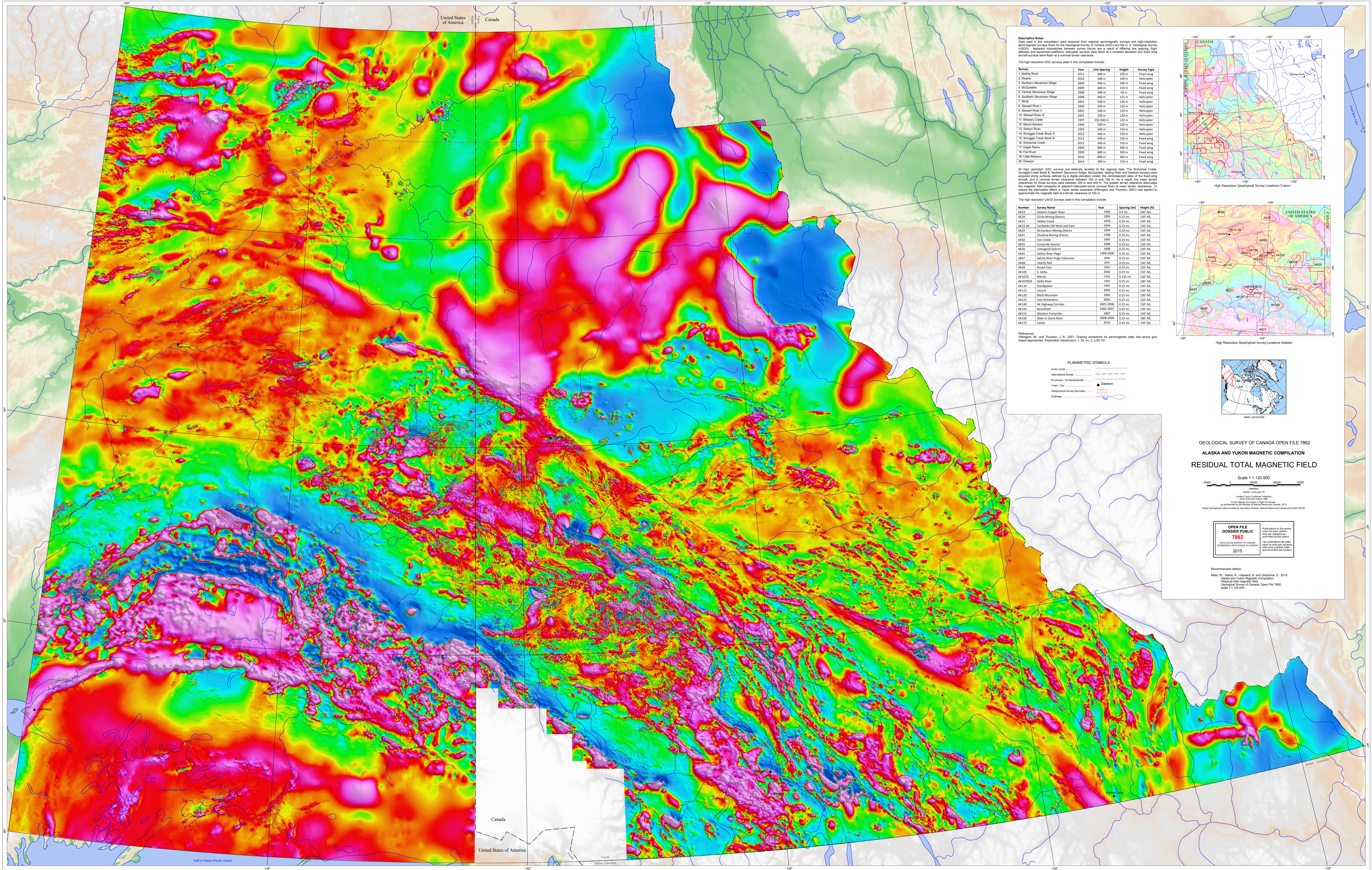


RESIDUAL TOTAL MAGNETIC FIELD



Descriptive Notes

Data used in this compilation were acquired from regional aeromagnetic surveys and high-resolution aeromagnetic surveys flown for the Geological Survey of Canada (GSC) and the U.S. Geological Survey (USGS). Apparent anomalies between survey blocks are a result of differing line spacing, flight altitude and equipment platforms. Helicopter surveys were flown at a constant elevation and fixed wing aircraft surveys were flown at a nominal terrain clearance.

The high-resolution GSC surveys used in this compilation include:

Survey	Year	Line Spacing	Height	Survey Type
1. Nainin River	2011	400 m	100 m	Fixed wing
2. Kluane	2007	400 m	120 m	Helicopter
3. Northern Stevenson Ridge	2009	400 m	100 m	Fixed wing
4. McQuestan	2009	400 m	150 m	Fixed wing
5. Central Stevenson Ridge	2008	400 m	60 m	Fixed wing
6. Southern Stevenson Ridge	2008	400 m	125 m	Helicopter
7. Minto	2001	500 m	120 m	Helicopter
8. Stewart River I	2000	500 m	120 m	Helicopter
9. Stewart River II	2001	500 m	120 m	Helicopter
10. Stewart River III	2001	500 m	120 m	Helicopter
11. Blawiey Creek	1997	250 500 m	120 m	Helicopter
12. Mount Naman	1994	500 m	120 m	Helicopter
13. Selwyn River	1993	500 m	120 m	Helicopter
14. Scroggie Creek Block A	2012	400 m	150 m	Helicopter
15. Scroggie Creek Block B	2012	400 m	150 m	Fixed wing
16. Wolverine Creek	2012	400 m	150 m	Fixed wing
17. Eagle Plains	2009	800 m	300 m	Fixed wing
18. Fair River	2009	800 m	300 m	Fixed wing
19. Little Nahanni	2010	800 m	300 m	Fixed wing
20. Dawson	2014	400 m	150 m	Fixed wing

All high resolution GSC surveys are statically leveled to the regional data. The Wolverine Creek, Scroggie Creek Block B, Northern Stevenson Ridge, McQuestan, Nainin River and Dawson surveys were acquired along surface defined by a digital elevation model, the climb/descent rates of the fixed-wing aircraft, and a nominal terrain clearance between 100 m and 150 m. As a result, the mean terrain clearance for these surveys were between 300 m and 400 m. The greater terrain clearance attenuates the magnetic field compared to adjacent helicopter-borne surveys flown at lower terrain clearances. To reduce the attenuation effect, a Taylor series expansion (Pilkington and Thurston, 2001) was applied to approximate the magnetic field at a terrain clearance of 100 m.

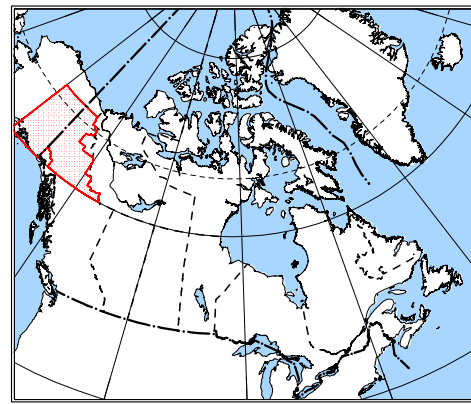
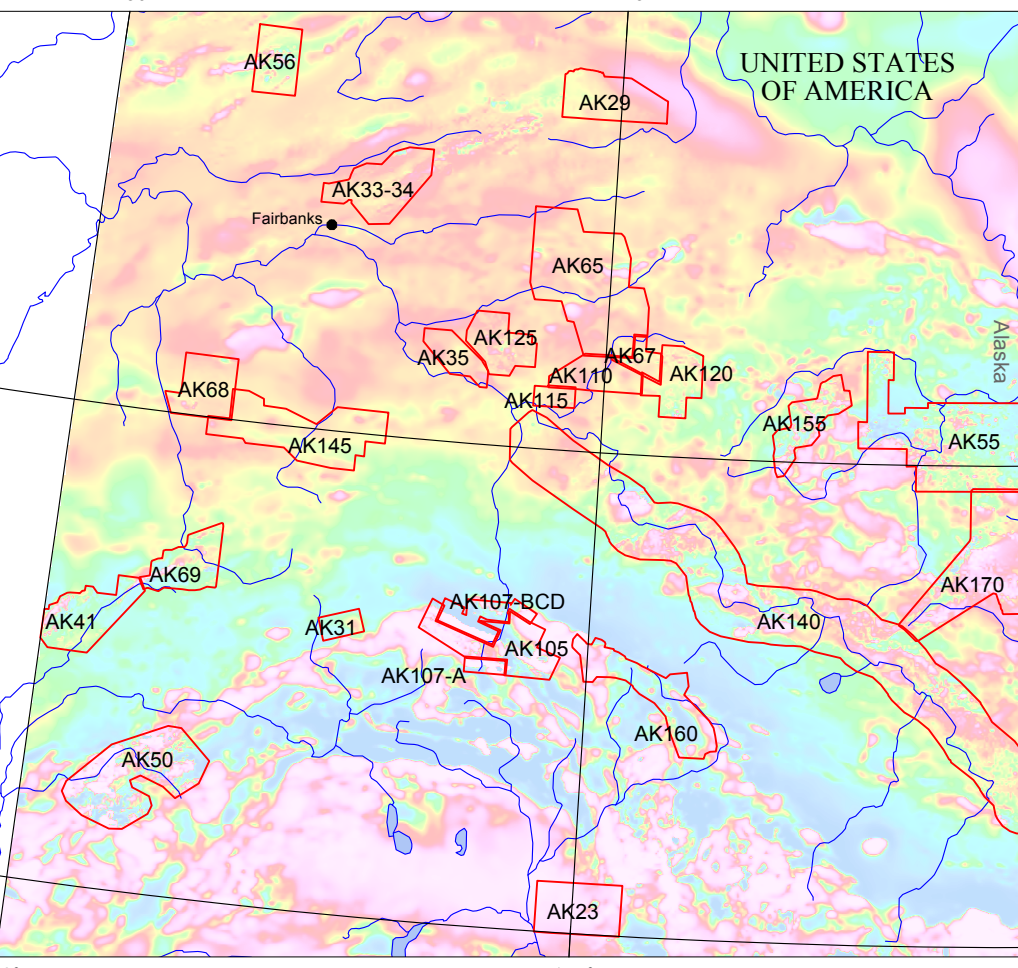
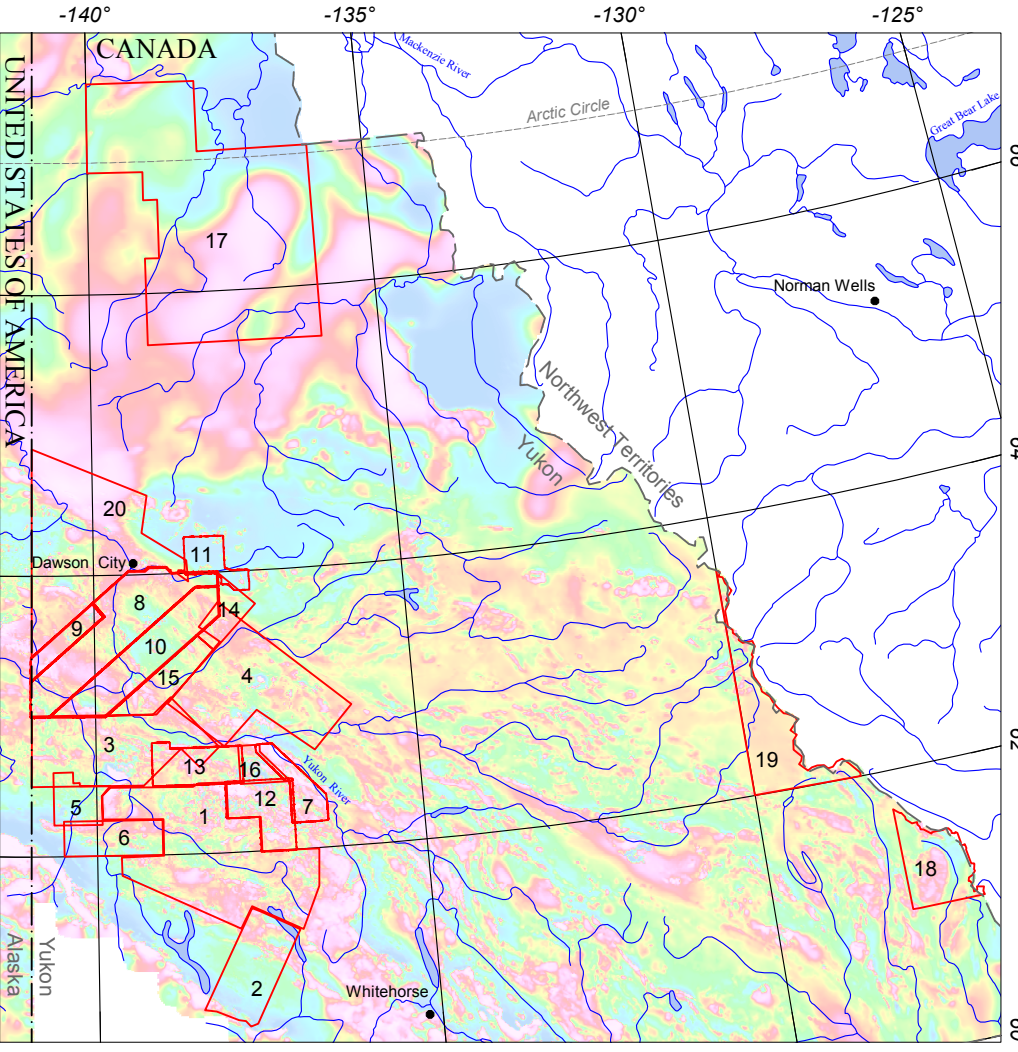
The high-resolution USGS surveys used in this compilation include:

Number	Survey Name	Year	Spacing (m)	Height (ft)
AK23	Eastern Copper River	1982	0.5 mi	200 AG
AK29	Crook Mining District	1993	0.25 mi	150 AG
AK33	Valdez Creek	1993	0.25 mi	150 AG
AK33-34	Fairbanks DM West and East	1994	0.25 mi	150 AG
AK35	Richardson Mining District	1994	0.25 mi	150 AG
AK43	Chulitna Mining District	1996	0.25 mi	150 AG
AK50	Iron Creek	1997	0.25 mi	150 AG
AK55	Fortymile District	1998	0.25 mi	150 AG
AK56	Livengood District	1998	0.25 mi	150 AG
AK55	Sakcha River Range	1999-2000	0.25 mi	150 AG
AK67	Sakcha River Range Extension	2000	0.25 mi	150 AG
AK68	Liberty Hill	2003	0.25 mi	150 AG
AK69	Brower Pass	2002	0.25 mi	150 AG
AK105	S. Delta	2002	0.25 mi	150 AG
AK107A	Melita	1995	0.125 mi	150 AG
AK107BCD	Delta River	1995	0.25 mi	100 AG
AK110	Goodpastor	2004	0.25 mi	150 AG
AK115	Licium	2005	0.25 mi	150 AG
AK120	Black Mountain	2005	0.25 mi	150 AG
AK123	East Richardson	2005	0.25 mi	150 AG
AK140	AK Highway Corridor	2005-2006	0.25 mi	150 AG
AK145	Bondfield	2006-2007	0.25 mi	150 AG
AK155	Western Fortymile	2007	0.25 mi	150 AG
AK160	State Cr. Quana River	2008-2009	0.25 mi	180 AG
AK170	Ladue	2010	0.25 mi	150 AG

References
Pilkington, M. and Thurston, J. B., 2001. Draping corrections for aeromagnetic data: line versus grid-based approaches. *Exploration Geophysics*, v. 32, no. 2, p.95-101.

PLANIMETRIC SYMBOLS

- Arctic Circle
- International Border
- Provincial/Territorial Border
- Town/City
- Geophysical Survey Boundary
- Drainage



GEOLOGICAL SURVEY OF CANADA OPEN FILE 7862
ALASKA AND YUKON MAGNETIC COMPILATION
RESIDUAL TOTAL MAGNETIC FIELD

Scale 1:1 120 000

20000 0 20000 40000 60000 80000
NAD83 / UTM zone 18N
Lambert Conformal Conic Projection
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