

Civil Report Card On GPS Performance

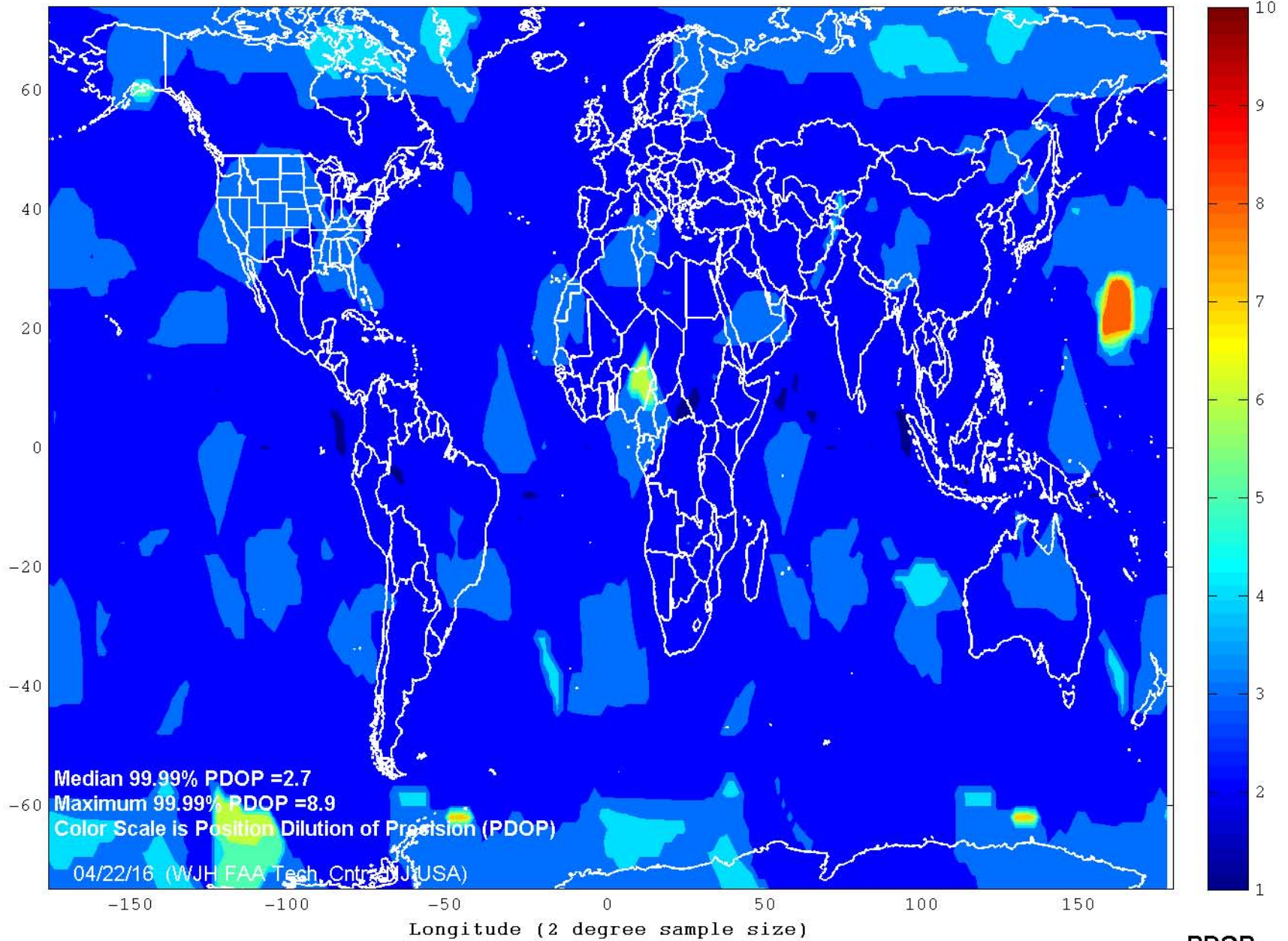
March 2016

Operational Performance Parameter	CY 2015	Feb 2016	Mar 2016	Long term	Short term
Availability Parameters					
<i>Average Number of satellites usable</i>	30.50	29.94	30.72	↑	↑
<i>Average number of satellites usable in primary slots</i>	23.99 (99.94%)	23.98 (99.90%)	23.98 (99.90%)	↓	→
<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	1.3	↑	↑
<i>Worst Site</i>	9.4	2.3	3.4	↑	↑
99.99% Vertical DOP					
<i>Area Median</i>	2.5	2.4	2.4	↑	→
<i>Worst Site</i>	34.5	7.5	8.9	↑	↓
99.99% Position DOP (PDOP)					
<i>Area Median</i>	2.8	2.8	2.7	↑	↑
<i>Worst Site</i>	35.7	7.7	8.9	↑	↓
100% RAIM Availability (HAL=185m)					
<i>NPA Service Area (NSA)</i>	51.34%	89.47%	69.47%	↑	↓
<i>World</i>	55.97%	70.39%	67.05%	↑	↓
Accuracy Parameters					
RMS Single Frequency User Range Error					
<i>Constellation Median</i>	1.91	1.75	1.77	↑	↓
<i>Worst Satellite</i>	2.38	2.52	2.44	↓	↑
95% Horizontal Error					
<i>Area Median</i>	2.71	2.29	1.54	↑	↑
<i>Worst Site</i>	9.02	7.26	5.99	↑	↑
<i>Availability (% <4.5m (historical 3-sigma))</i>	98.66%	99.14%	99.18%	↑	↓
95% Vertical Error					
<i>Area Median</i>	4.61	4.12	3.54	↑	↑
<i>Worst Site</i>	8.36	5.02	5.36	↑	↓
<i>Availability (% < 9m (historical 3-sigma))</i>	99.79%	99.97%	99.93%	↑	↓

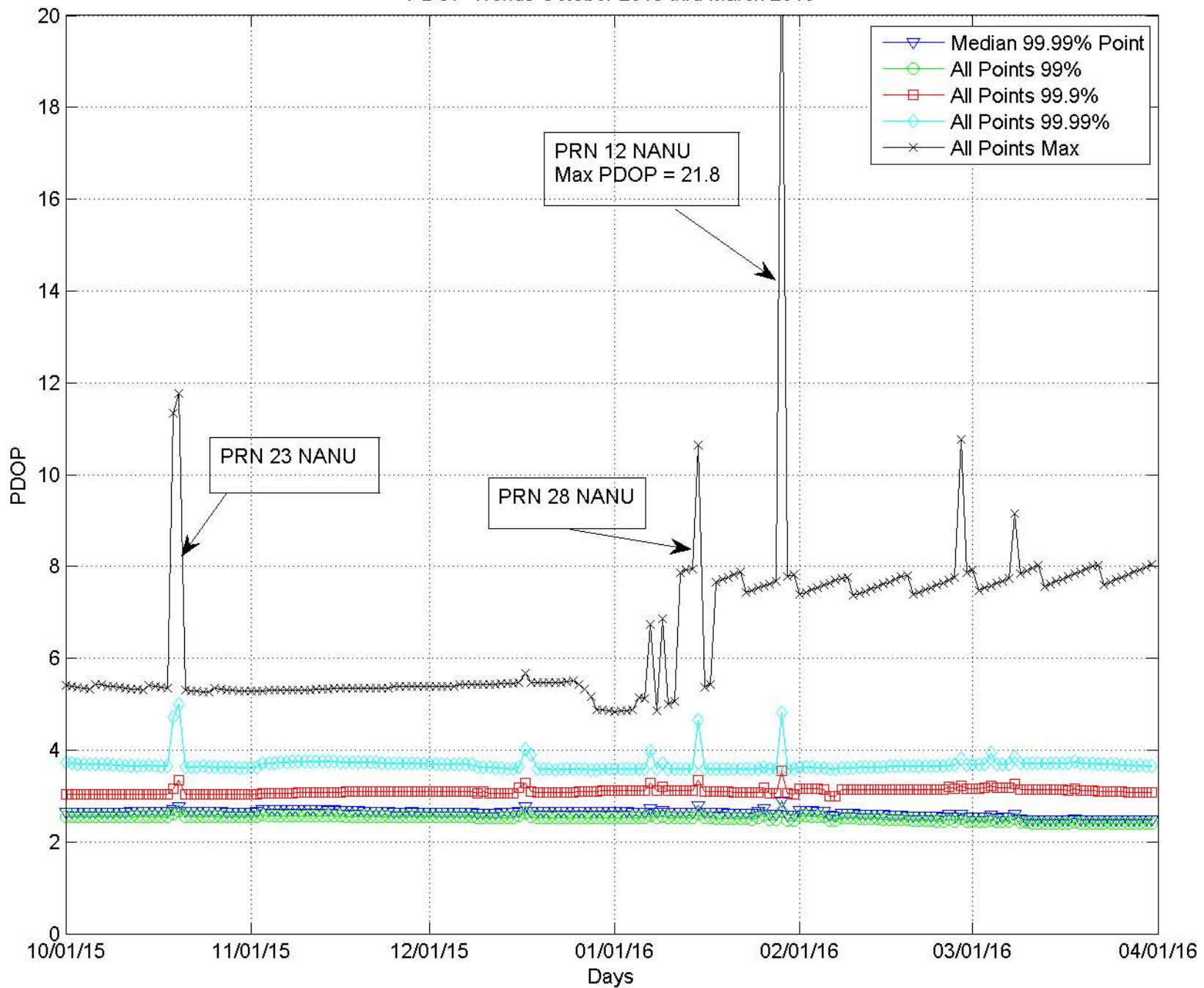
Key: ↑ improving ↓ worsening → no significant change

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

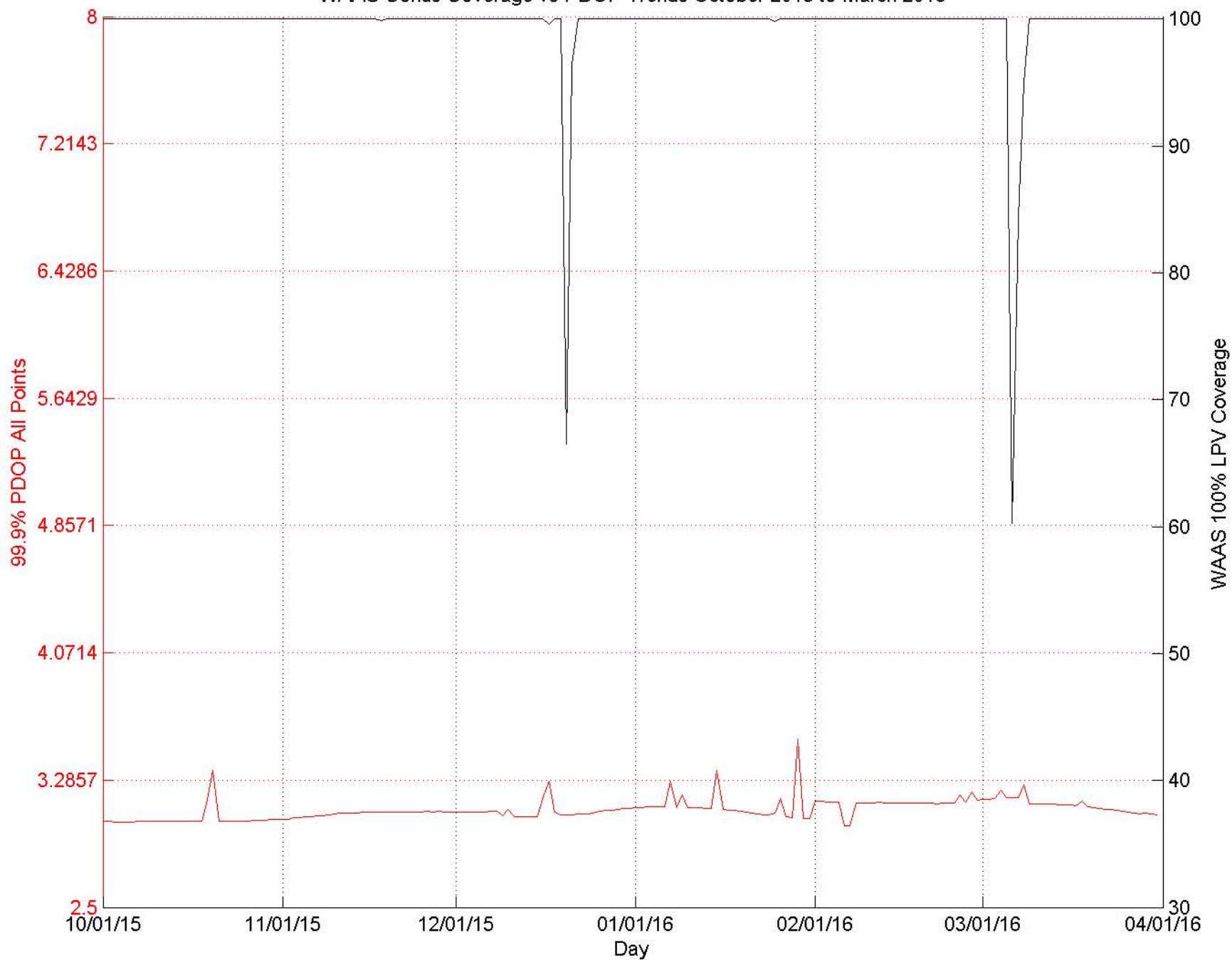
GPS World PDOP 99.99% Index March 2016



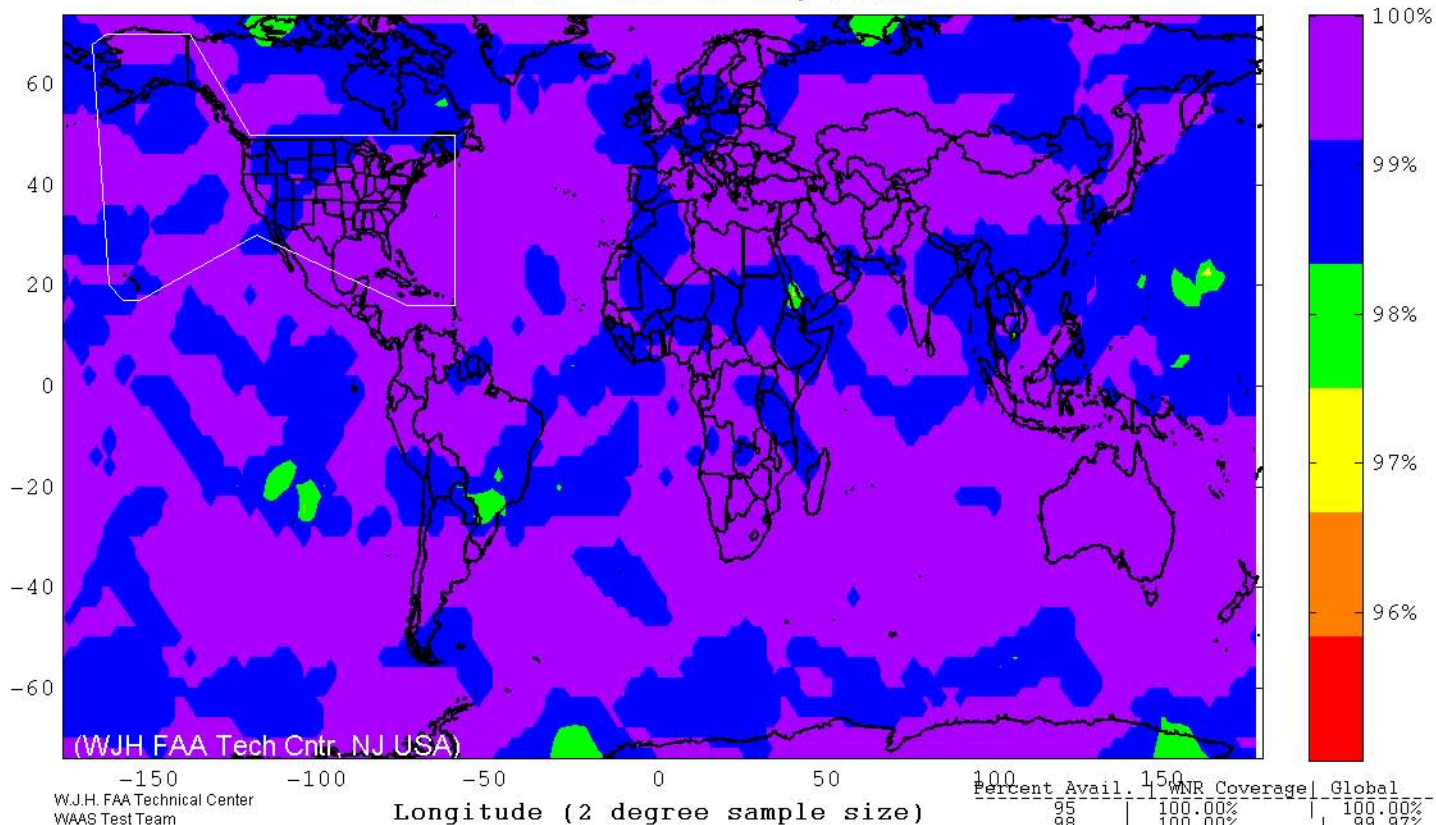
PDOP Trends October 2015 thru March 2016



WAAS Conus Coverage vs PDOP Trends October 2015 to March 2016



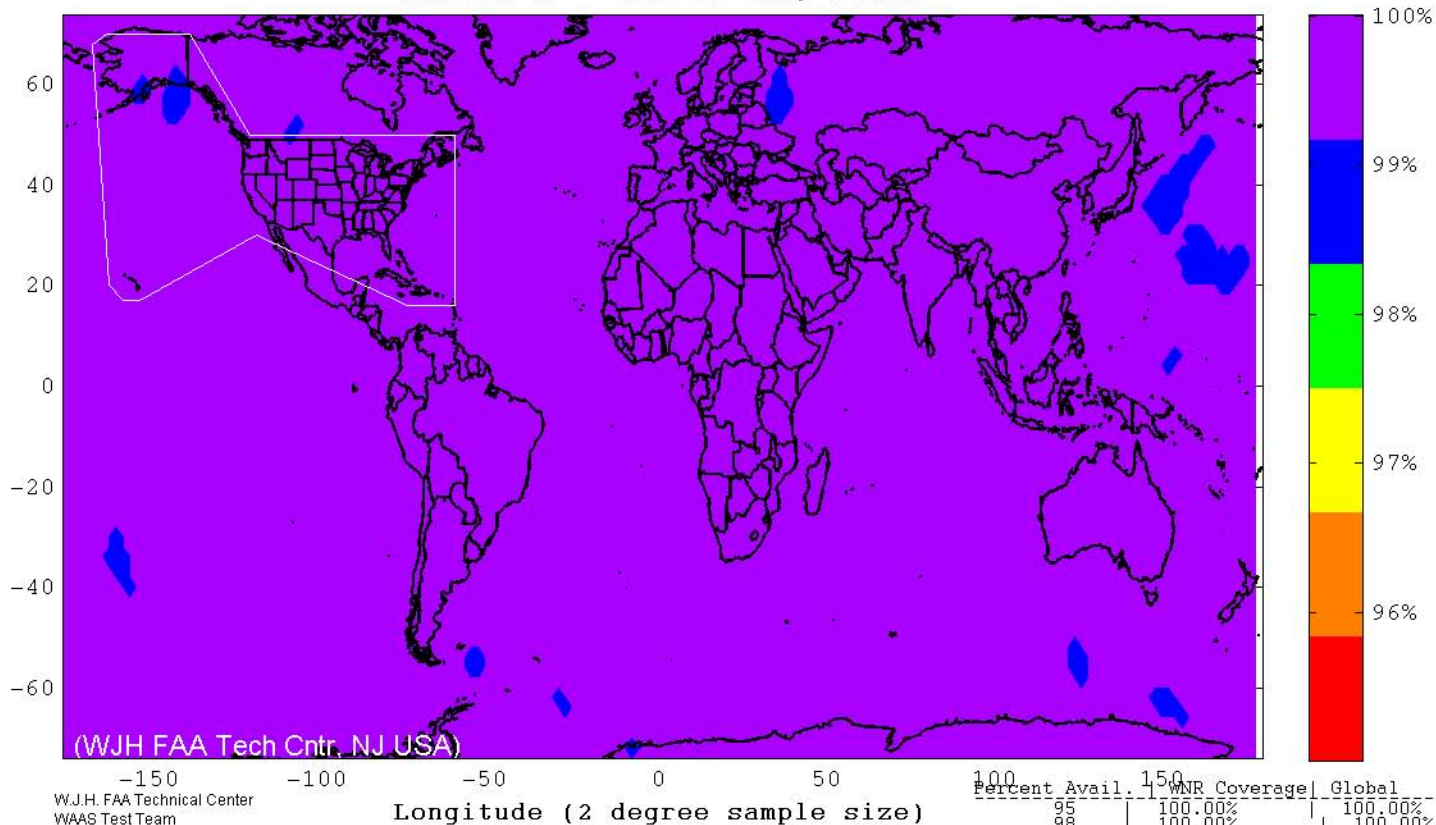
SPS RAIM 0.1 (HAL = 185m) Availability
 FD Only, SA Off, without Baro-Aiding
 March 1 - March 31, 2016



W.J.H. FAA Technical Center
 WAAS Test Team
 04/22/16

Longitude (2 degree sample size)

SPS RAIM RNP 0.3 (HAL = 556m) Availability
 FD Only, SA Off, without Baro-Aiding
 March 1 - March 31, 2016



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 WAAS Test Team
 04/22/16

Longitude (2 degree sample size)