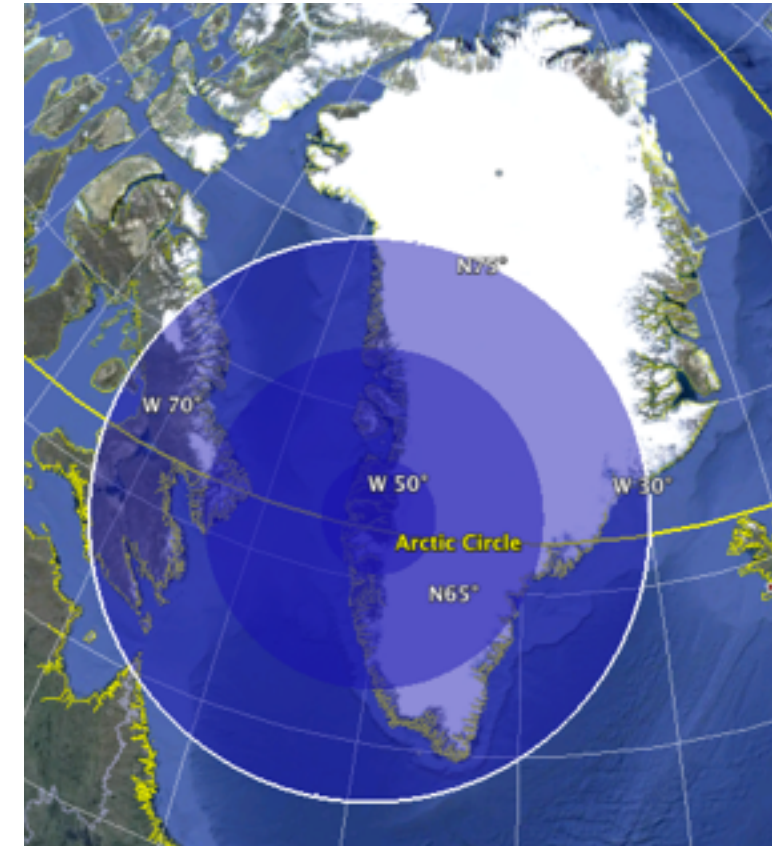


Sondrestrom ISR coverage

Mary McCready, SRI International

Sondrestrom ISR Facility

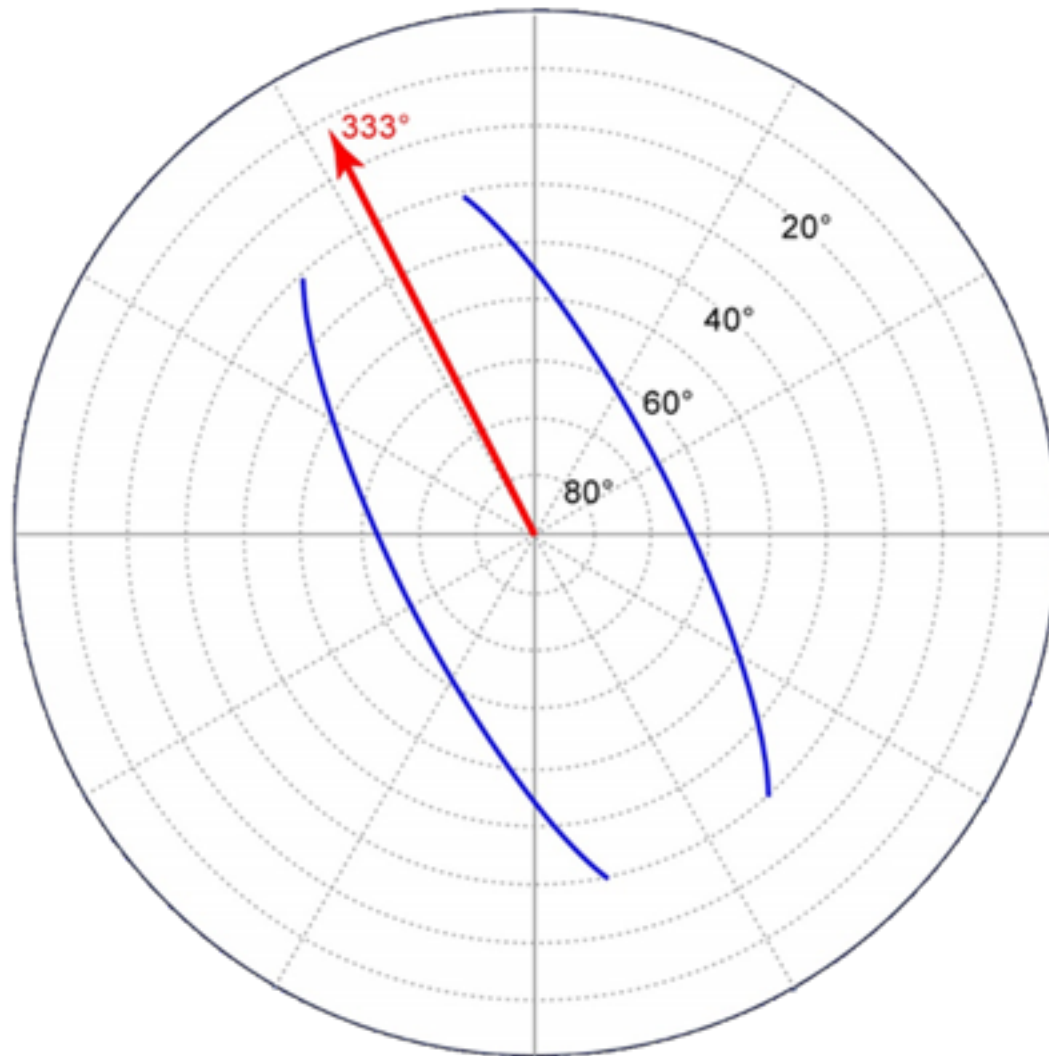


Sondrestrom

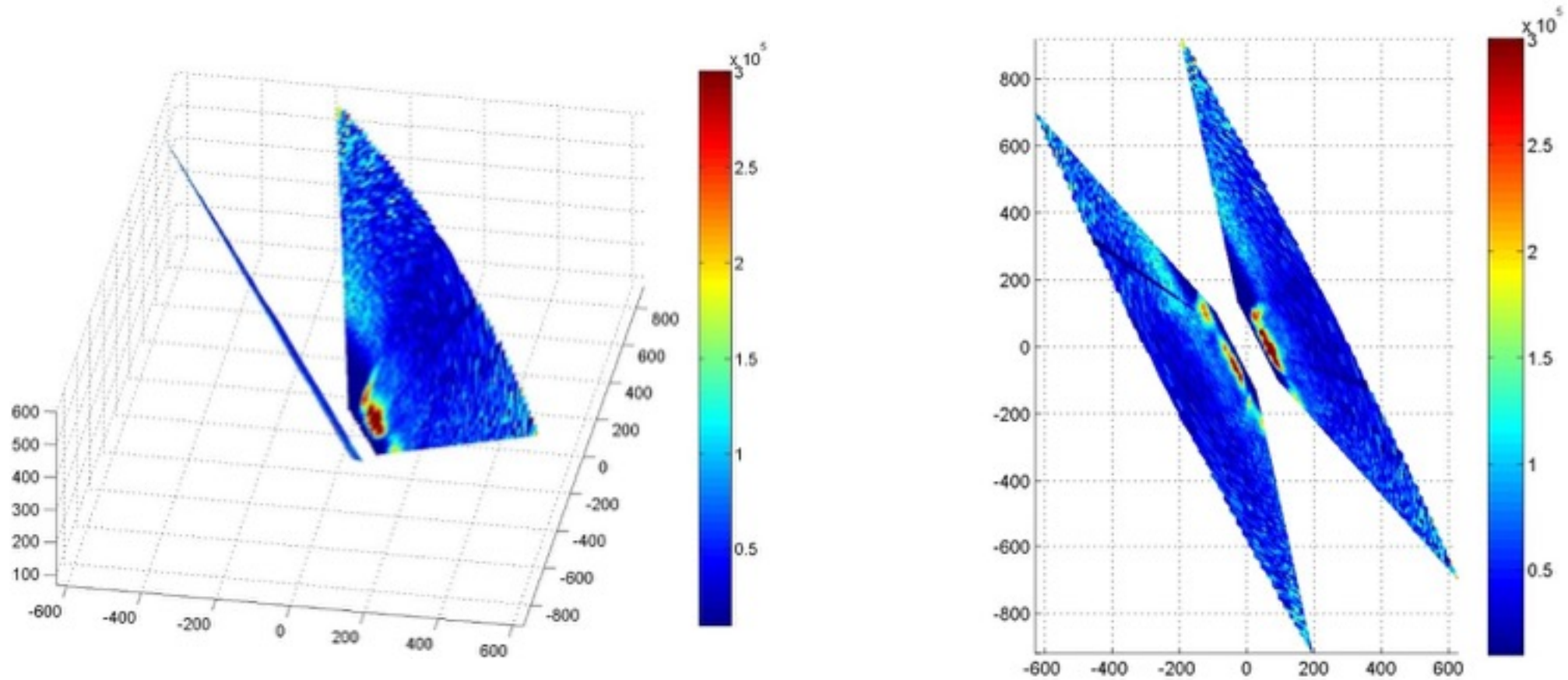
Geographic coord.	66° 59' 12" N 309° 03' 02" E
Geomag. dip angle	80° 24'
Invariant latitude	74° 11' 24" N
Local time	UT - 3 (UT - 2 summer)
Magnetic time	UT - 1:58
Elevation	177 m
Coverage	360° az., above 25° - 30° elev.*

*Dependent on azimuth. No transmission below this elevation.

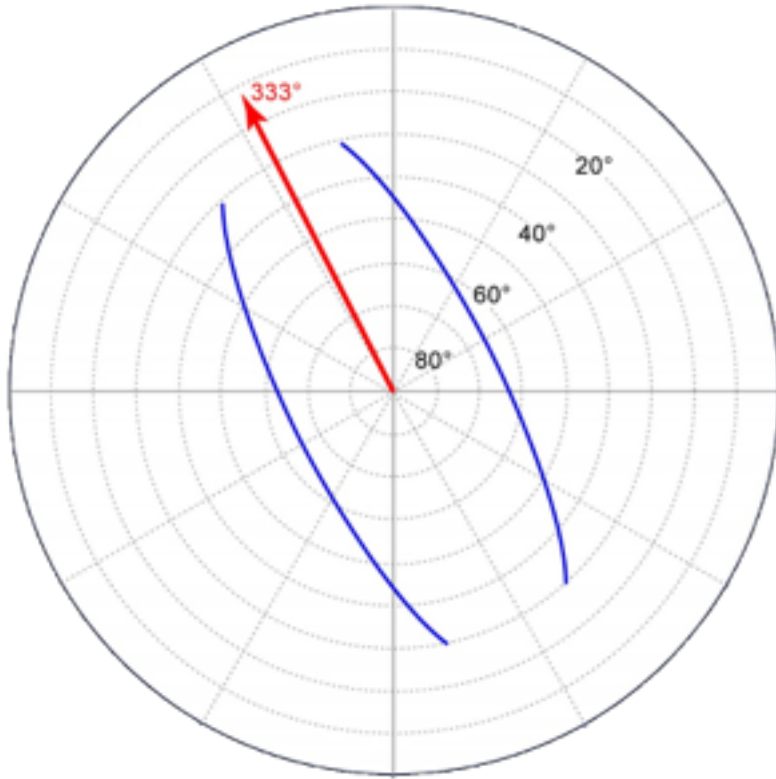
Antenna scans in both azimuth and elevation simultaneously, defining a plane parallel to the magnetic meridian but tipped 25° from the zenith.



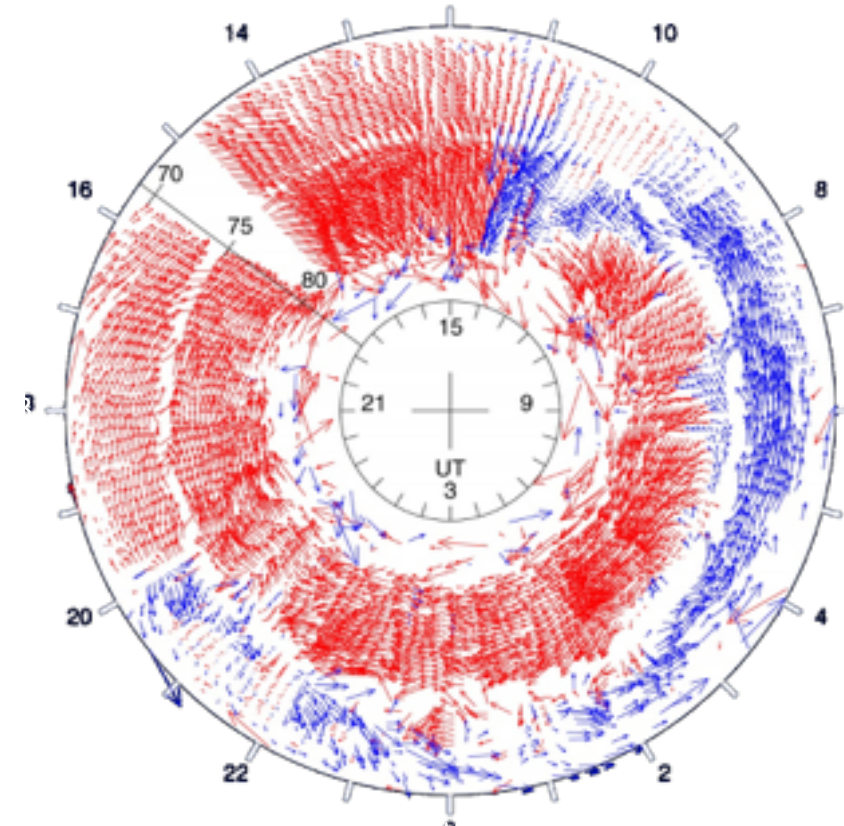
Latitudinal coverage of electrodynamics and plasma parameters are derived from composite scans with 4½ minute resolution. Range resolution of 48 km provides good F-region coverage (and only contextual information for the E region).

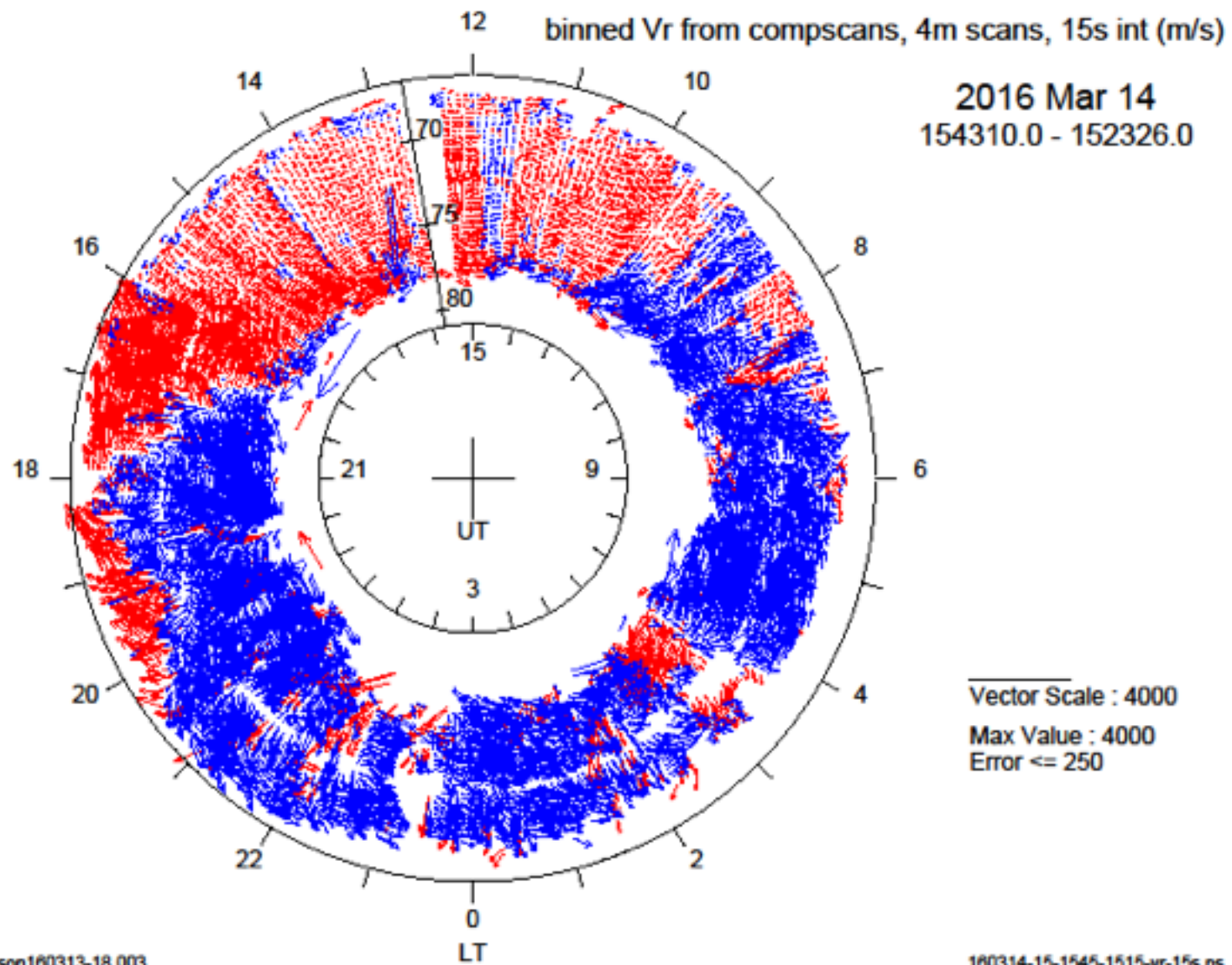


Ion Velocity (E-field) Maps

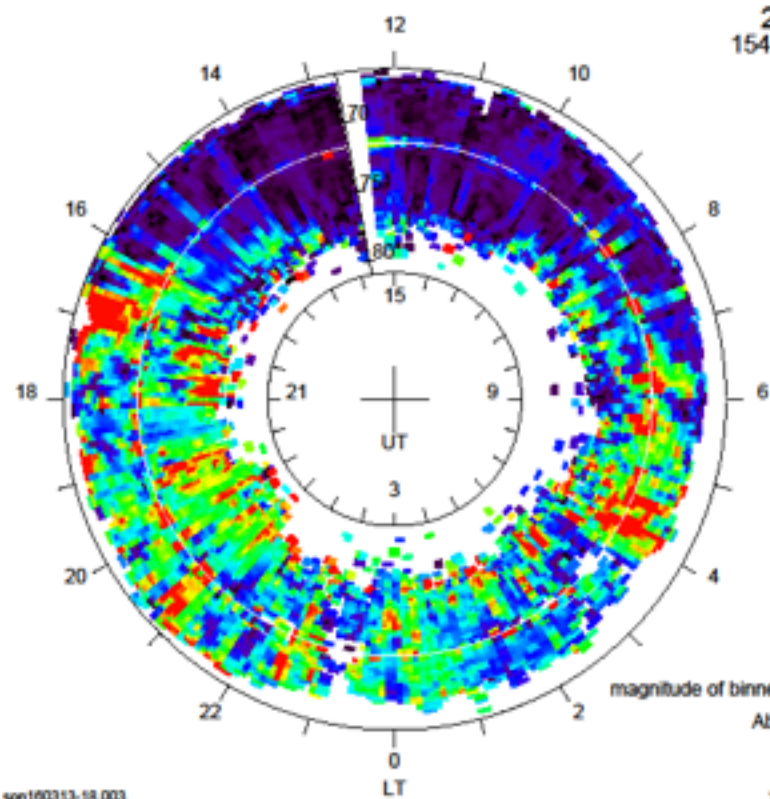


Composite Scans for
E-field Estimation





2016 Mar 14
154310.0 - 152326.0

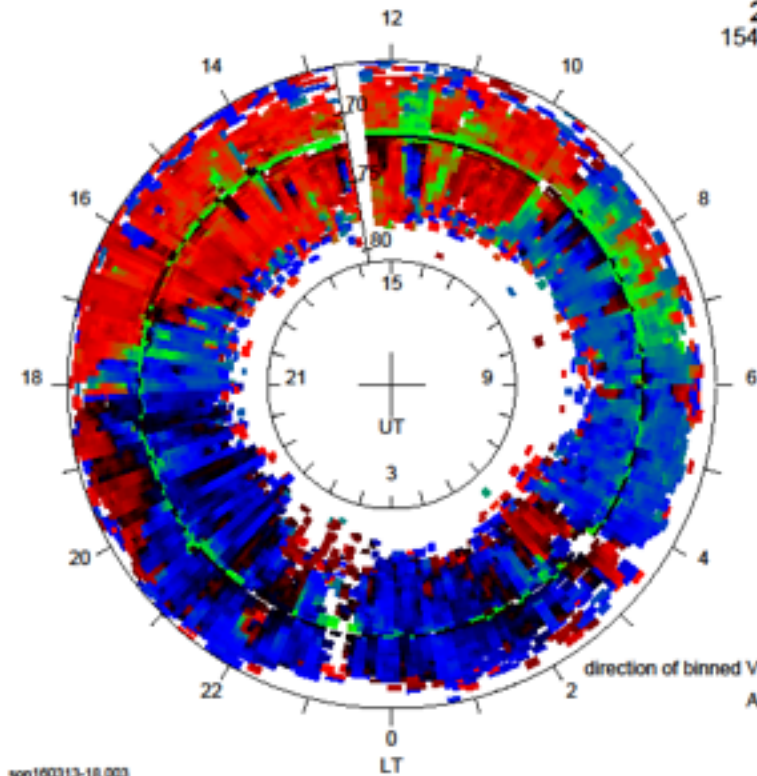


magnitude of binned Vr, 4m scans, 15s int (m/s) x 1
Abs. Error <= 250.00

160314-15-1545-1515-vr-mag-15s.ps

son160313-18.003

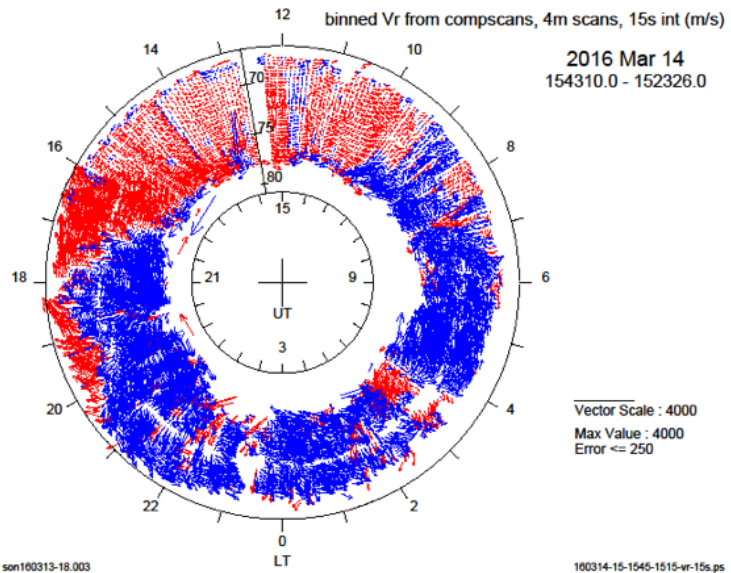
2016 Mar 14
154310.0 - 152326.0



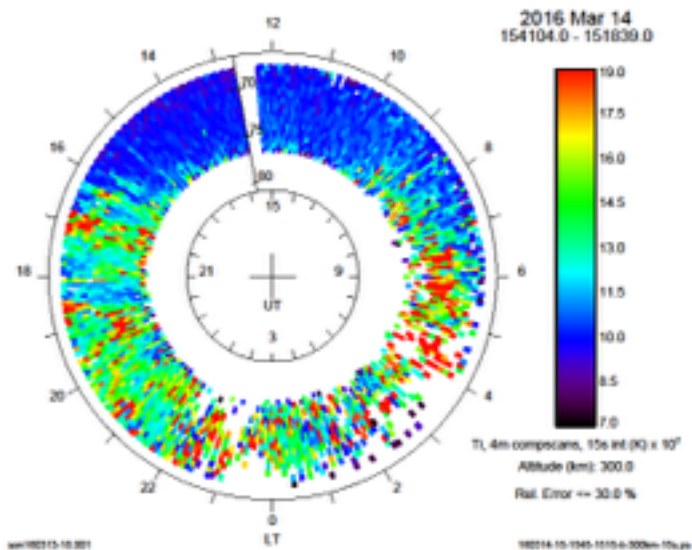
direction of binned Vr, 4m scans, 15s int (CW from magN)
Abs. Error <= 30.00

160314-15-1545-1515-vr-ang-15s.ps

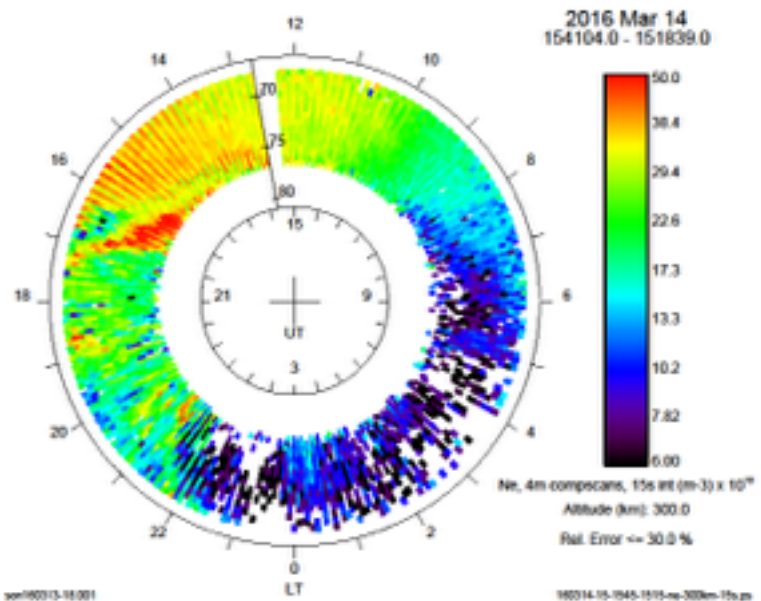
son160313-18.003



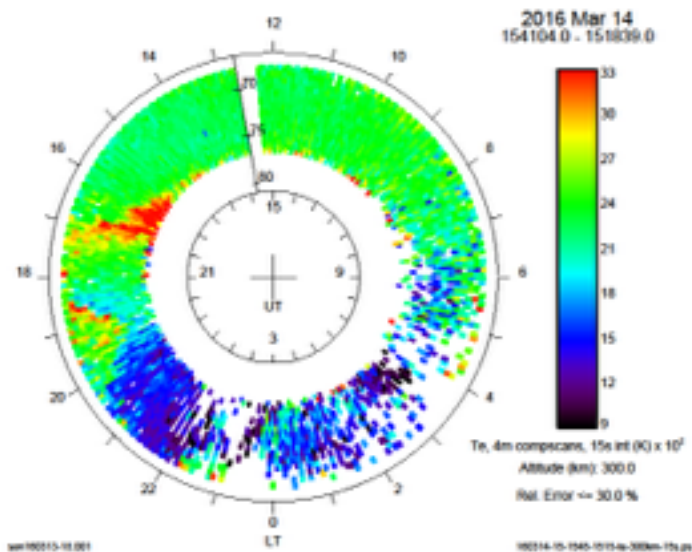
160314-15-1545-1515-vr-15s.ps



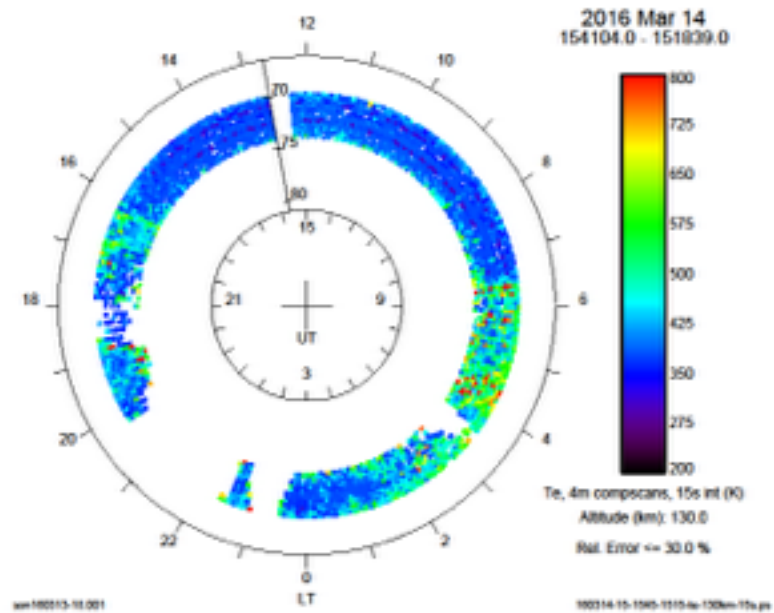
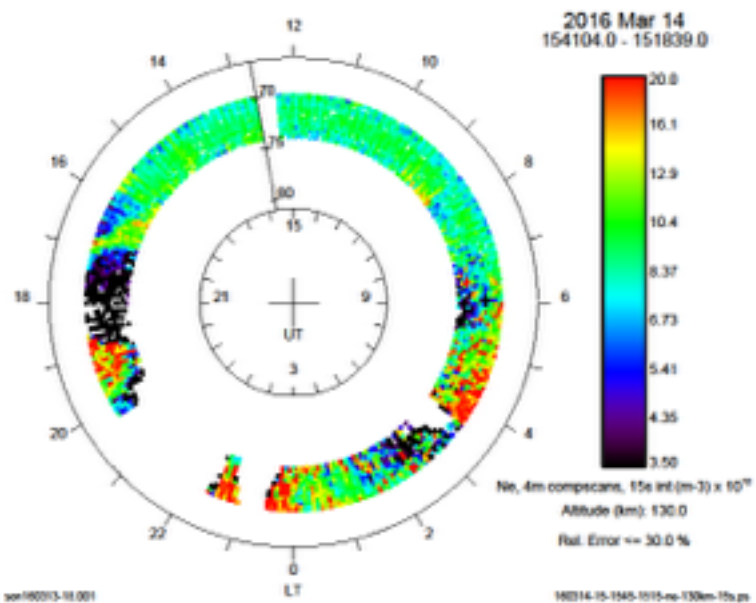
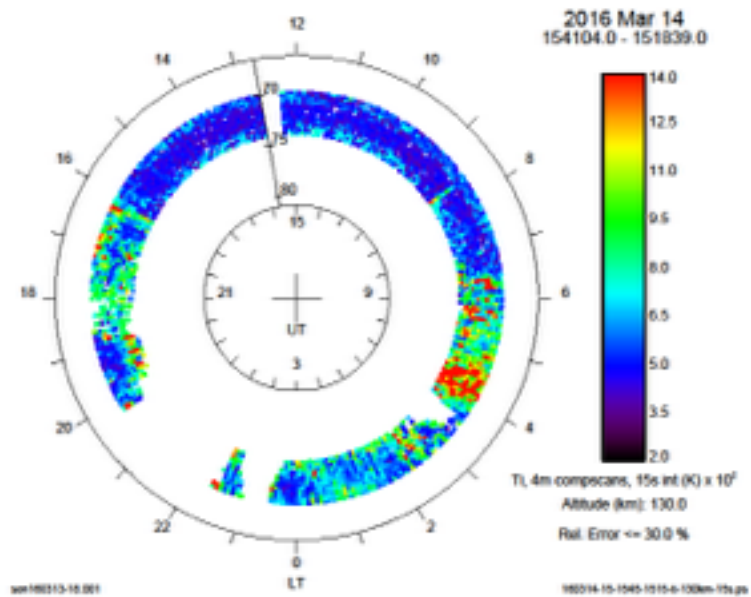
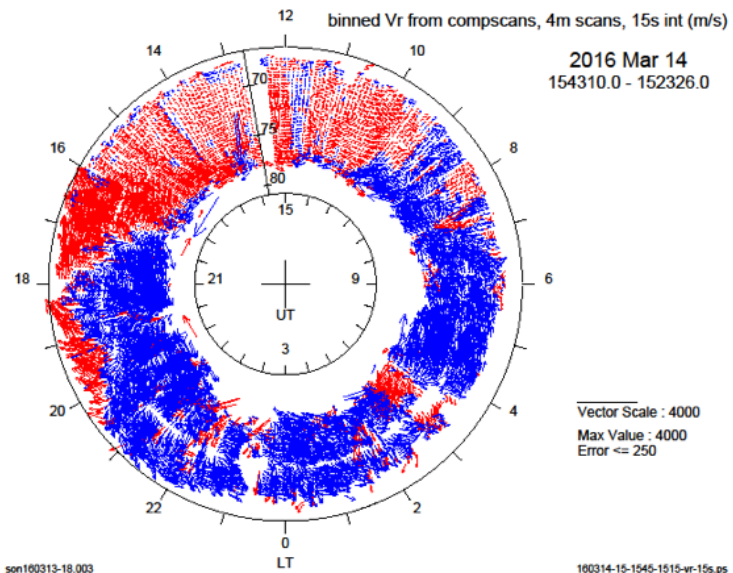
160314-15-1545-1515-t1-300km-15s.ps



160314-15-1545-1515-ne-300km-15s.ps

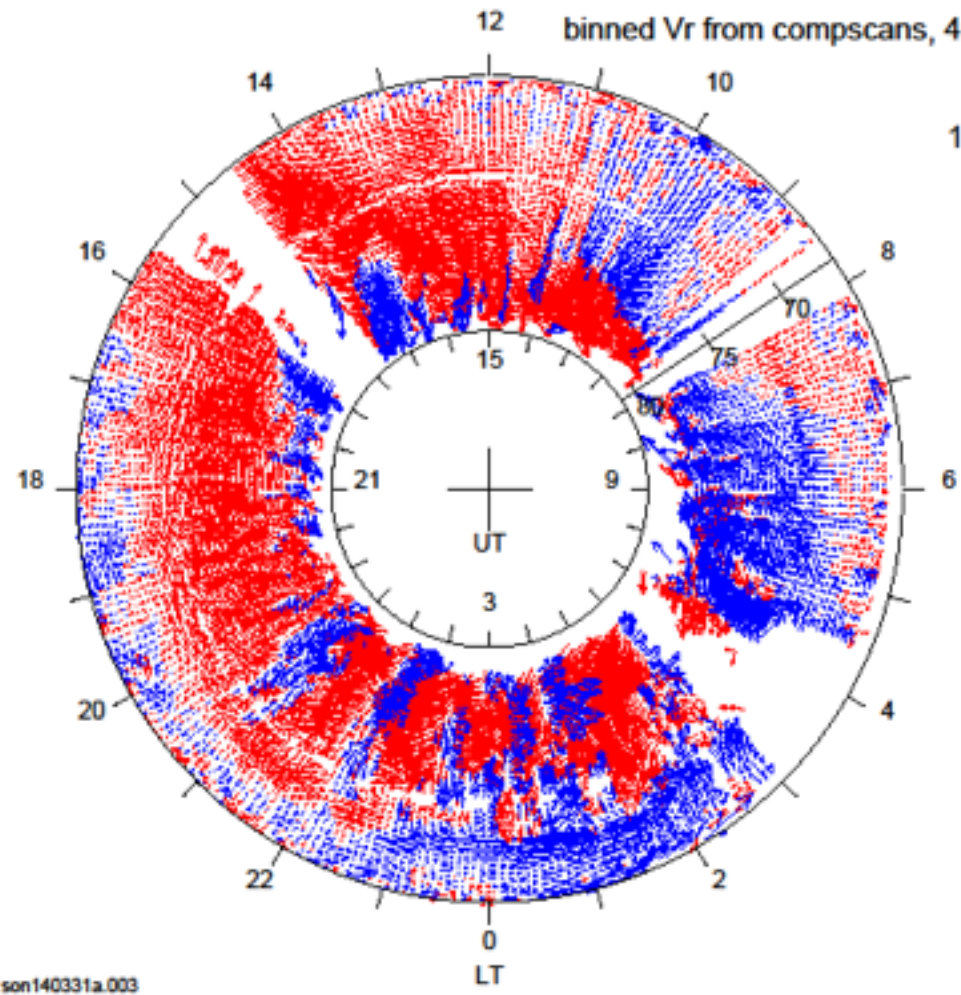


160314-15-1545-1515-te-300km-15s.ps



binned Vr from compscans, 4m scans, 15s int (m/s)

2014 Mar 31
111741.0 - 105737.0



Vector Scale : 4000
Max Value : 4000
Error <= 250