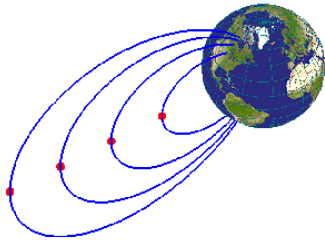
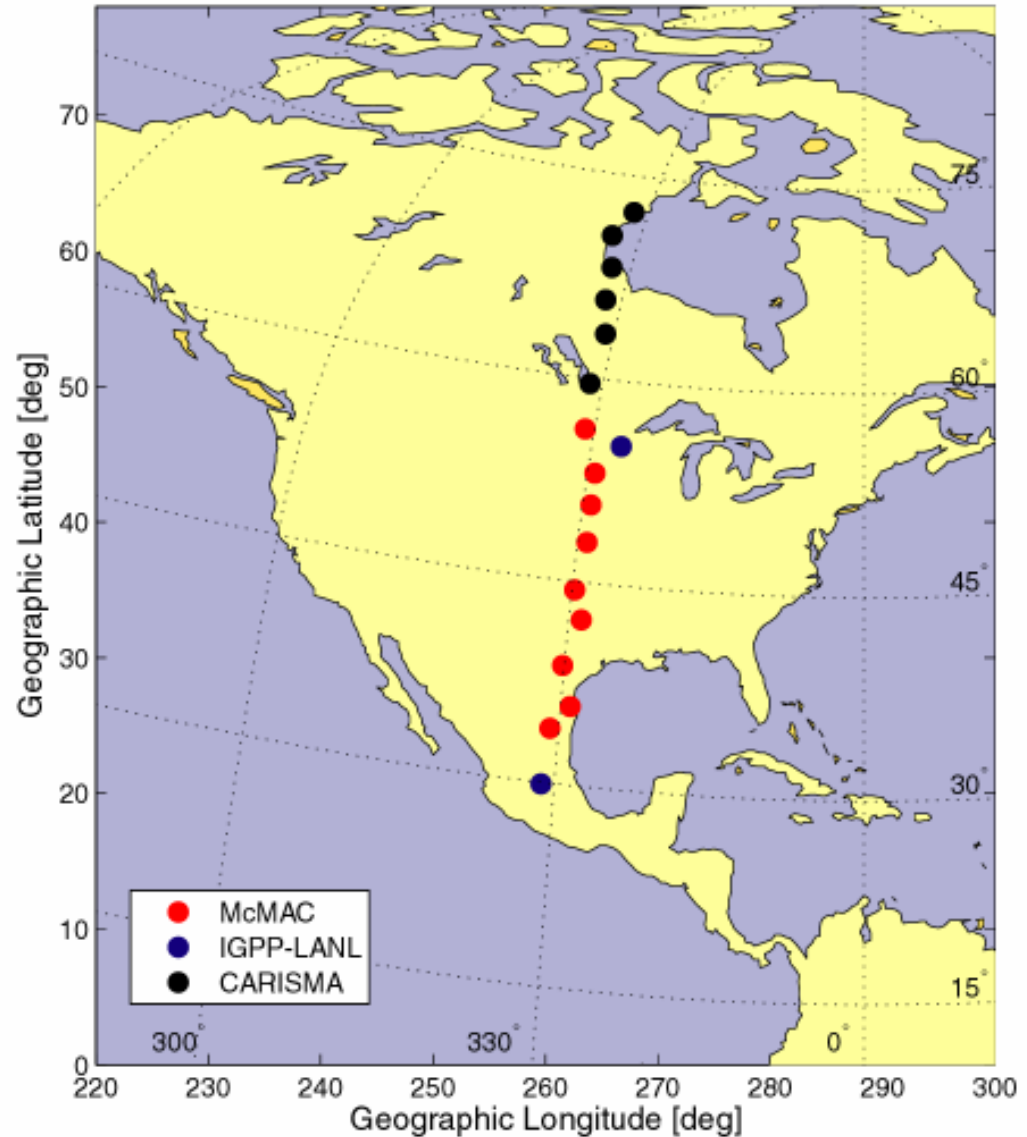




Mid-continent Magnetoseismic Chain (McMAC)



- Field line resonance method requires close separation between ground stations in the north-south direction.
- The mean north-south separation between two adjacent McMAC stations is 275 Km.
- Joint operation with CANOPUS Churchill Line (Canada), IGPP-LANL (U.S.) and MAGDAS (Japan) provides the magnetic field data from $L = 1.3$ to $11+$ at one local time (**note: the widest stretch of magnetic latitude on the earth**).



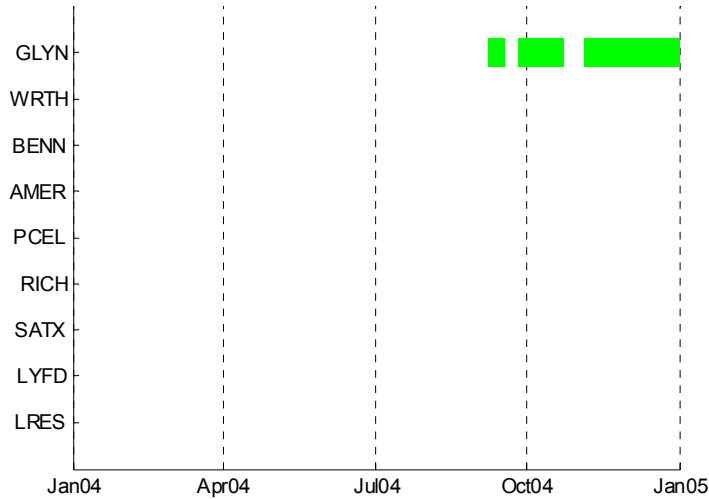
Information, Data, and Access

- Information:
<http://spc.igpp.ucla.edu/mcmac/>
- Data types:
 - Time series: 1-sec, 5-sec, and 1-min
 - Cross-coherence and cross-phase between adjacent stations (in development)
 - Eigenfrequencies (in development) – for users to use various models to estimate the equatorial mass density
- Resource description compliant to SPASE model available at Virtual Magnetospheric Observatory (PI: Ray Walker)
- Contact Peter Chi (pchi@igpp.ucla.edu) for data before they are available online

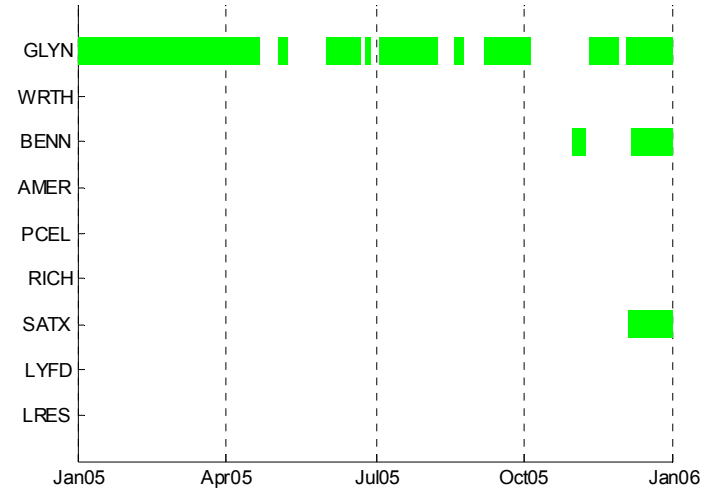
Station	Geodetic Latitude	Geodetic Longitude	L	Installation date
Glyndon	46.87°	263.55°	3.42	2004-09-26
Worthington	43.6°	264.4°	2.86	2006-06-14
Bennington	41.36°	263.84°	2.58	2005-12-07
Americus	38.5°	263.7°	2.28	2006-03-29
Purcell	35.0°	262.6°	1.99	2006-03-27
Richardson	32.98°	263.25°	1.87	2006-05-10
San Antonio	29.44°	261.39°	1.66	2005-12-05
Lyford	26.4°	262.2°	1.53	2006-05-08
Linares	24.8°	260.4°	1.46	2006-08-04

McMAC Data Coverage

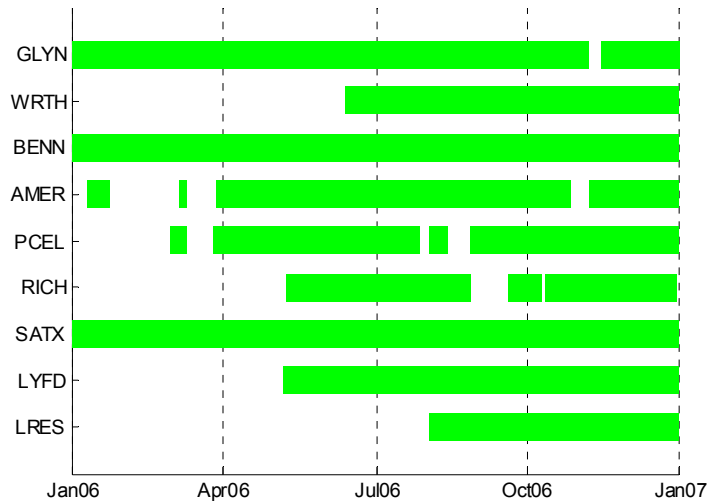
2004



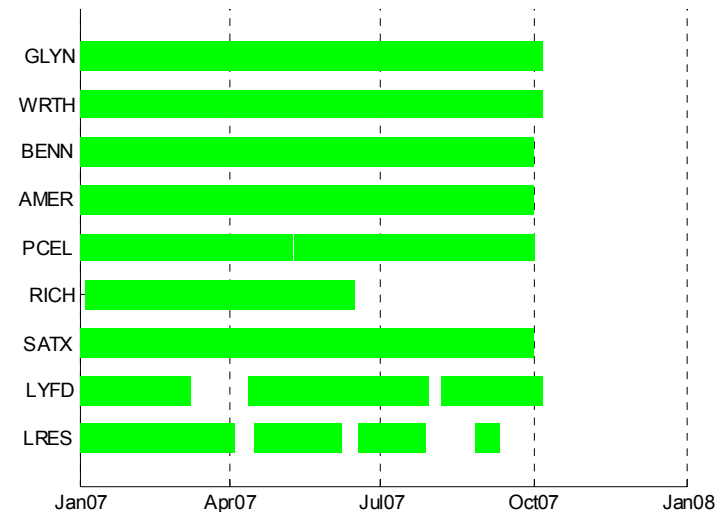
2005



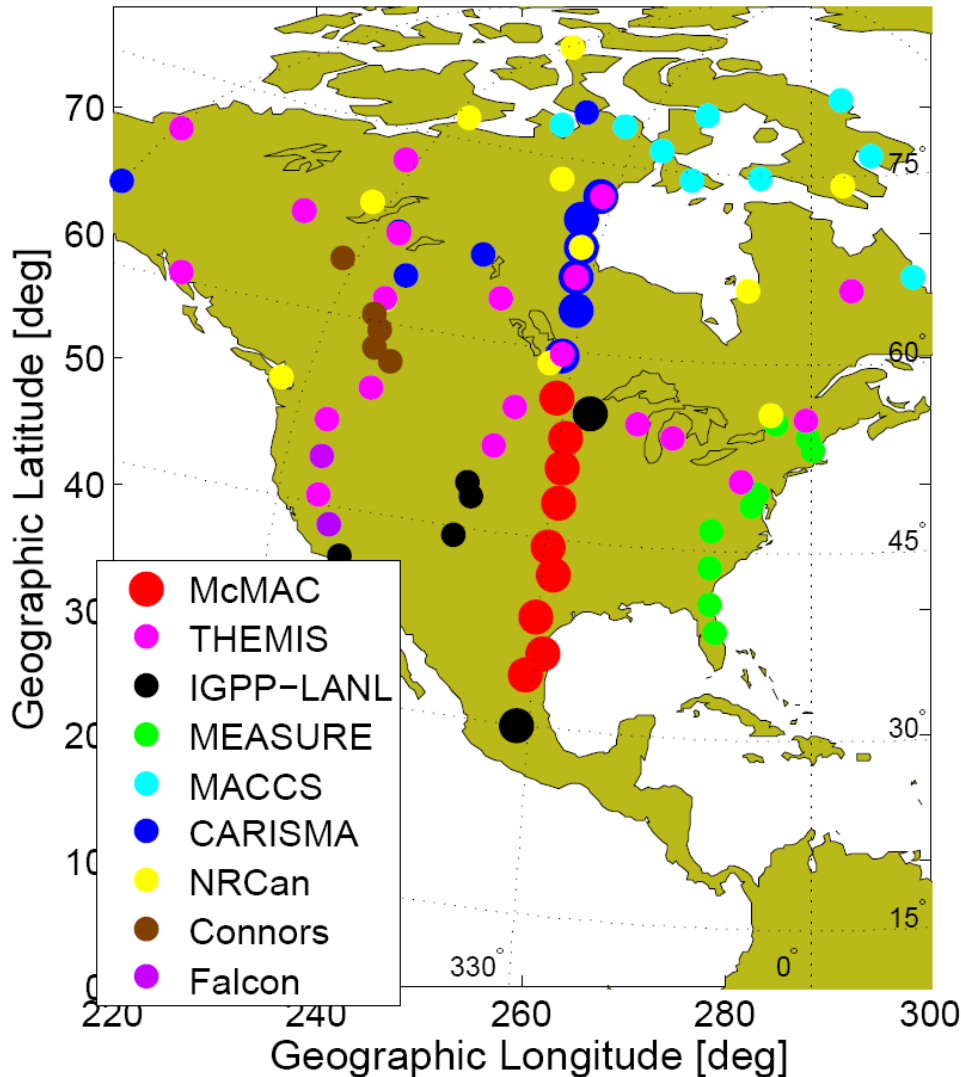
2006



2007



Further development in North America: Falcon Project



- Peter Chi (UCLA), Francis Chun and Geoff McHarg (AFA)
- Air Force provides the funding to build 10 ground magnetometers in the U.S. over five years
- The first has just started in 2007, consisting of two magnetometers in Oregon and California.
- The second phase will strengthen the meridian chain in Colorado and New Mexico.
- The third phase will establish additional stations in Alaska.