

Civil Report Card On GPS Performance

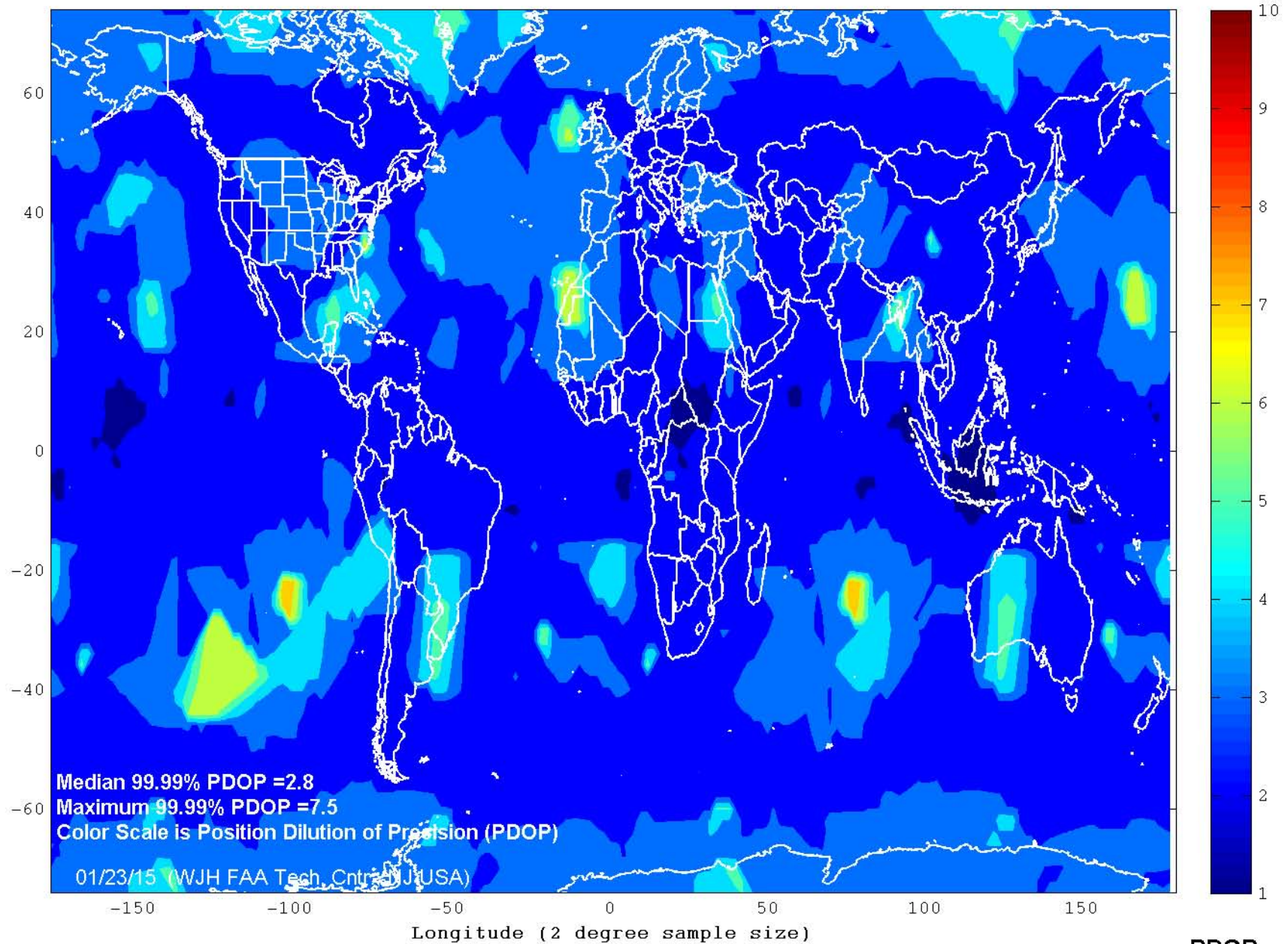
December 2014

Operational Performance Parameter	CY 2013	Nov 2014	Dec 2014	Long term	Short term
Availability Parameters					
<i>Average Number of satellites usable</i>	30.97	29.99	30.59	↓	↑
<i>Average number of satellites usable in primary slots</i>	23.985 (99.94%)	24.00 (100%)	23.98 (99.93%)	↓	↓
<i>Average availability of 6 satellites in view</i>	99.99%	99.99%	99.99%	→	→
99.99% Horizontal DOP					
<i>Area Median</i>	1.4	1.4	1.4	→	→
<i>Worst Site</i>	35.6	2.6	5.1	↑	↓
99.99% Vertical DOP					
<i>Area Median</i>	2.4	2.5	2.5	↓	→
<i>Worst Site</i>	71.9	6.8	7.3	↑	↓
99.99% Position DOP (PDOP)					
<i>Area Median</i>	2.8	2.8	2.8	→	→
<i>Worst Site</i>	80.3	7.5	7.5	↑	→
100% RAIM Availability (HAL=185m)					
<i>NPA Service Area (NSA)</i>	73.24%	67.16%	48.53%	↓	↓
<i>World</i>	65.97%	56.97%	48.27%	↓	↓
Accuracy Parameters					
RMS Single Frequency User Range Error					
<i>Constellation Median</i>	2.06	2.58	2.38	↓	↑
<i>Worst Satellite</i>	4.37	4.08	3.65	↑	↑
95% Horizontal Error					
<i>Area Median</i>	2.78	3.29	3.13	↓	↑
<i>Worst Site</i>	8.07	9.25	8.32	↓	↑
<i>Availability (% <4.5m (historical 3-sigma))</i>	98.68%	96.64%	97.55%	↓	↑
95% Vertical Error					
<i>Area Median</i>	5.23	7.44	6.87	↓	↑
<i>Worst Site</i>	9.25	9.85	9.18	↑	↑
<i>Availability (% < 9m (historical 3-sigma))</i>	99.37%	98.03%	98.66%	↓	↑

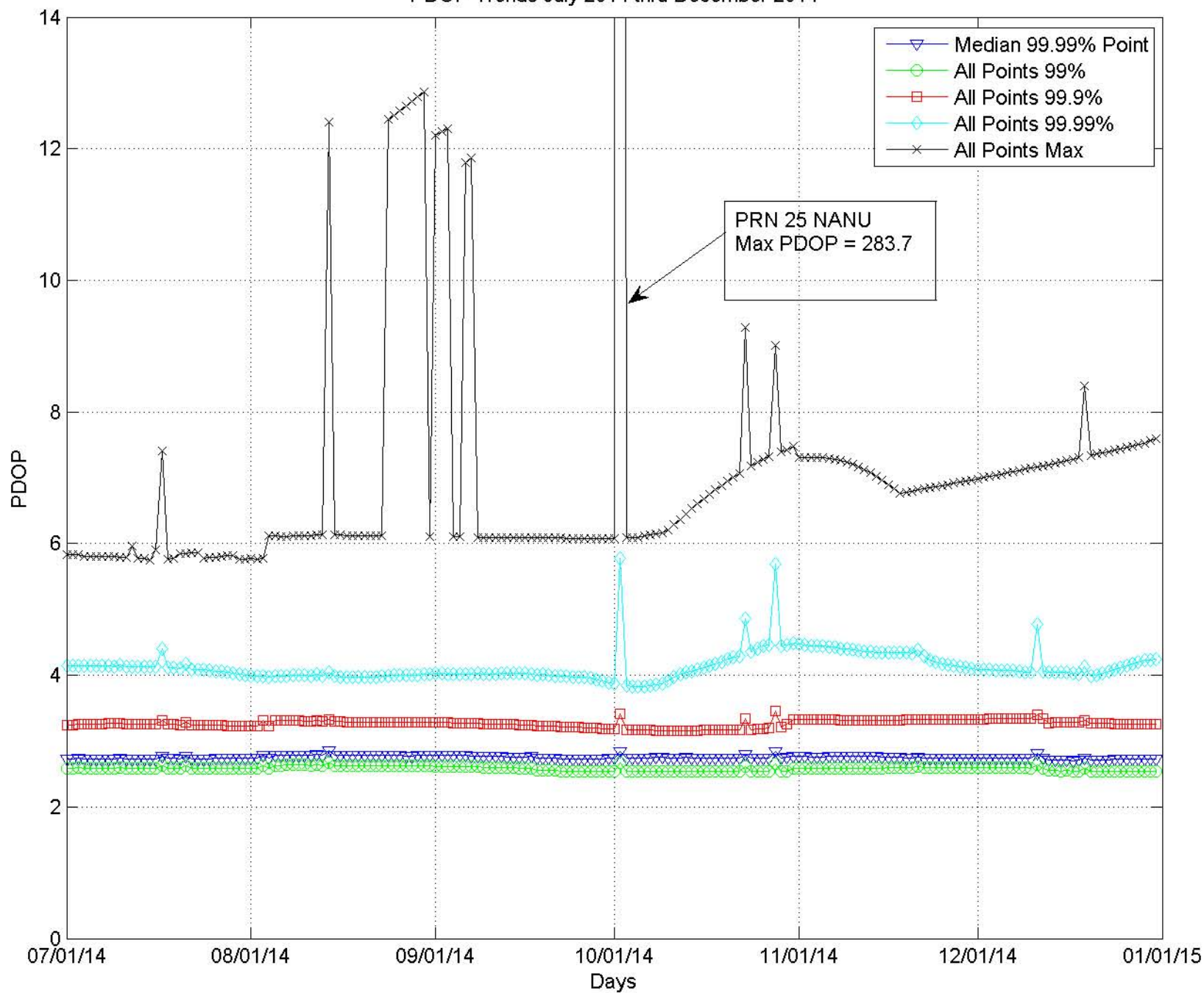
Key: ↑ improving ↓ worsening → no significant change

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

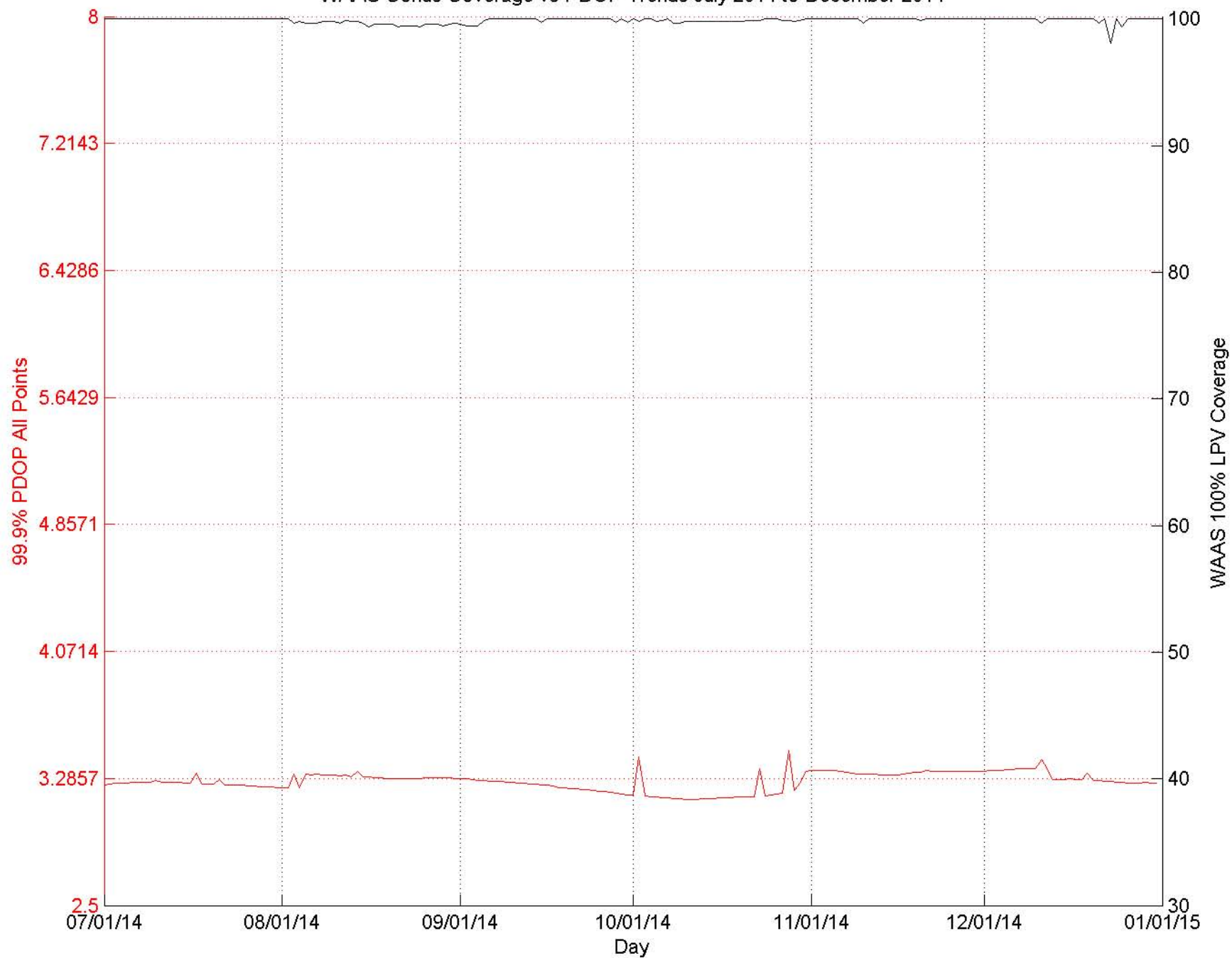
GPS World PDOP 99.99% Index December 2014



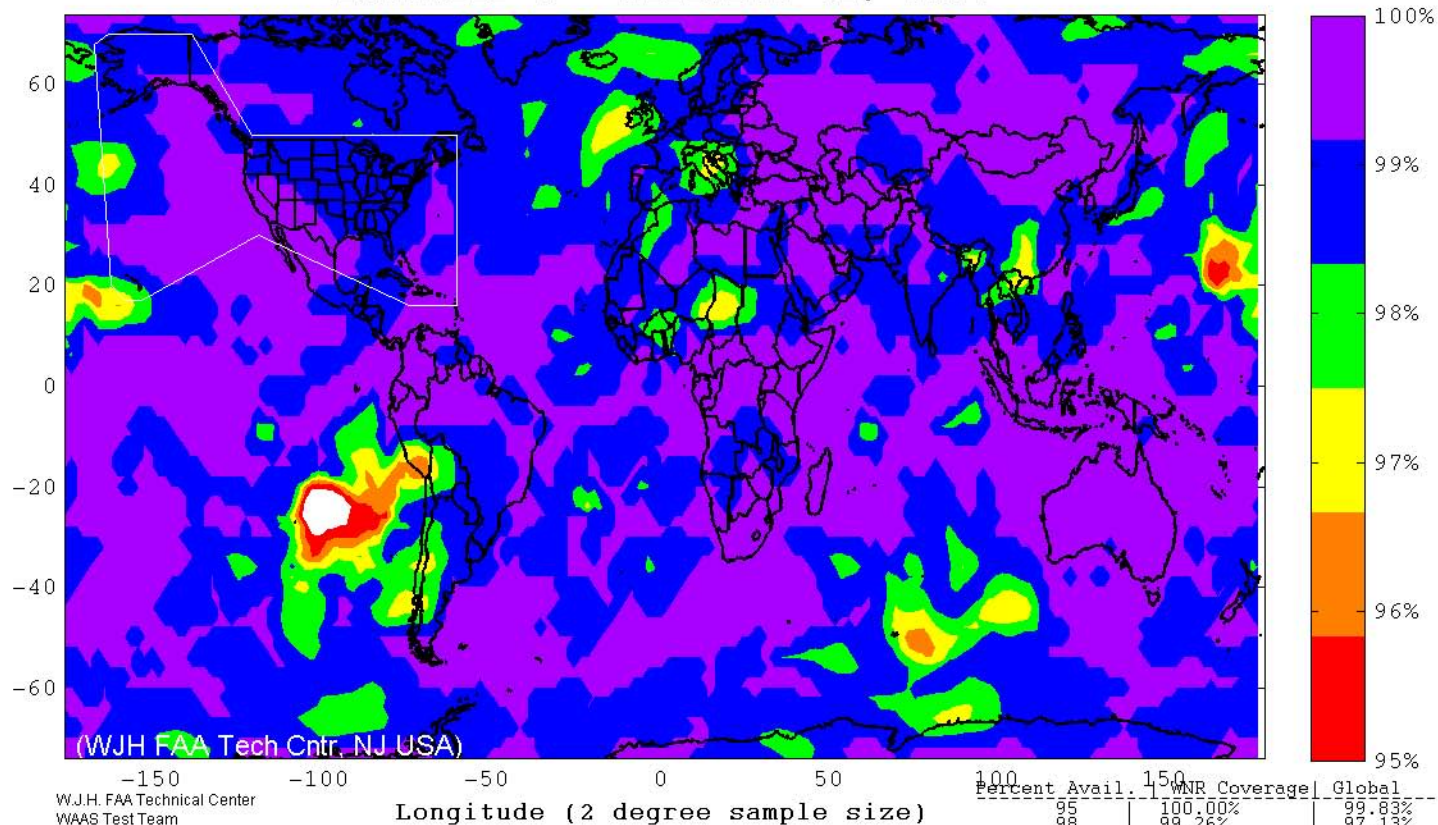
PDOP Trends July 2014 thru December 2014



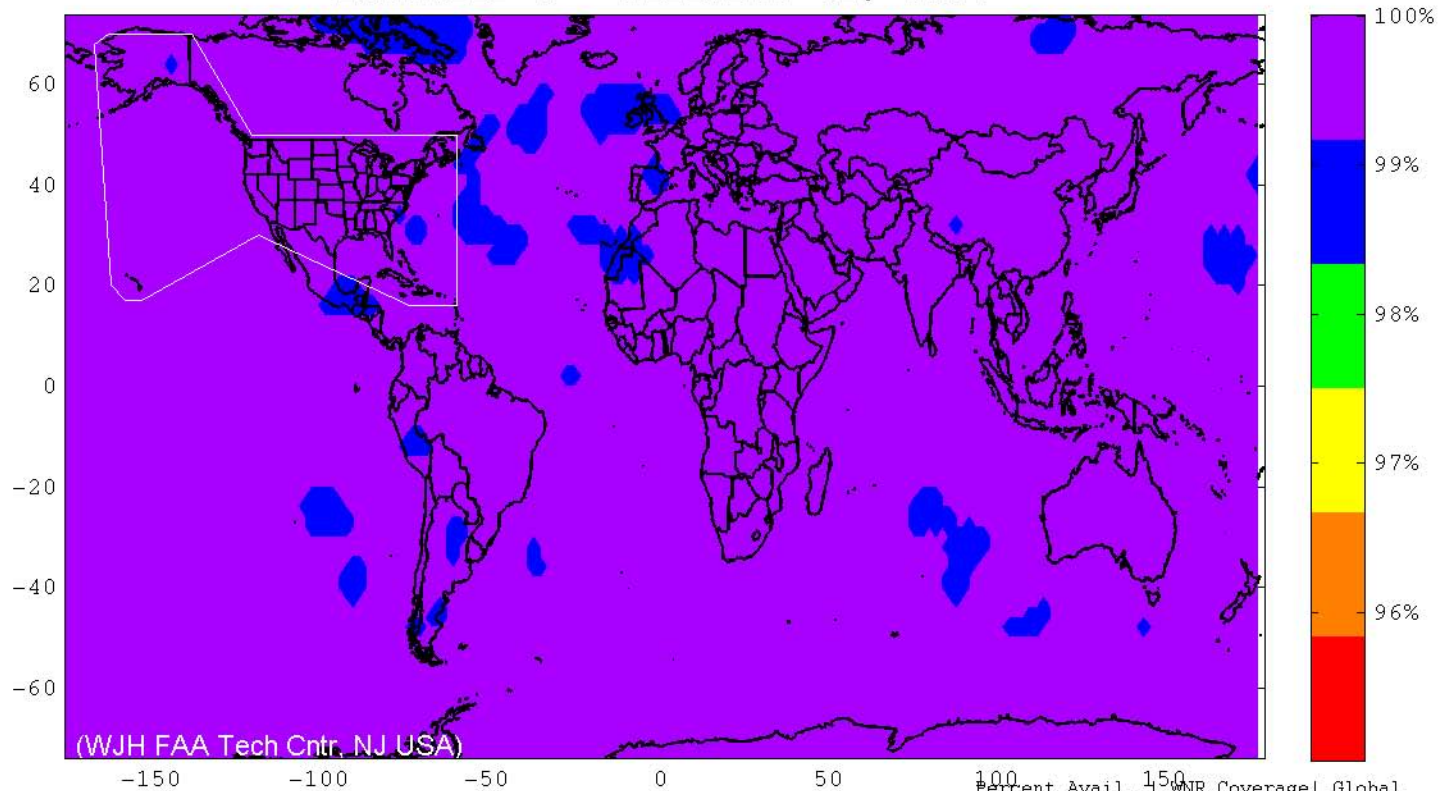
WAAS Conus Coverage vs PDOP Trends July 2014 to December 2014



SPS RAIM RNP 0.1 (HAL = 185m) Availability
 FD Only, SA Off, without Baro-Aiding
 December 1 - December 31, 2014



SPS RAIM RNP 0.3 (HAL = 556m) Availability
 FD Only, SA Off, without Baro-Aiding
 December 1 - December 31, 2014



W.J.H. FAA Technical Center
 WAAS Test Team
 01/26/15

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	99.37%	96.98%