

Civil Report Card On GPS Performance

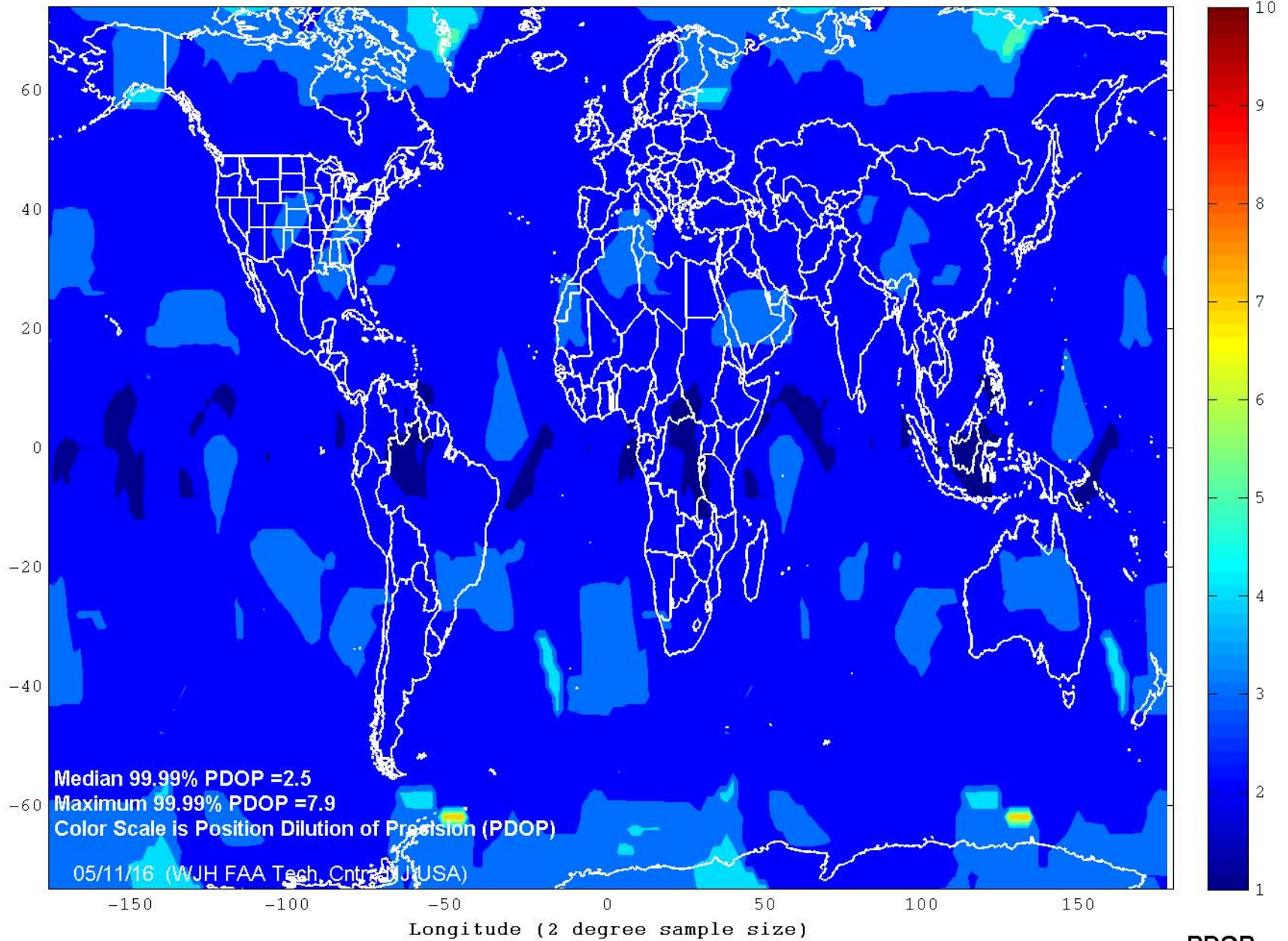
April 2016

Operational Performance Parameter	CY 2015	Mar 2016	Apr 2016	Long term	Short term
Availability Parameters					
<i>Average Number of satellites usable</i>	30.50	30.72	30.99	↑	↑
<i>Average number of satellites usable in primary slots</i>	23.99 (99.94%)	23.98 (99.90%)	24.00 (100%)	↑	↑
<i>Average availability of 6 satellites in view</i>	99.99%	99.99%	100%	↑	↑
99.99% Horizontal DOP					
<i>Area Median</i>	1.4	1.3	1.3	↑	→
<i>Worst Site</i>	9.4	3.4	2.1	↑	↑
99.99% Vertical DOP					
<i>Area Median</i>	2.5	2.4	2.2	↑	↑
<i>Worst Site</i>	34.5	8.9	7.7	↑	↑
99.99% Position DOP (PDOP)					
<i>Area Median</i>	2.8	2.7	2.5	↑	↑
<i>Worst Site</i>	35.7	8.9	7.9	↑	↑
100% RAIM Availability (HAL=185m)					
<i>NPA Service Area (NSA)</i>	51.34%	69.47%	93.05%	↑	↑
<i>World</i>	55.97%	67.05%	83.94%	↑	↑
Accuracy Parameters					
RMS Single Frequency User Range Error					
<i>Constellation Median</i>	1.91	1.77	1.87	↑	↓
<i>Worst Satellite</i>	2.38	2.44	2.50	↓	↓
95% Horizontal Error					
<i>Area Median</i>	2.71	1.54	2.30	↑	↓
<i>Worst Site</i>	9.02	5.99	5.72	↑	↑
<i>Availability (% <4.5m (historical 3-sigma))</i>	98.66%	99.18%	99.39%	↑	↑
95% Vertical Error					
<i>Area Median</i>	4.61	3.54	4.75	↓	↓
<i>Worst Site</i>	8.36	5.36	5.93	↑	↓
<i>Availability (% < 9m (historical 3-sigma))</i>	99.79%	99.93%	99.95%	↑	↑

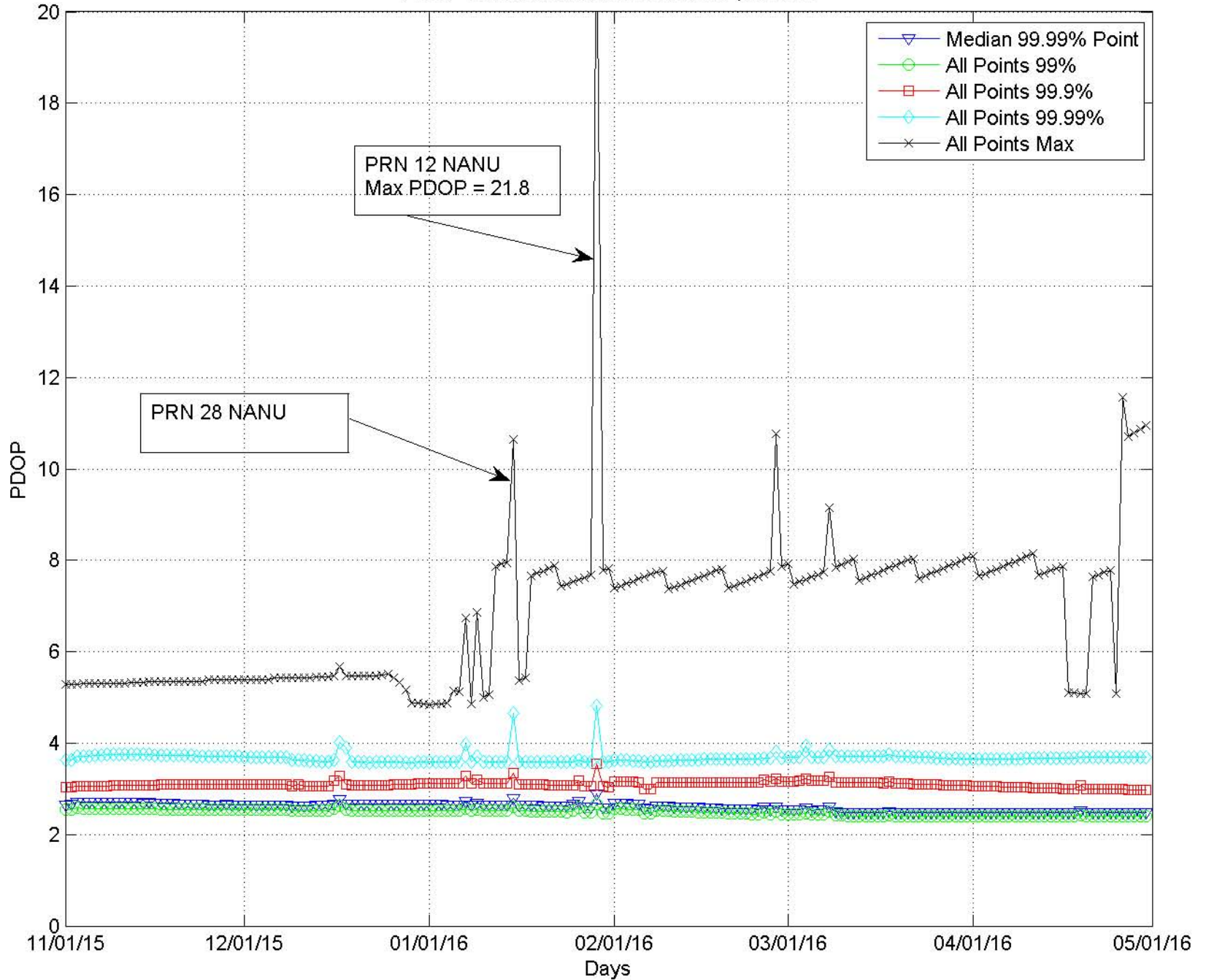
Key: ↑ improving ↓ worsening → no significant change

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

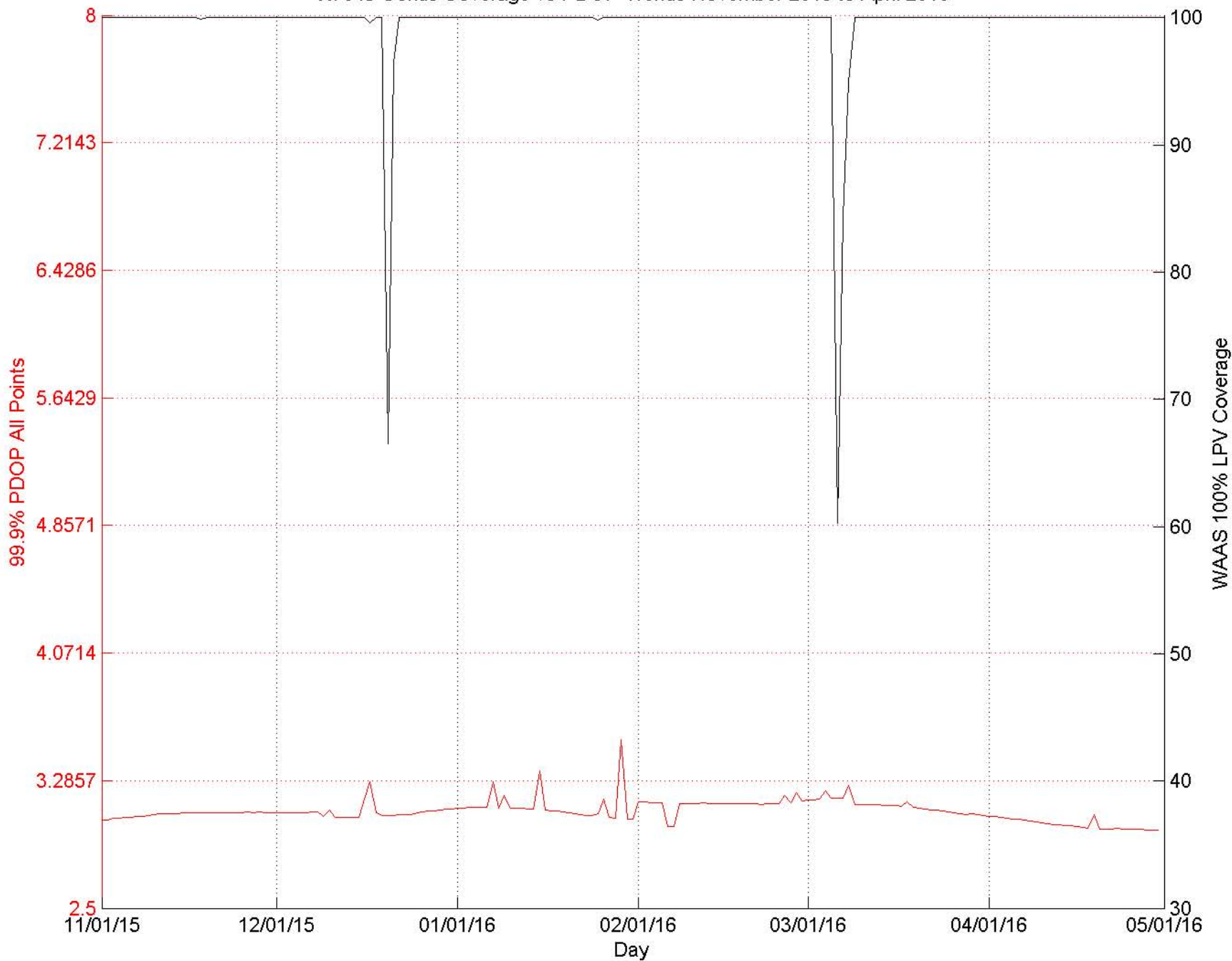
GPS World PDOP 99.99% Index April 2016



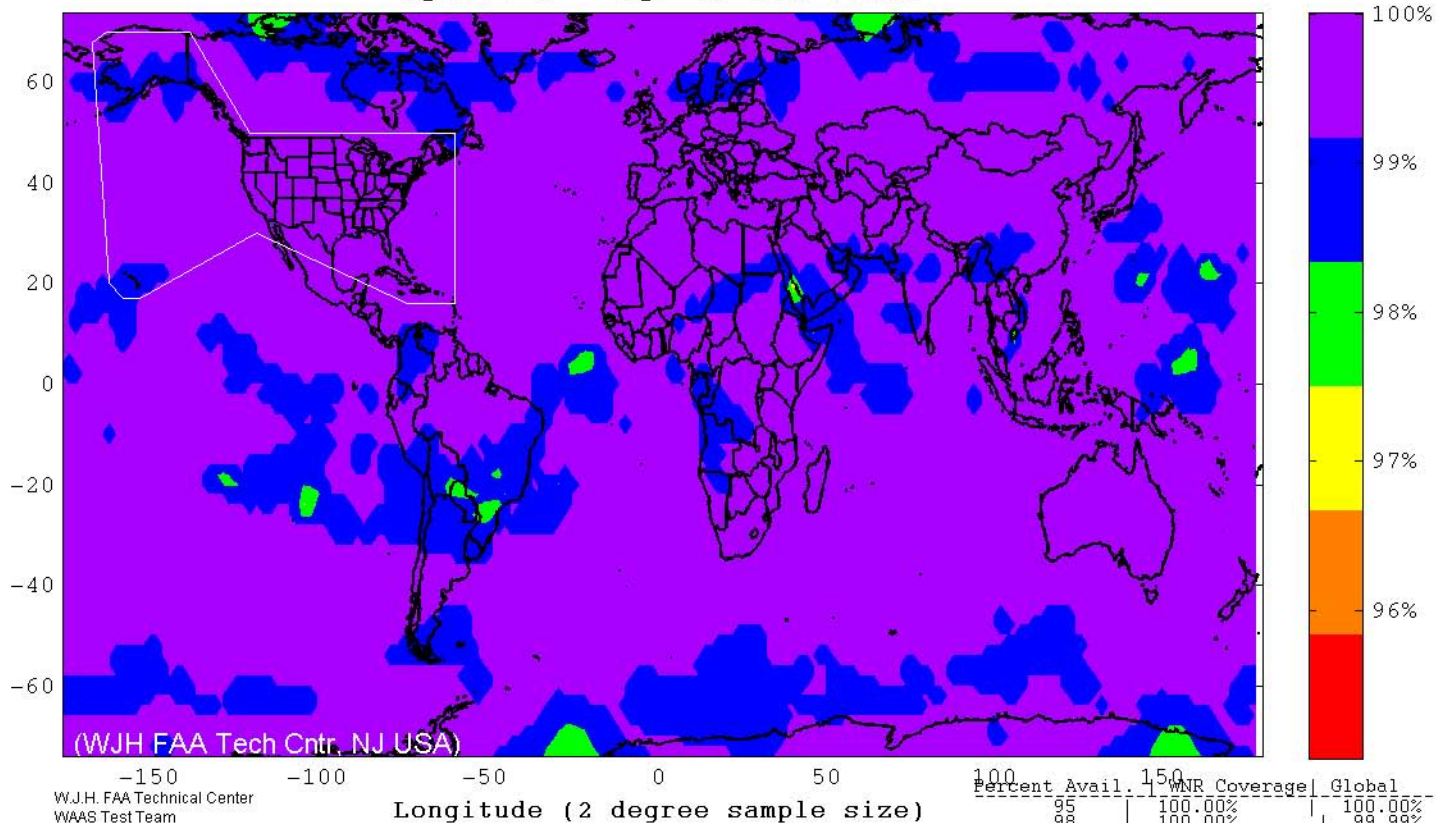
PDOP Trends November 2015 thru April 2016



WAAS Conus Coverage vs PDOP Trends November 2015 to April 2016



SPS RAIM RNP 0.1 (HAL = 185m) Availability
 FD Only, SA Off, without Baro-Aiding
 April 1 - April 30, 2016



W.J.H. FAA Technical Center
 WAAS Test Team
 05/12/16

Longitude (2 degree sample size)

SPS RAIM RNP 0.3 (HAL = 556m) Availability
 FD Only, SA Off, without Baro-Aiding
 April 1 - April 30, 2016

