

Civil Report Card On GPS Performance

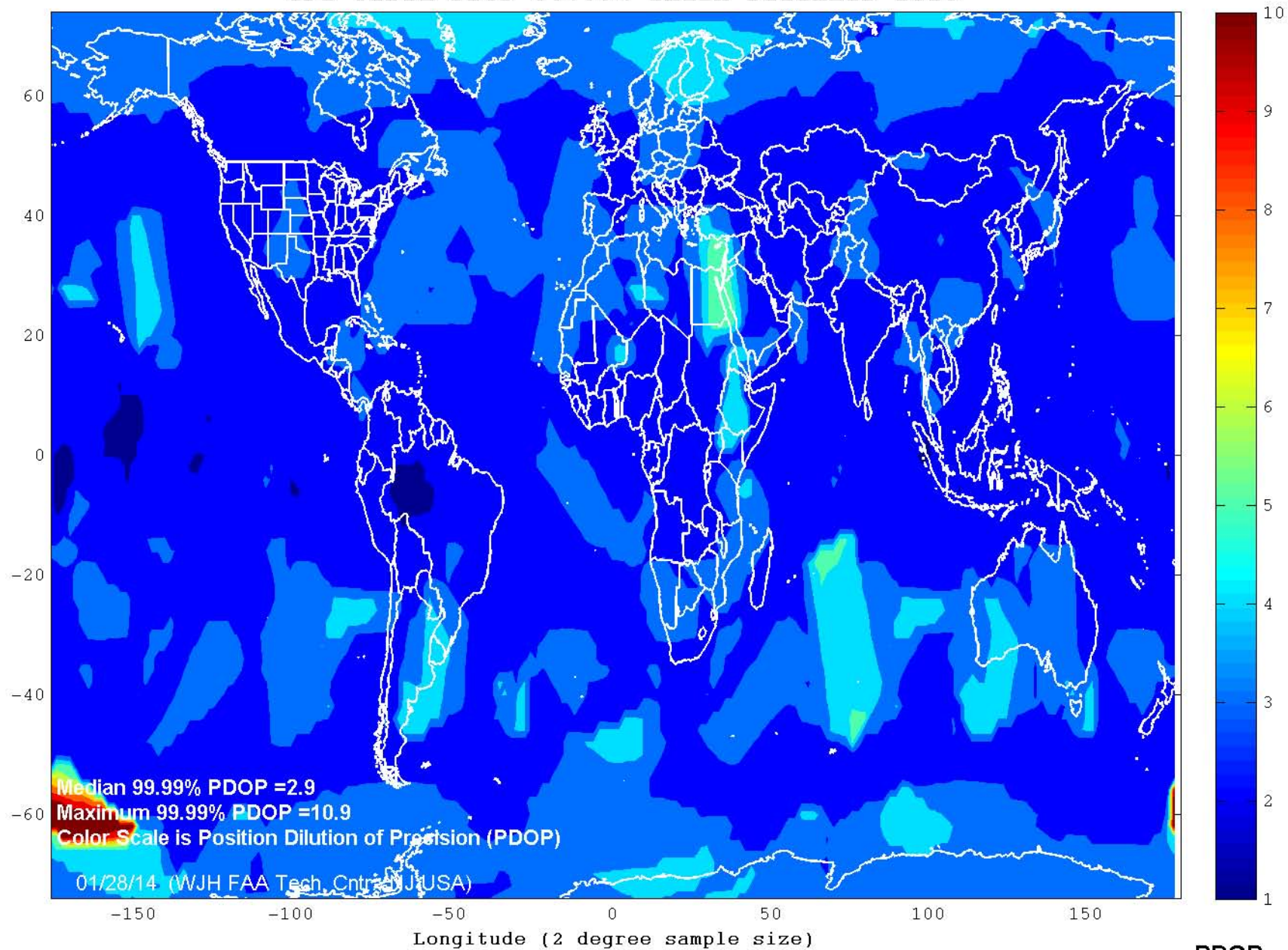
December 2013

Operational Performance Parameter	CY 2012	Nov 2013	Dec 2013	Long term	Short term
Availability Parameters					
<i>Average Number of satellites usable</i>	30.92	30.91	30.98	↑	↑
<i>Average number of satellites usable in primary slots</i>	23.99 (99.95%)	23.93 (99.70%)	23.98 (99.94%)	↓	↑
<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	1.5	1.4	↓	↑
<i>Worst Site</i>	4.0	35.6	4.7	↓	↑
99.99% Vertical DOP					
<i>Area Median</i>	2.4	2.7	2.5	↓	↑
<i>Worst Site</i>	10.2	71.9	10.2	→	↑
99.99% Position DOP (PDOP)					
<i>Area Median</i>	2.7	3.1	2.8	↓	↑
<i>Worst Site</i>	10.6	80.3	10.9	↓	↑
100% RAIM Availability (HAL=185m)					
<i>NPA Service Area (NSA)</i>	83.70%	22.42%	63.47%	↓	↑
<i>World</i>	85.37%	26.22%	41.62%	↓	↑
Accuracy Parameters					
RMS Single Frequency User Range Error					
<i>Constellation Median</i>	2.00	2.59	2.58	↓	↑
<i>Worst Satellite</i>	2.38	4.37	4.35	↓	↑
95% Horizontal Error					
<i>Area Median</i>	2.88	2.93	2.77	↑	↑
<i>Worst Site</i>	8.26	8.68	7.86	↑	↑
<i>Availability (% <4.5m (historical 3-sigma))</i>	99.89%	97.79%	98.55%	↓	↑
95% Vertical Error					
<i>Area Median</i>	4.93	7.74	7.88	↓	↑
<i>Worst Site</i>	9.21	9.82	10.18	↓	↑
<i>Availability (% < 9m (historical 3-sigma))</i>	99.89%	97.56%	97.63%	↓	↑

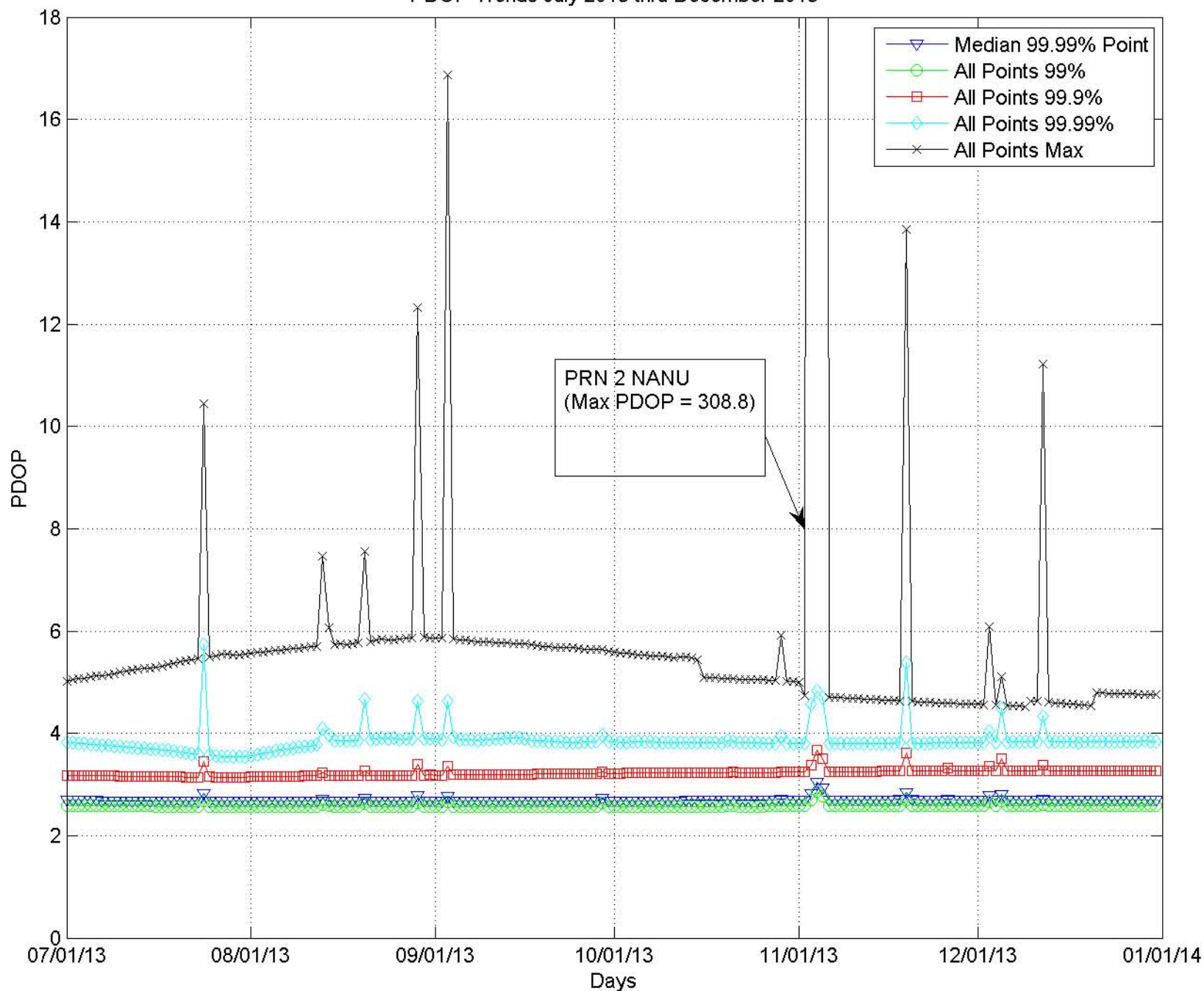
Key: ↑ improving ↓ worsening → no significant change

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

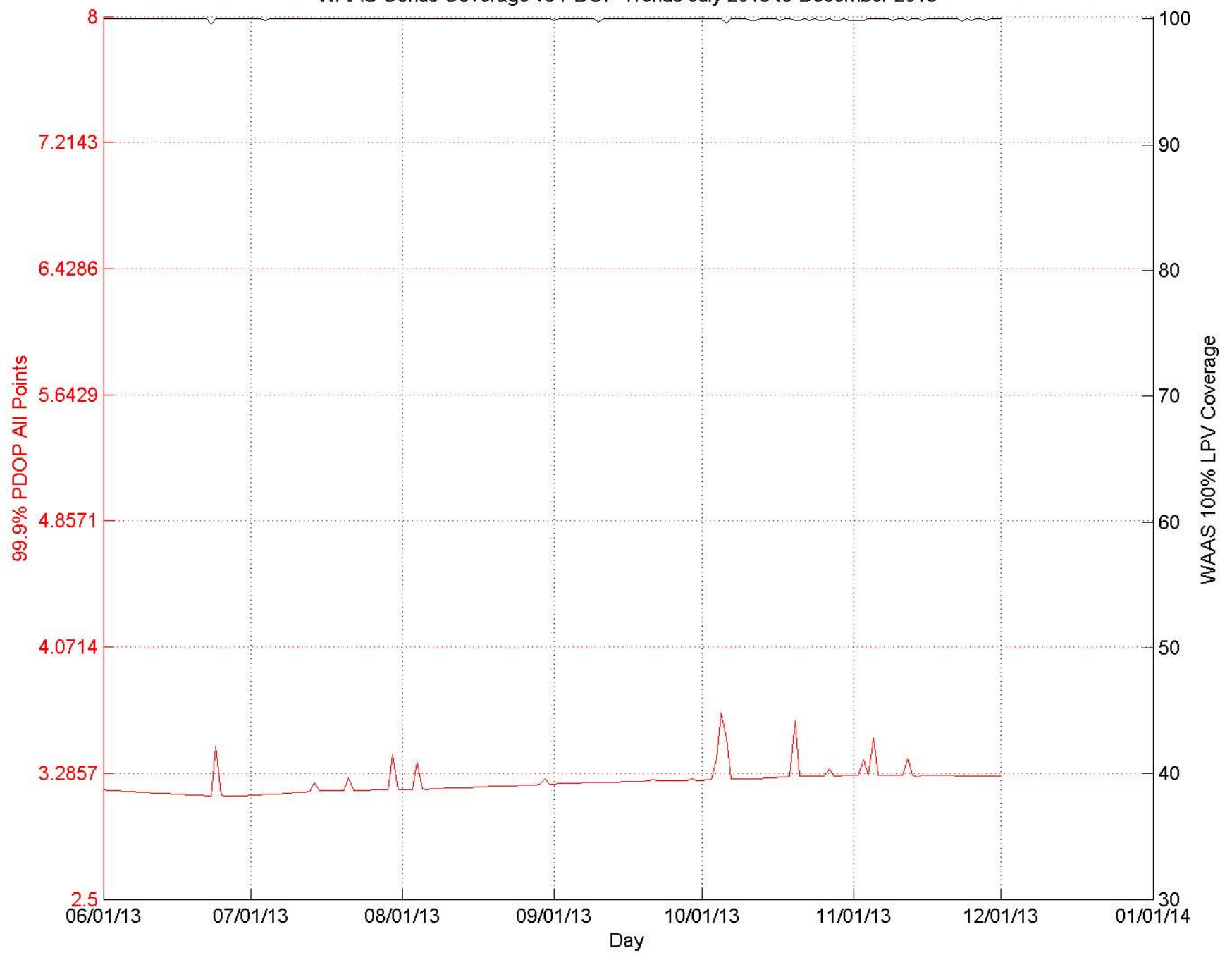
GPS World PDOP 99.99% Index December 2013



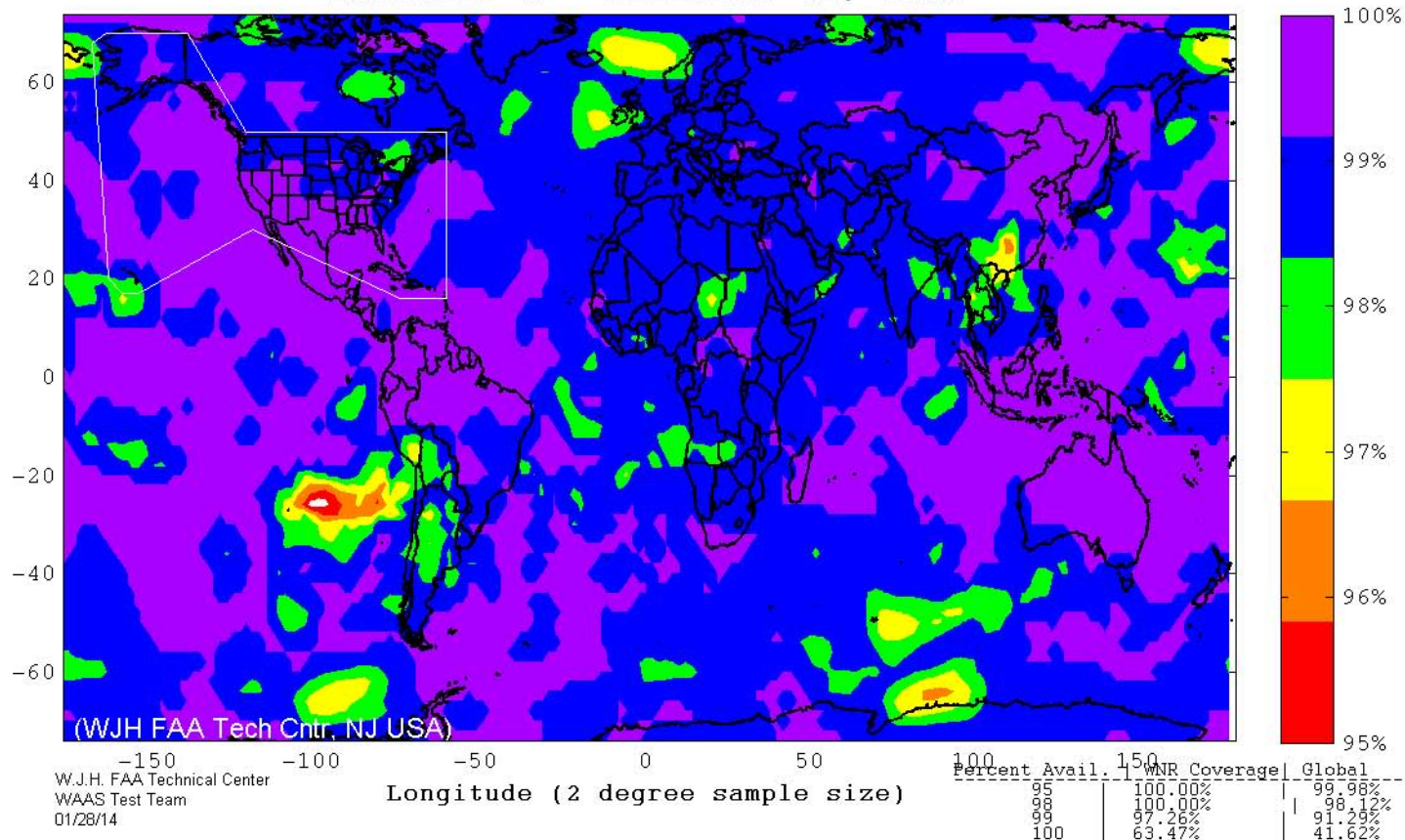
PDOP Trends July 2013 thru December 2013



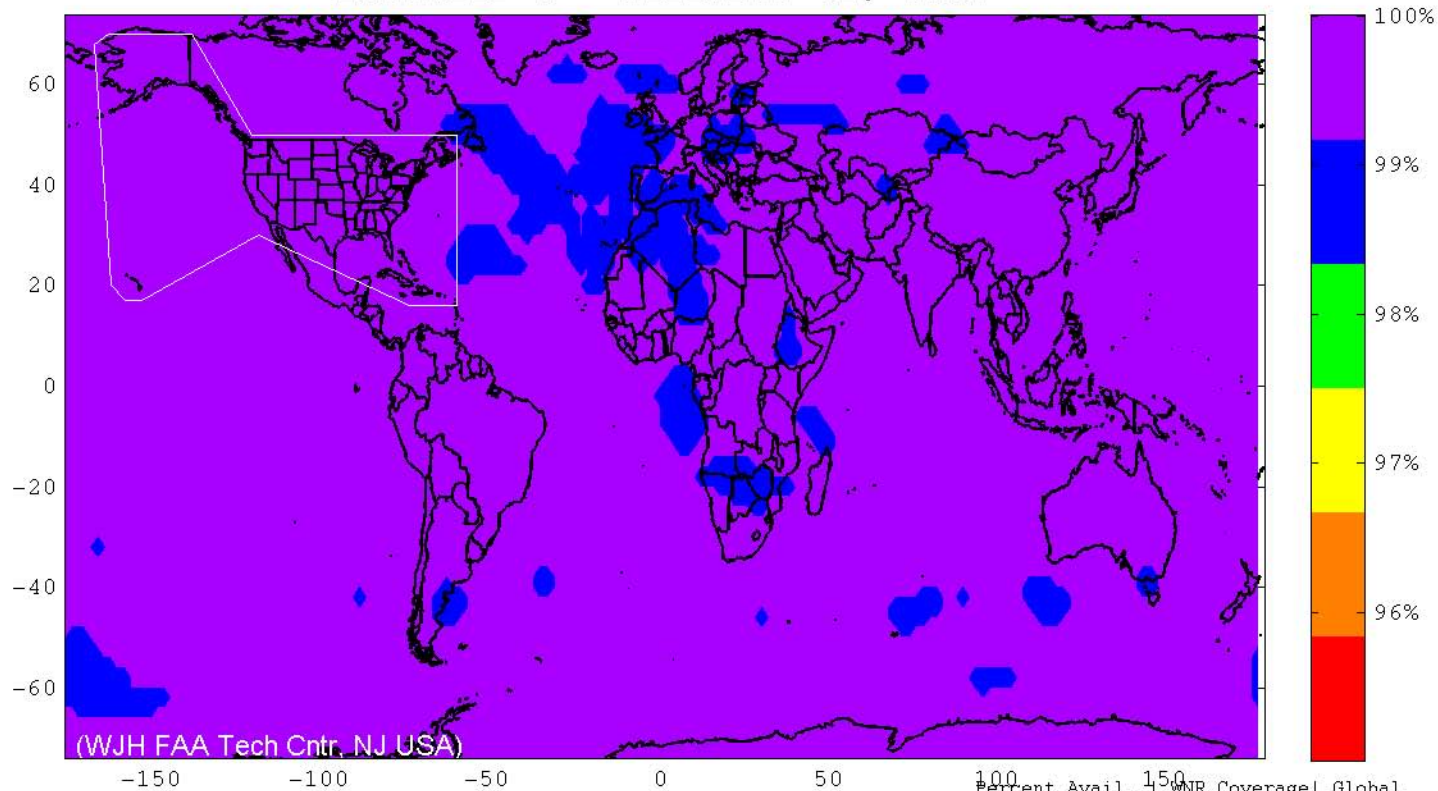
WAAS Conus Coverage vs PDOP Trends July 2013 to December 2013



SPS RAIM RNP 0.1 (HAL = 185m) Availability
 FD Only, SA Off, without Baro-Aiding
 December 1 - December 31, 2013



SPS RAIM RNP 0.3 (HAL = 556m) Availability
 FD Only, SA Off, without Baro-Aiding
 December 1 - December 31, 2013



W.J.H. FAA Technical Center
 WAAS Test Team
 01/28/14

Longitude (2 degree sample size)

Percent Avail.	WNR Coverage	Global
95	100.00%	100.00%
98	100.00%	100.00%
99	100.00%	100.00%
100	99.68%	94.86%