

Civil Report Card On GPS Performance

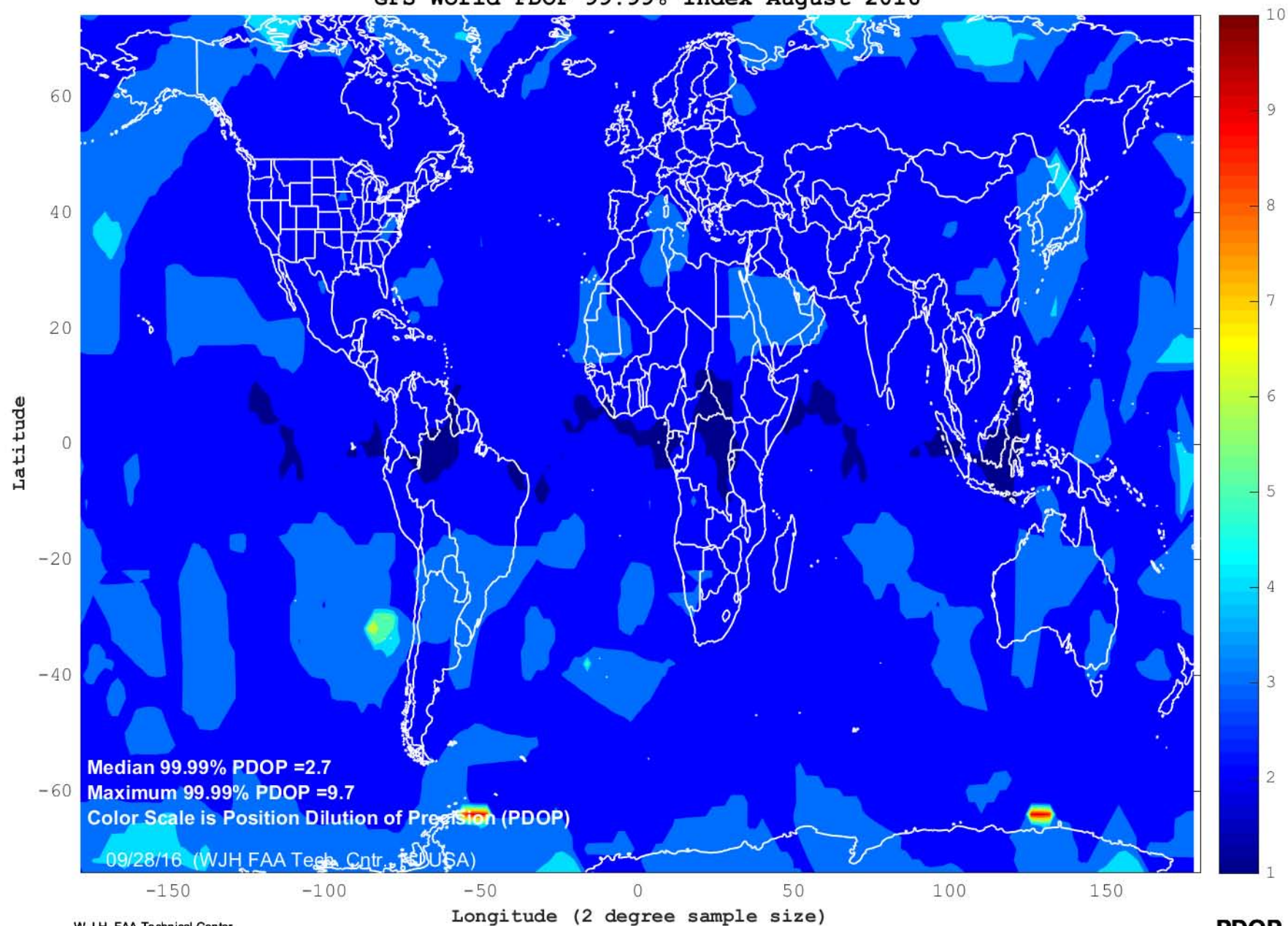
August 2016

Operational Performance Parameter	CY 2015	July 2016	Aug 2016	Long term	Short term
Availability Parameters					
<i>Average Number of satellites usable</i>	30.50	30.95	30.97	↑	↑
<i>Average number of satellites usable in primary slots</i>	23.99 (99.94%)	23.97 (99.88%)	23.98 (99.93%)	↓	↑
<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	4.9	2.7	↑	↑
99.99% Vertical DOP					
<i>Area Median</i>	2.5	2.4	2.3	↑	↑
<i>Worst Site</i>	34.5	15.1	9.4	↑	↑
99.99% Position DOP (PDOP)					
<i>Area Median</i>	2.8	2.7	2.6	↑	↑
<i>Worst Site</i>	35.7	15.8	9.6	↑	↑
100% RAIM Availability (HAL=185m)					
<i>NPA Service Area (NSA)</i>	51.34%	58.95%	89.79%	↑	↑
<i>World</i>	55.97%	61.00%	79.47%	↑	↑
Accuracy Parameters					
RMS Single Frequency User Range Error					
<i>Constellation Median</i>	1.91	1.27	1.44	↑	↓
<i>Worst Satellite</i>	2.38	1.85	1.97	↑	↓
95% Horizontal Error					
<i>Area Median</i>	2.71	1.75	1.93	↑	↓
<i>Worst Site</i>	9.02	2.66	3.27	↑	↓
<i>Availability (% <4.5m (historical 3-sigma))</i>	98.66%	99.99%	99.94%	↑	↓
95% Vertical Error					
<i>Area Median</i>	4.61	2.90	3.31	↑	↓
<i>Worst Site</i>	8.36	3.54	4.38	↑	↓
<i>Availability (% < 9m (historical 3-sigma))</i>	99.79%	99.99%	99.99%	↑	→

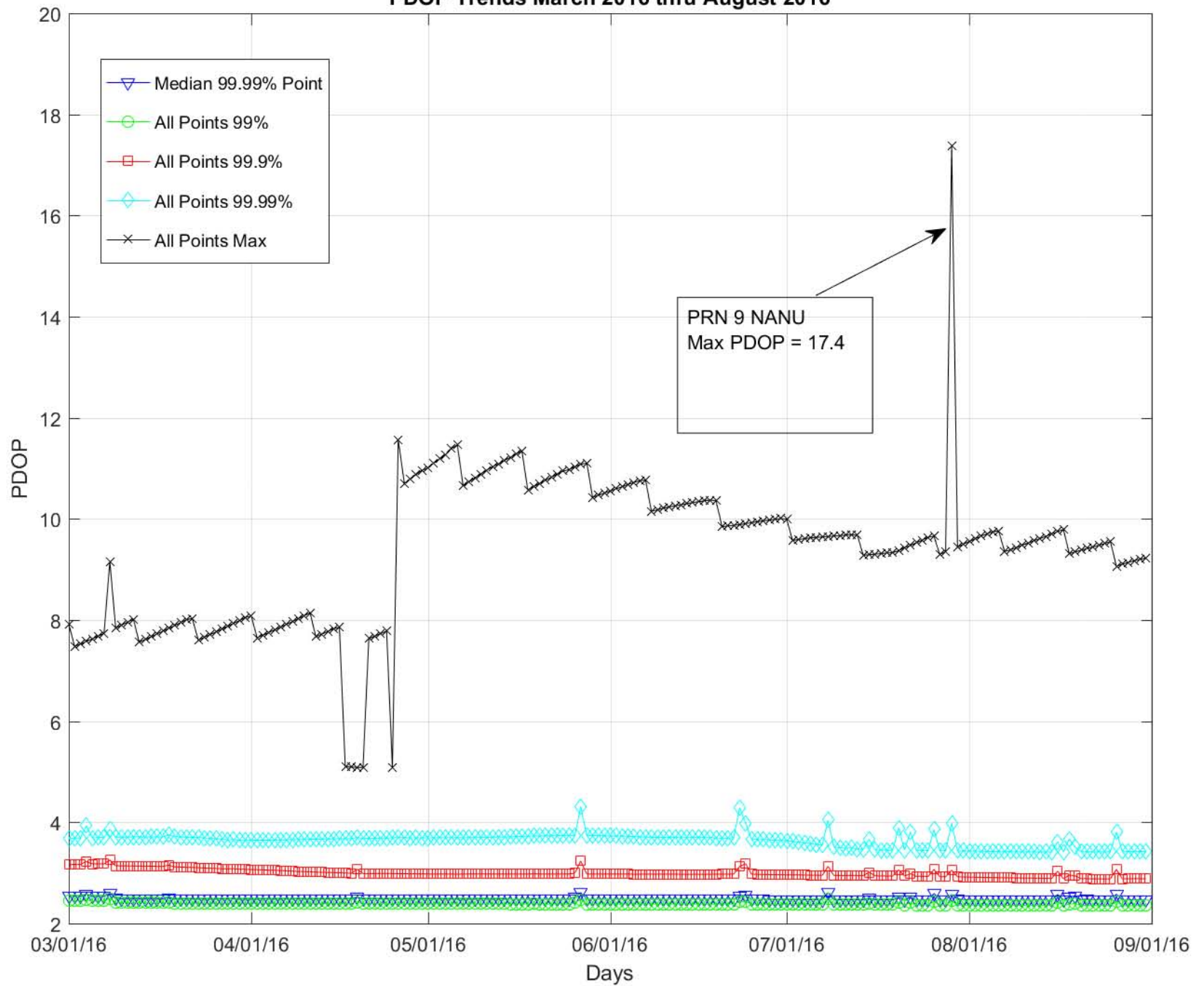
Key: ↑ improving ↓ worsening → no significant change

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

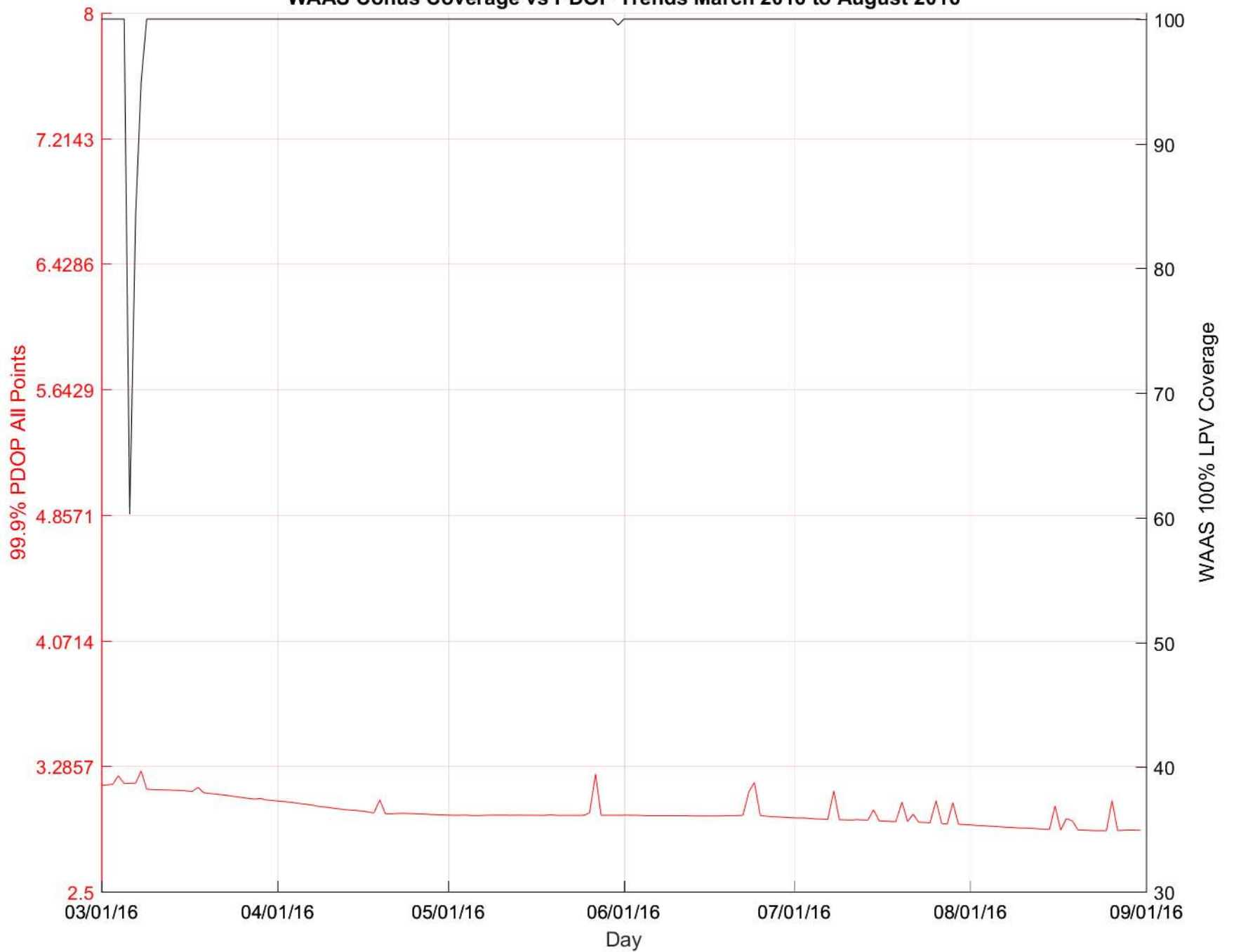
GPS World PDOP 99.99% Index August 2016



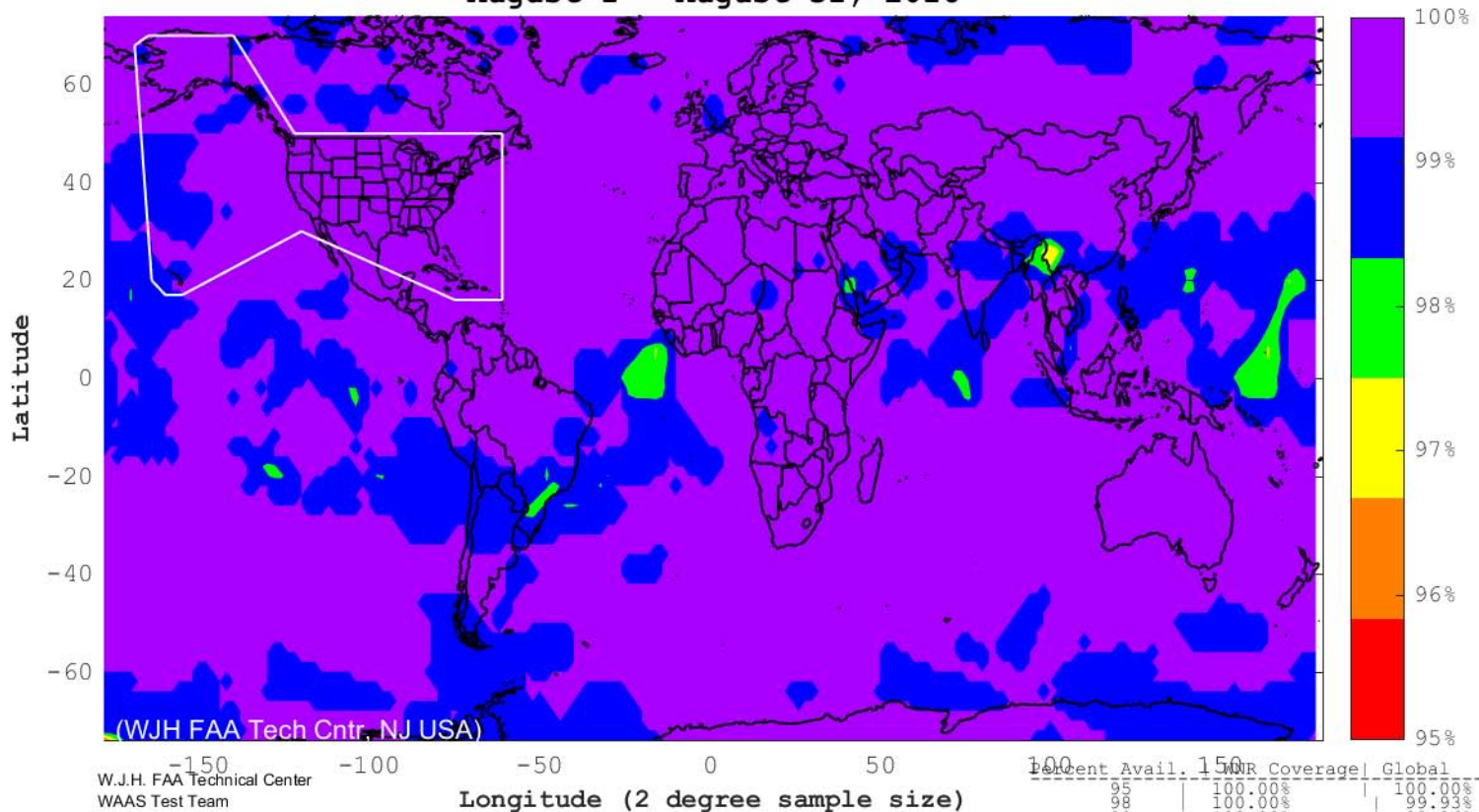
PDOP Trends March 2016 thru August 2016



WAAS Conus Coverage vs PDOP Trends March 2016 to August 2016



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



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

