

Civil Report Card On GPS Performance

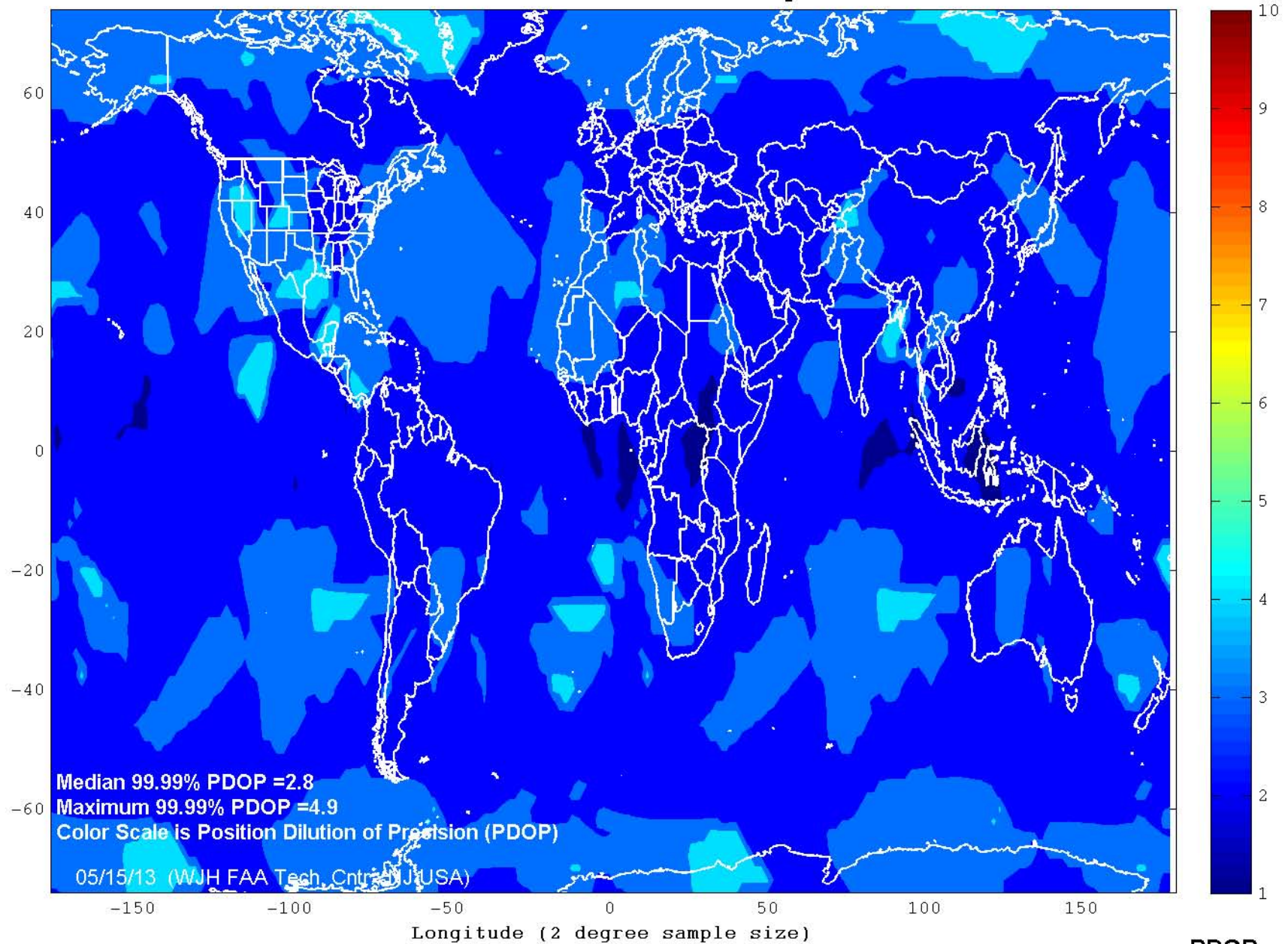
April 2013

Operational Performance Parameter	CY 2012	Mar 2013	Apr 2013	Long term	Short term
Availability Parameters					
<i>Average Number of satellites usable</i>	30.92	30.99	30.98	↑	↓
<i>Average number of satellites usable in primary slots</i>	23.99 (99.95%)	23.99 (99.97%)	23.99 (99.97%)	↑	→
<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	2.3	2.5	↑	↓
99.99% Vertical DOP					
<i>Area Median</i>	2.4	2.4	2.4	→	→
<i>Worst Site</i>	10.2	5.8	4.8	↑	↑
99.99% Position DOP (PDOP)					
<i>Area Median</i>	2.7	2.7	2.8	↓	↓
<i>Worst Site</i>	10.6	6.0	4.9	↑	↑
100% RAIM Availability (HAL=185m)					
<i>NPA Service Area (NSA)</i>	83.70%	70.42%	38.84%	↓	↓
<i>World</i>	85.37%	65.72%	54.99	↓	↓
Accuracy Parameters					
RMS Single Frequency User Range Error					
<i>Constellation Median</i>	2.00	1.92	1.91	↑	↑
<i>Worst Satellite</i>	2.38	2.67	2.25	↑	↑
95% Horizontal Error					
<i>Area Median</i>	2.88	2.89	3.17	↓	↓
<i>Worst Site</i>	8.26	7.40	7.39	↑	↑
<i>Availability (% <4.5m (historical 3-sigma))</i>	99.89%	99.78%	99.68%	↓	↓
95% Vertical Error					
<i>Area Median</i>	4.93	4.60	4.12	↑	↑
<i>Worst Site</i>	9.21	6.24	6.38	↑	↓
<i>Availability (% < 9m (historical 3-sigma))</i>	99.89%	99.99%	99.98%	↑	↓

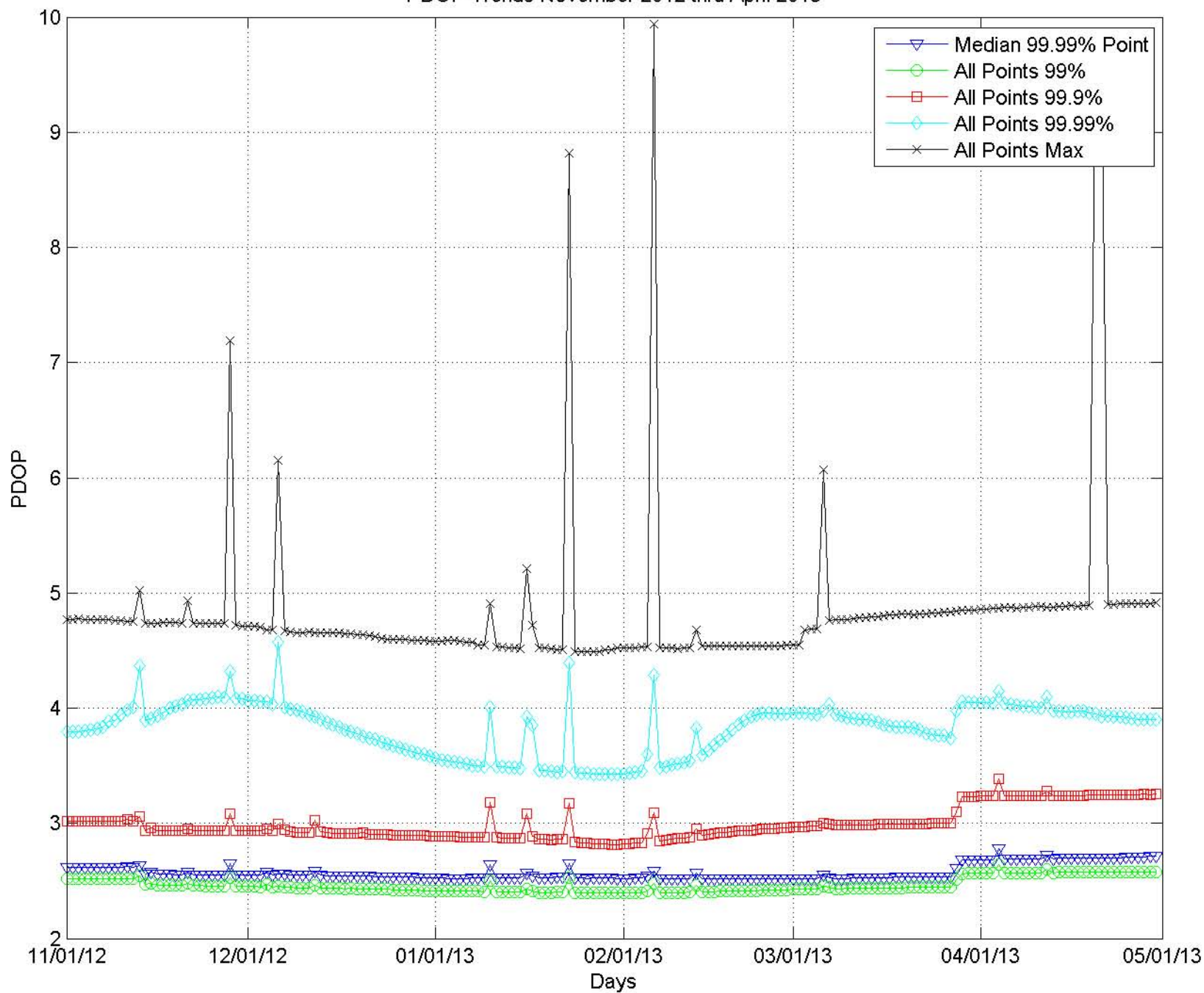
Key: ↑ improving ↓ worsening → no significant change

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

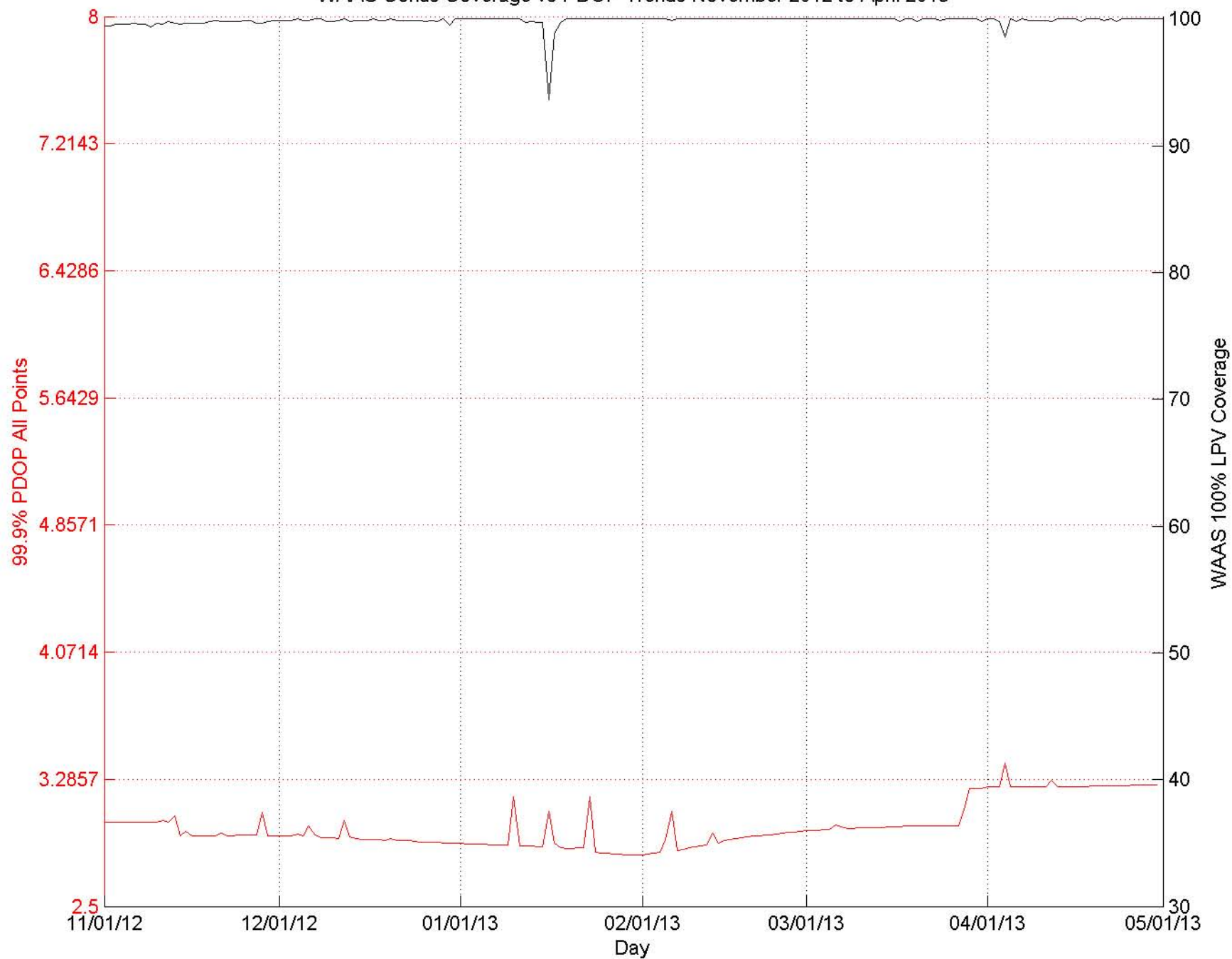
GPS World PDOP 99.99% Index April 2013



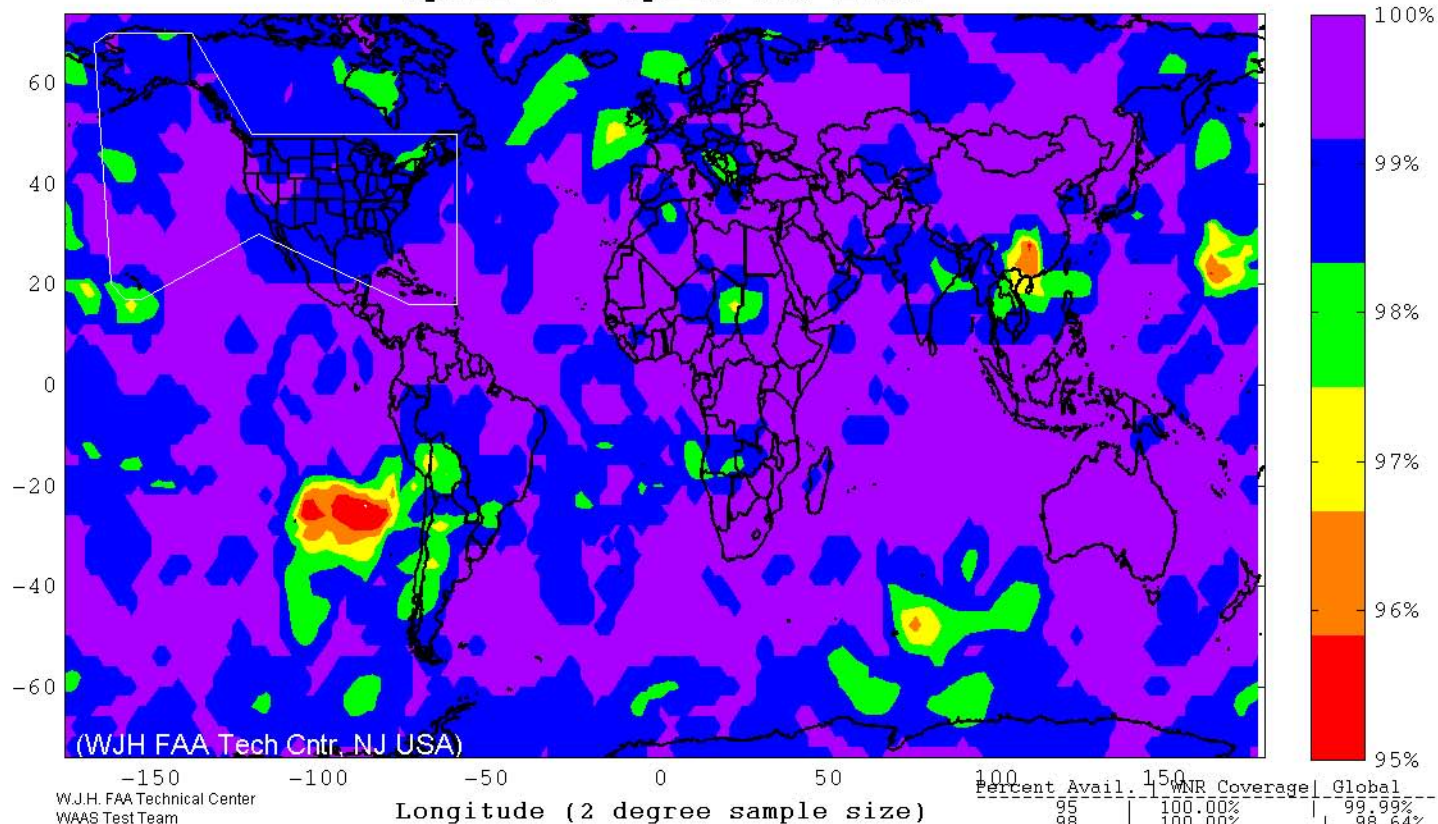
PDOP Trends November 2012 thru April 2013



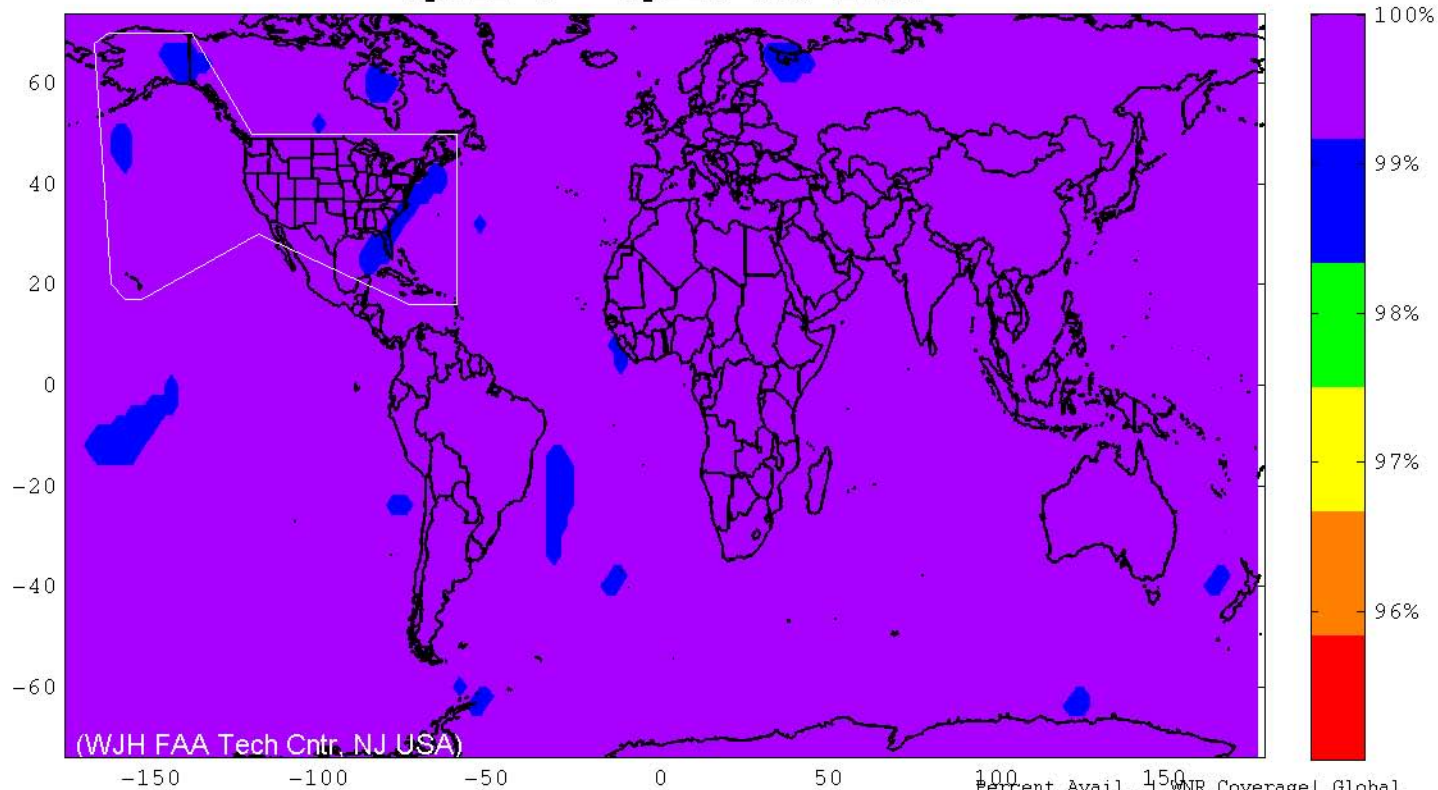
WAAS Conus Coverage vs PDOP Trends November 2012 to April 2013



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



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



(WJH FAA Tech Cntr, NJ USA)

W.J.H. FAA Technical Center
 WAAS Test Team
 05/20/13

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	95.16%	98.83%