

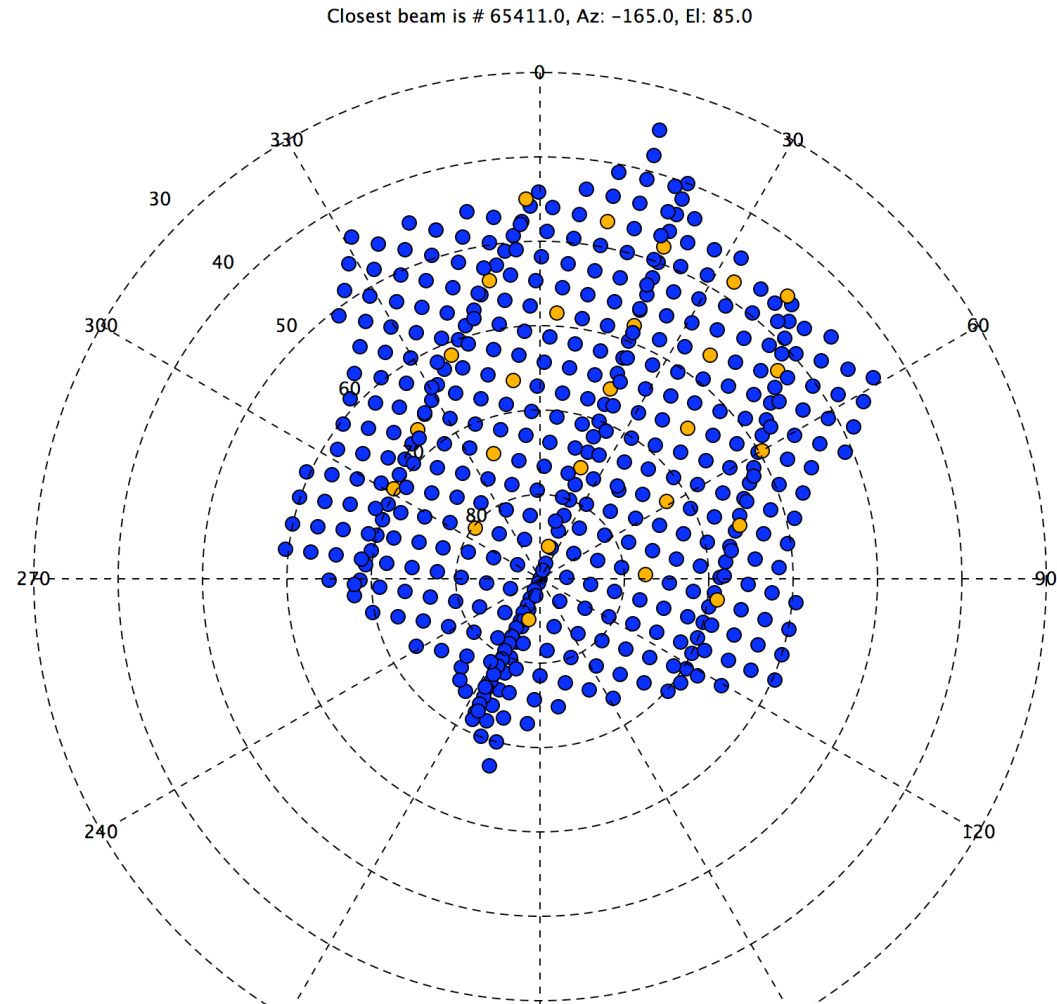
ISR School 2013

PFISR Experiment
Group 4
July 31, 2013

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Lucas Hurd, Daniel Suarez
Dustin Hickey, Ramin Jafari
August 2, 2013

Experiment Specifications

- Alternating code
 - Range: 90-350 km
 - Range resolution: 4.5 km
- Long pulse
 - Range: 100-700 km
 - Range Resolution: 37 km
- 26 beam positions
- 7:00 9:00 UT



Scientific Goals

- Electric field measurements

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- Neutral wind measurements

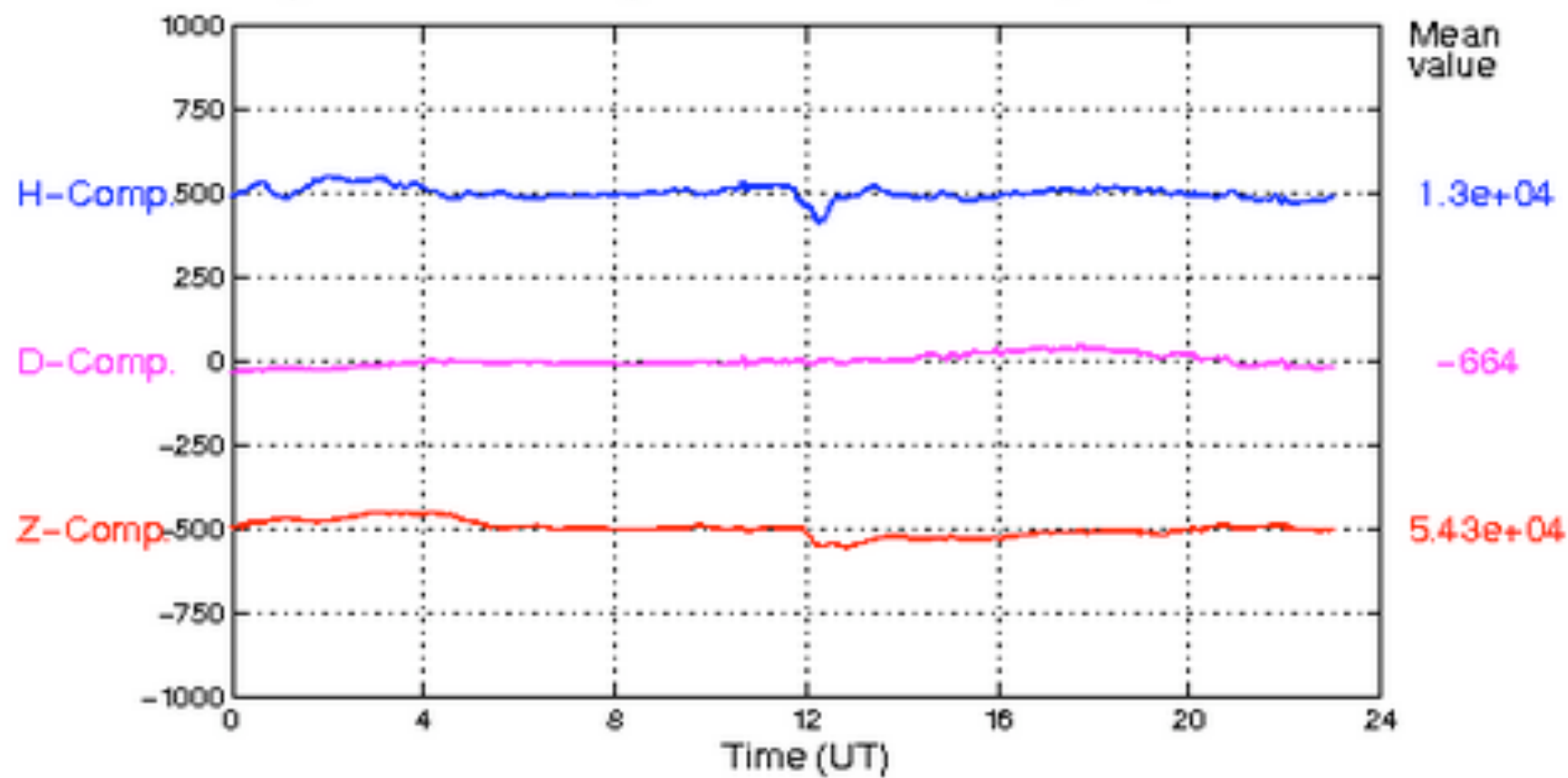
PFISR

HWM 90

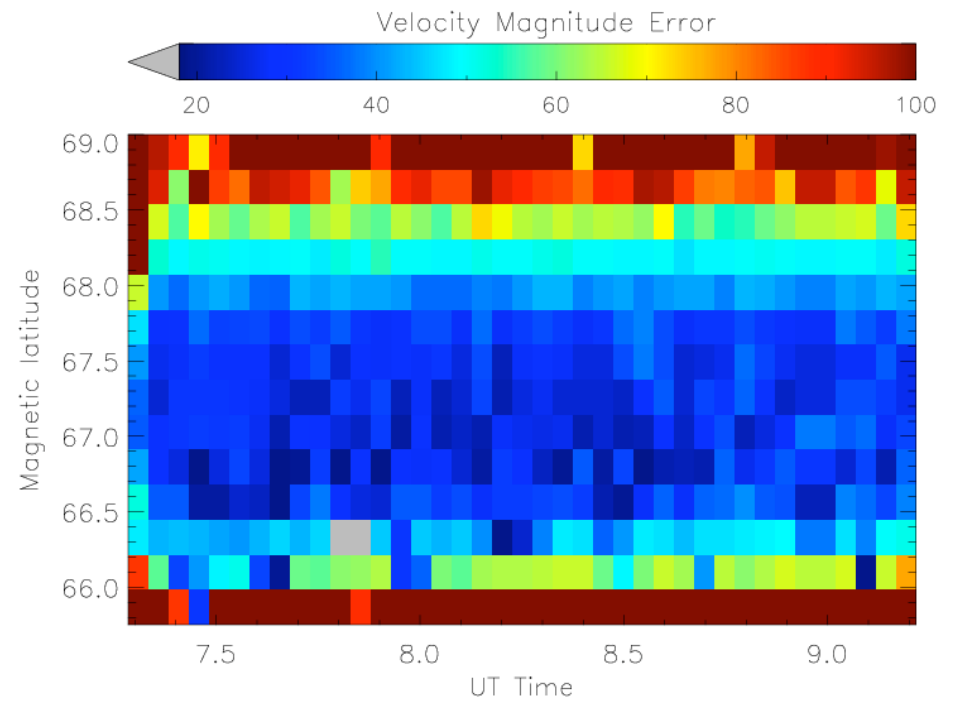
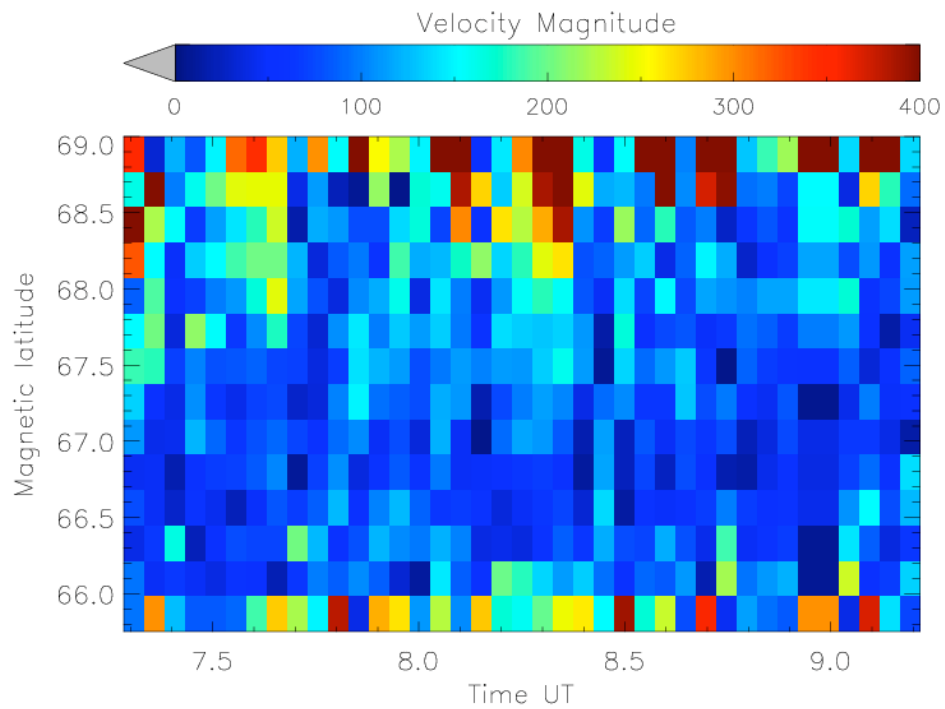
- Traveling Ionospheric Disturbances

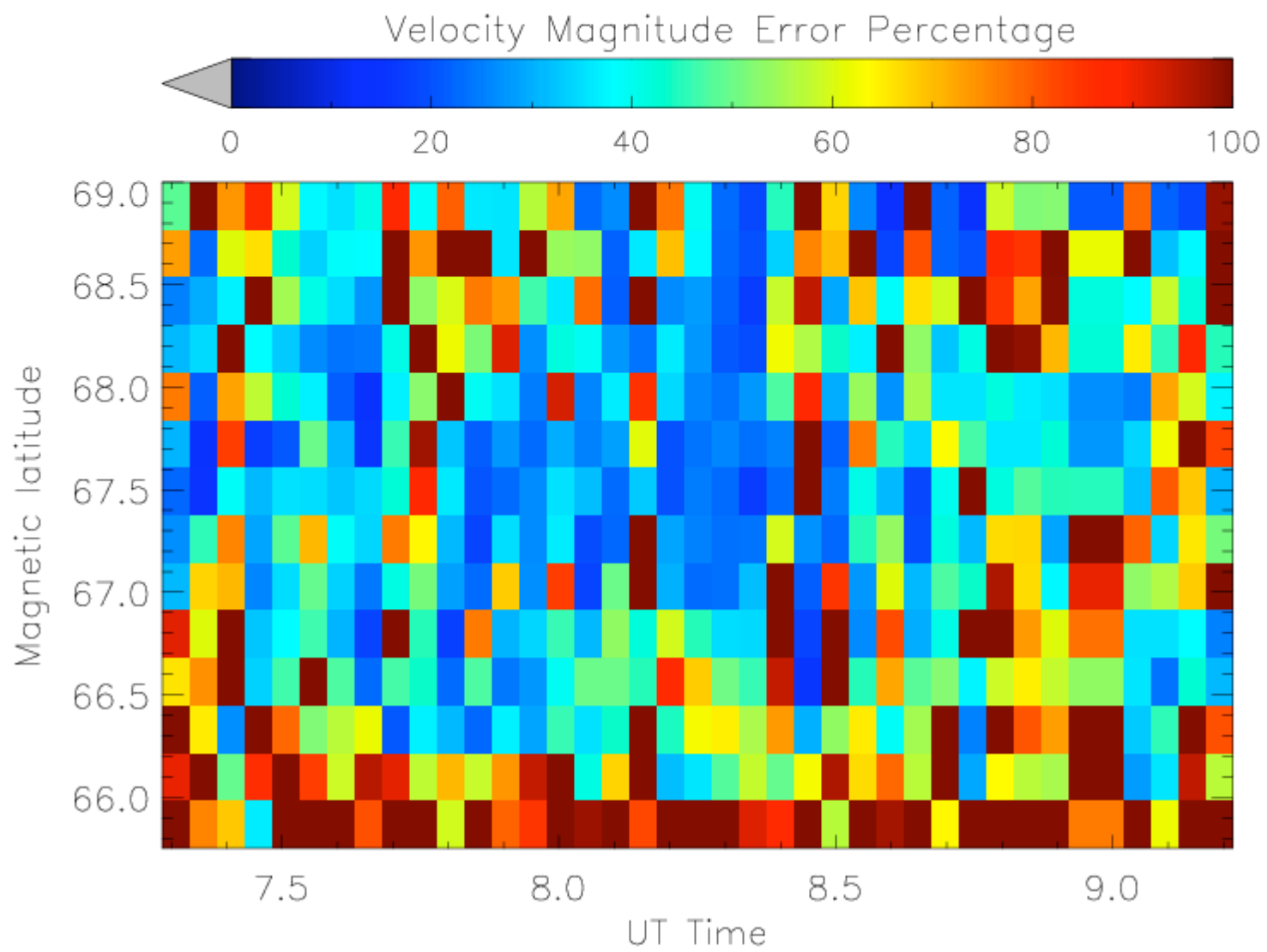
Look at density profiles for evidence of gravity waves

Magnetometer trace in gammas for Poker Flat Day 212, 2013

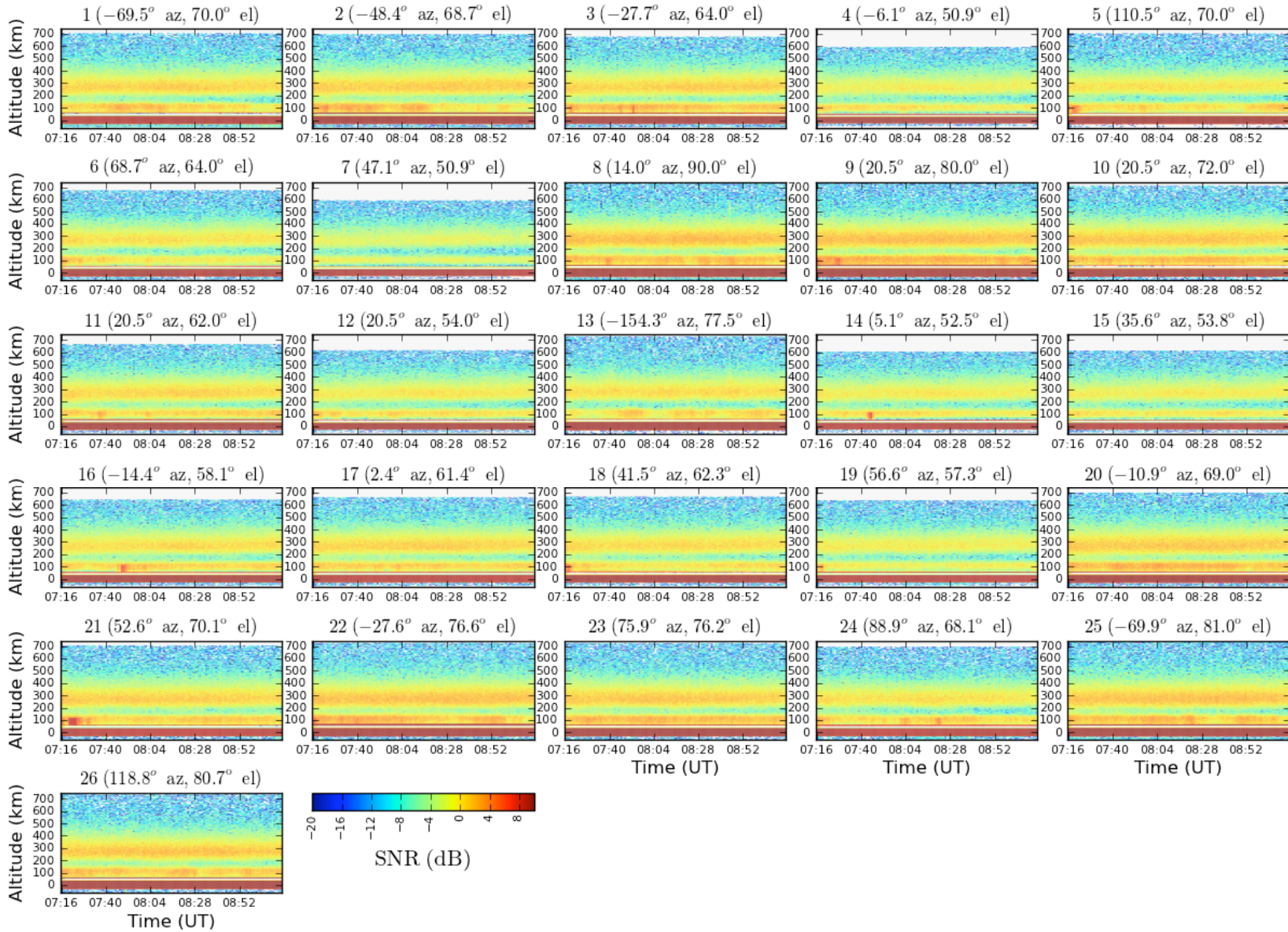


Error

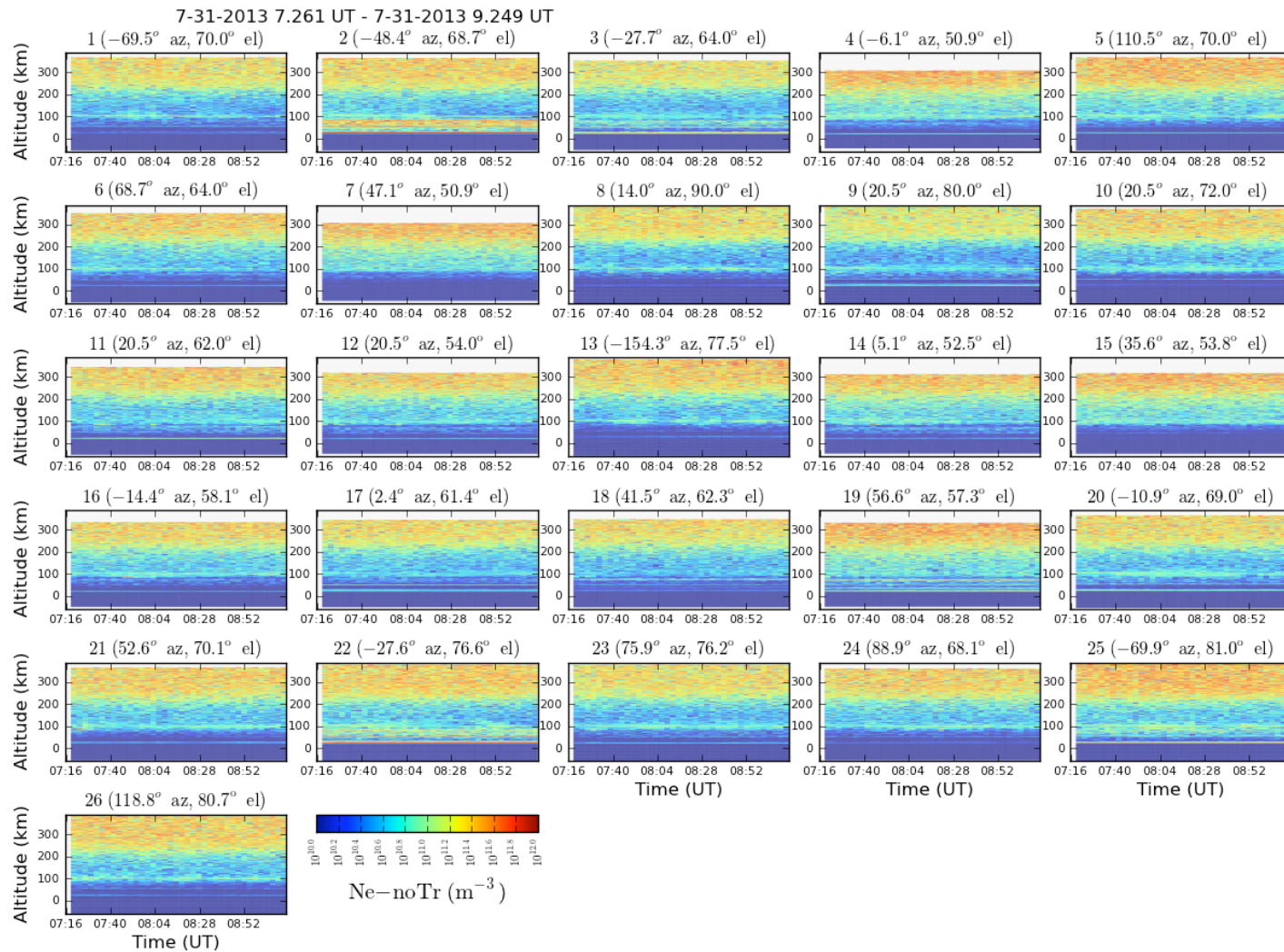




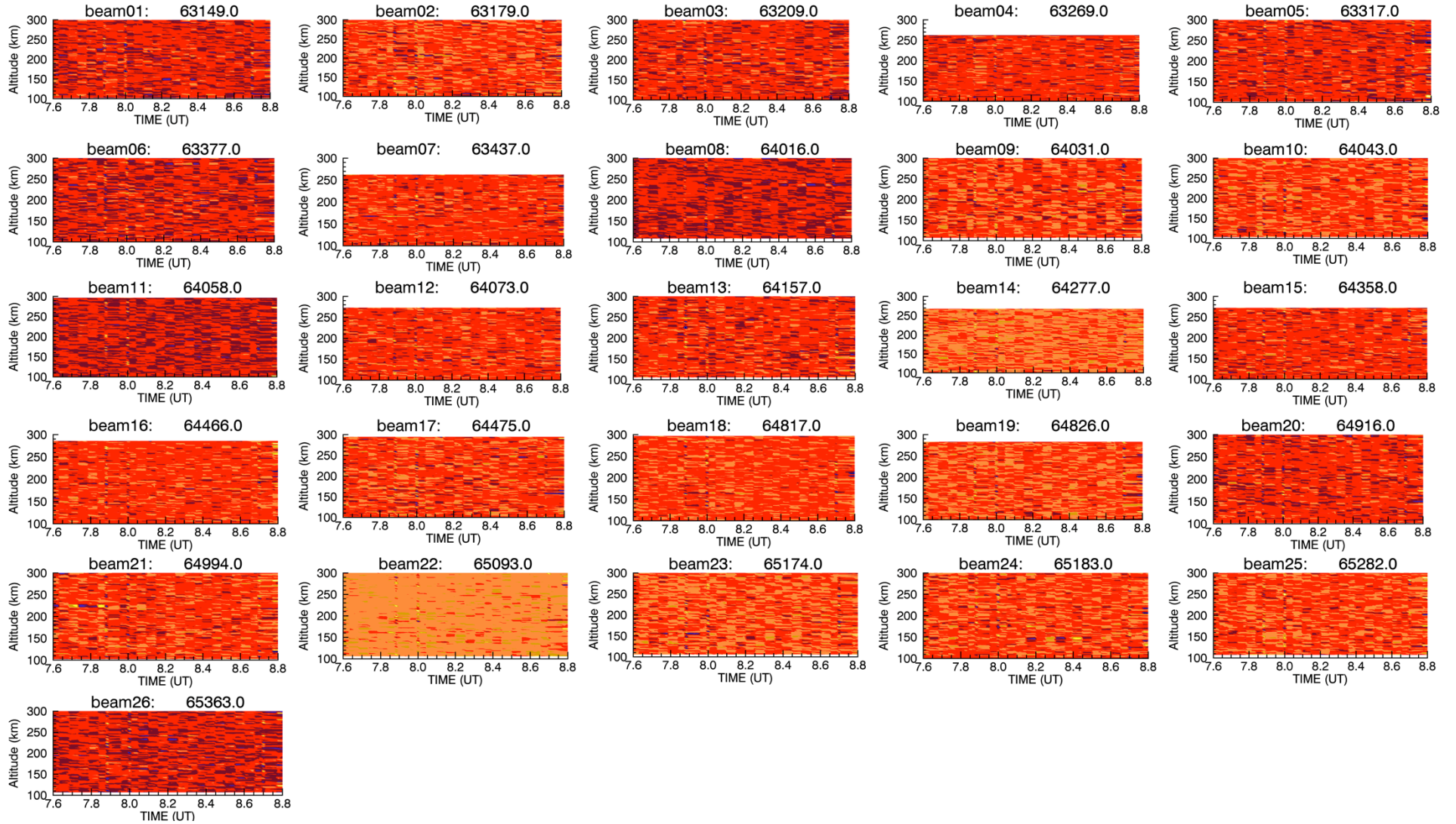
7-31-2013 7.261 UT - 7-31-2013 9.250 UT



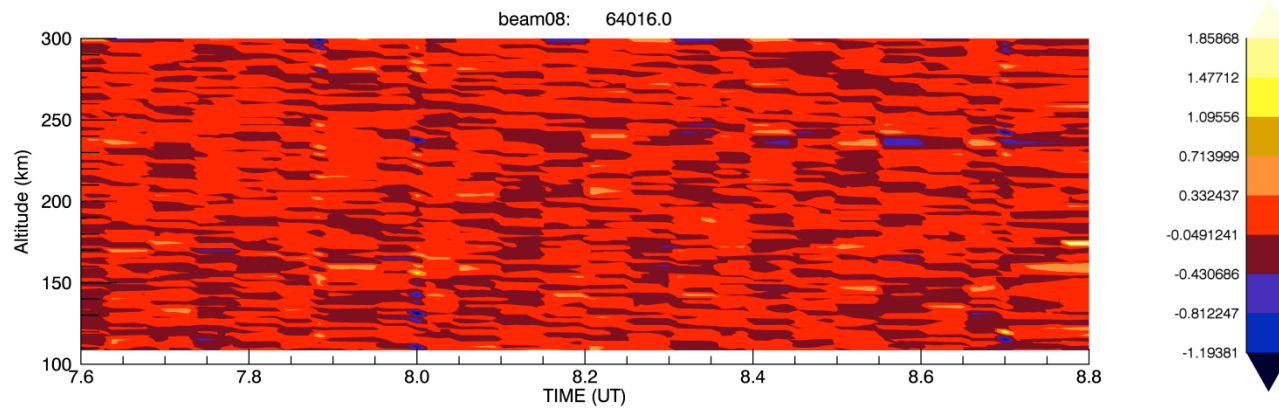
Electron density profiles



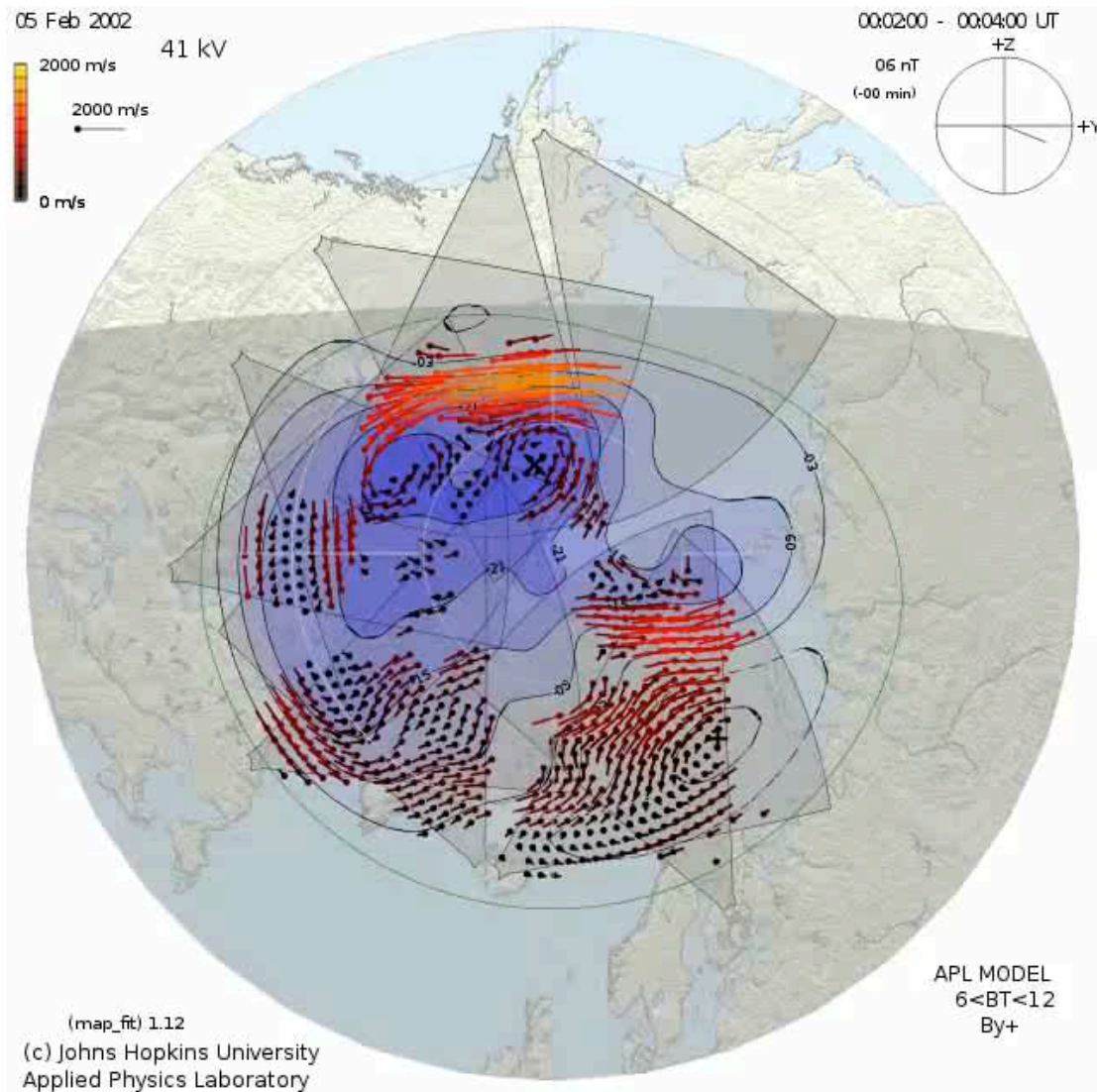
dNe/Ne



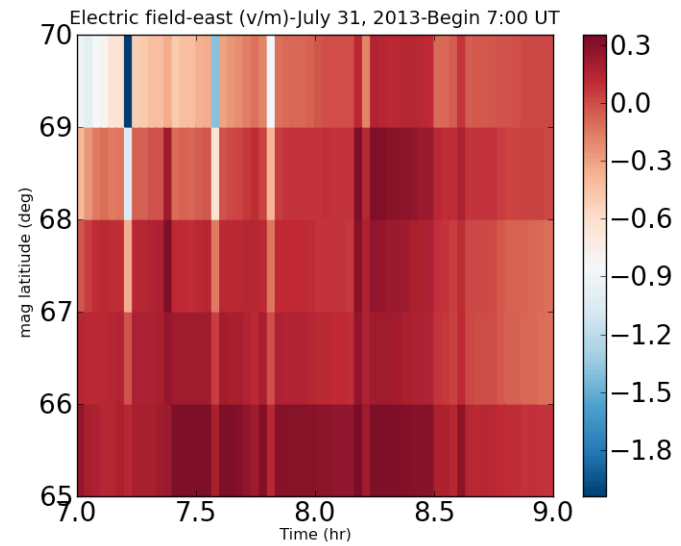
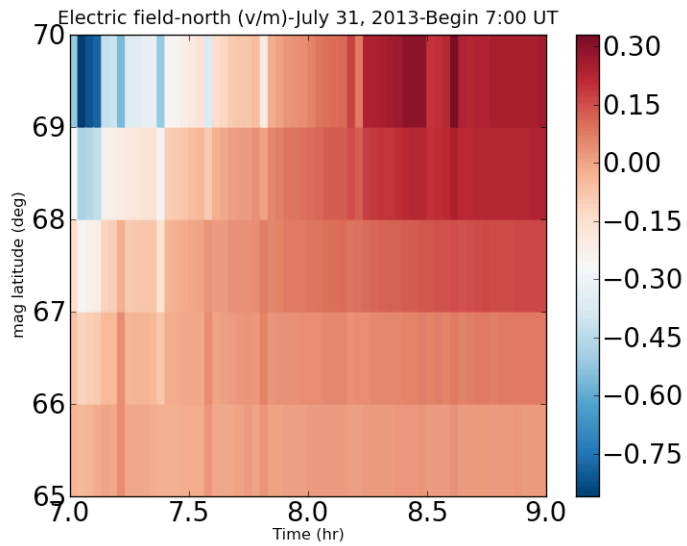
Beam 8 dNe/Ne



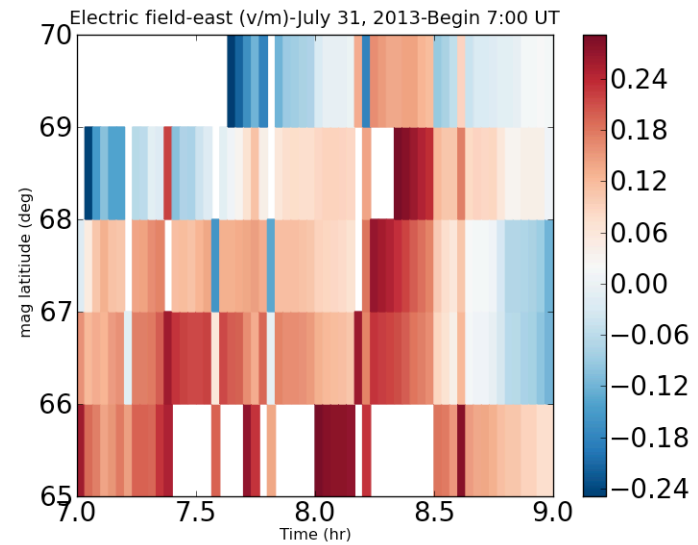
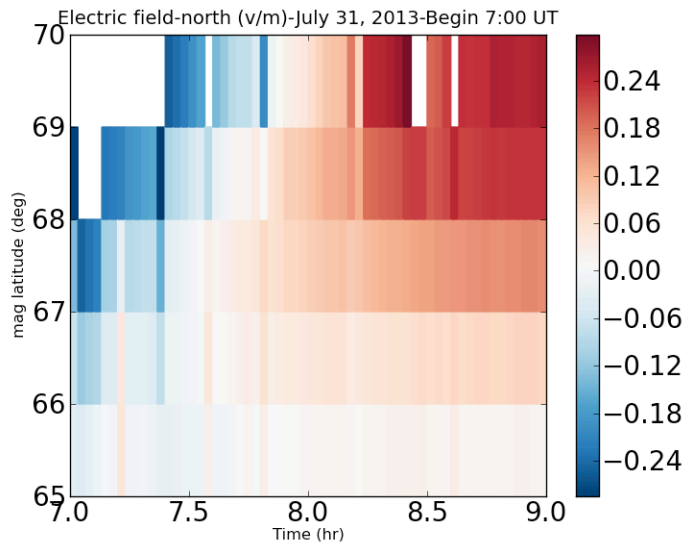
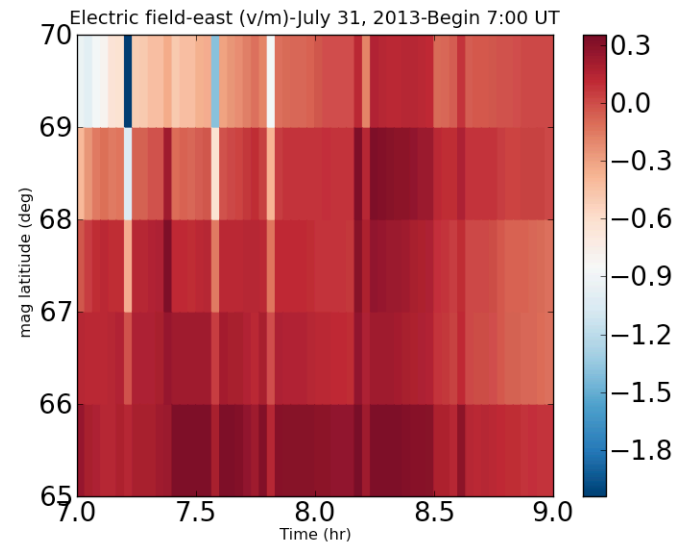
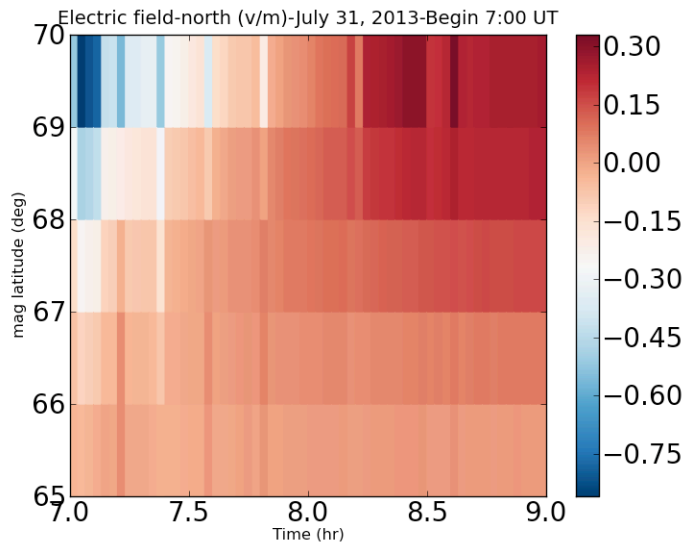
SuperDARN Convection Map



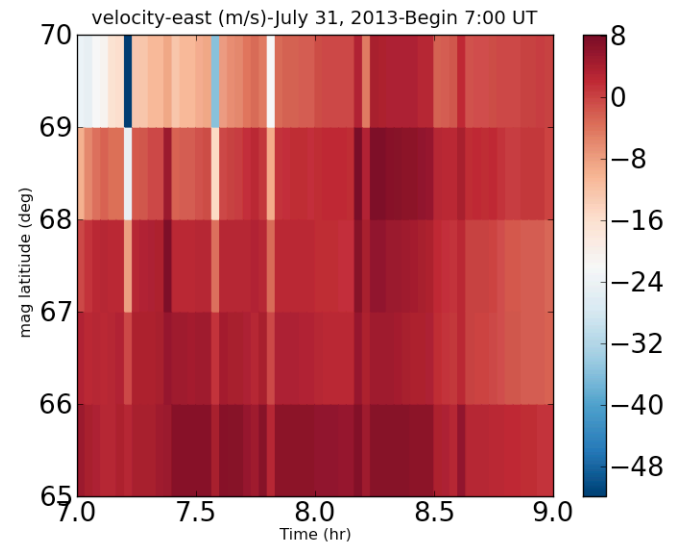
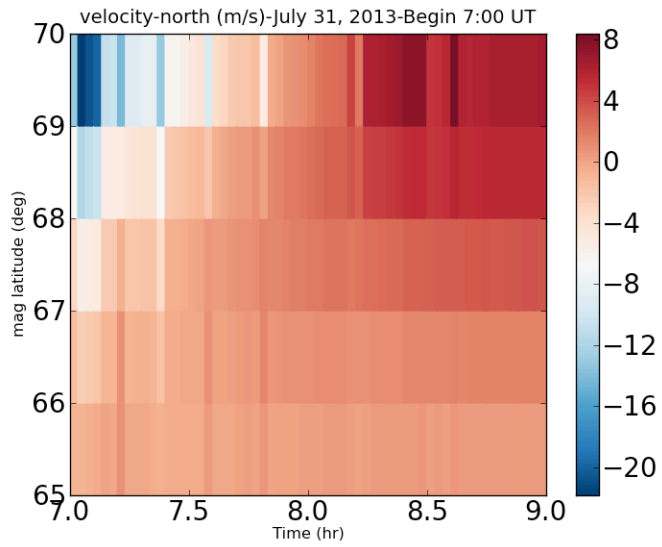
SuperDARN Electric Fields



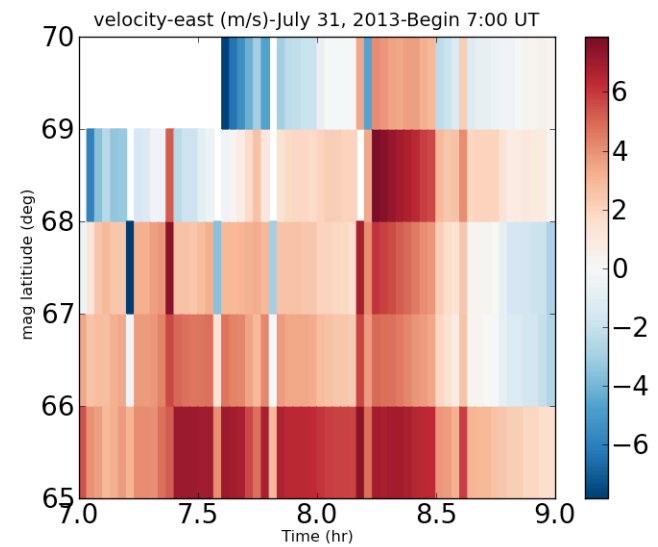
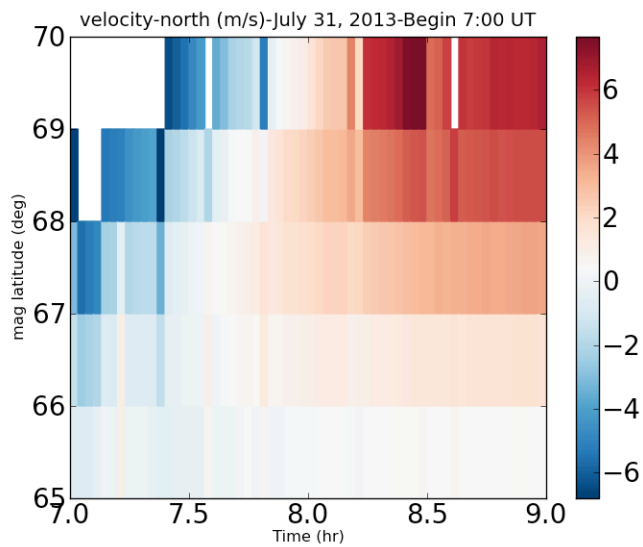
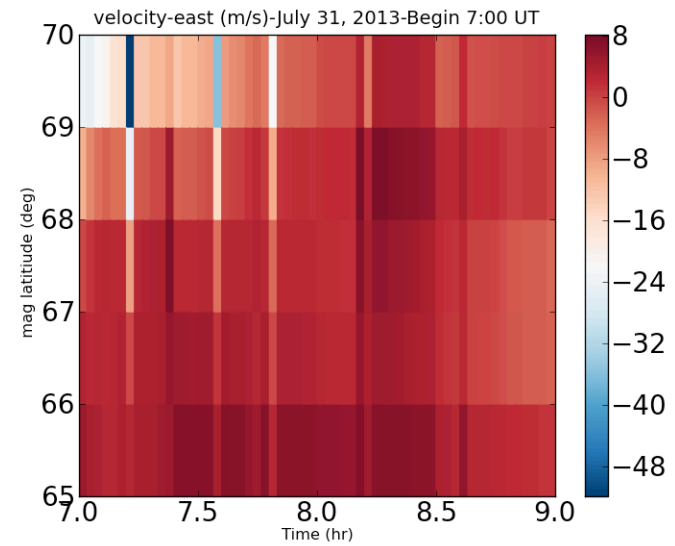
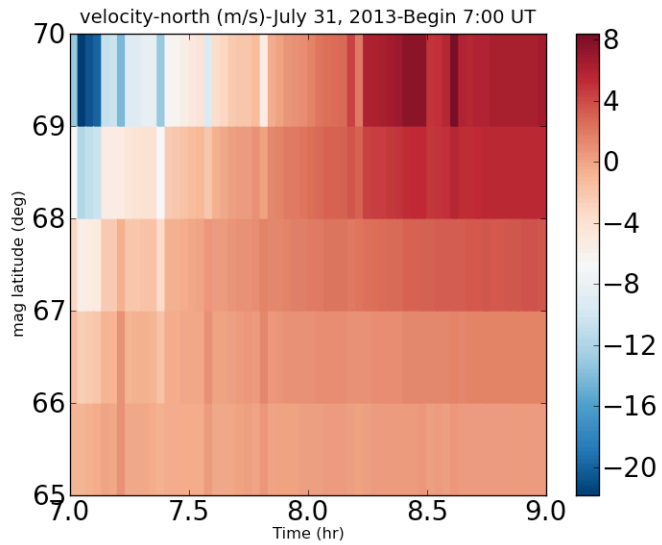
SuperDARN Electric Fields



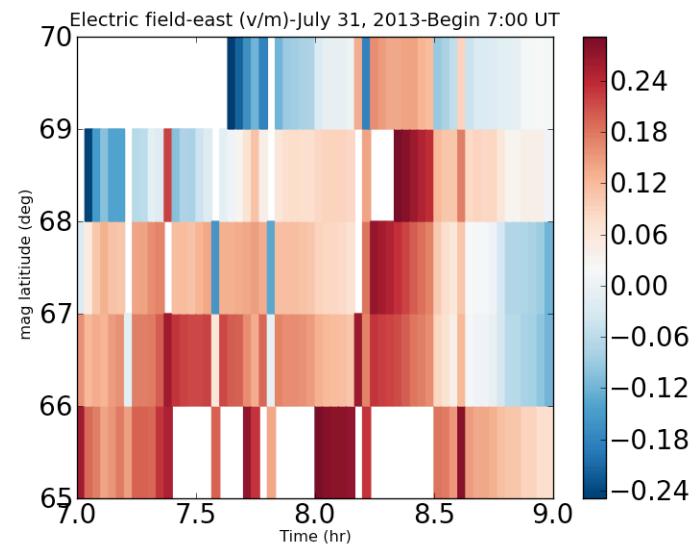
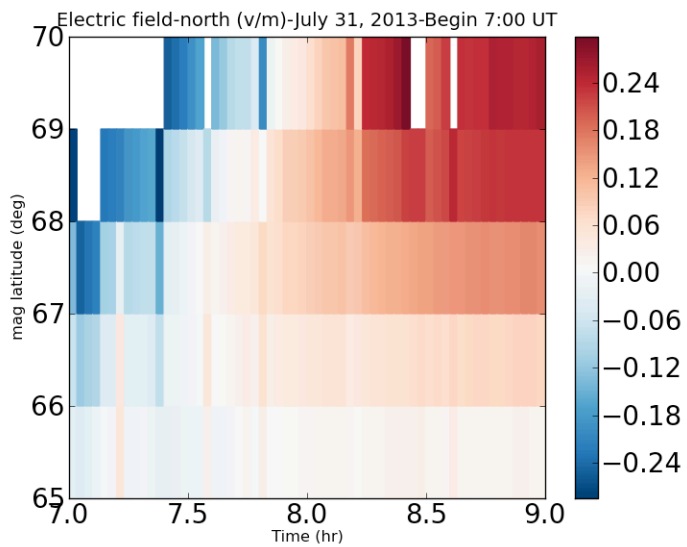
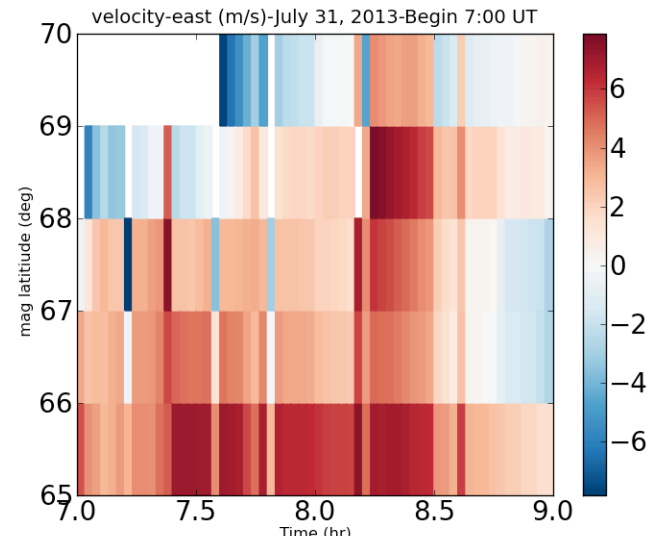
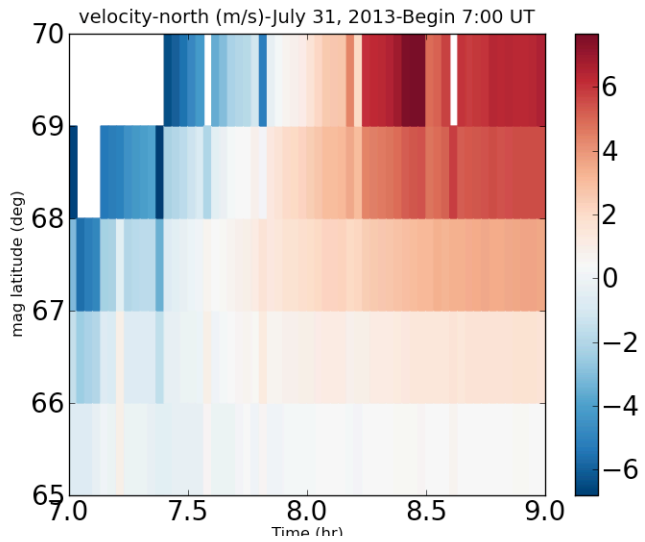
SuperDARN Velocities



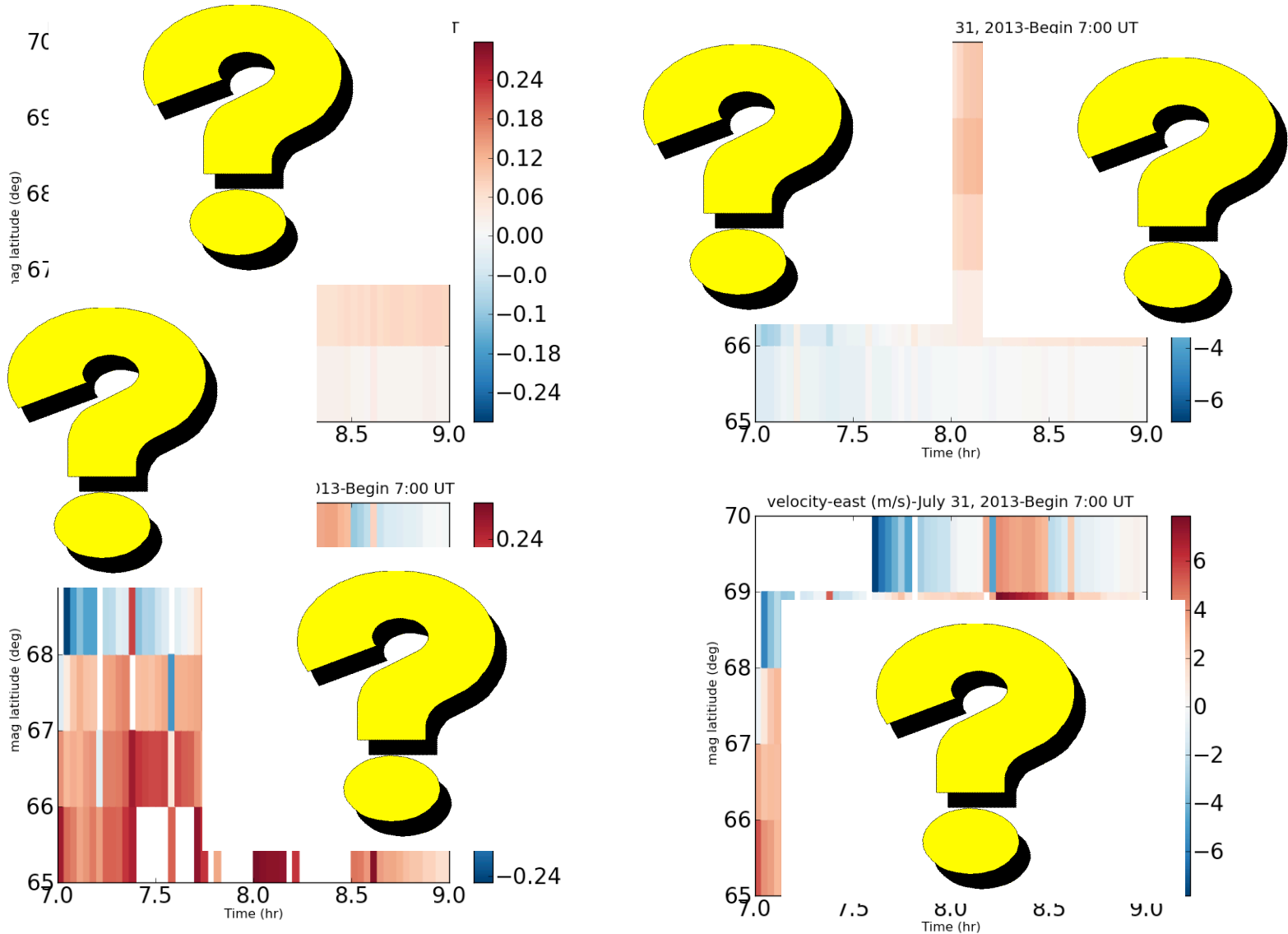
SuperDARN Velocities



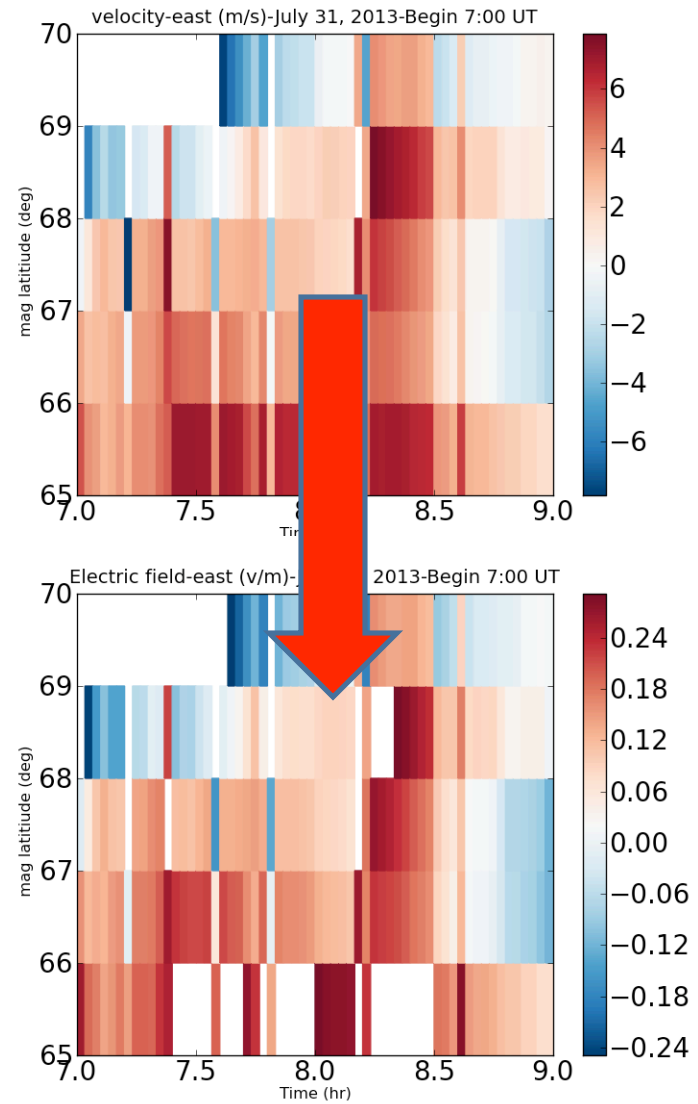
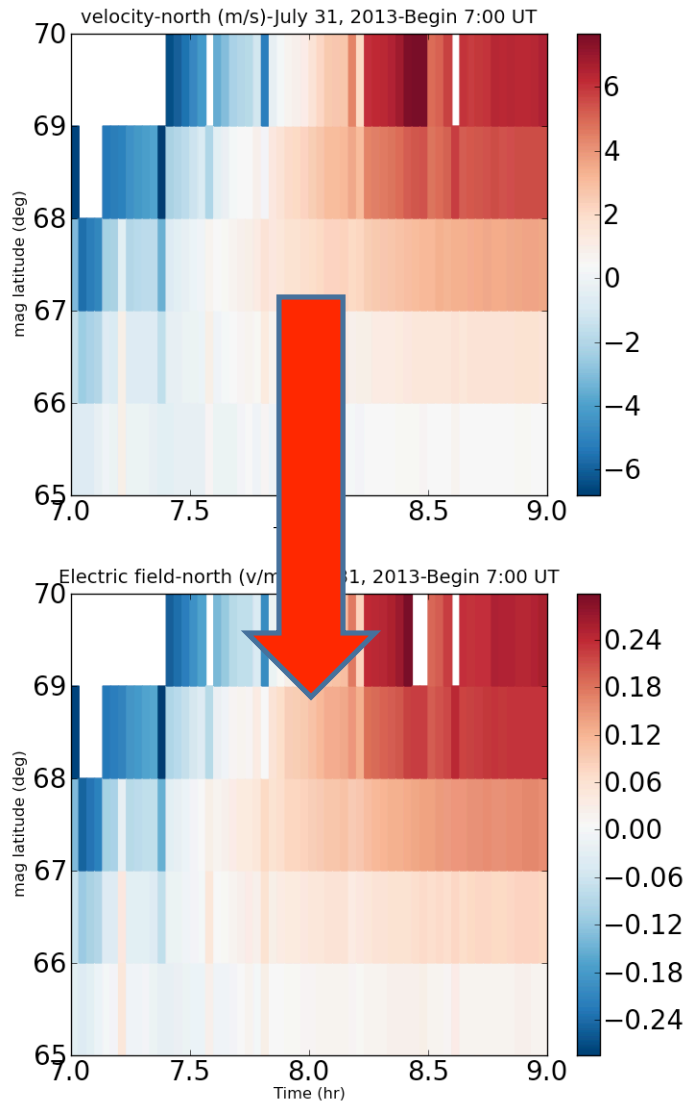
Velocities VS E Fields



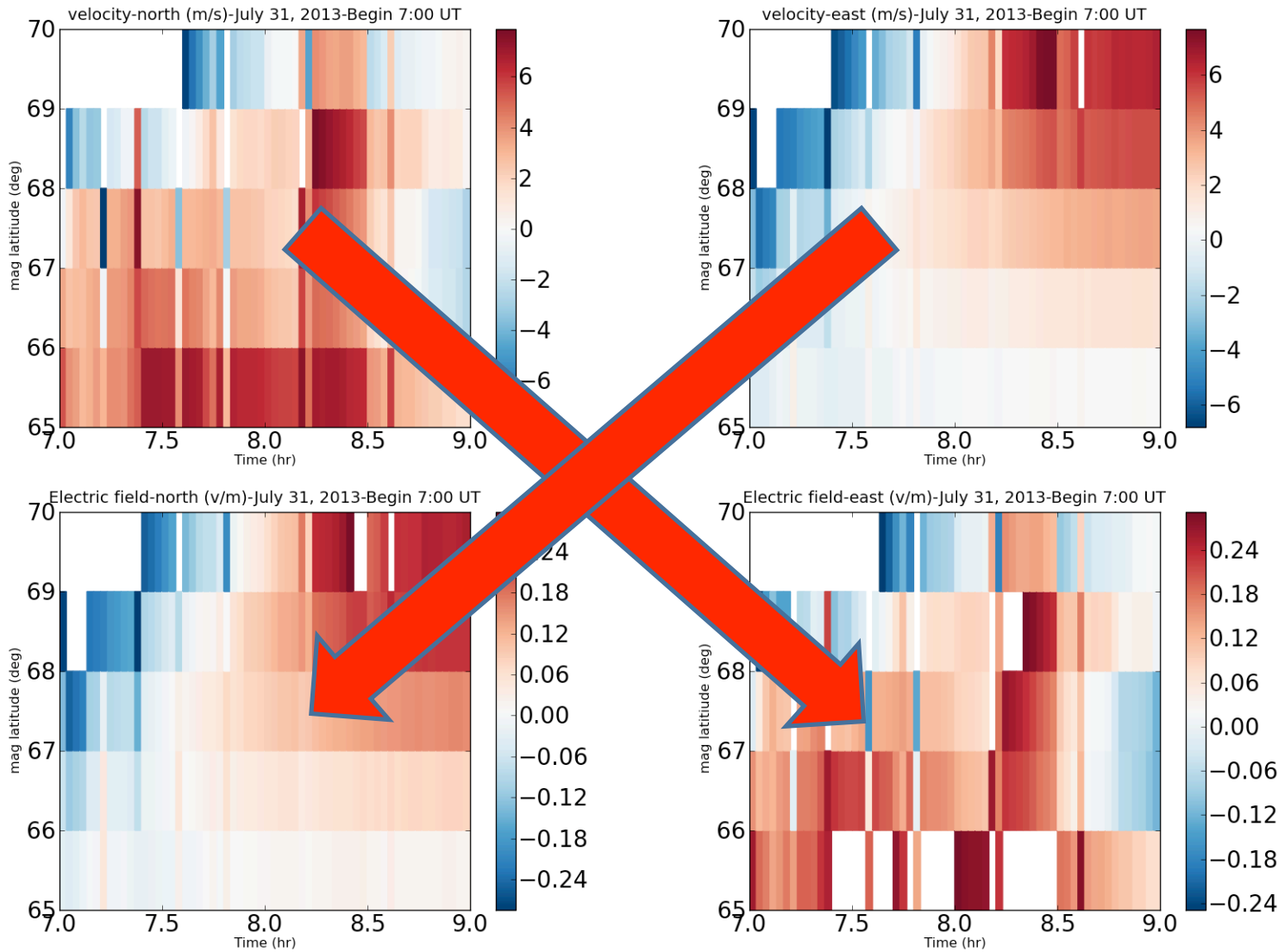
Velocities VS E Fields



Velocities VS E Fields

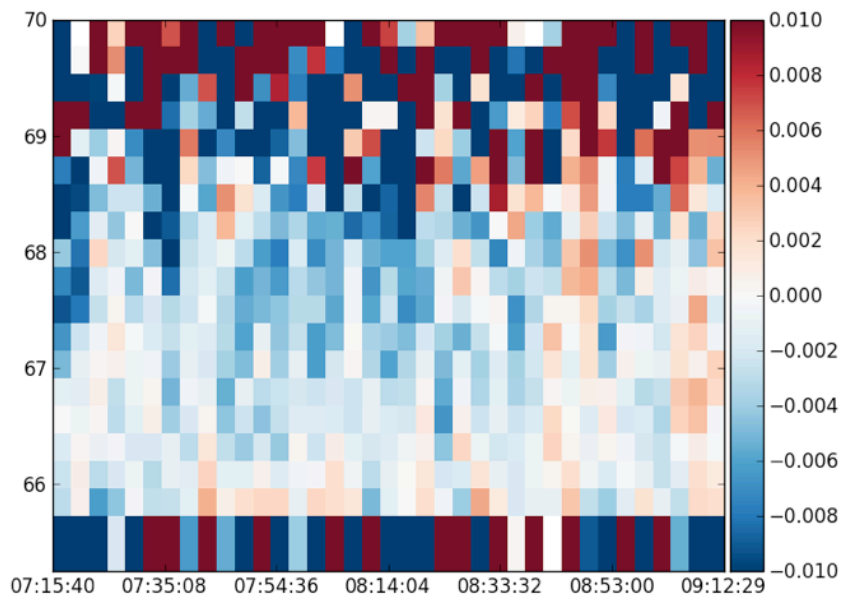


Velocities VS E Fields

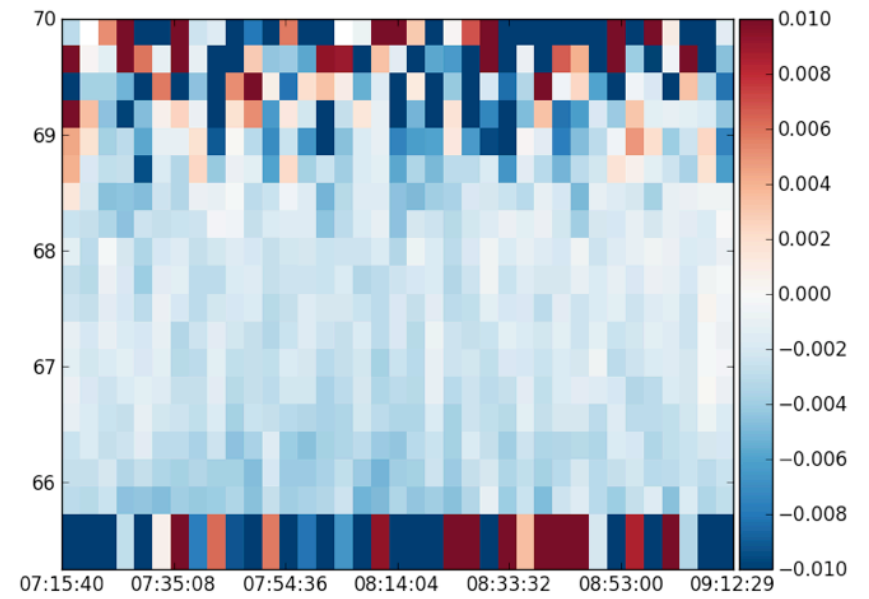


PFISR Electric Fields

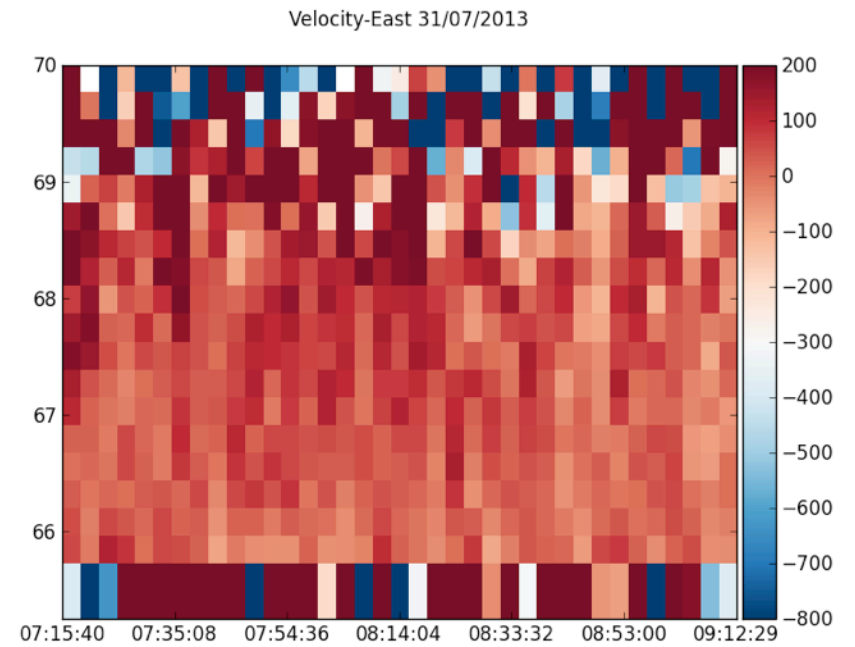
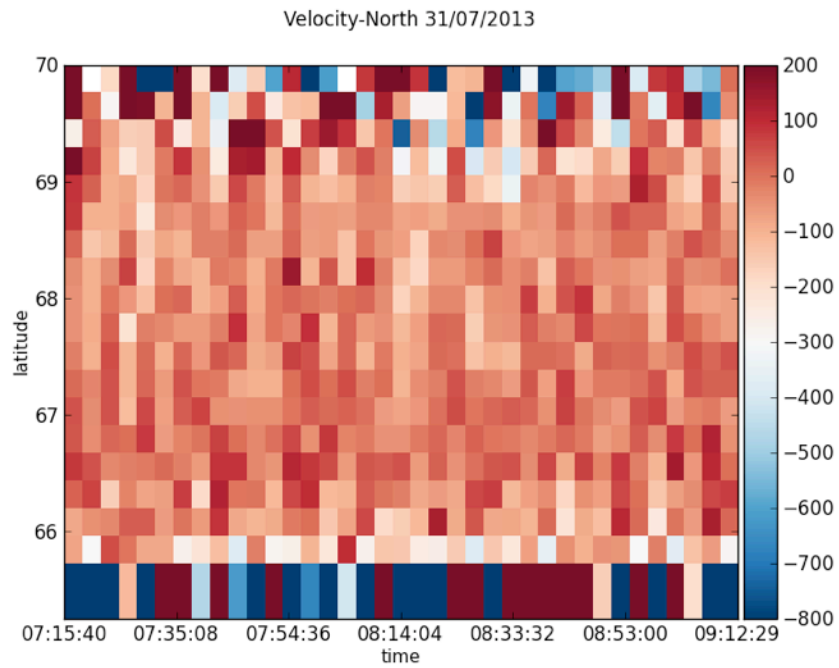
Electric Field-North 31/07/2013

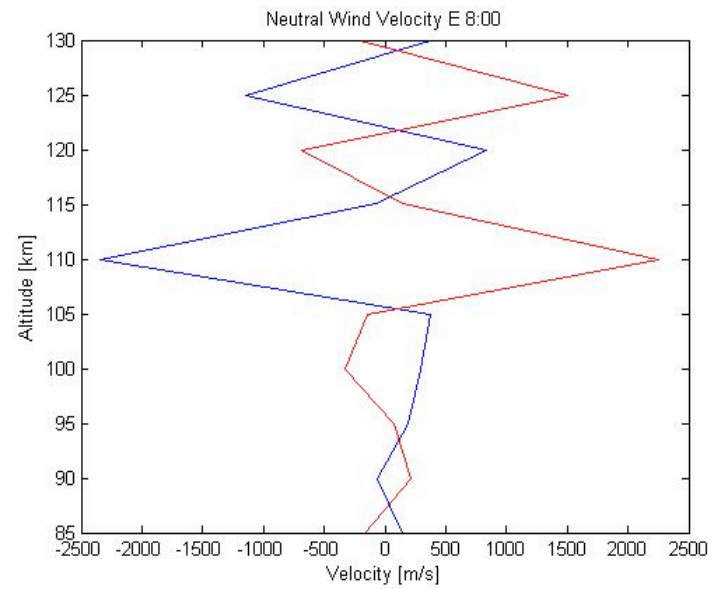
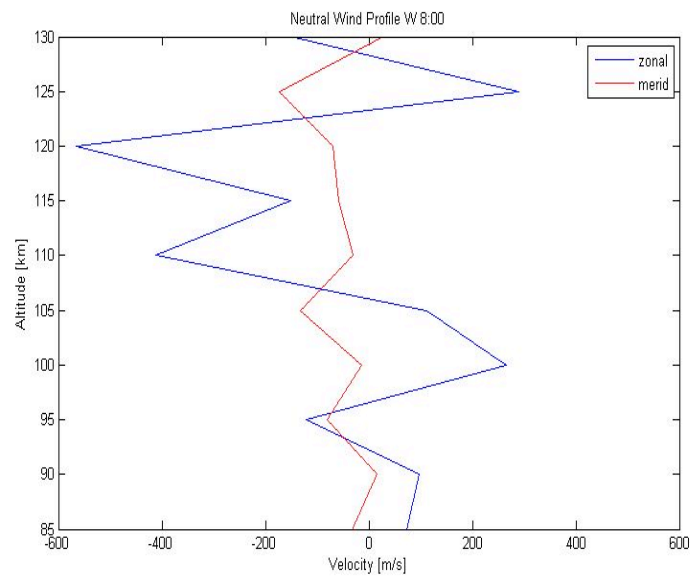
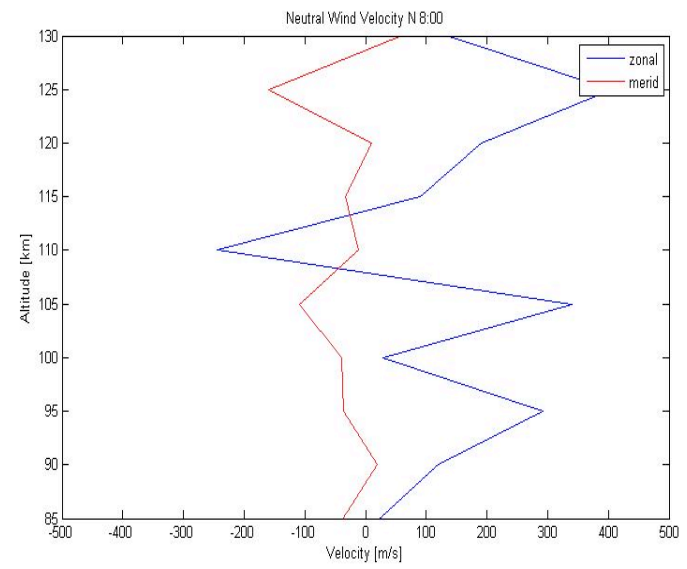
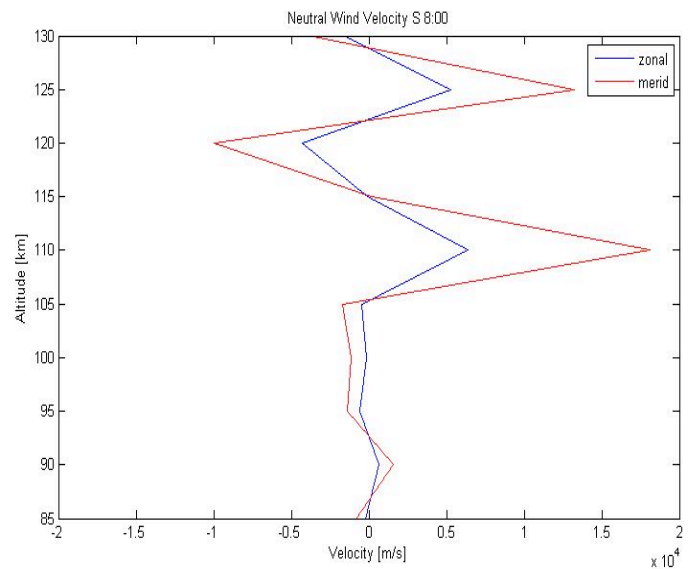


Electric Field-East 31/07/2013



PFISR Velocities





Comparison to HWM

