

Civil Report Card On GPS Performance

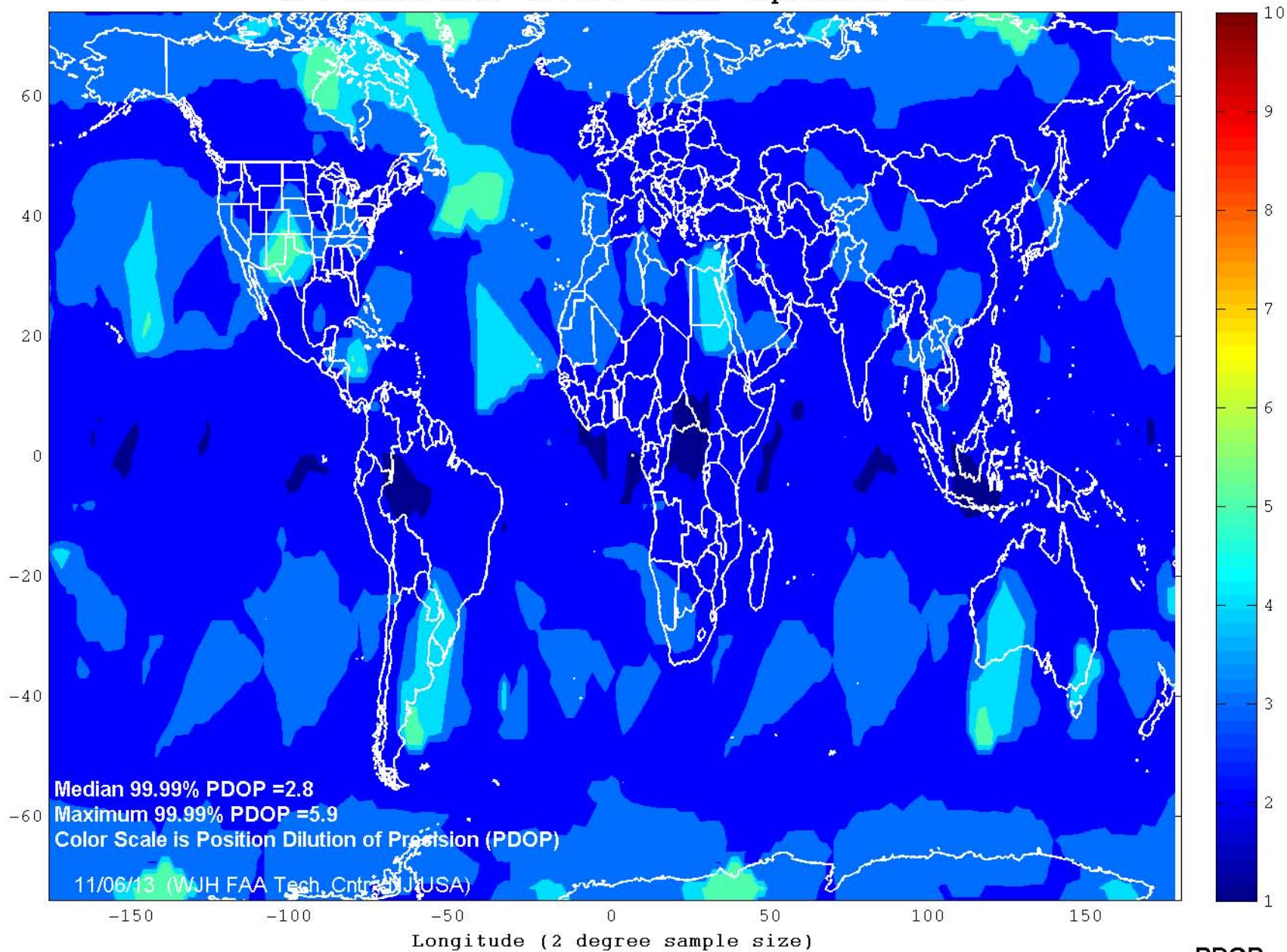
September 2013

Operational Performance Parameter	CY 2012	Aug 2013	Sept 2013	Long term	Short term
Availability Parameters					
<i>Average Number of satellites usable</i>	30.92	30.97	30.97	↑	→
<i>Average number of satellites usable in primary slots</i>	23.99 (99.95%)	23.98 (99.92%)	23.99 (99.96%)	↑	↑
<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	1.4	↓	→
<i>Worst Site</i>	4.0	3.6	2.7	↑	↑
99.99% Vertical DOP					
<i>Area Median</i>	2.4	2.5	2.5	↓	→
<i>Worst Site</i>	10.2	7.0	5.5	↑	↑
99.99% Position DOP (PDOP)					
<i>Area Median</i>	2.7	2.8	2.8	↓	→
<i>Worst Site</i>	10.6	7.4	5.9	↑	↑
100% RAIM Availability (HAL=185m)					
<i>NPA Service Area (NSA)</i>	83.70%	26.95%	32.00%	↓	↑
<i>World</i>	85.37%	40.21%	49.36%	↓	↑
Accuracy Parameters					
RMS Single Frequency User Range Error					
<i>Constellation Median</i>	2.00	1.90	1.89	↑	↑
<i>Worst Satellite</i>	2.38	2.40	2.26	↑	↑
95% Horizontal Error					
<i>Area Median</i>	2.88	2.64	2.60	↑	↑
<i>Worst Site</i>	8.26	5.16	6.04	↑	↓
<i>Availability (% <4.5m (historical 3-sigma))</i>	99.89%	99.95%	99.96%	↑	↑
95% Vertical Error					
<i>Area Median</i>	4.93	4.30	4.16	↑	↑
<i>Worst Site</i>	9.21	6.86	8.05	↑	↓
<i>Availability (% < 9m (historical 3-sigma))</i>	99.89%	99.98%	99.99%	↑	↑

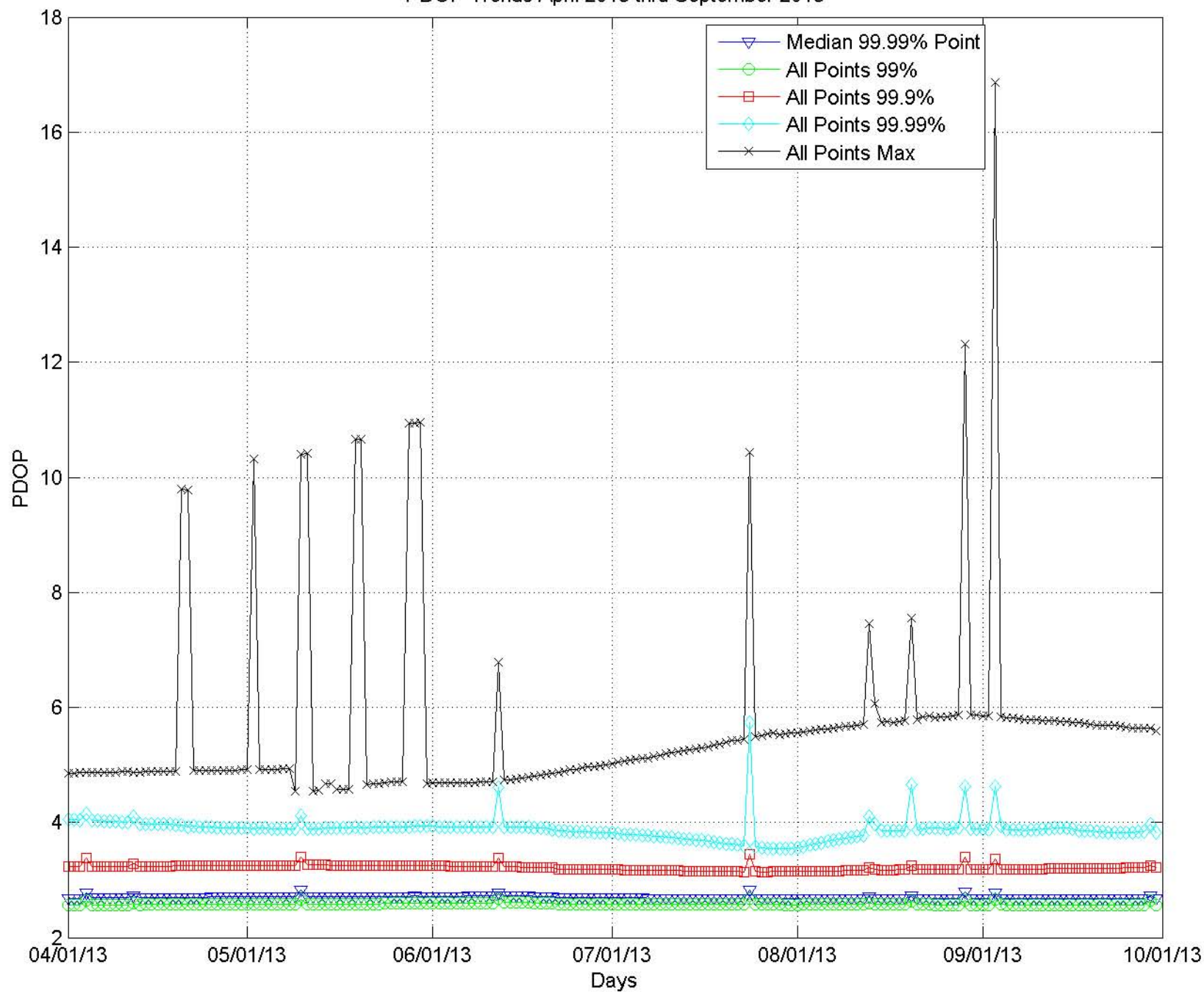
Key: ↑ improving ↓ worsening → no significant change

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

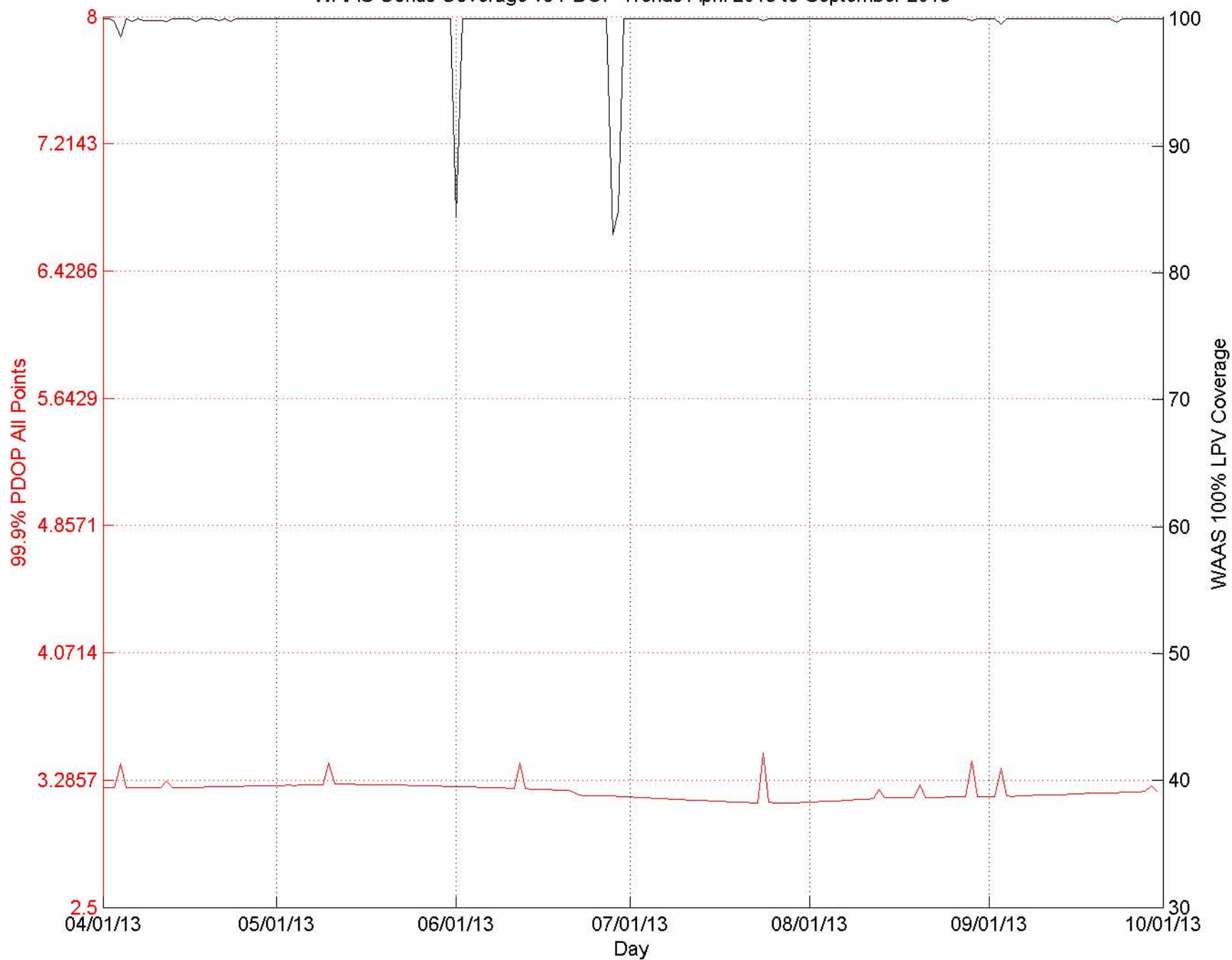
GPS World PDOP 99.99% Index September 2013



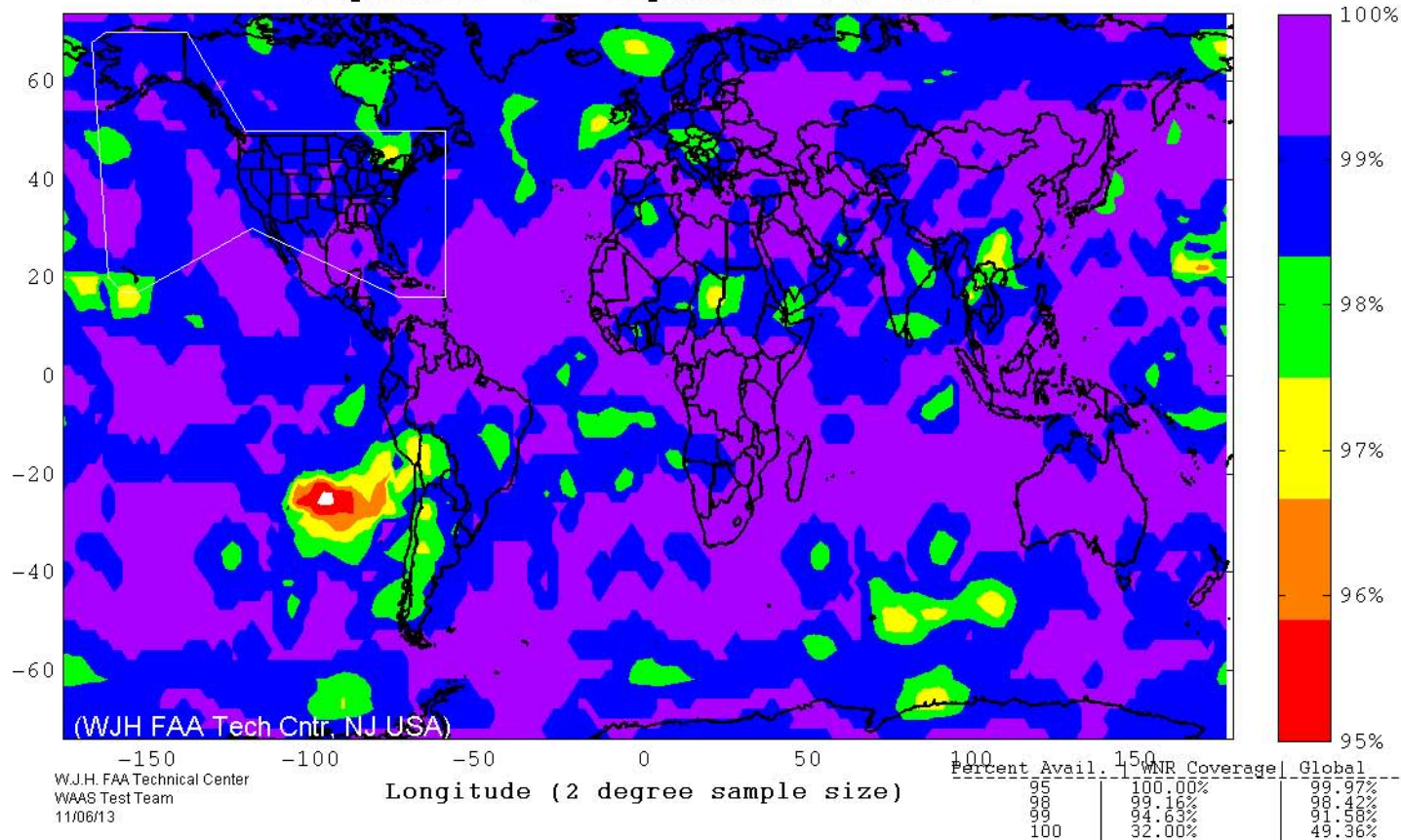
PDOP Trends April 2013 thru September 2013



WAAS Conus Coverage vs PDOP Trends April 2013 to September 2013



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



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

