

CGSM has six observational program elements. These are

### NORSTAR

**Instruments** ASIs, MSPs, and riometers  
**Webpage** <http://aurora.phys.ucalgary.ca/norstar>  
**PI** Eric Donovan ([eric@phys.ucalgary.ca](mailto:eric@phys.ucalgary.ca))

### Canadian SuperDARN

**Instruments** HF Radars (SuperDARN and PolarDARN)  
**Webpage** <http://radar2.usask.ca/>  
**PI** George Sofko ([sofko@DANSAS.usask.ca](mailto:sofko@DANSAS.usask.ca))

### CADI

**Instruments** Canadian Advanced Digital Ionosondes  
**Webpage** <http://cadiweb.physics.uwo.ca/>  
**PI** John MacDougall ([jmacdoug@uwo.ca](mailto:jmacdoug@uwo.ca))

### CARISMA Magnetometers

**Instruments** Fluxgate and Induction Coil Magnetometers  
**Webpage** [www.carisma.ca](http://www.carisma.ca)  
**PI** Ian Mann ([imann@space.ualberta.ca](mailto:imann@space.ualberta.ca))

### CANMOS Magnetometers

**Instruments** Fluxgate Magnetometers (Observatory Class)  
**Webpage** [http://www.geolab.nrcan.gc.ca/geomag/canmos\\_e.shtml](http://www.geolab.nrcan.gc.ca/geomag/canmos_e.shtml)  
**PI** David Boteler ([DBoteler@NRCan.gc.ca](mailto:DBoteler@NRCan.gc.ca))

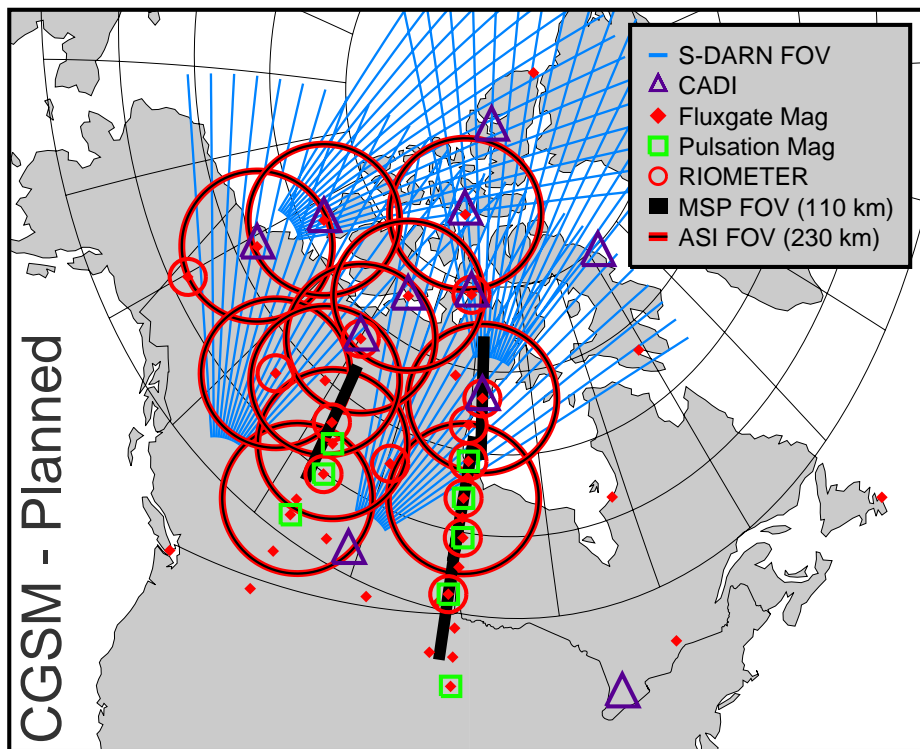
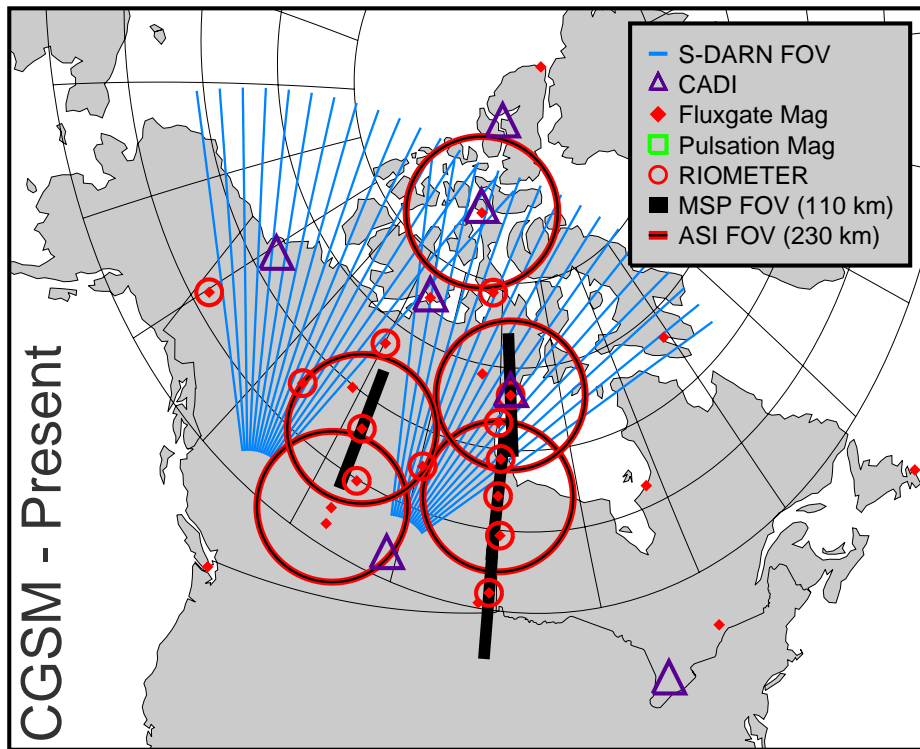
### F10.7

**Instruments** F10.7 cm Solar Radio Flux Monitor  
**Webpage** [http://www.drao-ofr.hia-ihh.nrc-cnrc.gc.ca/icarus/www/sol\\_home.html](http://www.drao-ofr.hia-ihh.nrc-cnrc.gc.ca/icarus/www/sol_home.html)  
**PI** Ken Tapping ([Ken.Tapping@hia.nrc.ca](mailto:Ken.Tapping@hia.nrc.ca))

Data is available from the instrument teams and the Space Sciences Data Portal ([www.ssdp.ca](http://www.ssdp.ca)).

Data is recovered from the SuperDARN HF-radars, CARISMA magnetometers, CANMOS magnetometers, and NORSTAR MSPs and riometers in real-time (see instrument team web pages and the SSDP). In the future, real time data will also be available from the NORSTAR ASIs. The real-time data collection infrastructure is described on [cgsm.ca](http://cgsm.ca).

The maps on the following pages show the present (top) and future CGSM instrument arrays. Funding for the planned enhancements of the NORSTAR ASI, and CANOPUS magnetometer arrays, as well as one of the two PolarDARN HF radars has been approved by the Canada Foundation for Innovation. The table on the third page lists the instrument complement at each CGSM site (present and planned).



Note – Contours of constant invariant latitude are shown at 5 degree steps from 60 to 80 degrees. The contours of constant invariant longitude are separated by one hour of MLT.

**CGSM Instruments** [A=ASI, P= MSP, F=Fluxgate, I=Induction Coil, R=Riometer, C=CADI, S=HF-radar, ITI/His=IT Infrastructure and RT Data Retrieval System, ✓=deployed, ○=planned].

Name	Abbreviation	Latitude	Longitude	A	P	F	I	R	C	S	ITI/HSi
Alert	ALE	82.50	297.65			✓					
Athabasca	ATHA	54.72	246.72	✓							
Back	BACK	57.72	265.83			○					
Baker Lake	BLC	64.32	263.99								
Baldwinton	BALD	52.69	250.92			○					
Calgary	CALG	51.00	246.00			○	○				
Cambridge Bay	CBB	69.12	254.97			✓			✓		
Clyde River	CLYDE	70.47	291.41						○		
Contwoyto Lake	CONT	65.75	248.75	○		✓		✓	○		✓
Dawson	DAWS	64.05	220.89			✓		✓			✓
Deer Creek	DCRE	46.33	264.54			○					
Edmonton	EDMO	53.55	246.53			✓	○				
Eskimo Point (Arviat)	ESKI	61.11	265.95			✓		✓			○
Eureka	EUR	80.00	274.10						✓		
Fort Chipewyan	FCHIP	58.70	248.87	○		○	○				○
Fort Churchill	FCHU	58.76	265.92			✓	○	✓			✓
Fort McMurray	FMCM	56.66	248.79			✓		✓			✓
Fort Simpson	FSIM	61.76	238.77	○		✓		✓			✓
Fort Smith	FSMI	60.02	248.05	✓	✓	✓		✓			✓
Four Town	FOUR	48.13	264.65			○					
Gillam	GILL	56.38	265.36	✓	✓	✓	○	✓			✓
Glenlea	GLN	49.65	262.88			○					
Inuvik	INUV	68.30	226.70	○		○			○	○	○
Iqaluit	IQA	63.75	291.48			○					
Island Lake	ISLL	53.85	265.33			✓	○	✓			✓
Lisbon	LISB	46.57	262.43			○					
Little Grande Rapids	LGRR	51.97	264.96			○					
London Ontario	LON-C	42.98	278.77						✓		
Meanook	MEA	54.62	246.65			✓					
Olney	OLNE	48.28	245.06			○					
Ottawa	OTT	45.40	284.45			✓					
Oxford House	OXHO	55.13	265.26			○					
Pinawa	PINA	50.25	263.96		✓	✓	○	✓			✓
Poste-de-la-Baleine	PBQ	55.28	282.26			✓					
Prince George	PRGE	53.55	237.51							✓	
Rabbit Lake	RABB	58.22	256.32			✓		✓			✓
Rankin Inlet	RANK	62.82	267.89	✓	✓	✓		✓	✓	○	✓
Redwood Falls	REDF	44.53	264.42			○	○				
Resolute Bay	RES	74.69	265.11	✓		○			✓		
Sachs Harbor	SACHS	71.98	234.77	○		○			○		○
Saskatoon	SASK	52.16	253.47						✓	✓	
St Johns	STJ	47.60	307.32			✓					
Taloyoak	TALO	69.54	266.45			✓		✓	○		✓
Victoria	VIC	48.52	236.58			✓					
Weyburn	WEYB	49.60	256.00			○					
Yellowknife	YKC	62.48	245.52	○		✓					