

Operational Use of Near-Real-Time Sea Surface Directional Wave Spectra Generated from NOAA Scanning Radar Altimeter Range Measurements

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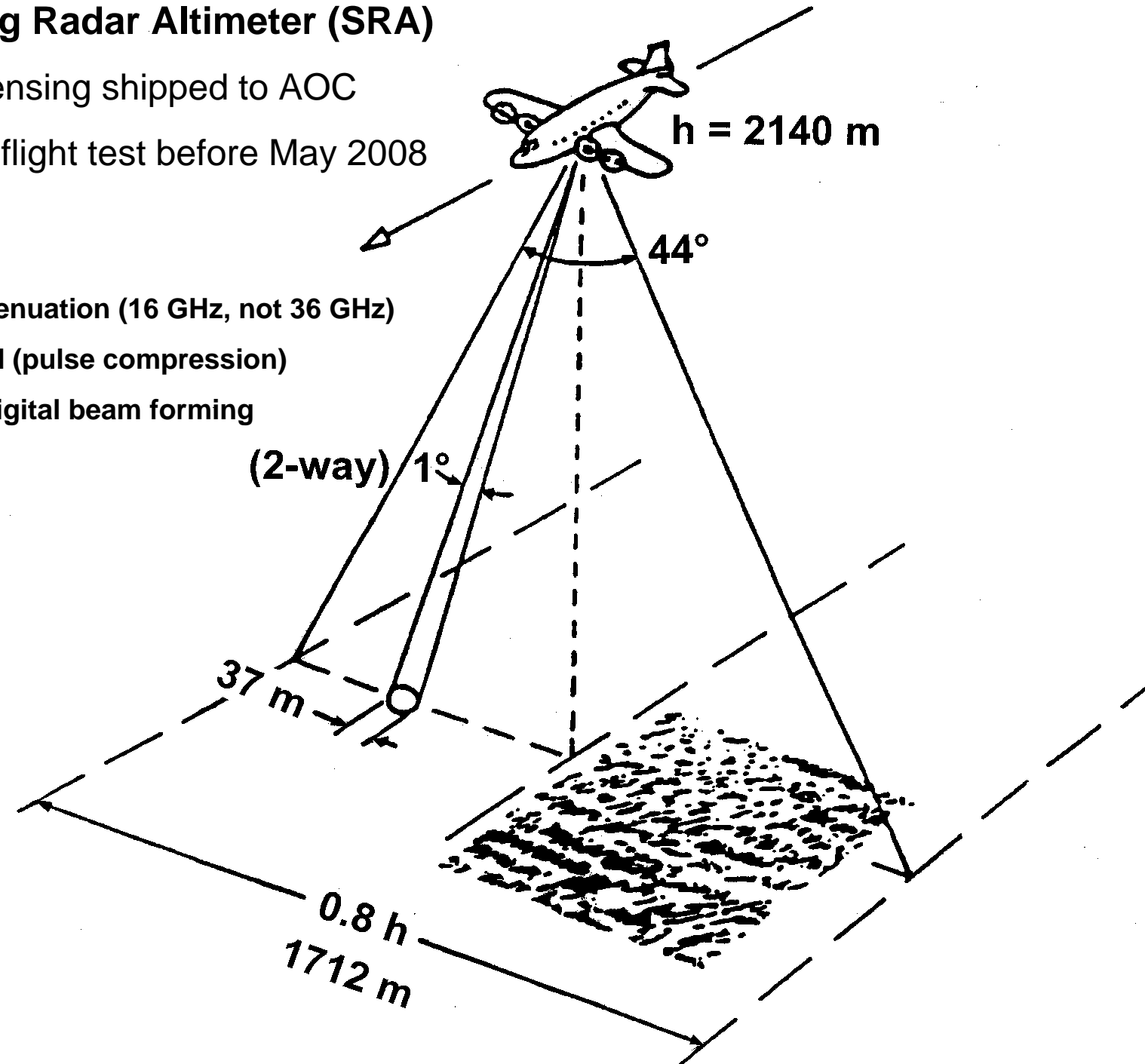
¹presently on assignment for NASA at NOAA Earth System Research Laboratory, Boulder, CO

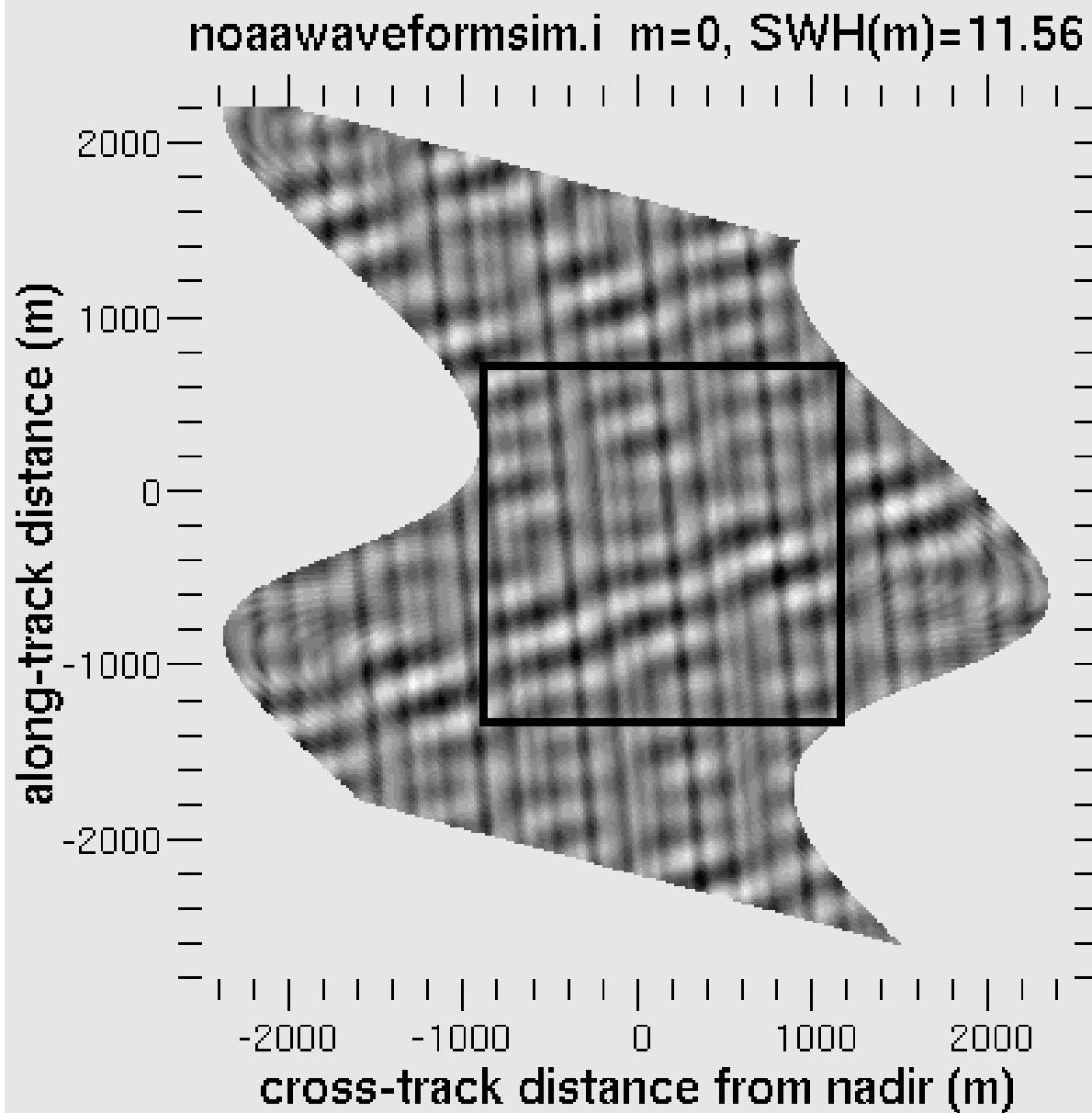
NOAA Scanning Radar Altimeter (SRA)

Oct 2007 - ProSensing shipped to AOC

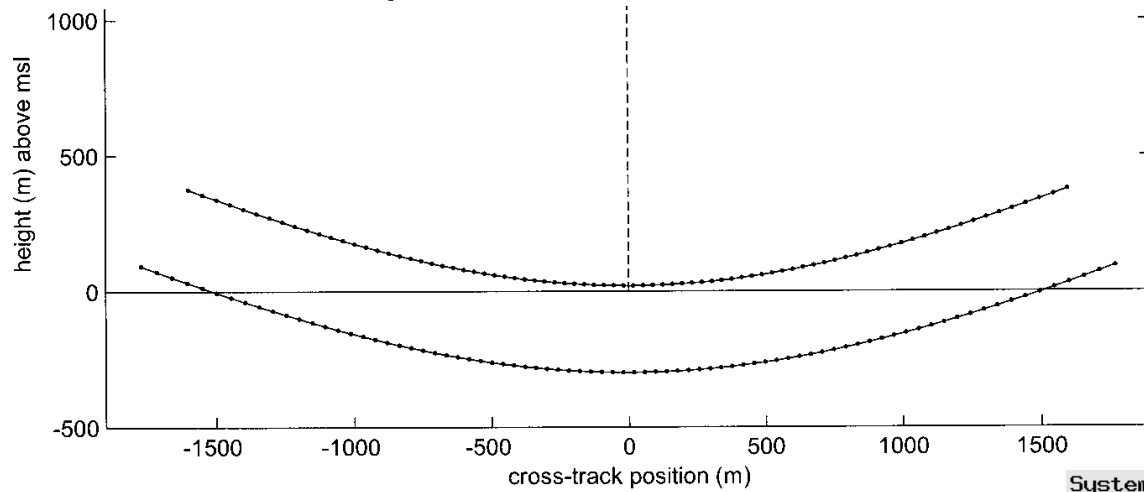
AOC too busy to flight test before May 2008

- Much less rain attenuation (16 GHz, not 36 GHz)
- Higher signal level (pulse compression)
- Better antenna - digital beam forming

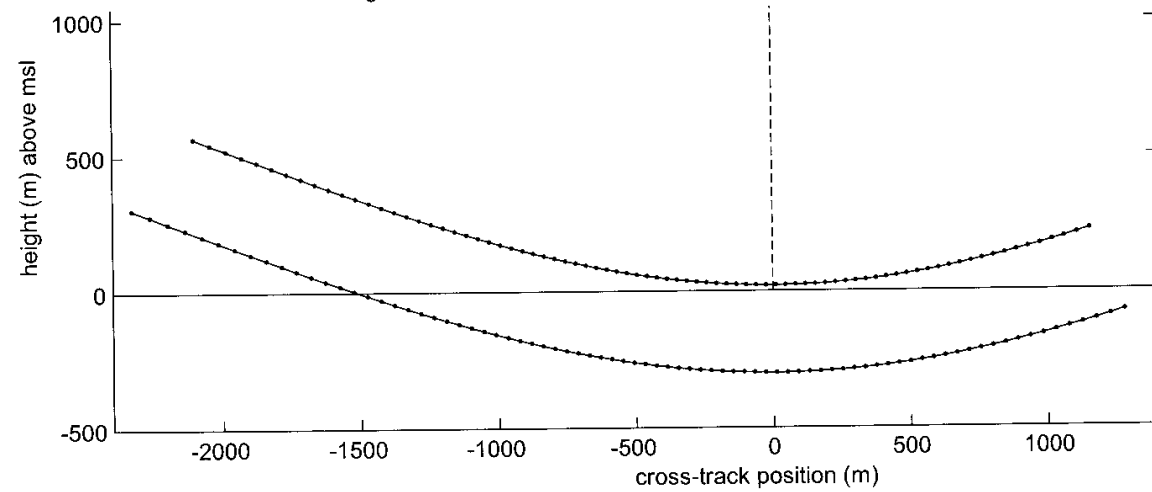




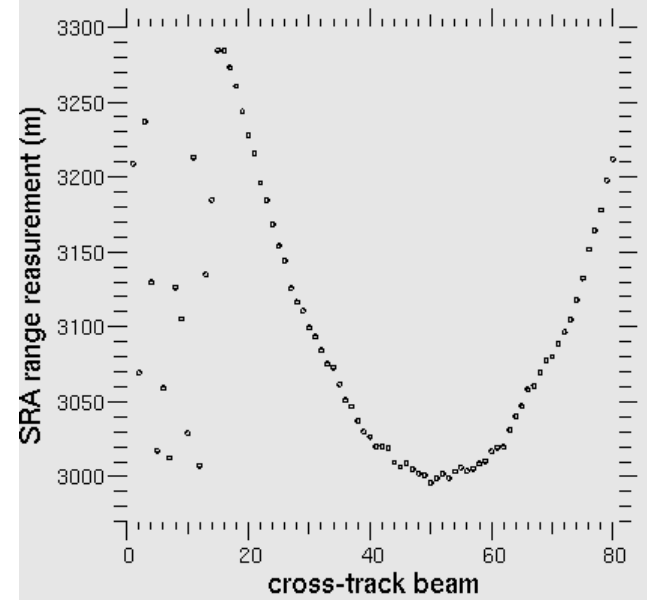
range window for NOAA SRA at 3 km height, roll = 0



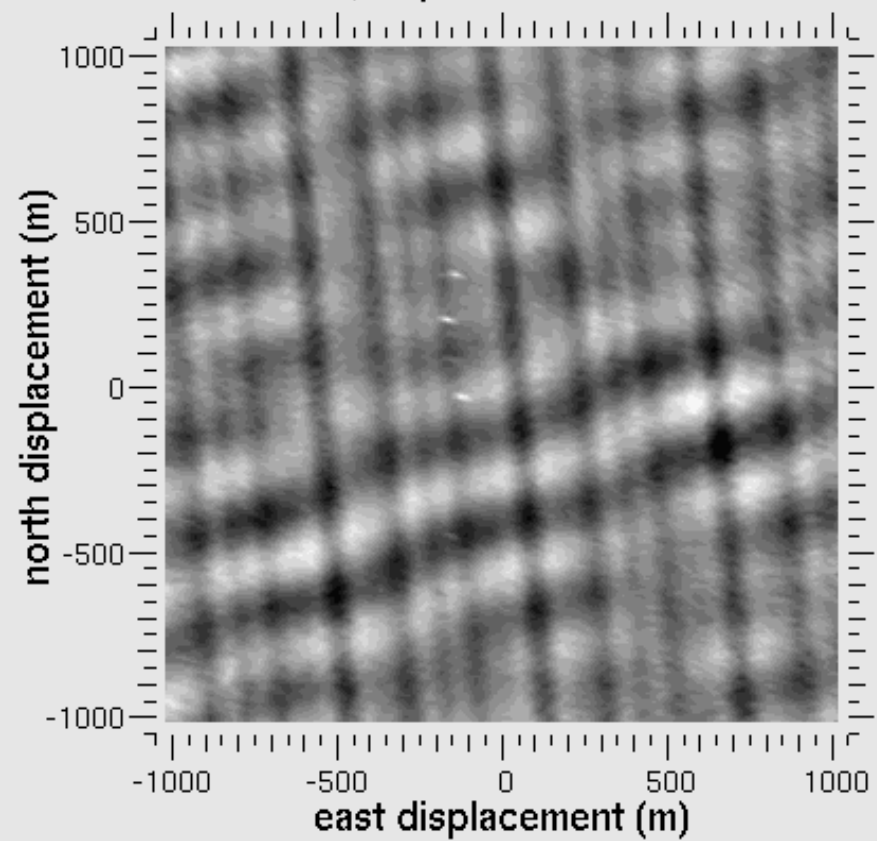
range window for NOAA SRA at 3 km height, roll = 7 deg



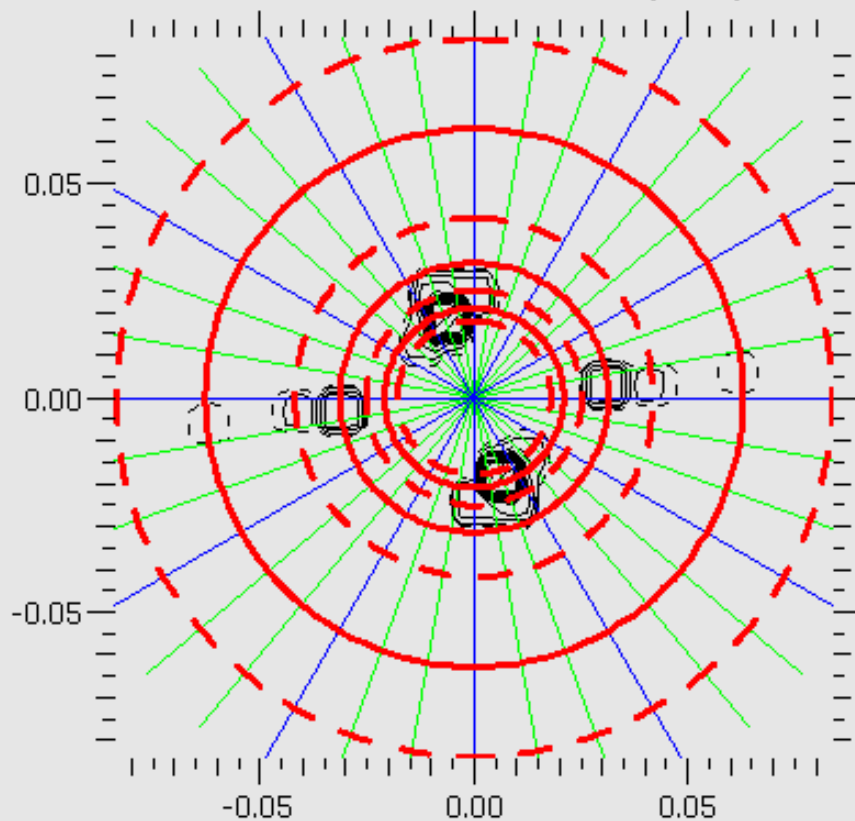
System : 1 (-295.2039, -2800.0000)



m=1, topo SWH = 10.3 m

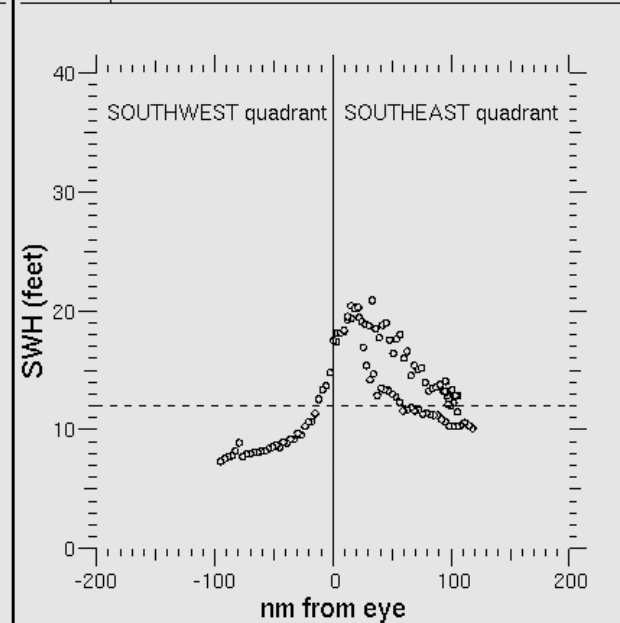
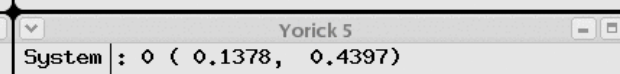
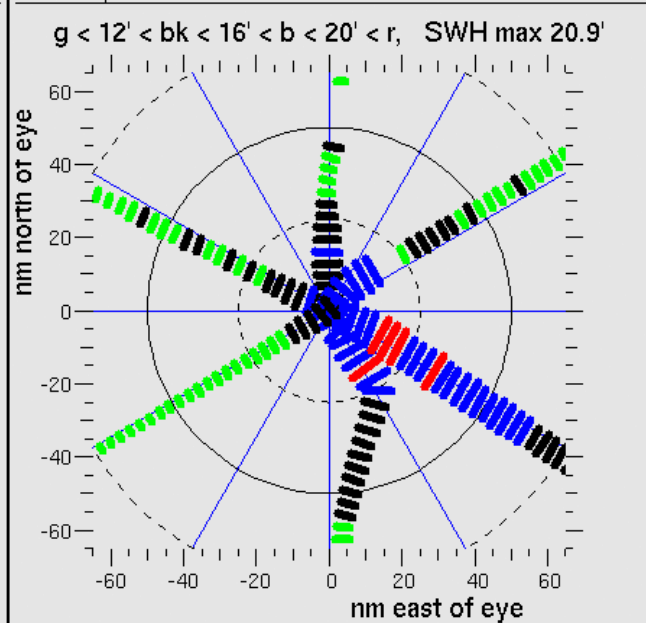
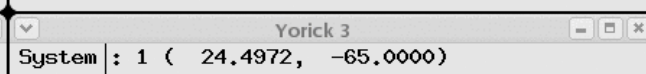
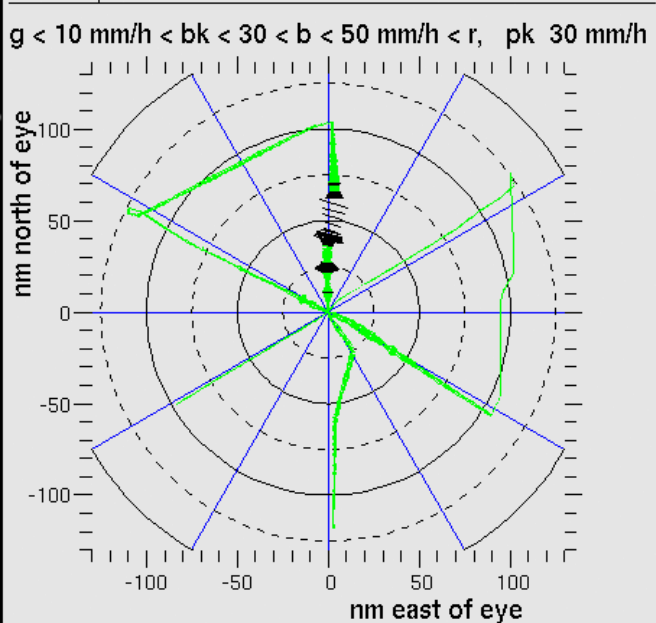
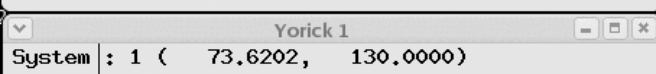
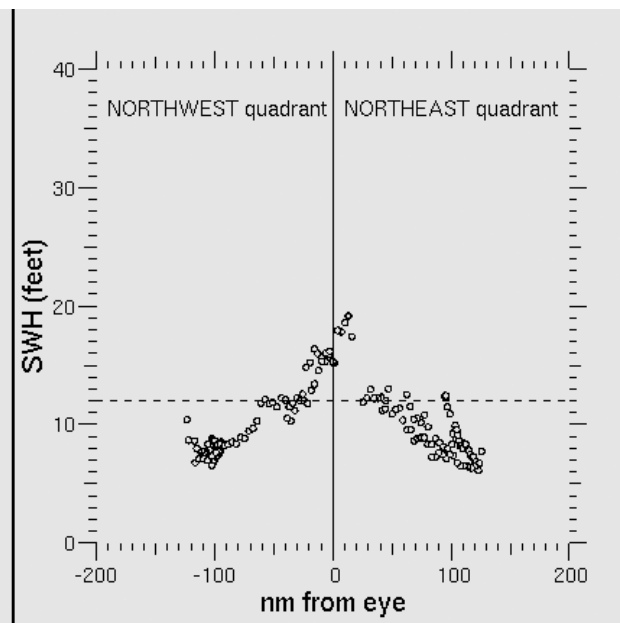
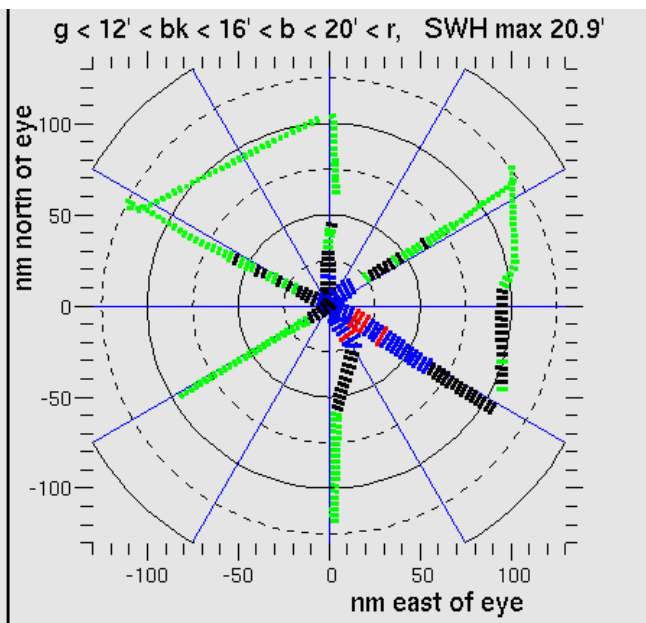
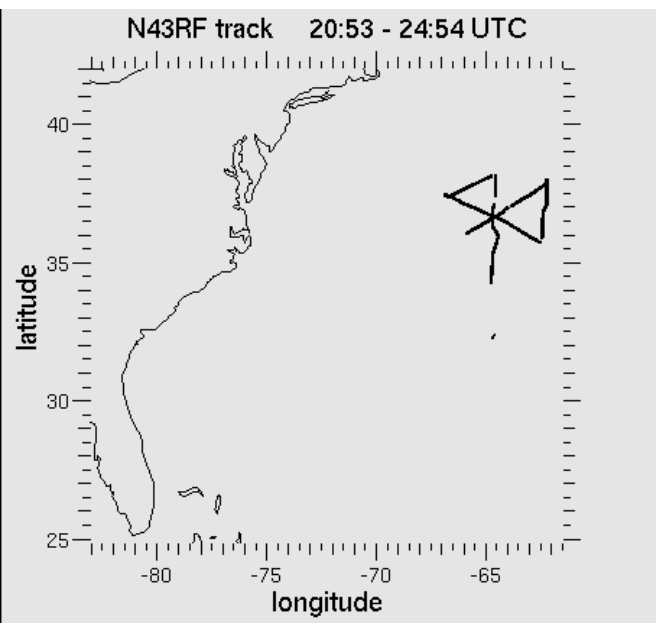


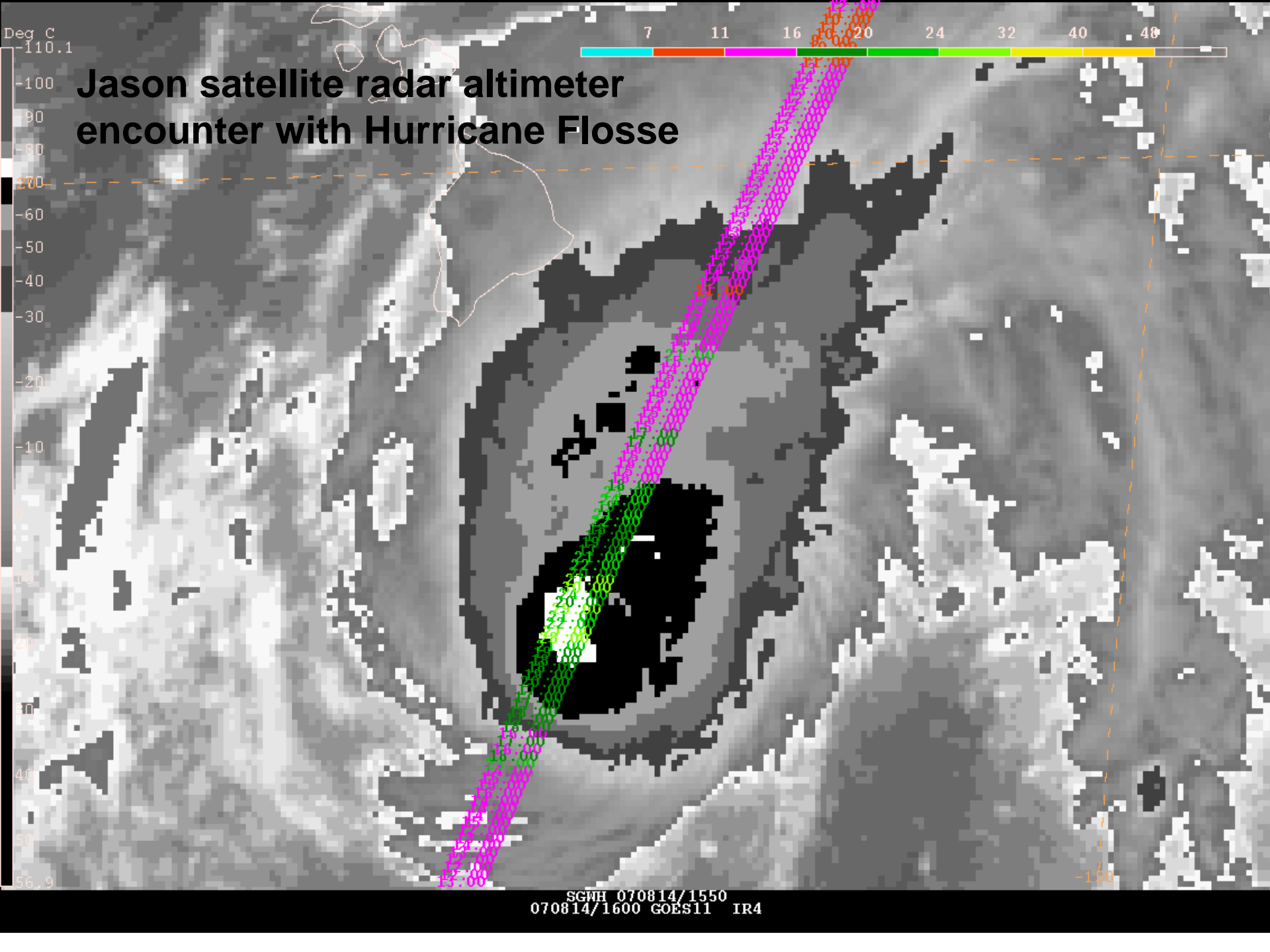
m=1, k3strt=1, swhs=10.3m, specq= 99.9



The new aircraft data communication network AOC is developing will undergo initial testing during the 2008 hurricane season. It will not be available to transmit the high volume SRA directional wave spectra until it is fully operational in the 2009 season.

During the 2008 season flights the low volume SRA header files will be transmitted using an existing aircraft satcom data link to an AOC server which will relay them to NHC.





SRA NAWIPS display based on JASON satellite radar altimeter display

