTH ENVIRONMENT: Energetic electron fluence at geostationary orbit was below threshold level November 19, 2011 and is expected to be below threshold level today. Visit <http://www.spaceweather.gc.ca/sffl-eng.php> <<http://www.spaceweather.gc.ca/sffl-eng.php>> for the electron forecast.

GEOMAGNETIC: Geomagnetic activity has been quiet in the polar zone, quiet in the auroral zone, and quiet in the subauroral zone. Activity is forecast to be quiet in the polar zone, quiet in the auroral zone, and quiet in the subauroral zone. Visit <http://www.spaceweather.gc.ca/sfst-1-eng.php> <<http://www.spaceweather.gc.ca/sfst-1-eng.php>> for the magnetic forecast.

Space weather scientist

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From: Trichtchenko, Larisa [<mailto:Larisa.Trichtchenko@NRCan-RNCan.gc.ca>]

Sent: November-20-11 9:15 AM

To:

Subject: Space Weather Bulletin-2011-11-20

Space Weather Bulletin - November 20, 2011 issued by the Canadian Space Weather Forecast Centre at 14:00 UT (09:00 EST)

This is for testing purposes. The final bulletin will be produced in both official languages.

OVERVIEW: There is currently no storm watch in effect. See our website for current information: <http://www.spaceweather.gc.ca> <<http://www.spaceweather.gc.ca>>

SOLAR: Solar activity has been low.

INTERPLANETARY: Interplanetary activity has been low. The solar wind speed is currently at low level (<400 km/s). The interplanetary magnetic field has been fluctuating at low (<5nT) levels.

NEAR-EARTH ENVIRONMENT: Energetic electron fluence at geostationary orbit was below threshold level November 19, 2011 and is expected to be below threshold level today. Visit <http://www.spaceweather.gc.ca/sffl-eng.php> <<http://www.spaceweather.gc.ca/sffl-eng.php>> for the electron forecast.

GEOMAGNETIC: Geomagnetic activity has been quiet in the polar zone, quiet in the auroral zone, and quiet in the subauroral zone. Activity is forecast to be quiet in the polar zone, quiet in the auroral zone, and quiet in the subauroral zone. Visit <http://www.spaceweather.gc.ca/sfst-1-eng.php> <<http://www.spaceweather.gc.ca/sfst-1-eng.php>> for the magnetic forecast.

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From: Trichtchenko, Larisa [<mailto:Larisa.Trichtchenko@NRCan-RNCan.gc.ca>]

Sent: November-21-11 10:14 AM

To:

Subject: Space Weather Bulletin-2011-11-21

Space Weather Bulletin - November 21, 2011 issued by the Canadian Space Weather Forecast Centre at 14:00 UT (09:00 EST)

This is for testing purposes. The final bulletin will be produced in both official languages.

OVERVIEW: There is currently no storm watch in effect. See our website for current information: <http://www.spaceweather.gc.ca> <<http://www.spaceweather.gc.ca>>

SOLAR: Solar activity has been low.

INTERPLANETARY: Interplanetary activity has been low. The solar wind speed is currently at low level (<350 km/s). The interplanetary magnetic field has been fluctuating at low (<10nT) levels.

NEAR-EARTH ENVIRONMENT: Energetic electron fluence at geostationary orbit was below threshold level November 20, 2011 and is expected to be below threshold level today. Visit <http://www.spaceweather.gc.ca/sffl-eng.php> <<http://www.spaceweather.gc.ca/sffl-eng.php>> for the electron forecast.

GEOMAGNETIC: Geomagnetic activity has been quiet in the polar zone, quiet with active intervals in the auroral zone, and quiet in the subauroral zone. Activity is forecast to be quiet in the polar zone, quiet in the auroral zone, and quiet in the subauroral zone. Visit <http://www.spaceweather.gc.ca/sfst-1-eng.php> <<http://www.spaceweather.gc.ca/sfst-1-eng.php>> for the magnetic forecast.

Space weather scientist

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From: Danskin, Donald [mailto:Donald.Danskin@NRCan-RNCan.gc.ca]

Sent: November-23-11 12:51 PM

To:

Subject: Space Weather Bulletin - 2011-11-23

Space Weather Bulletin - November 23, 2011 issued by the Canadian Space Weather Forecast Centre at 17:45 UT (12:45 EST)

This is for testing purposes. The final bulletin will be produced in both official languages.

OVERVIEW: There is currently no storm watch in effect. See our website for current information: <http://www.spaceweather.gc.ca>

SOLAR: Solar activity has been low.

INTERPLANETARY: Interplanetary activity has been low. The solar wind speed is currently at low level (<400 km/s). The interplanetary magnetic field has been fluctuating at low (<5nT) levels.

NEAR-EARTH ENVIRONMENT: Energetic electron fluence at geostationary orbit was below threshold level November 22, 2011 and is expected to be below threshold level today. Visit <http://www.spaceweather.gc.ca/sffl-eng.php> for the electron fluence forecast.

GEOMAGNETIC: Geomagnetic activity has been quiet with unsettled intervals in the polar zone, quiet with active intervals in the auroral zone, and quiet in the subauroral zone. Activity is forecast to be quiet in the polar zone, quiet in the auroral zone, and quiet in the subauroral zone. Visit <http://www.spaceweather.gc.ca/sfst-1-eng.php> for the magnetic forecast.

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From: Danskin, Donald [mailto:Donald.Danskin@NRCan-RNCan.gc.ca]

Sent: November-24-11 10:03 AM

To:

Subject: Space Weather Bulletin - 2011-11-24

Space Weather Bulletin - November 24, 2011 issued by the Canadian Space Weather Forecast Centre at 15:00 UT (10:00 EST)

This is for testing purposes. The final bulletin will be produced in both official languages.

OVERVIEW: There is currently no storm watch in effect. See our website for current information: <http://www.spaceweather.gc.ca>

SOLAR: Solar activity has been low.

INTERPLANETARY: Interplanetary activity has been low. The solar wind speed is currently at low level (<400 km/s). The interplanetary magnetic field has been fluctuating at low (<5nT) levels.

NEAR-EARTH ENVIRONMENT: Energetic electron fluence at geostationary orbit was below threshold level November 23, 2011 and is expected to be at threshold level today. Visit <http://www.spaceweather.gc.ca/sffl-eng.php> for the electron fluence forecast.

GEOMAGNETIC: 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 subauroral zone. 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 <http://www.spaceweather.gc.ca/sfst-1-eng.php> for the magnetic forecast.

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From: Danskin, Donald [mailto:Donald.Danskin@NRCan-RNCan.gc.ca]

Sent: November-25-11 11:36 AM

To:

Subject: Space Weather Bulletin - 2011-11-25

Space Weather Bulletin - November 25, 2011 issued by the Canadian Space Weather Forecast Centre at 16:30 UT (11:30 EST)

This is for testing purposes. The final bulletin will be produced in both official languages.

OVERVIEW: There is currently no storm watch in effect. See our website for current information: <http://www.spaceweather.gc.ca>

SOLAR: Solar activity has been low.

INTERPLANETARY: Interplanetary activity has been low. The solar wind speed is currently at low level (<400 km/s). The interplanetary magnetic field has been fluctuating at low (<5nT) levels.

NEAR-EARTH ENVIRONMENT: Energetic electron fluence at geostationary orbit was below threshold level November 24, 2011 and is expected to be below threshold level today. Visit <http://www.spaceweather.gc.ca/sffl-eng.php> for the electron fluence forecast.

GEOMAGNETIC: Geomagnetic activity has been quiet with unsettled intervals in the polar zone, quiet with active intervals in the auroral zone, and quiet in the subauroral zone. 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 <http://www.spaceweather.gc.ca/sfst-1-eng.php> for the magnetic forecast.

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From: McKee, Lorne [<mailto:Lorne.McKee@NRCan-RNCan.gc.ca>]

Sent: November-27-11 9:22 AM

To:

Subject: Space Weather Bulletin - 2011-11-27

Space Weather Bulletin - November 27, 2011 issued by the Canadian Space Weather Forecast Centre at 14:15 UT (09:15 EST)

This is for testing purposes. The final bulletin will be produced in both official languages.

OVERVIEW: There is currently no storm watch in effect. Geomagnetic effects from CMEs are expected to be observed on the Earth between November 28, 2011 and November 29, 2011. See our website for current information: <http://www.spaceweather.gc.ca>
<<http://www.spaceweather.gc.ca/>>

SOLAR: Solar activity has been low. An Earth directed CME erupted at November 26 07:10 UT.

INTERPLANETARY: Interplanetary activity has been low. The solar wind speed is currently at low level (<400 km/s). The interplanetary magnetic field has been fluctuating at low (<5nT) levels.

NEAR-EARTH ENVIRONMENT: Energetic electron fluence at geostationary orbit was below threshold level November 26, 2011 and is expected to be below threshold level today. Visit <http://www.spaceweather.gc.ca/sffl-eng.php> <<http://www.spaceweather.gc.ca/sffl-eng.php>> for the electron fluence forecast.

GEOMAGNETIC: Geomagnetic activity has been quiet with unsettled intervals in the polar zone, quiet with active intervals in the auroral zone, and quiet with unsettled in the subauroral zone. Activity is forecast to be quiet with unsettled in the polar zone, quiet with unsettled intervals in the auroral zone, and quiet in the subauroral zone. Visit <http://www.spaceweather.gc.ca/sfst-1-eng.php> <<http://www.spaceweather.gc.ca/sfst-1-eng.php>> for the magnetic forecast.

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From: McKee, Lorne [<mailto:Lorne.McKee@NRCan-RNCan.gc.ca>]

Sent: November-28-11 9:57 AM

To:

Subject: Space Weather Bulletin - 2011-11-28

Space Weather Bulletin - November 28, 2011 issued by the Canadian Space Weather Forecast Centre at 15:00 UT (10:00 EST)

This is for testing purposes. The final bulletin will be produced in both official languages.

OVERVIEW: There is currently no storm watch in effect. Geomagnetic effects from CMEs are expected to be observed on the Earth between November 28, 2011 and November 29, 2011. See our website for current information: <http://www.spaceweather.gc.ca>

SOLAR: Solar activity has been low. An Earth directed CME erupted at November 26 07:10 UT.

INTERPLANETARY: Interplanetary activity has been low. The solar wind speed is currently at low level (<400 km/s). The interplanetary magnetic field has been fluctuating at low (<5nT) levels.

NEAR-EARTH ENVIRONMENT: Energetic electron fluence at geostationary orbit was below threshold level November 27, 2011 and is expected to be below threshold level today. Visit <http://www.spaceweather.gc.ca/sffl-eng.php> for the electron fluence forecast.

GEOMAGNETIC: Geomagnetic activity has been quiet with active intervals in the polar zone, quiet with active intervals in the auroral zone, and quiet with unsettled in the subauroral zone. Activity is forecast to be quiet with stormy 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.

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From: McKee, Lorne [<mailto:Lorne.McKee@NRCan-RNCan.gc.ca>]

Sent: November-30-11 7:02 AM

To:

Subject: Space Weather Bulletin - 2011-11-30

Space Weather Bulletin - November 30, 2011 issued by the Canadian Space Weather Forecast Centre at 12:00 UT (07:00 EST)

This is for testing purposes. The final bulletin will be produced in both official languages.

OVERVIEW: There is currently no storm watch in effect. Effects from CMEs are currently observed in polar (Unsettled), auroral (Stormy) and subauroral (Active) zones. See our website for current information: <http://www.spaceweather.gc.ca>

SOLAR: Solar activity has been low.

INTERPLANETARY: Interplanetary activity has been moderate. The interplanetary magnetic field has been fluctuating at moderate ($5 < |B_z| < 10$ nT) levels. Prolonged periods of negative interplanetary magnetic field are often associated with increased geomagnetic activity.

NEAR-EARTH ENVIRONMENT: Energetic electron fluence at geostationary orbit was below threshold level November 29, 2011 and is expected to be below threshold level today. Visit <http://www.spaceweather.gc.ca/sffl-eng.php> for the electron fluence forecast.

GEOMAGNETIC: Geomagnetic activity has been quiet with active intervals in the polar zone, quiet with unsettled intervals in the auroral zone, and quiet with active in the subauroral zone. Activity is forecast to be quiet with unsettled in the polar zone, quiet with stormy intervals in the auroral zone, and quiet with unsettled intervals in the subauroral zone. Visit <http://www.spaceweather.gc.ca/sfst-1-eng.php> for the magnetic forecast.

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From: McKee, Lorne [<mailto:Lorne.McKee@NRCan-RNCan.gc.ca>]

Sent: December-01-11 9:39 AM

To:

Subject: Space Weather Bulletin - 2011-12-01

Space Weather Bulletin - December 01, 2011 issued by the Canadian Space Weather Forecast Centre at 14:30 UT (09:30 EST)

This is for testing purposes. The final bulletin will be produced in both official languages.

OVERVIEW: There is currently no storm watch in effect. See our website for current information: <http://www.spaceweather.gc.ca>

SOLAR: Solar activity has been low.

INTERPLANETARY: Interplanetary activity has been low. The interplanetary magnetic field has been fluctuating at low ($|B_z| < 5\text{nT}$) levels.

NEAR-EARTH ENVIRONMENT: Energetic electron fluence at geostationary orbit was below threshold level November 30, 2011 and is expected to be below threshold level today. Visit <http://www.spaceweather.gc.ca/sffl-eng.php> for the electron fluence forecast.

GEOMAGNETIC: Geomagnetic activity has been quiet with active intervals in the polar zone, unsettled with stormy intervals in the auroral zone, and quiet with active in the subauroral zone. Activity is forecast to be quiet with unsettled in the polar zone, unsettled with active intervals in the auroral zone, and quiet in the subauroral zone. Visit <http://www.spaceweather.gc.ca/sfst-1-eng.php> for the magnetic forecast.

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From: McKee, Lorne [<mailto:Lorne.McKee@NRCan-RNCan.gc.ca>]

Sent: December-02-11 9:53 AM

To:

Subject: Space Weather Bulletin - 2011-12-02

Space Weather Bulletin - December 02, 2011 issued by the Canadian Space Weather Forecast Centre at 15:00 UT (10:00 EST)

This is for testing purposes. The final bulletin will be produced in both official languages.

OVERVIEW: There is currently no storm watch in effect. Effects from CMEs are expected to be observed on the Earth between December 03, 2011 and December 04, 2011. See our website for current information: <http://www.spaceweather.gc.ca>

SOLAR: Solar activity has been low. An Earth-directed CME erupted at November 30, 2011 20:12 UT.

INTERPLANETARY: Interplanetary activity has been low.

NEAR-EARTH ENVIRONMENT: Energetic electron fluence at geostationary orbit was below threshold level December 01, 2011 and is expected to be above threshold level today. Visit <http://www.spaceweather.gc.ca/sffl-eng.php> for the electron fluence forecast.

GEOMAGNETIC: Geomagnetic activity has been quiet in the polar zone, quiet with unsettled intervals in the auroral zone, and quiet in the subauroral zone. Activity is forecast to be quiet in the polar zone, quiet in the auroral zone, and quiet in the subauroral zone. Visit <http://www.spaceweather.gc.ca/sfst-1-eng.php> for the magnetic forecast.

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From: McKee, Lorne [<mailto:Lorne.McKee@NRCan-RNCan.gc.ca>]

Sent: December-03-11 9:07 AM

To:

Subject: Space Weather Bulletin - 2011-12-03

Space Weather Bulletin - December 03, 2011 issued by the Canadian Space Weather Forecast Centre at 14:00 UT (09:00 EST)

This is for testing purposes. The final bulletin will be produced in both official languages.

OVERVIEW: There is currently no storm watch in effect. See our website for current information: <http://www.spaceweather.gc.ca> <<http://www.spaceweather.gc.ca/>>

SOLAR: Solar activity has been low. A non-Earth-directed CME erupted at November 30, 2011 20:12 UT.

INTERPLANETARY: Interplanetary activity has been low.

NEAR-EARTH ENVIRONMENT: Energetic electron fluence at geostationary orbit was below threshold level December 02, 2011 and is expected to be above threshold level today. Visit <http://www.spaceweather.gc.ca/sffl-eng.php> for the electron fluence forecast.

GEOMAGNETIC: Geomagnetic activity has been quiet with unsettled intervals in the polar zone, quiet with stormy intervals with unsettled intervals in the auroral zone, and quiet with unsettled in the subauroral zone. 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 subauroral zone. Visit <http://www.spaceweather.gc.ca/sfst-1-eng.php> for the magnetic forecast.

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From: McKee, Lorne [<mailto:Lorne.McKee@NRCan-RNCan.gc.ca>]

Sent: December-04-11 9:34 AM

To:

Subject: Space Weather Bulletin - 2011-12-04

Space Weather Bulletin - December 04, 2011 issued by the Canadian Space Weather Forecast Centre at 14:30 UT (09:30 EST)

This is for testing purposes. The final bulletin will be produced in both official languages.

OVERVIEW: There is currently no storm watch in effect. See our website for current information: <http://spaceweather.gc.ca/current-actuelle/sf-eng.php>

SOLAR: Solar activity has been low.

INTERPLANETARY: Interplanetary activity has been low.

NEAR-EARTH ENVIRONMENT: Energetic electron fluence at geostationary orbit was below threshold level December 03, 2011 and is expected to be below threshold level today. Visit <http://spaceweather.gc.ca/current-actuelle/fluence/sffl-eng.php> for the electron fluence forecast.

GEOMAGNETIC: Geomagnetic activity has been quiet with active intervals in the polar zone, quiet with unsettled intervals in the auroral zone, and quiet with unsettled in the subauroral zone. Activity is forecast to be quiet in the polar zone, quiet with unsettled intervals in the auroral zone, and quiet in the subauroral zone. Visit <http://www.spaceweather.gc.ca/current-actuelle/short-court/sfst-3-eng.php> <<http://www.spaceweather.gc.ca/sfst-1-eng.php>> for the magnetic forecast.

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From: McKee, Lorne [<mailto:Lorne.McKee@NRCan-RNCan.gc.ca>]

Sent: December-05-11 9:03 AM

To:

Subject: Space Weather Bulletin - 2011-12-05

Space Weather Bulletin - December 05, 2011 issued by the Canadian Space Weather Forecast Centre at 14:00 UT (09:00 EST)

This is for testing purposes. The final bulletin will be produced in both official languages.

OVERVIEW: There is currently no storm watch in effect. See our website for current information: <http://spaceweather.gc.ca/current-actuelle/sf-eng.php>

SOLAR: Solar activity has been low.

INTERPLANETARY: Interplanetary activity has been low.

NEAR-EARTH ENVIRONMENT: Energetic electron fluence at geostationary orbit was below threshold level December 04, 2011 and is expected to be above threshold level today. Visit <http://spaceweather.gc.ca/current-actuelle/fluence/sffl-eng.php> for the electron fluence forecast.

GEOMAGNETIC: Geomagnetic activity has been quiet in the polar zone, quiet with unsettled intervals in the auroral zone, and quiet in the subauroral zone. Activity is forecast to be quiet in the polar zone, quiet in the auroral zone, and quiet in the subauroral zone. Visit <http://www.spaceweather.gc.ca/current-actuelle/short-court/sfst-3-eng.php> for the magnetic forecast.

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From: Danskin, Donald [mailto:Donald.Danskin@NRCan-RNCan.gc.ca]

Sent: December-06-11 1:33 PM

To:

Subject: Space Weather Bulletin - 2011-12-06

Space Weather Bulletin - December 6, 2011 issued by the Canadian Space Weather Forecast Centre at 18:30 UT (13:30 EST)

This is for testing purposes. The final bulletin will be produced in both official languages.

OVERVIEW: There is currently no storm watch in effect. See our website for current information: <http://spaceweather.gc.ca/current-actuelle/sf-eng.php>

SOLAR: Solar activity has been low.

INTERPLANETARY: Interplanetary activity has been low.

NEAR-EARTH ENVIRONMENT: Energetic electron fluence at geostationary orbit was below threshold level December 5, 2011 and is expected to be below threshold level today. Visit <http://spaceweather.gc.ca/current-actuelle/fluence/sffl-eng.php> for the electron fluence forecast.

GEOMAGNETIC: Geomagnetic activity has been quiet in the polar zone, quiet in the auroral zone, and quiet in the subauroral zone. Activity is forecast to be quiet in the polar zone, quiet in the auroral zone, and quiet in the subauroral zone. Visit <http://www.spaceweather.gc.ca/current-actuelle/short-court/sfst-3-eng.php> <<http://www.spaceweather.gc.ca/sfst-1-eng.php>> for the magnetic forecast.

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From: Danskin, Donald [mailto:Donald.Danskin@NRCan-RNCan.gc.ca]

Sent: December-07-11 12:49 PM

To:

Subject: Space Weather Bulletin - 2011-12-07

Space Weather Bulletin - December 7, 2011 issued by the Canadian Space Weather Forecast Centre at 17:45 UT (12:45 EST)

This is for testing purposes. The final bulletin will be produced in both official languages.

OVERVIEW: There is currently no storm watch in effect. See our website for current information: <http://spaceweather.gc.ca/current-actuelle/sf-eng.php>

SOLAR: Solar activity has been low.

INTERPLANETARY: Interplanetary activity has been low.

NEAR-EARTH ENVIRONMENT: Energetic electron fluence at geostationary orbit was below threshold level December 6, 2011 and is expected to be below threshold level today. Visit <http://spaceweather.gc.ca/current-actuelle/fluence/sffl-eng.php> for the electron fluence forecast.

GEOMAGNETIC: Geomagnetic activity has been quiet in the polar zone, quiet with unsettled intervals in the auroral zone, and quiet in the subauroral zone. Activity is forecast to be quiet in the polar zone, quiet in the auroral zone, and quiet in the subauroral zone. Visit <http://www.spaceweather.gc.ca/current-actuelle/short-court/sfst-3-eng.php> for the magnetic forecast.

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From: Danskin, Donald [mailto:Donald.Danskin@NRCan-RNCan.gc.ca]

Sent: December-08-11 11:08 AM

To:

Subject: Space Weather Bulletin - 2011-12-08

Space Weather Bulletin - December 8, 2011 issued by the Canadian Space Weather Forecast Centre at 16:00 UT (11:00 EST)

This is for testing purposes. The final bulletin will be produced in both official languages.

OVERVIEW: There is currently no storm watch in effect. See our website for current information: <http://spaceweather.gc.ca/current-actuelle/sf-eng.php>

SOLAR: Solar activity has been low.

INTERPLANETARY: Interplanetary activity has been low.

NEAR-EARTH ENVIRONMENT: Energetic electron fluence at geostationary orbit was below threshold level December 7, 2011 and is expected to be below threshold level today. Visit <http://spaceweather.gc.ca/current-actuelle/fluence/sffl-eng.php> for the electron fluence forecast.

GEOMAGNETIC: Geomagnetic activity has been quiet in the polar zone, quiet with active intervals in the auroral zone, and quiet in the subauroral zone. Activity is forecast to be quiet in the polar zone, quiet in the auroral zone, and quiet in the subauroral zone. Visit <http://www.spaceweather.gc.ca/current-actuelle/short-court/sfst-3-eng.php> for the magnetic forecast.

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From: Danskin, Donald [mailto:Donald.Danskin@NRCan-RNCan.gc.ca]

Sent: December-09-11 11:14 AM

To:

Subject: Space Weather Bulletin - 2011-12-09

Space Weather Bulletin - December 9, 2011 issued by the Canadian Space Weather Forecast Centre at 16:00 UT (11:00 EST)

This is for testing purposes. The final bulletin will be produced in both official languages.

OVERVIEW: There is currently no storm watch in effect. See our website for current information: <http://spaceweather.gc.ca/current-actuelle/sf-eng.php>

SOLAR: Solar activity has been low.

INTERPLANETARY: Interplanetary activity has been low.

NEAR-EARTH ENVIRONMENT: Energetic electron fluence at geostationary orbit was below threshold level December 8, 2011 and is expected to be below threshold level today. Visit <http://spaceweather.gc.ca/current-actuelle/fluence/sffl-eng.php> for the electron fluence forecast.

GEOMAGNETIC: Geomagnetic activity has been quiet in the polar zone, quiet with unsettled intervals in the auroral zone, and quiet in the subauroral zone. Activity is forecast to be quiet in the polar zone, quiet in the auroral zone, and quiet in the subauroral zone. Visit <http://www.spaceweather.gc.ca/current-actuelle/short-court/sfst-3-eng.php> for the magnetic forecast.

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From: Danskin, Donald [mailto:Donald.Danskin@NRCan-RNCan.gc.ca]

Sent: December-10-11 11:33 AM

To:

Subject: Space Weather Bulletin - 2011-12-10

Space Weather Bulletin - December 10, 2011 issued by the Canadian Space Weather Forecast Centre at 16:30 UT (11:30 EST)

This is for testing purposes. The final bulletin will be produced in both official languages.

OVERVIEW: There is currently no storm watch in effect. See our website for current information: <http://spaceweather.gc.ca/current-actuelle/sf-eng.php>

SOLAR: Solar activity has been low.

INTERPLANETARY: Interplanetary activity has been moderate.

NEAR-EARTH ENVIRONMENT: Energetic electron fluence at geostationary orbit was below threshold level December 9, 2011 and is expected to be below threshold level today. Visit <http://spaceweather.gc.ca/current-actuelle/fluence/sffl-eng.php> for the electron fluence forecast.

GEOMAGNETIC: 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 subauroral zone. Activity is forecast to be quiet in the polar zone, quiet with unsettled intervals in the auroral zone, and quiet in the subauroral zone. Visit <http://www.spaceweather.gc.ca/current-actuelle/short-court/sfst-3-eng.php> for the magnetic forecast.

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From: Danskin, Donald [mailto:Donald.Danskin@NRCan-RNCan.gc.ca]

Sent: December-11-11 8:58 AM

To:

Subject: Space Weather Bulletin - 2011-12-11

Space Weather Bulletin - December 11, 2011 issued by the Canadian Space Weather Forecast Centre at 13:45 UT (8:45EST)

This is for testing purposes. The final bulletin will be produced in both official languages.

OVERVIEW: There is currently no storm watch in effect. See our website for current information: <http://spaceweather.gc.ca/current-actuelle/sf-eng.php>

SOLAR: Solar activity has been low.

INTERPLANETARY: Interplanetary activity has been moderate.

NEAR-EARTH ENVIRONMENT: Energetic electron fluence at geostationary orbit was below threshold level December 10, 2011 and is expected to be below threshold level today. Visit <http://spaceweather.gc.ca/current-actuelle/fluence/sffl-eng.php> for the electron fluence forecast.

GEOMAGNETIC: Geomagnetic activity has been quiet with unsettled intervals in the polar zone, quiet with active intervals in the auroral zone, and quiet in the subauroral zone. Activity is forecast to be quiet in the polar zone, quiet with unsettled intervals in the auroral zone, and quiet in the subauroral zone. Visit <http://www.spaceweather.gc.ca/current-actuelle/short-court/sfst-3-eng.php> for the magnetic forecast.

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From: Danskin, Donald [mailto:Donald.Danskin@NRCan-RNCan.gc.ca]

Sent: December-12-11 10:43 AM

To:

Subject: Space Weather Bulletin - 2011-12-12

Space Weather Bulletin - December 12, 2011 issued by the Canadian Space Weather Forecast Centre at 15:15 UT (10:15EST)

This is for testing purposes. The final bulletin will be produced in both official languages.

OVERVIEW: There is currently no storm watch in effect. See our website for current information: <http://spaceweather.gc.ca/current-actuelle/sf-eng.php>

SOLAR: Solar activity has been low.

INTERPLANETARY: Interplanetary activity has been moderate.

NEAR-EARTH ENVIRONMENT: Energetic electron fluence at geostationary orbit was below threshold level December 11, 2011 and is expected to be below threshold level today. Visit <http://spaceweather.gc.ca/current-actuelle/fluence/sffl-eng.php> for the electron fluence forecast.

GEOMAGNETIC: Geomagnetic activity has been quiet with active intervals in the polar zone, quiet with unsettled intervals in the auroral zone, and quiet in the subauroral zone. Activity is forecast to be quiet in the polar zone, quiet with unsettled intervals in the auroral zone, and quiet in the subauroral zone. Visit <http://www.spaceweather.gc.ca/current-actuelle/short-court/sfst-3-eng.php> for the magnetic forecast.

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From: Danskin, Donald [mailto:Donald.Danskin@NRCan-RNCan.gc.ca]

Sent: December-13-11 10:49 AM

To:

Subject: Space Weather Bulletin - 2011-12-13

Space Weather Bulletin - December 13, 2011 issued by the Canadian Space Weather Forecast Centre at 15:45 UT (10:45 EST)

This is for testing purposes. The final bulletin will be produced in both official languages.

OVERVIEW: There is currently no storm watch in effect. See our website for current information: <http://spaceweather.gc.ca/current-actuelle/sf-eng.php>

SOLAR: Solar activity has been low.

INTERPLANETARY: Interplanetary activity has been moderate.

NEAR-EARTH ENVIRONMENT: Energetic electron fluence at geostationary orbit was below threshold level December 12, 2011 and is expected to be below threshold level today. Visit <http://spaceweather.gc.ca/current-actuelle/fluence/sffl-eng.php> for the electron fluence forecast.

GEOMAGNETIC: Geomagnetic activity has been quiet with unsettled intervals in the polar zone, quiet with active intervals in the auroral zone, and quiet in the subauroral zone. Activity is forecast to be quiet in the polar zone, quiet with unsettled intervals in the auroral zone, and quiet in the subauroral zone. Visit <http://www.spaceweather.gc.ca/current-actuelle/short-court/sfst-3-eng.php> for the magnetic forecast.

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Space weather scientist

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From: Danskin, Donald [mailto:Donald.Danskin@NRCan-RNCan.gc.ca]

Sent: December-14-11 10:33 AM

To:

Subject: Space Weather Bulletin - 2011-12-14

Space Weather Bulletin - December 14, 2011 issued by the Canadian Space Weather Forecast Centre at 15:30 UT (10:30 EST)

This is for testing purposes. The final bulletin will be produced in both official languages.

OVERVIEW: There is currently no storm watch in effect. See our website for current information: <http://spaceweather.gc.ca/current-actuelle/sf-eng.php>

SOLAR: Solar activity has been low.

INTERPLANETARY: Interplanetary activity has been low.

NEAR-EARTH ENVIRONMENT: Energetic electron fluence at geostationary orbit was below threshold level December 13, 2011 and is expected to be below threshold level today. Visit <http://spaceweather.gc.ca/current-actuelle/fluence/sffl-eng.php> for the electron fluence forecast.

GEOMAGNETIC: Geomagnetic activity has been quiet in the polar zone, quiet with unsettled intervals in the auroral zone, and quiet in the subauroral zone. Activity is forecast to be quiet in the polar zone, quiet in the auroral zone, and quiet in the subauroral zone. Visit <http://www.spaceweather.gc.ca/current-actuelle/short-court/sfst-3-eng.php> for the magnetic forecast.

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From: Trichtchenko, Larisa [<mailto:Larisa.Trichtchenko@NRCan-RNCan.gc.ca>]

Sent: December-16-11 11:37 AM

To:

Subject: Space Weather Bulletin-2011-12-16

Space Weather Bulletin - December 16 , 2011 issued by the Canadian Space Weather Forecast Centre at 16:30 UT (11:30 EST)

This is for testing purposes. The final bulletin will be produced in both official languages.

OVERVIEW: There is currently no storm watch in effect. See our website for current information: <http://www.spaceweather.gc.ca> <<http://www.spaceweather.gc.ca>>

SOLAR: Solar activity has been low.

INTERPLANETARY: Interplanetary activity has been low. The solar wind speed is currently slow (<400 km/s). The interplanetary magnetic field has been fluctuating at low ($|Bz| < 2$ nT) levels.

NEAR-EARTH ENVIRONMENT: Energetic electron fluence at geostationary orbit was below threshold level December 15, 2011 and is expected to be below threshold level today. Visit <http://www.spaceweather.gc.ca/current-actuelle/fluence/sffl-eng.php> for the electron forecast.

GEOMAGNETIC: Geomagnetic activity has been quiet in the polar zone, quiet in the auroral zone, and quiet in the subauroral zone. Activity is forecast to be quiet in the polar zone, quiet in the auroral zone, and quiet in the subauroral zone. Visit <http://www.spaceweather.gc.ca/current-actuelle/sf-eng.php> for the magnetic forecast.

Space weather scientist

Larisa Trichtchenko

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From: Trichtchenko, Larisa [<mailto:Larisa.Trichtchenko@NRCan-RNCan.gc.ca>]

Sent: December-17-11 9:41 AM

To:

Subject: Space Weather Bulletin-2011-12-17

Space Weather Bulletin - December 17, 2011 issued by the Canadian Space Weather Forecast Centre at 15:00 UT (10:00 EST)

This is for testing purposes. The final bulletin will be produced in both official languages.

OVERVIEW: There is currently no storm watch in effect. See our website for current information: <http://www.spaceweather.gc.ca>
<<https://email.nrcan.gc.ca/exchweb/bin/redir.asp?URL=http://www.spaceweather.gc.ca>>

SOLAR: Solar activity has been low.

INTERPLANETARY: Interplanetary activity has been low. The solar wind speed is currently at low level (<350 km/s). The interplanetary magnetic field has been fluctuating at low (<2nT) levels.

NEAR-EARTH ENVIRONMENT: Energetic electron fluence at geostationary orbit was below threshold level December 16, 2011 and is expected to be below threshold level today. Visit <http://spaceweather.gc.ca/current-actuelle/fluence/sffl-eng.php>
<<http://spaceweather.gc.ca/current-actuelle/fluence/sffl-eng.php>> for the electron forecast.

GEOMAGNETIC: Geomagnetic activity has been quiet in the polar zone, quiet in the auroral zone, and quiet with unsettled intervals in the subauroral zone. Activity is forecast to be quiet in the polar zone, quiet in the auroral zone, and quiet in the subauroral zone. Visit <http://spaceweather.gc.ca/current-actuelle/short-court/sfst-1-eng.php>
<<http://spaceweather.gc.ca/current-actuelle/short-court/sfst-1-eng.php>> for the magnetic forecast.

Space weather scientist

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From: Trichtchenko, Larisa [<mailto:Larisa.Trichtchenko@NRCan-RNCan.gc.ca>]

Sent: December-18-11 11:50 AM

To:

Subject: Space Weather Bulletin-2011-12-18

Space Weather Bulletin - December 18, 2011 issued by the Canadian Space Weather Forecast Centre at 17:00 UT (12:00 EST)

This is for testing purposes. The final bulletin will be produced in both official languages.

OVERVIEW: There is currently no storm watch in effect. See our website for current information: <http://www.spaceweather.gc.ca>
<<https://email.nrcan.gc.ca/exchweb/bin/redirect.asp?URL=http://www.spaceweather.gc.ca>>

SOLAR: Solar activity has been low.

INTERPLANETARY: Interplanetary activity has been low. The solar wind speed is currently at low level (<350 km/s). The interplanetary magnetic field has been fluctuating at low (<2nT) levels.

NEAR-EARTH ENVIRONMENT: Energetic electron fluence at geostationary orbit was below threshold level December 17, 2011 and is expected to be below threshold level today. Visit <http://spaceweather.gc.ca/current-actuelle/fluence/sffl-eng.php>
<<http://spaceweather.gc.ca/current-actuelle/fluence/sffl-eng.php>> for the electron forecast.

GEOMAGNETIC: Geomagnetic activity has been quiet in the polar zone, quiet with active intervals in the auroral zone, and quiet with unsettled intervals in the subauroral zone. Activity is forecast to be quiet in the polar zone, quiet in the auroral zone, and quiet in the subauroral zone. Visit <http://spaceweather.gc.ca/current-actuelle/short-court/sfst-1-eng.php>
<<http://spaceweather.gc.ca/current-actuelle/short-court/sfst-1-eng.php>> for the magnetic forecast.

Space weather scientist

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From: Trichtchenko, Larisa [<mailto:Larisa.Trichtchenko@NRCan-RNCan.gc.ca>]

Sent: December-19-11 10:27 AM

To:

Subject: Space Weather Bulletin-2011-12-19

Space Weather Bulletin - December 19, 2011 issued by the Canadian Space Weather Forecast Centre at 15:30 UT (10:30 EST)

This is for testing purposes. The final bulletin will be produced in both official languages.

OVERVIEW: There is currently no storm watch in effect. See our website for current information: <http://www.spaceweather.gc.ca>

SOLAR: Solar activity has been low.

INTERPLANETARY: Interplanetary activity has been low. The solar wind speed is currently at low level (<400 km/s). The interplanetary magnetic field has been fluctuating at low (<7nT) levels.

NEAR-EARTH ENVIRONMENT: Energetic electron fluence at geostationary orbit was below threshold level December 18, 2011 and is expected to be below threshold level today. Visit <http://spaceweather.gc.ca/current-actuelle/fluence/sffl-eng.php> for the electron forecast.

GEOMAGNETIC: Geomagnetic activity has been quiet in the polar zone, quiet in the auroral zone, and quiet with unsettled intervals in the subauroral zone. Activity is forecast to be quiet in the polar zone, quiet in the auroral zone, and quiet in the subauroral zone. Visit <http://spaceweather.gc.ca/current-actuelle/short-court/sfst-1-eng.php> <<http://spaceweather.gc.ca/current-actuelle/short-court/sfst-1-eng.php>> for the magnetic forecast.

Space weather scientist

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From: Lam, Hing-Lan [mailto:Hing-Lan.Lam@NRCan-RNCan.gc.ca]

Sent: December-20-11 11:09 AM

To:

Subject: Space Weather Bulletin - 2011-12-20

Space Weather Bulletin – December 20, 2011 issued by the Canadian Space Weather Forecast Centre at 16:10 UT (11:10 EST)

This is for testing purposes. The final bulletin will be produced in both official languages.

OVERVIEW: There is currently no storm watch in effect. See our website for current information: <http://www.spaceweather.gc.ca>.

SOLAR: Solar activity has been low.

INTERPLANETARY: Interplanetary activity has been low.

NEAR-EARTH ENVIRONMENT: Energetic electron fluence at geostationary orbit was below threshold level on December 19, 2011 and is expected to be below threshold level today. Visit <http://www.spaceweather.gc.ca/sffl-eng.php> for fluence forecast.

GEOMAGNETIC: Geomagnetic activity has been quiet in polar zone, quiet (with active intervals) in auroral zone, and quiet (with unsettled intervals) in subauroral zone. Geomagnetic activity is expected to be quiet in polar zone, quiet in auroral zone, and quiet in subauroral zone. Visit <http://www.spaceweather.gc.ca/sfst-1-eng.php> for the most recent geomagnetic forecast.

Space weather scientist

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From: Lam, Hing-Lan [mailto:Hing-Lan.Lam@NRCan-RNCan.gc.ca]

Sent: December-21-11 12:01 PM

To:

Subject: Space Weather Bulletin - 2011-12-21

Space Weather Bulletin – December 21, 2011 issued by the Canadian Space Weather Forecast Centre at 16:55 UT (11:55 EST)

This is for testing purposes. The final bulletin will be produced in both official languages.

OVERVIEW: There is currently no storm watch in effect. See our website for current information: <http://www.spaceweather.gc.ca>.

SOLAR: Solar activity has been low.

INTERPLANETARY: Interplanetary activity has been low.

NEAR-EARTH ENVIRONMENT: Energetic electron fluence at geostationary orbit was below threshold level on December 20, 2011 and is expected to be below threshold level today. Visit <http://www.spaceweather.gc.ca/current-actuelle/fluence/sffl-eng.php> for fluence forecast.

GEOMAGNETIC: Geomagnetic activity has been quiet (with unsettled intervals) in polar zone, quiet (with active intervals) in auroral zone, and quiet (with unsettled intervals) in subauroral zone. Geomagnetic activity is expected to be quiet in polar zone, quiet in auroral zone, and quiet in subauroral zone. Visit <http://www.spaceweather.gc.ca/current-actuelle/short-court/sfst-1-eng.php> for the most recent geomagnetic forecast.

Space weather scientist

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From: Lam, Hing-Lan [mailto:Hing-Lan.Lam@NRCan-RNCan.gc.ca]

Sent: December-22-11 10:49 AM

To:

Subject: Space Weather Bulletin - 2011-12-22

Space Weather Bulletin – December 22, 2011 issued by the Canadian Space Weather Forecast Centre at 15:45 UT (10:45 EST)

This is for testing purposes. The final bulletin will be produced in both official languages.

OVERVIEW: There is currently no storm watch in effect. See our website for current information: <http://www.spaceweather.gc.ca>.

SOLAR: Solar activity has been low.

INTERPLANETARY: Interplanetary activity has been low.

NEAR-EARTH ENVIRONMENT: Energetic electron fluence at geostationary orbit was below threshold level on December 21, 2011 and is expected to be below threshold level today. Visit <http://www.spaceweather.gc.ca/current-actuelle/fluence/sffl-eng.php> for fluence forecast.

GEOMAGNETIC: Geomagnetic activity has been quiet (with unsettled intervals) in polar zone, quiet (with unsettled intervals) in auroral zone, and quiet (with unsettled intervals) in subauroral zone. Geomagnetic activity is expected to be quiet in polar zone, quiet in auroral zone, and quiet in subauroral zone. Visit <http://www.spaceweather.gc.ca/current-actuelle/short-court/sfst-1-eng.php> for the most recent geomagnetic forecast.

Space weather scientist

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From: Lam, Hing-Lan [mailto:Hing-Lan.Lam@NRCan-RNCan.gc.ca]

Sent: December-23-11 10:46 AM

To:

Subject: Space Weather Bulletin - 2011-12-23

Space Weather Bulletin – December 23, 2011 issued by the Canadian Space Weather Forecast Centre at 15:45 UT (10:45 EST)

This is for testing purposes. The final bulletin will be produced in both official languages.

OVERVIEW: There is currently no storm watch in effect. See our website for current information: <http://www.spaceweather.gc.ca>.

SOLAR: Solar activity has been low.

INTERPLANETARY: Interplanetary activity has been low.

NEAR-EARTH ENVIRONMENT: Energetic electron fluence at geostationary orbit was below threshold level on December 22, 2011 and is expected to be below threshold level today. Visit <http://www.spaceweather.gc.ca/current-actuelle/fluence/sffl-eng.php> for fluence forecast.

GEOMAGNETIC: Geomagnetic activity has been quiet in polar zone, quiet (with unsettled intervals) in auroral zone, and quiet in subauroral zone. Geomagnetic activity is expected to be quiet in polar zone, quiet in auroral zone, and quiet in subauroral zone. Visit <http://www.spaceweather.gc.ca/current-actuelle/short-court/sfst-1-eng.php> for the most recent geomagnetic forecast.

Space weather scientist

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From: Lam, Hing-Lan [mailto:Hing-Lan.Lam@NRCan-RNCan.gc.ca]

Sent: December-25-11 1:25 PM

To:

Subject: Space Weather Bulletin - 2011-12-25

Space Weather Bulletin – December 25, 2011 issued by the Canadian Space Weather Forecast Centre at 18:25 UT (13:25 EST)

This is for testing purposes. The final bulletin will be produced in both official languages.

OVERVIEW: There is currently no storm watch in effect. See our website for current information: <http://www.spaceweather.gc.ca>.

SOLAR: Solar activity has been low.

INTERPLANETARY: Interplanetary activity has been low.

NEAR-EARTH ENVIRONMENT: Energetic electron fluence at geostationary orbit was below threshold level on December 24, 2011 and is expected to be below threshold level today. Visit <http://www.spaceweather.gc.ca/current-actuelle/fluence/sffl-eng.php> for fluence forecast.

GEOMAGNETIC: Geomagnetic activity has been quiet in polar zone, quiet (with unsettled intervals) in auroral zone, and quiet in subauroral zone. Geomagnetic activity is expected to be quiet in polar zone, quiet in auroral zone, and quiet in subauroral zone. Visit <http://www.spaceweather.gc.ca/current-actuelle/short-court/sfst-1-eng.php> for the most recent geomagnetic forecast.

Space weather scientist

Hing-Lan Lam

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From: Lam, Hing-Lan [mailto:Hing-Lan.Lam@NRCan-RNCan.gc.ca]

Sent: December-26-11 1:15 PM

To:

Subject: Space Weather Bulletin - 2011-12-26

Space Weather Bulletin – December 26, 2011 issued by the Canadian Space Weather Forecast Centre at 18:15 UT (13:15 EST)

This is for testing purposes. The final bulletin will be produced in both official languages.

OVERVIEW: There is currently no storm watch in effect. A CME was observed yesterday, and is expected to deliver a glancing blow to the Earth on December 28, resulting in unsettled and active geomagnetic conditions. See our website for current information:

<http://www.spaceweather.gc.ca>.

SOLAR: Solar activity has been moderate.

INTERPLANETARY: Interplanetary activity has been low.

NEAR-EARTH ENVIRONMENT: Energetic electron fluence at geostationary orbit was below threshold level on December 25, 2011 and is expected to be below threshold level today. Visit <http://www.spaceweather.gc.ca/current-actuelle/fluence/sffl-eng.php> for fluence forecast.

GEOMAGNETIC: Geomagnetic activity has been quiet in polar zone, quiet in auroral zone, and quiet in subauroral zone. Geomagnetic activity is expected to be quiet in polar zone, quiet in auroral zone, and quiet in subauroral zone. Visit <http://www.spaceweather.gc.ca/current-actuelle/short-court/sfst-1-eng.php> for the most recent geomagnetic forecast.

Space weather scientist

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From: Lam, Hing-Lan [mailto:Hing-Lan.Lam@NRCan-RNCan.gc.ca]

Sent: December-28-11 11:17 AM

To:

Subject: Space Weather Bulletin - 2011-12-28

Space Weather Bulletin – December 28, 2011 issued by the Canadian Space Weather Forecast Centre at 16:15 UT (11:15 EST)

This is for testing purposes. The final bulletin will be produced in both official languages.

OVERVIEW: There is currently no storm watch in effect. Geomagnetic effects from CMEs are expected to be observed on the Earth between late December 28, 2011 and December 30, 2011. See our website for current information: <http://www.spaceweather.gc.ca>.

SOLAR: Solar activity has been low.

INTERPLANETARY: Interplanetary activity has been moderate. A weak interplanetary shock (due to the first CME) was observed at ~ 09 UT, after which the slow solar wind speed increased from 240 km/s to the current 300 km/s (still considered slow), and the interplanetary magnetic field began fluctuating at moderate level between -10 and +10 nT.

NEAR-EARTH ENVIRONMENT: Energetic electron fluence at geostationary orbit was below threshold level on December 27, 2011 and is expected to be below threshold level today. Visit <http://www.spaceweather.gc.ca/current-actuelle/fluence/sffl-eng.php> for fluence forecast.

GEOMAGNETIC: Geomagnetic activity has been quiet in polar zone, quiet (with unsettled intervals) in auroral zone, and quiet in subauroral zone. Geomagnetic activity is expected to be quiet in polar zone, quiet in auroral zone, and quiet in subauroral zone. Visit <http://www.spaceweather.gc.ca/current-actuelle/short-court/sfst-1-eng.php> for the most recent geomagnetic forecast.

Space weather scientist

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From: Lam, Hing-Lan [mailto:Hing-Lan.Lam@NRCan-RNCan.gc.ca]

Sent: December-29-11 10:52 AM

To:

Subject: Space Weather Bulletin - 2011-12-29

Space Weather Bulletin – December 29, 2011 issued by the Canadian Space Weather Forecast Centre at 15:50 UT (10:50 EST)

This is for testing purposes. The final bulletin will be produced in both official languages.

OVERVIEW: There is currently no storm watch in effect. Geomagnetic effects from CMEs erupted a few days ago are currently observed in polar (quiet with active intervals), auroral (unsettled with stormy intervals), and subauroral (quiet with unsettled intervals) zones. See our website for current information: <http://www.spaceweather.gc.ca>.

SOLAR: Solar activity has been low.

INTERPLANETARY: Interplanetary activity has been moderate. The solar wind speed is increasing (currently at ~ 400 km/s). The interplanetary magnetic field has been fluctuating at moderate level between -10 and +10 nT. This relates to the arrival of CMEs observed in previous days.

NEAR-EARTH ENVIRONMENT: Energetic electron fluence at geostationary orbit was below threshold level on December 28, 2011 and is expected to be below threshold level today. Visit <http://www.spaceweather.gc.ca/current-actuelle/fluence/sffl-eng.php> for fluence forecast.

GEOMAGNETIC: Geomagnetic activity has been quiet (with unsettled intervals) in polar zone, quiet (with stormy intervals) in auroral zone, and quiet (with active intervals) in subauroral zone. Geomagnetic activity is expected to be quiet (with stormy intervals) in polar zone, unsettled (with stormy intervals) in auroral zone, and quiet (with stormy intervals) in subauroral zone. Visit <http://www.spaceweather.gc.ca/current-actuelle/short-court/sfst-1-eng.php> for the most recent geomagnetic forecast.

Space weather scientist

Hing-Lan Lam

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From: Lam, Hing-Lan [mailto:Hing-Lan.Lam@NRCan-RNCan.gc.ca]

Sent: December-30-11 10:55 AM

To:

Subject: Space Weather Bulletin - 2011-12-30

Space Weather Bulletin – December 30, 2011 issued by the Canadian Space Weather Forecast Centre at 15:55 UT (10:55 EST)

This is for testing purposes. The final bulletin will be produced in both official languages.

OVERVIEW: There is currently no storm watch in effect. Geomagnetic effects from CMEs erupted a few days ago have waned. See our website for current information:

<http://www.spaceweather.gc.ca>.

SOLAR: Solar activity has been moderate.

INTERPLANETARY: Interplanetary activity has been low.

NEAR-EARTH ENVIRONMENT: Energetic electron fluence at geostationary orbit was below threshold level on December 29, 2011 and is expected to be below threshold level today. Visit <http://www.spaceweather.gc.ca/current-actuelle/fluence/sffl-eng.php> for fluence forecast.

GEOMAGNETIC: Geomagnetic activity has been quiet (with unsettled intervals) in polar zone, quiet (with unsettled intervals) in auroral zone, and quiet in subauroral zone. Geomagnetic activity is expected to be quiet in polar zone, quiet in auroral zone, and quiet in subauroral zone. Visit <http://www.spaceweather.gc.ca/current-actuelle/short-court/sfst-1-eng.php> for the most recent geomagnetic forecast.

Space weather scientist

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To:

Subject: Space Weather Bulletin - 2011-12-31

Space Weather Bulletin - December 31, 2011 issued by the Canadian Space Weather Forecast Centre at 12:45 UT (08:45 EST) *This is for testing purposes. The final bulletin will be produced in both official languages.*

OVERVIEW: There is currently no storm watch in effect. See our website for current information: <http://www.spaceweather.gc.ca>.

SOLAR: Solar activity has been low to moderate.

INTERPLANETARY: Interplanetary activity has been low.

NEAR-EARTH ENVIRONMENT: Energetic electron fluence at geostationary orbit was below threshold level on December 30, 2011 and is expected to be above threshold level today. Visit <http://www.spaceweather.gc.ca/current-actuelle/fluence/sffl-eng.php> for fluence forecast.

GEOMAGNETIC: Geomagnetic activity has been quiet (with active intervals) in polar zone, quiet (with unsettled intervals) in auroral zone, and quiet (with unsettled intervals) in subauroral zone. Geomagnetic activity is expected to be quiet in polar zone, quiet in auroral zone, and quiet in subauroral zone. Visit <http://www.spaceweather.gc.ca/current-actuelle/short-court/sfst-1-eng.php> for the most recent geomagnetic forecast.

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