

Civil Report Card On GPS Performance

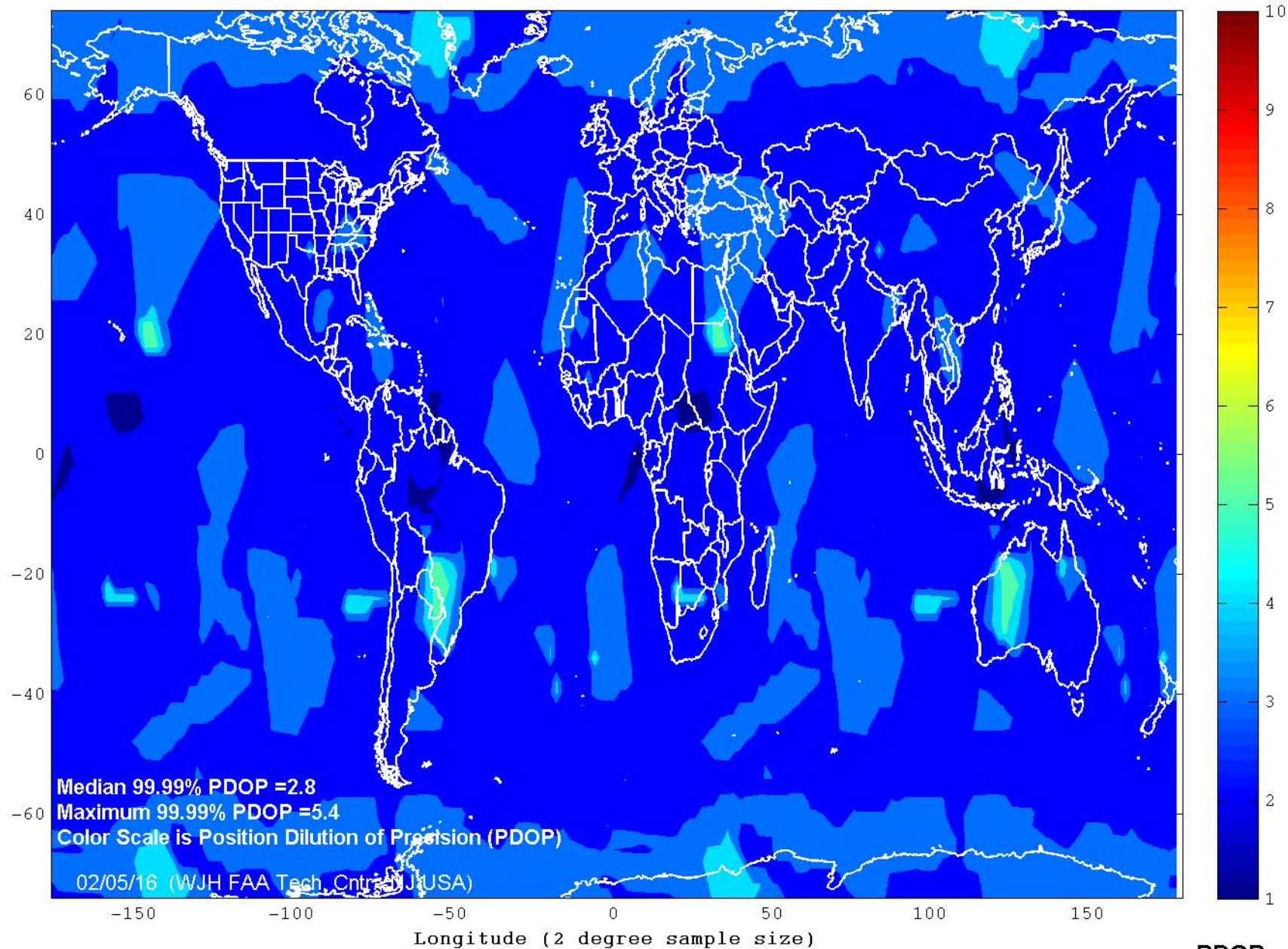
November 2015

Operational Performance Parameter	CY 2014	Oct 2015	Nov 2015	Long term	Short term
Availability Parameters					
<i>Average Number of satellites usable</i>	30.40	30.97	30.07	↓	↓
<i>Average number of satellites usable in primary slots</i>	23.98 (99.94%)	23.97 (99.88%)	24.00 (100%)	↑	↑
<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>	18.1	4.2	2.2	↑	↑
99.99% Vertical DOP					
<i>Area Median</i>	2.5	2.5	2.4	↑	↑
<i>Worst Site</i>	43.0	7.9	5.2	↑	↑
99.99% Position DOP (PDOP)					
<i>Area Median</i>	2.8	2.8	2.7	↑	↑
<i>Worst Site</i>	43.4	8.7	5.4	↑	↑
100% RAIM Availability (HAL=185m)					
<i>NPA Service Area (NSA)</i>	43.96%	82.63%	94.63%	↑	↑
<i>World</i>	47.30%	60.36%	76.68%	↑	↑
Accuracy Parameters					
RMS Single Frequency User Range Error					
<i>Constellation Median</i>	2.25	1.87	2.00	↑	↓
<i>Worst Satellite</i>	2.69	2.89	3.14	↓	↓
95% Horizontal Error					
<i>Area Median</i>	2.62	2.36	2.37	↑	↓
<i>Worst Site</i>	10.23	6.29	7.28	↑	↓
<i>Availability (% <4.5m (historical 3-sigma))</i>	97.72%	98.81%	98.93%	↑	↑
95% Vertical Error					
<i>Area Median</i>	5.52	4.27	4.88	↑	↓
<i>Worst Site</i>	9.87	6.99	5.70	↑	↑
<i>Availability (% < 9m (historical 3-sigma))</i>	98.90%	99.88%	99.91%	↑	↑

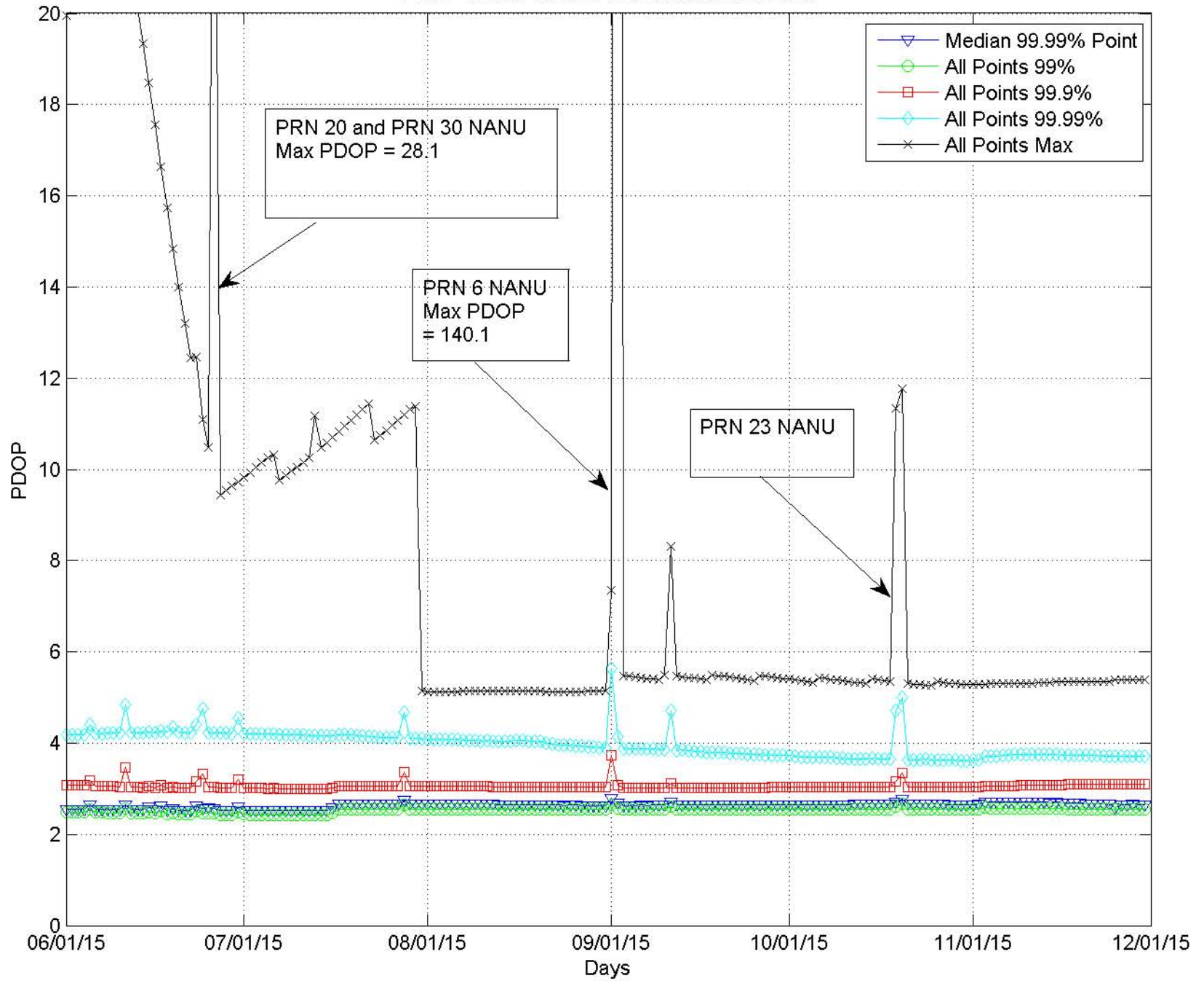
Key: ↑ improving ↓ worsening → no significant change

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

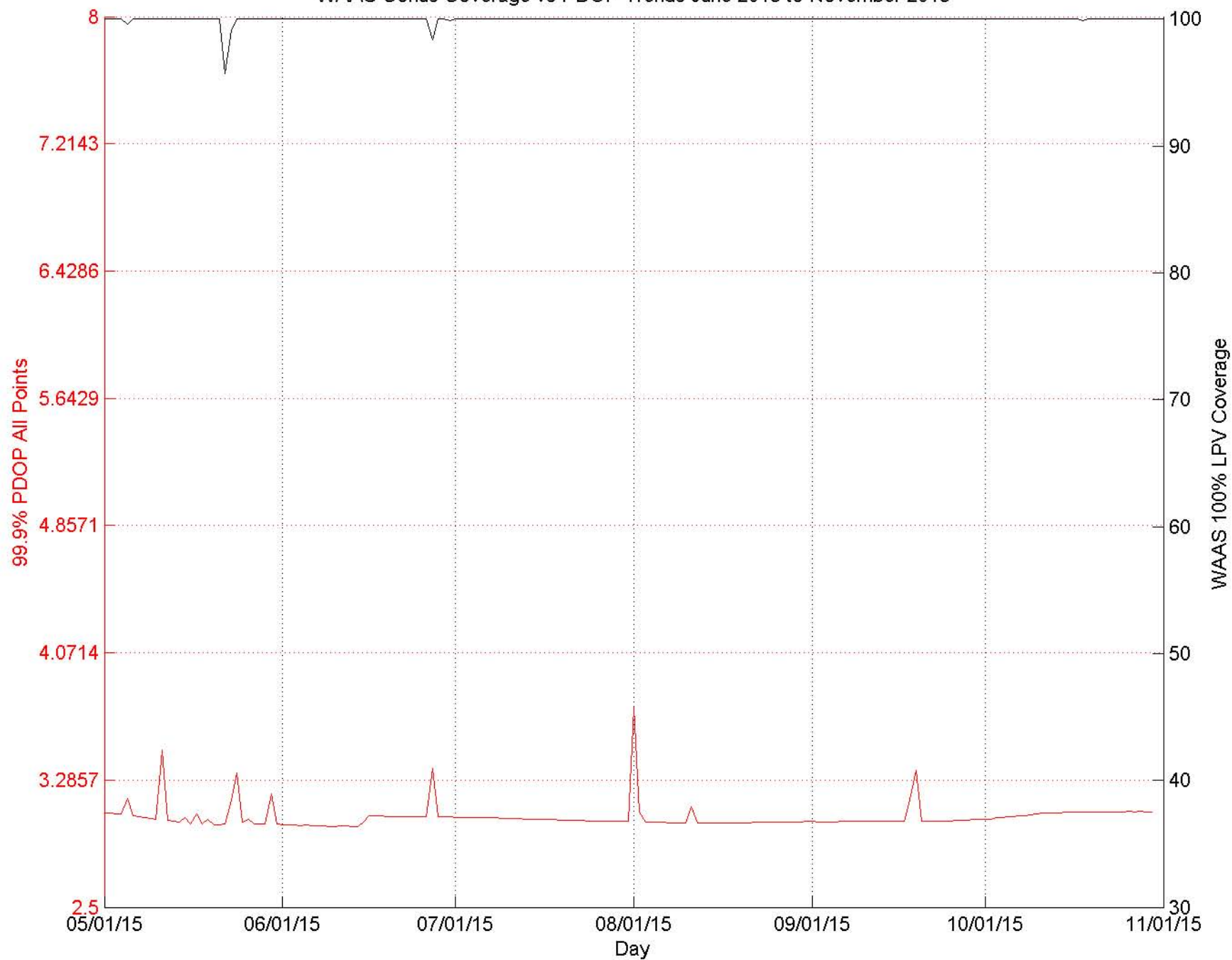
GPS World PDOP 99.99% Index November 2015



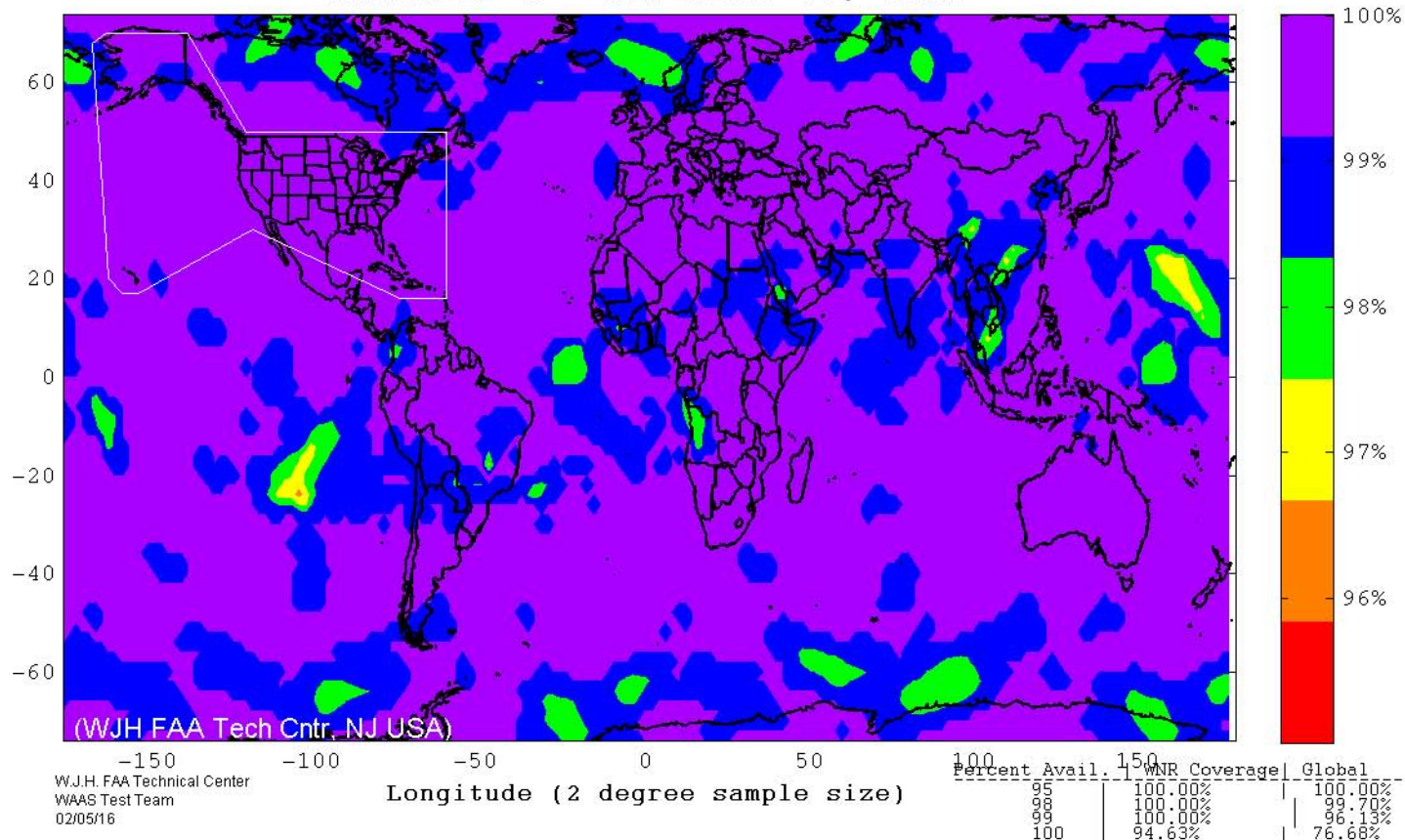
PDOP Trends June 2015 thru November 2015



WAAS Conus Coverage vs PDOP Trends June 2015 to November 2015



SPS RAIM RNP 0.1 (HAL = 185m) Availability
 FD Only, SA Off, without Baro-Aiding
 November 1 - November 30, 2015



SPS RAIM RNP 0.3 (HAL = 556m) Availability
 FD Only, SA Off, without Baro-Aiding
 November 1 - November 30, 2015

