

Civil Report Card On GPS Performance

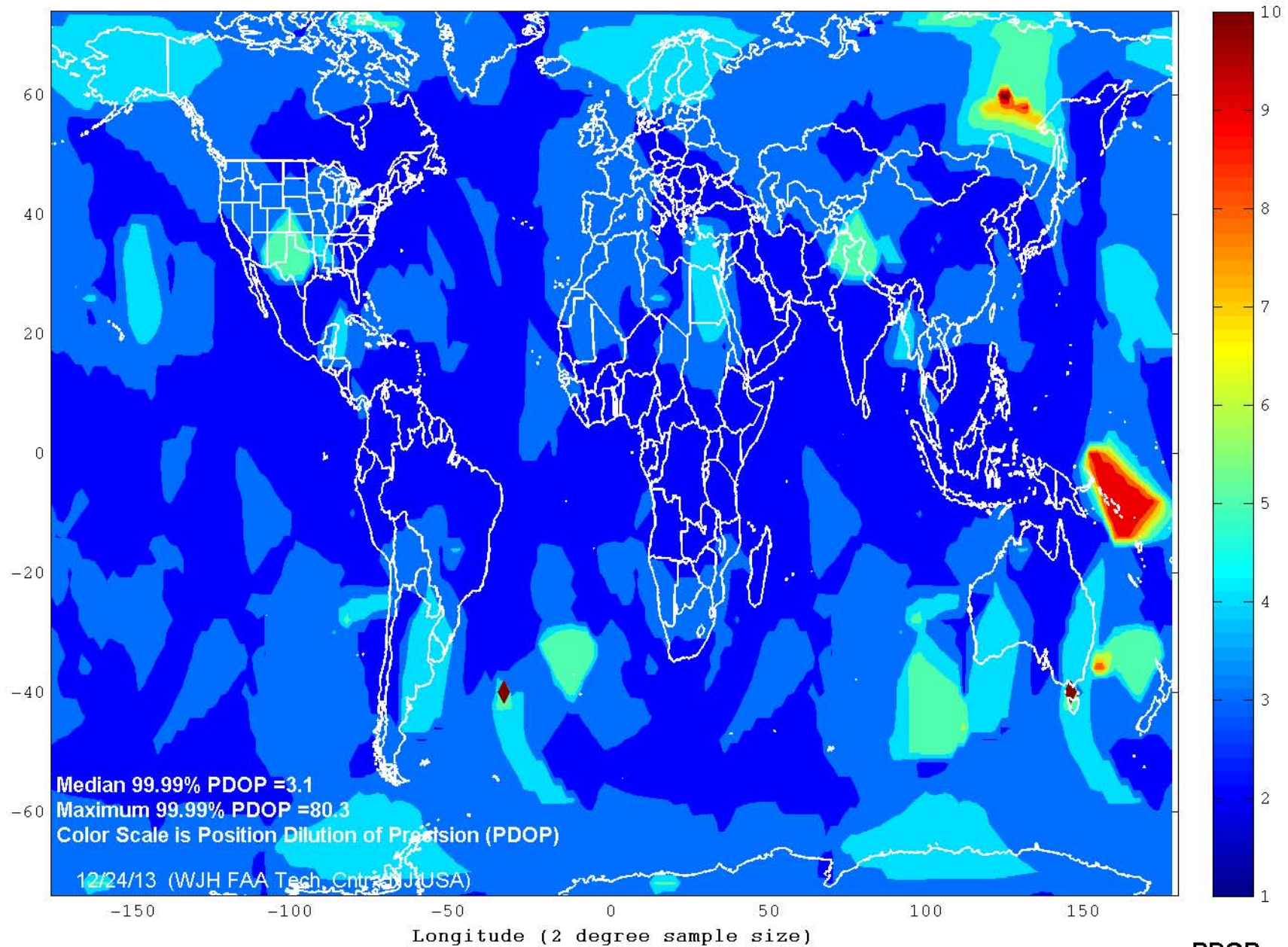
November 2013

Operational Performance Parameter	CY 2012	Oct 2013	Nov 2013	Long term	Short term
Availability Parameters					
<i>Average Number of satellites usable</i>	30.92	30.99	30.91	↓	↓
<i>Average number of satellites usable in primary slots</i>	23.99 (99.95%)	24.00 (100%)	23.93 (99.70%)	↓	↓
<i>Average availability of 6 satellites in view</i>	99.99%	99.99%	99.99%	→	→
99.99% Horizontal DOP					
<i>Area Median</i>	1.3	1.4	1.5	↓	↓
<i>Worst Site</i>	4.0	2.6	35.6	↓	↓
99.99% Vertical DOP					
<i>Area Median</i>	2.4	2.4	2.7	↓	↓
<i>Worst Site</i>	10.2	5.2	71.9	↓	↓
99.99% Position DOP (PDOP)					
<i>Area Median</i>	2.7	2.7	3.1	↓	↓
<i>Worst Site</i>	10.6	5.7	80.3	↓	↓
100% RAIM Availability (HAL=185m)					
<i>NPA Service Area (NSA)</i>	83.70%	68.53%	22.42%	↓	↓
<i>World</i>	85.37%	58.82%	26.22%	↓	↓
Accuracy Parameters					
RMS Single Frequency User Range Error					
<i>Constellation Median</i>	2.00	2.31	2.59	↓	↓
<i>Worst Satellite</i>	2.38	3.31	4.37	↓	↓
95% Horizontal Error					
<i>Area Median</i>	2.88	2.84	2.93	↓	↓
<i>Worst Site</i>	8.26	7.56	8.68	↓	↓
<i>Availability (% <4.5m (historical 3-sigma))</i>	99.89%	99.84%	97.79%	↓	↓
95% Vertical Error					
<i>Area Median</i>	4.93	6.43	7.74	↓	↓
<i>Worst Site</i>	9.21	7.86	9.82	↓	↓
<i>Availability (% < 9m (historical 3-sigma))</i>	99.89%	99.18%	97.56%	↓	↓

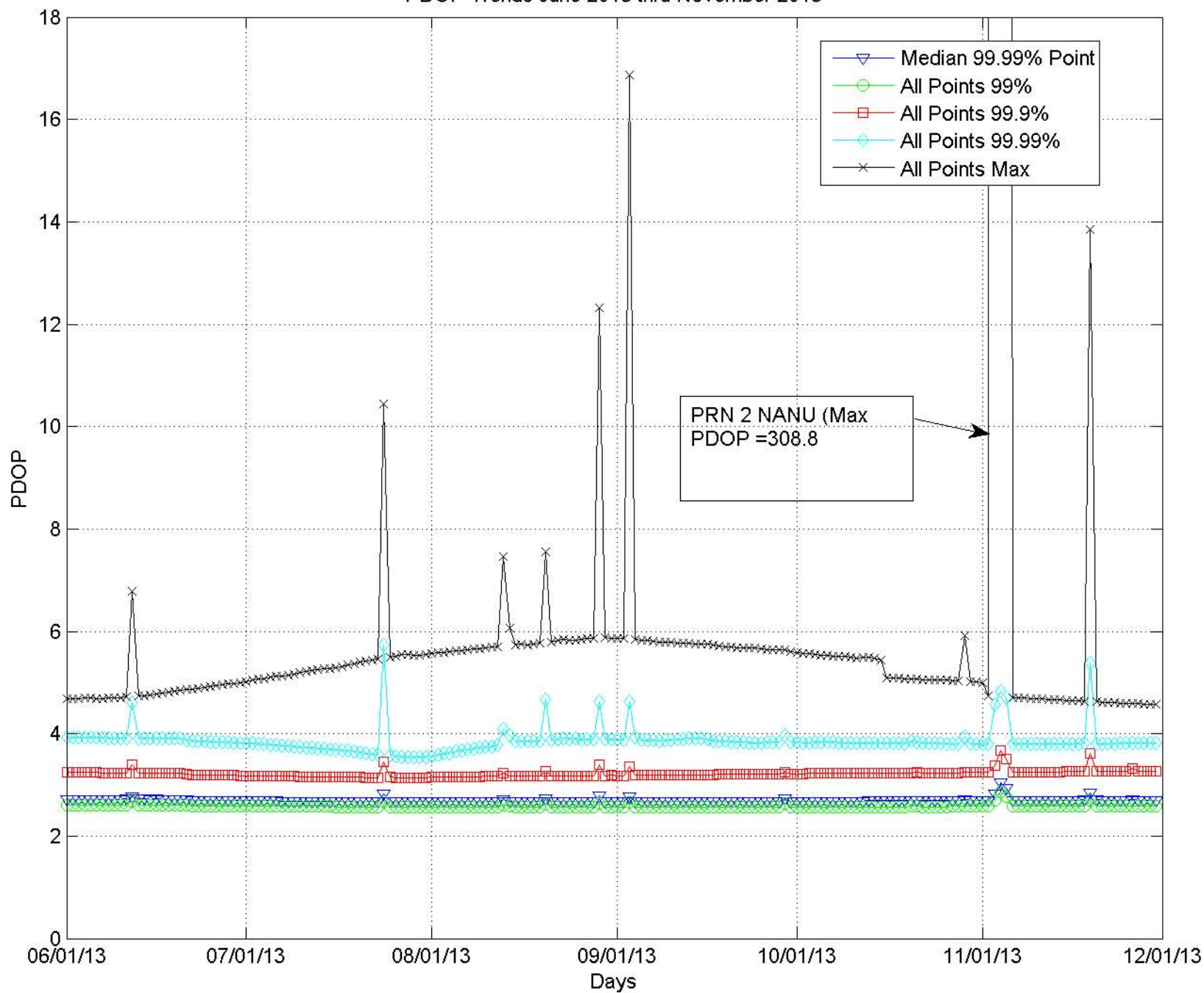
Key: ↑ improving ↓ worsening → no significant change

Long Term is current month vs. prior 24 months; Short Term is current month vs. prior month

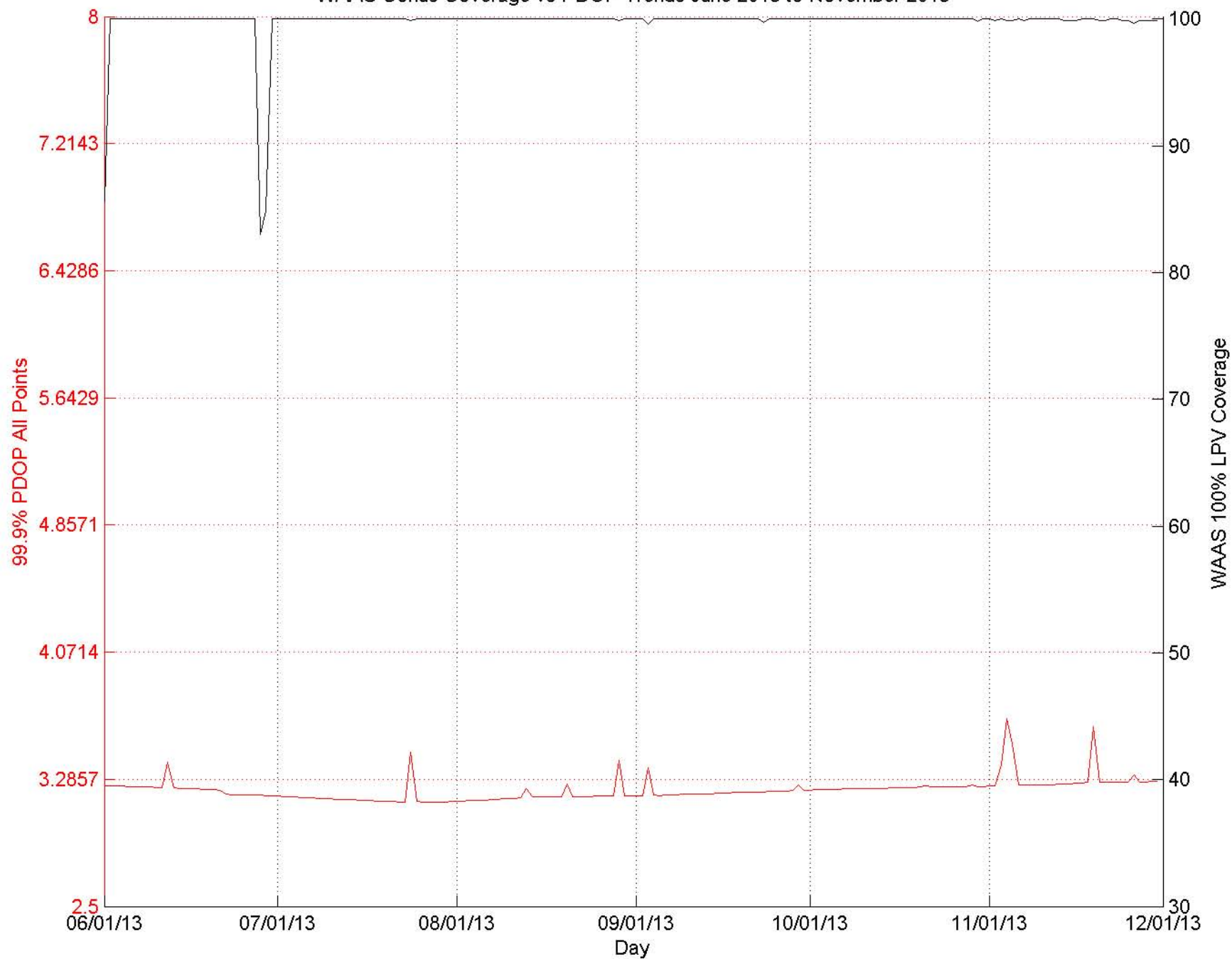
GPS World PDOP 99.99% Index November 2013



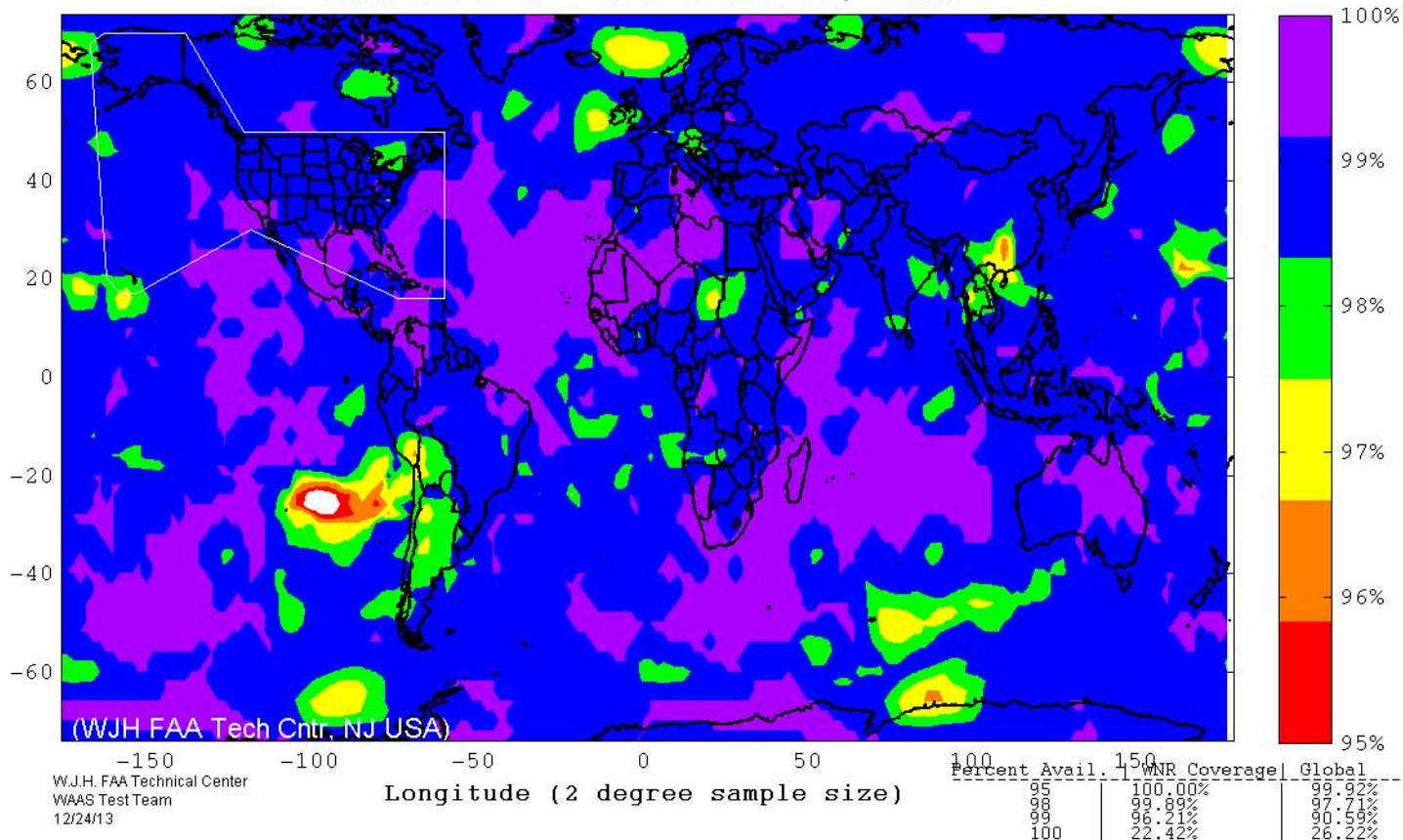
PDOP Trends June 2013 thru November 2013



WAAS Conus Coverage vs PDOP Trends June 2013 to November 2013



SPS RAIM RNP 0.1 (HAL = 185m) Availability
 FD Only, SA Off, without Baro-Aiding
 November 1 - November 30, 2013



SPS RAIM RNP 0.3 (HAL = 556m) Availability
 FD Only, SA Off, without Baro-Aiding
 November 1 - November 30, 2013

