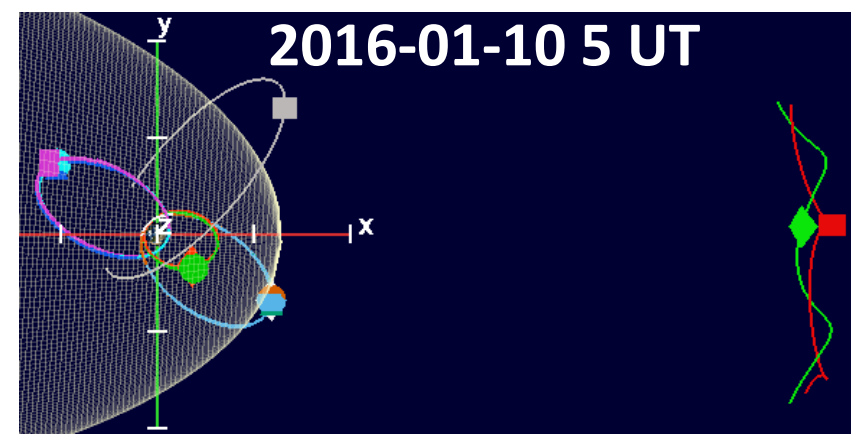
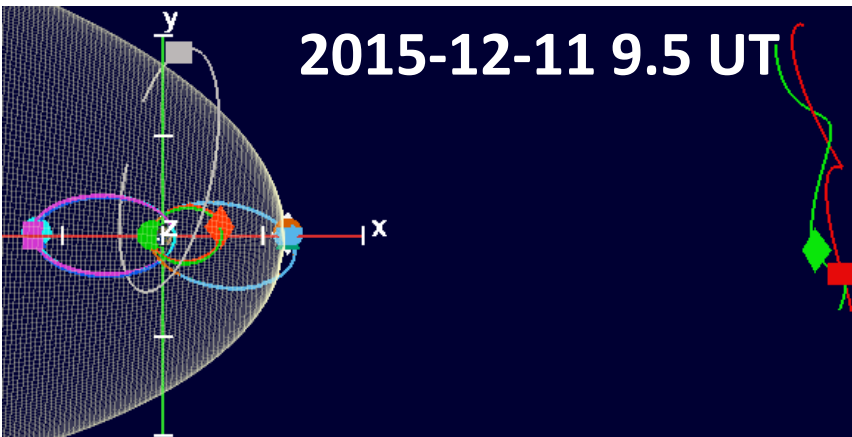
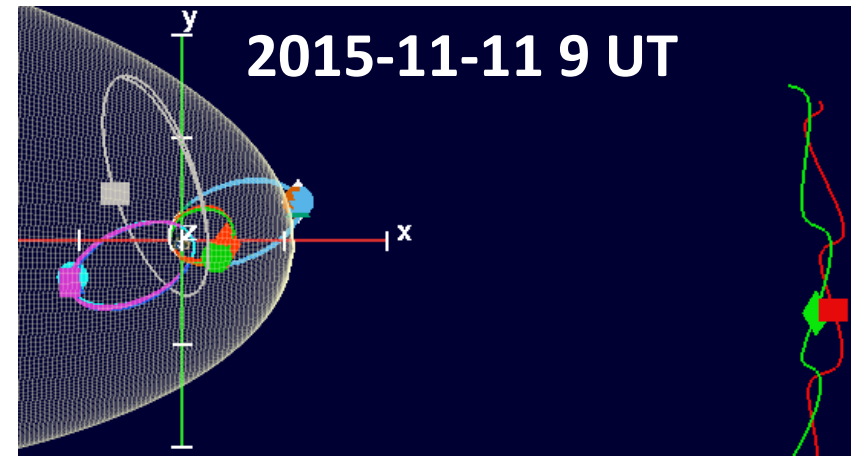
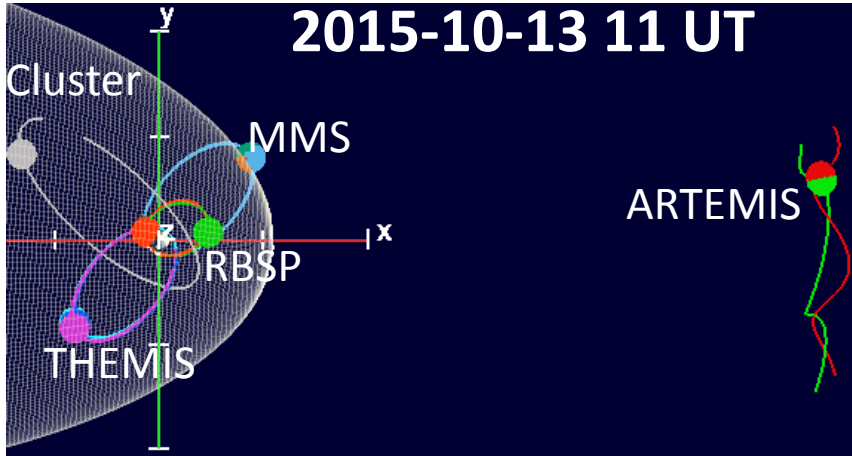


Space-ground coordination in the upcoming winter season

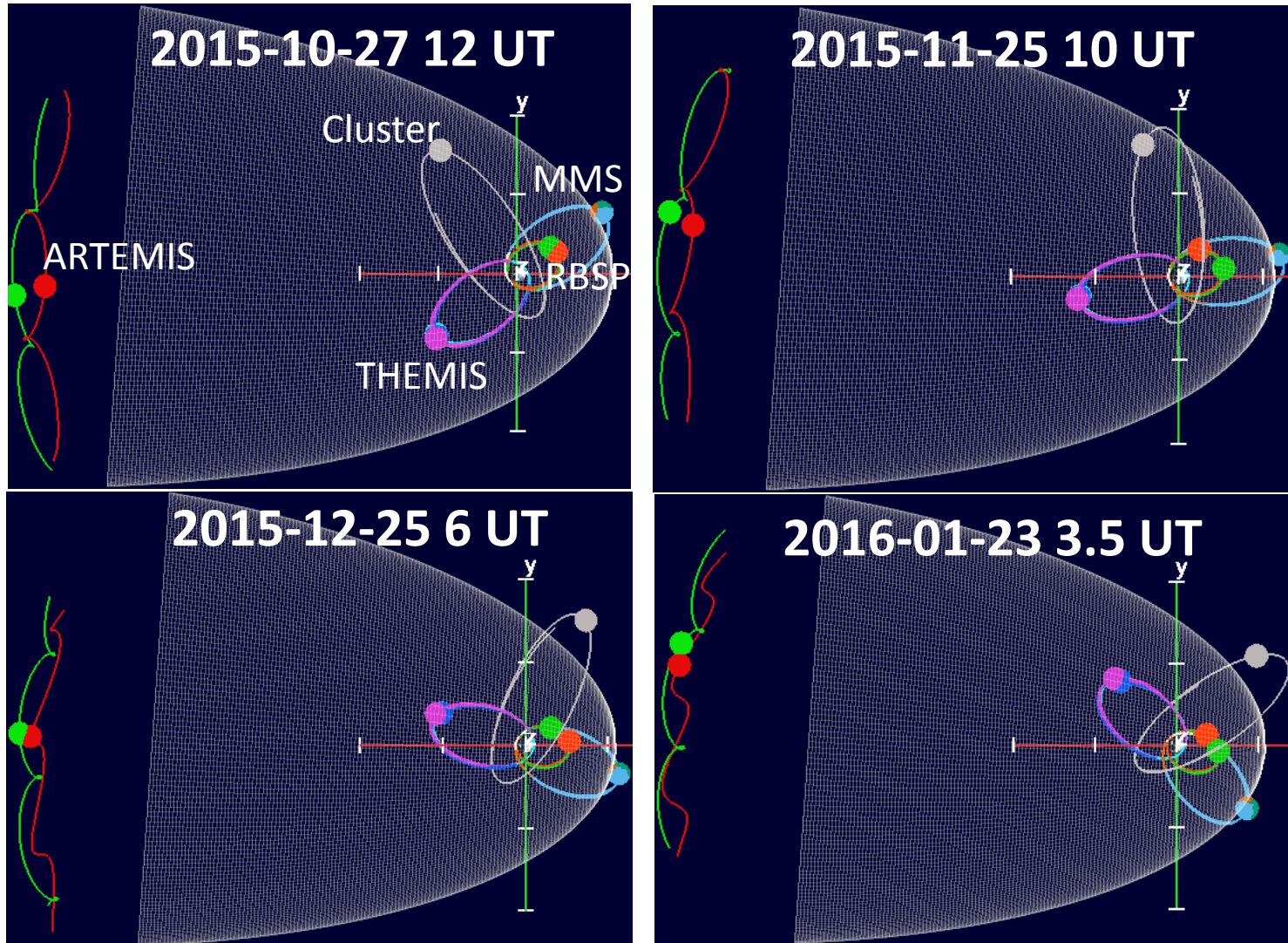
Toshi Nishimura, Vassilis Angelopoulos and HSO coordinators

Satellite locations near New Moon days



ARTEMIS, MMS, RBSP and THEMIS will line up near the winter solstice.

Satellite locations near Full Moon days

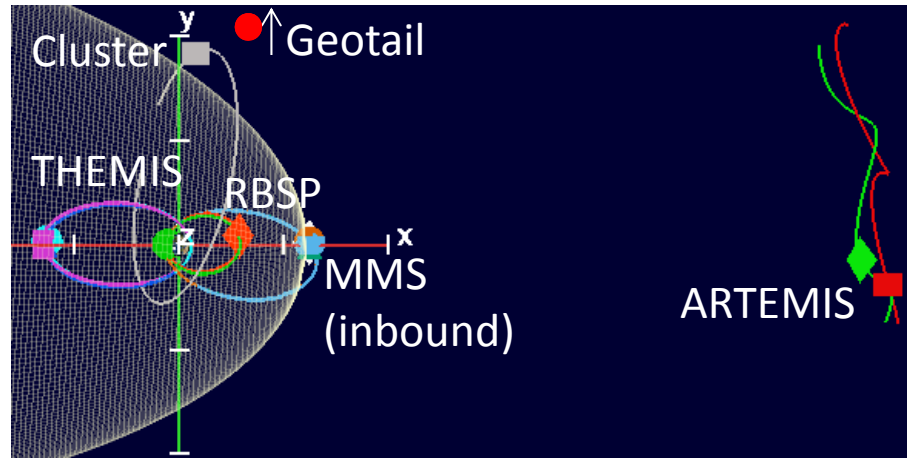
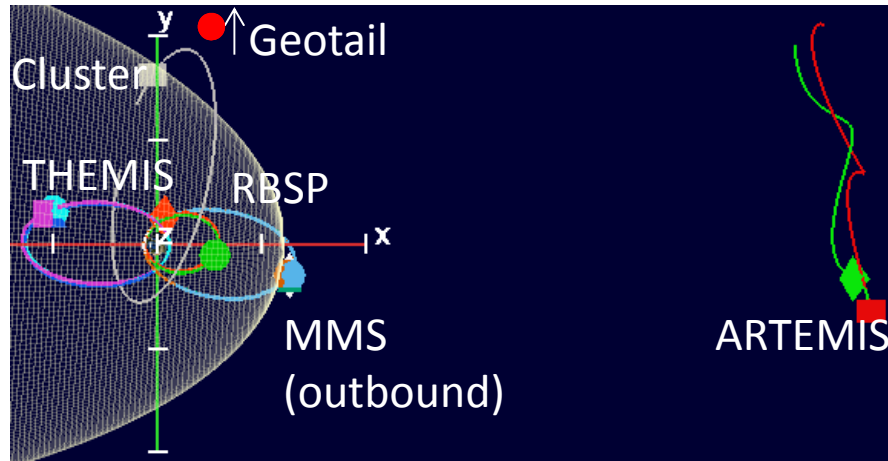


ARTEMIS, MMS, RBSP and THEMIS will line up near the winter solstice.

Coordination with ground network

2015-12-11 4 UT

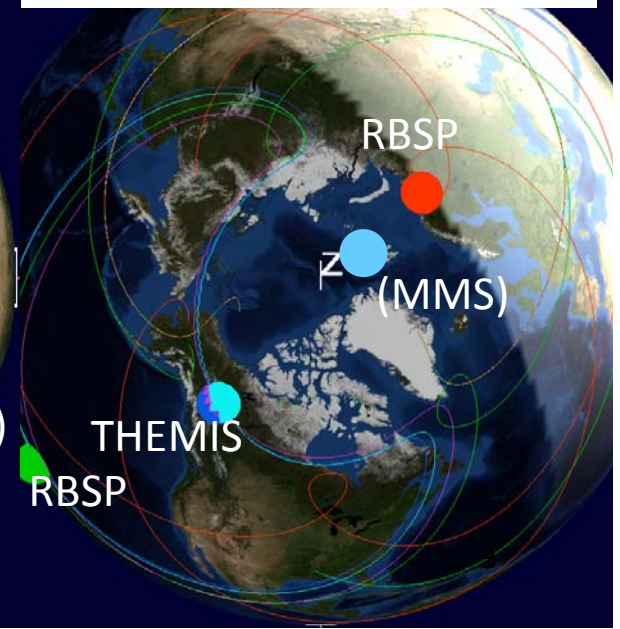
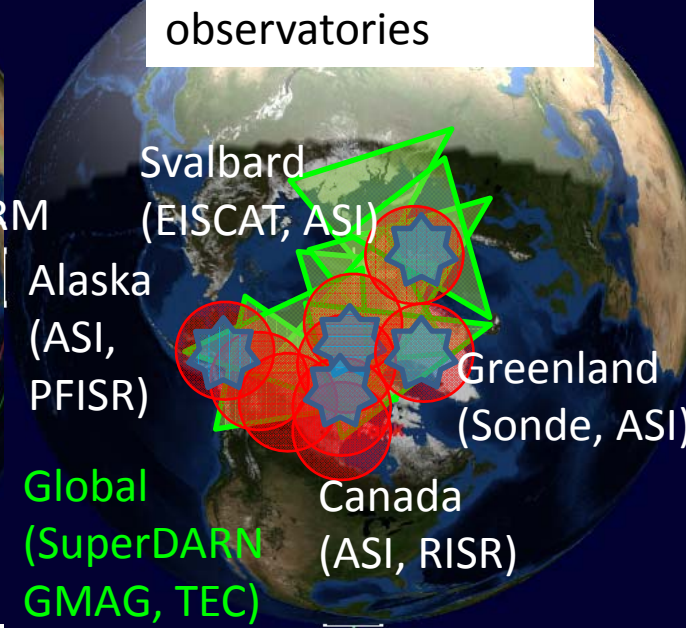
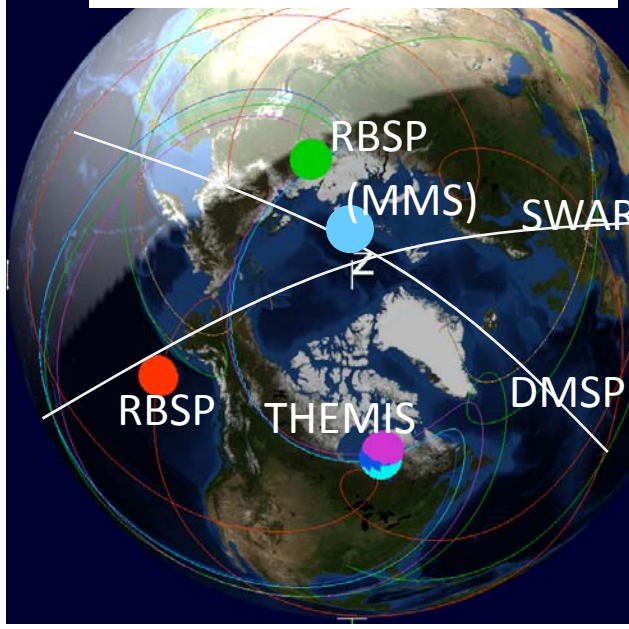
9.5 UT



Satellite footprints (4UT)

High-latitude ground observatories

Satellite footprints (9.5UT)



Conjunction with Svalbard will occur during MMS inbound.
 The nightside conjunction will shift toward Western Canada and Alaska.

Possible campaigns

November 6-16, 2015 (ARTEMIS on dayside, New Moon): Dayside transients, day-night coupling

November 24-26, 2015 (ARTEMIS in tail): Distant-near tail coupling with some ground support

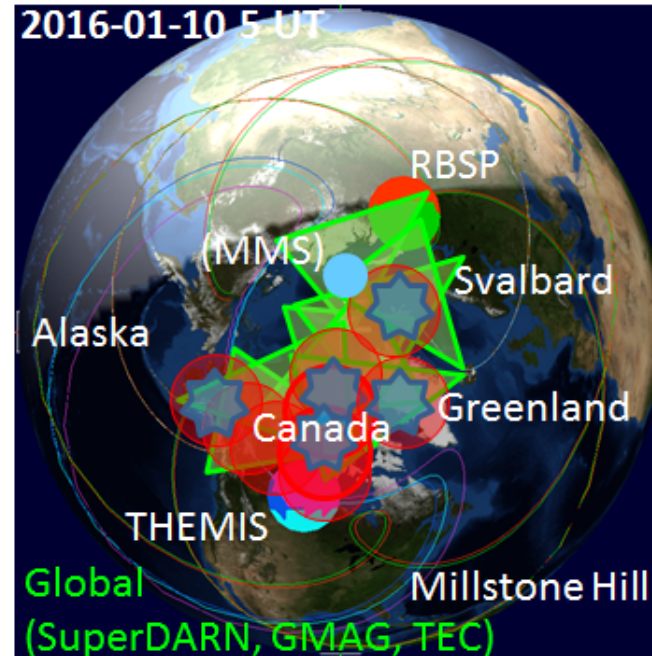
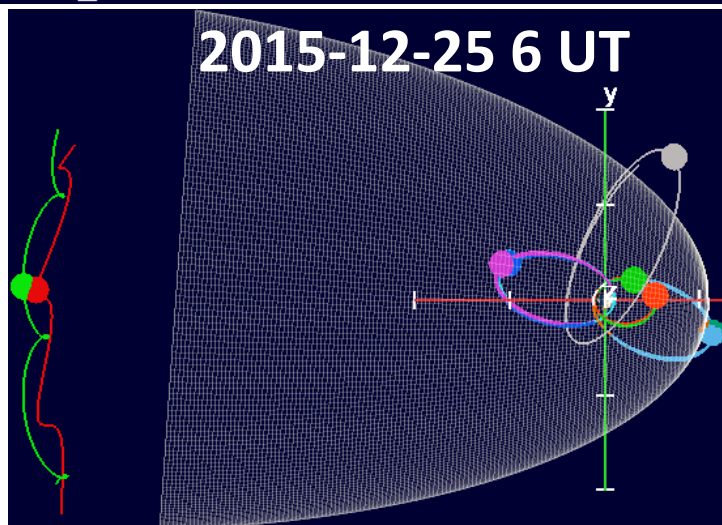
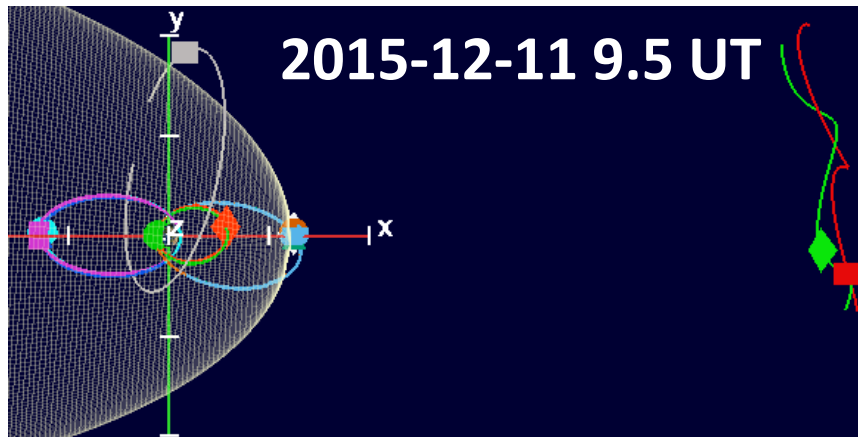
December 6-16, 2015 (ARTEMIS on dayside)

December 24-26, 2015 (ARTEMIS in tail)

January 5-15, 2016 (ARTEMIS on dayside): CEDAR World days proposed (with all ISRs)

January 22-24, 2016 (ARTEMIS in tail)

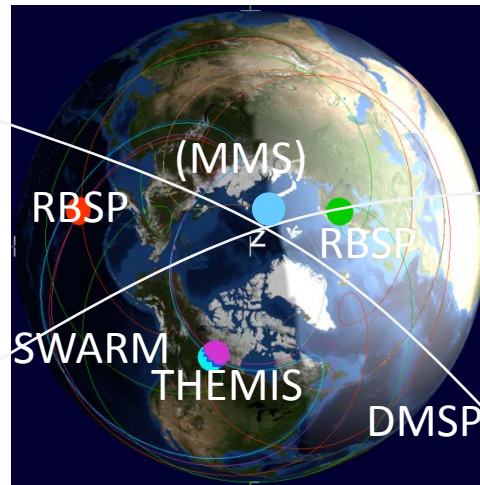
All the time: Solar wind-inner magnetosphere coupling



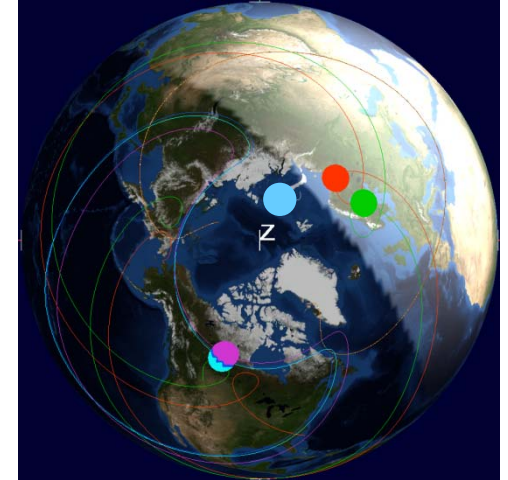
Imagers in Svalbard (Moen), Canada (Donovan) and Alaska (Hampton et al.) will be coordinated. SuperDARN (Ruohoniemi) may run in campaign modes. ISRs will occasionally operate in November and December.

Ionospheric footprints near apogee UT

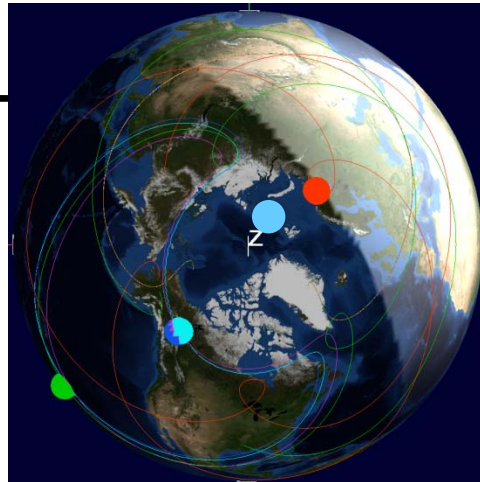
2015-10-13 11 UT



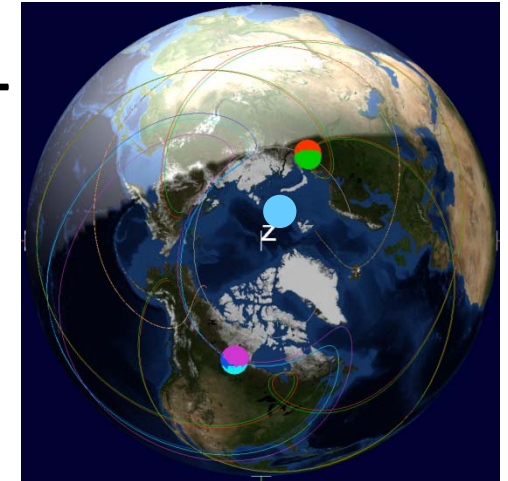
2015-11-11 9 UT



2015-12-11 9.5 UT



2016-01-10 5 UT

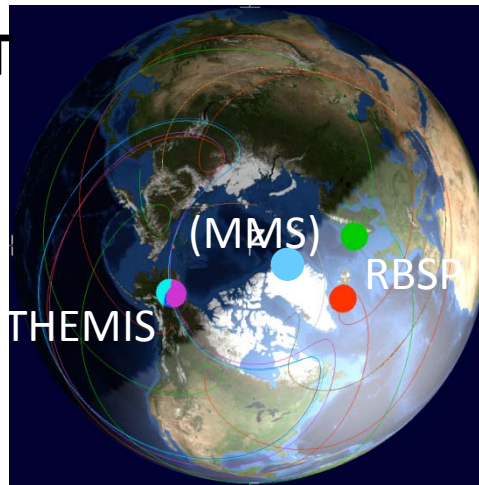


MMS: Over Svalbard, in good conjunction with European instruments

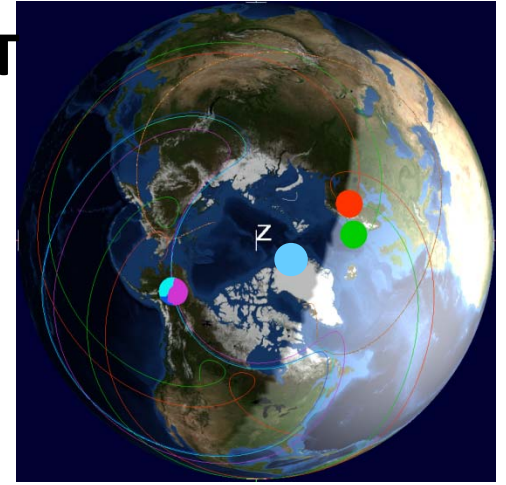
THEMIS: Over Central Canada, in good conjunction with Canadian instruments

Ionospheric footprints when THEMIS is over Alaska

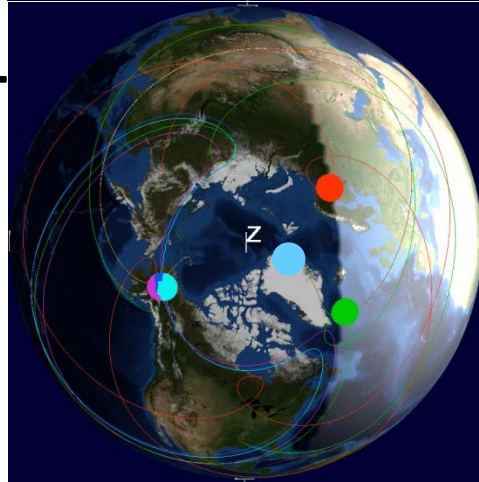
2015-10-13 15 UT



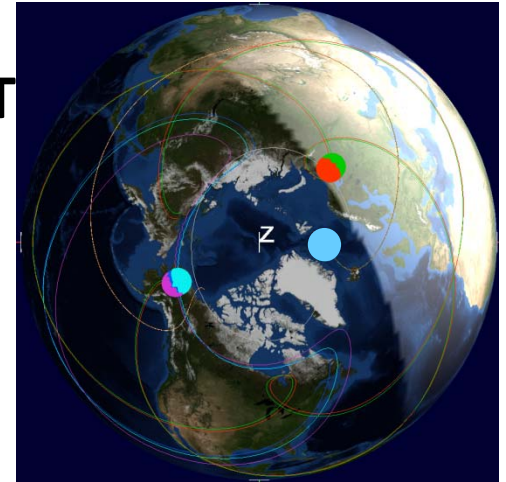
2015-11-11 13 UT



2015-12-11 11 UT



2016-01-10 10 UT



MMS: Over Greenland, near the new Eureka imager

THEMIS: Over Alaska near midnight near winter solstice