

Civil Report Card On GPS Performance

December 2011

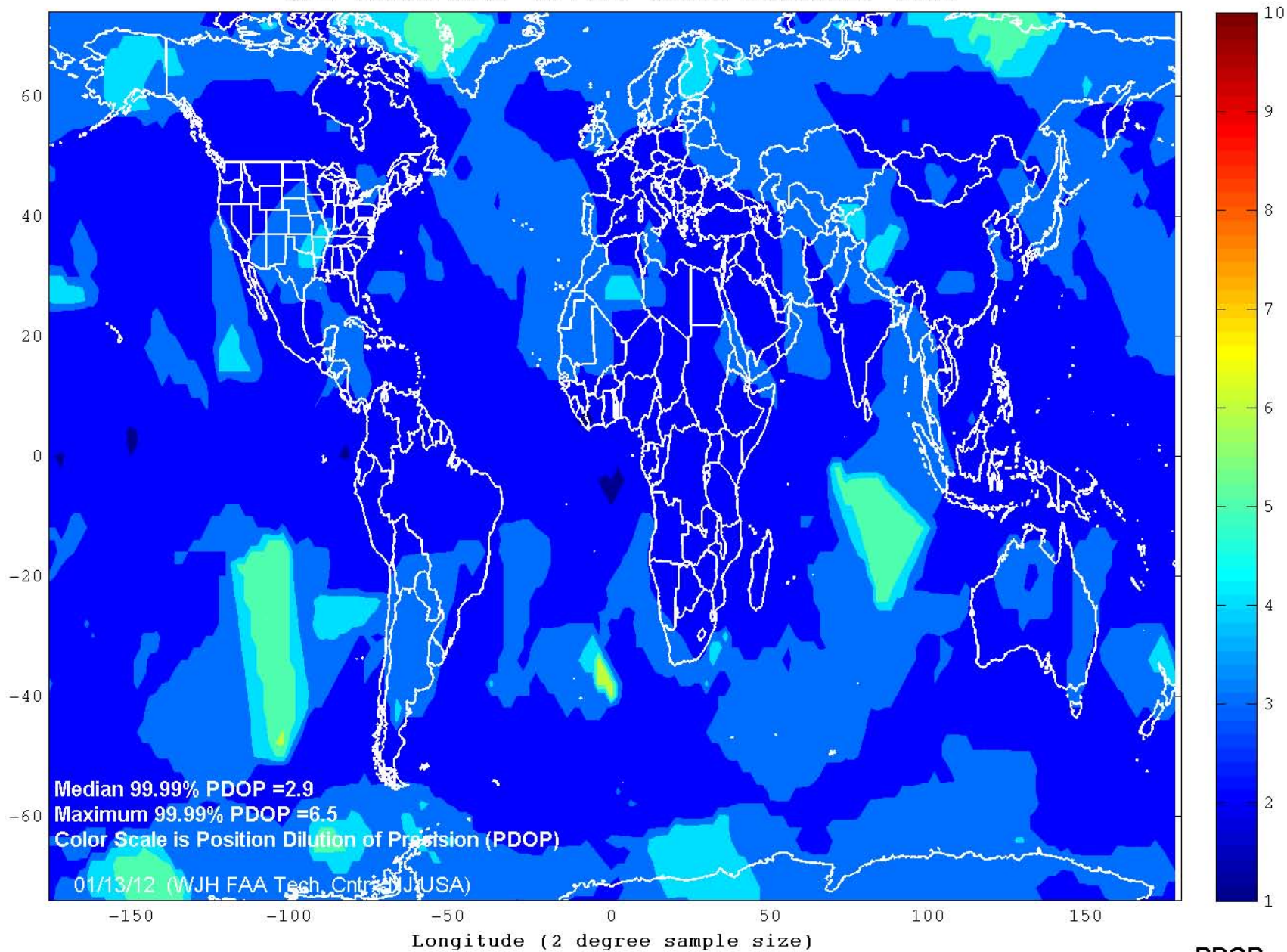
Operational Performance Parameter	CY 2010	Nov 2011	Dec 2011	Long term	Short term
Availability Parameters					
<i>Average Number of satellites usable</i>	30.90	30.96	30.67	↓	↓
<i>Average number of satellites usable in primary slots</i>	23.92 (99.68%)	23.97 (99.90%)	23.96 (99.85%)	↑	↓
<i>Average availability of 6 satellites in view</i>	99.99%	99.99%	99.99%	→	→
99.99% Horizontal DOP					
<i>Area Median</i>	1.7	1.4	1.4	↑	→
<i>Worst Site</i>	7.9	3.4	3.5	↑	↓
99.99% Vertical DOP					
<i>Area Median</i>	3.1	2.5	2.6	↑	↓
<i>Worst Site</i>	18.1	7.3	6.2	↑	↑
99.99% Position DOP (PDOP)					
<i>Area Median</i>	3.4	2.8	2.9	↑	↓
<i>Worst Site</i>	19.1	8.0	6.5	↑	↑
Accuracy Parameters					
RMS Single Frequency User Range Error					
<i>Constellation Median</i>	1.63	2.67	2.36	↓	↑
<i>Worst Satellite</i>	2.11	3.87	3.79	↓	↑
95% Horizontal Error					
<i>Area Median</i>	2.23	3.22	2.84	↓	↑
<i>Worst Site</i>	4.51	11.04	9.02	↓	↑
<i>Availability (% <4.5m (historical 3-sigma))</i>	99.71%	99.34%	99.69%	↓	↑
95% Vertical Error					
<i>Area Median</i>	3.93	7.79	7.04	↓	↑
<i>Worst Site</i>	5.35	11.59	9.02	↓	↑
<i>Availability (% < 9m (historical 3-sigma))</i>	99.96%	97.47%	98.87%	↓	↑

Key: ↑ improving ↓ worsening → no significant change

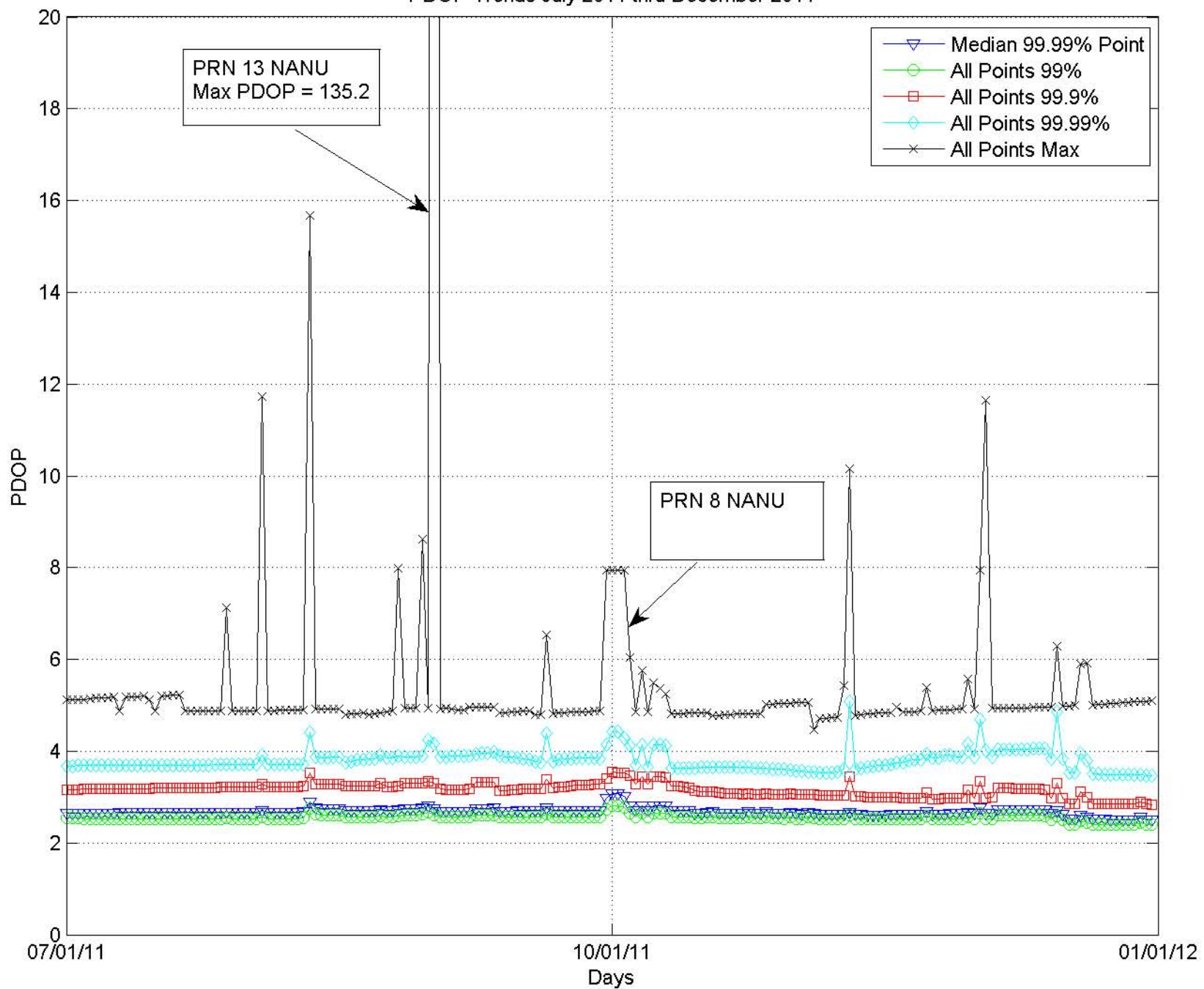
Long Term is current month vs. prior 24 months; Short Term is current month vs. prior month

Compiled from WAAS network as requested by the Defense Science Board

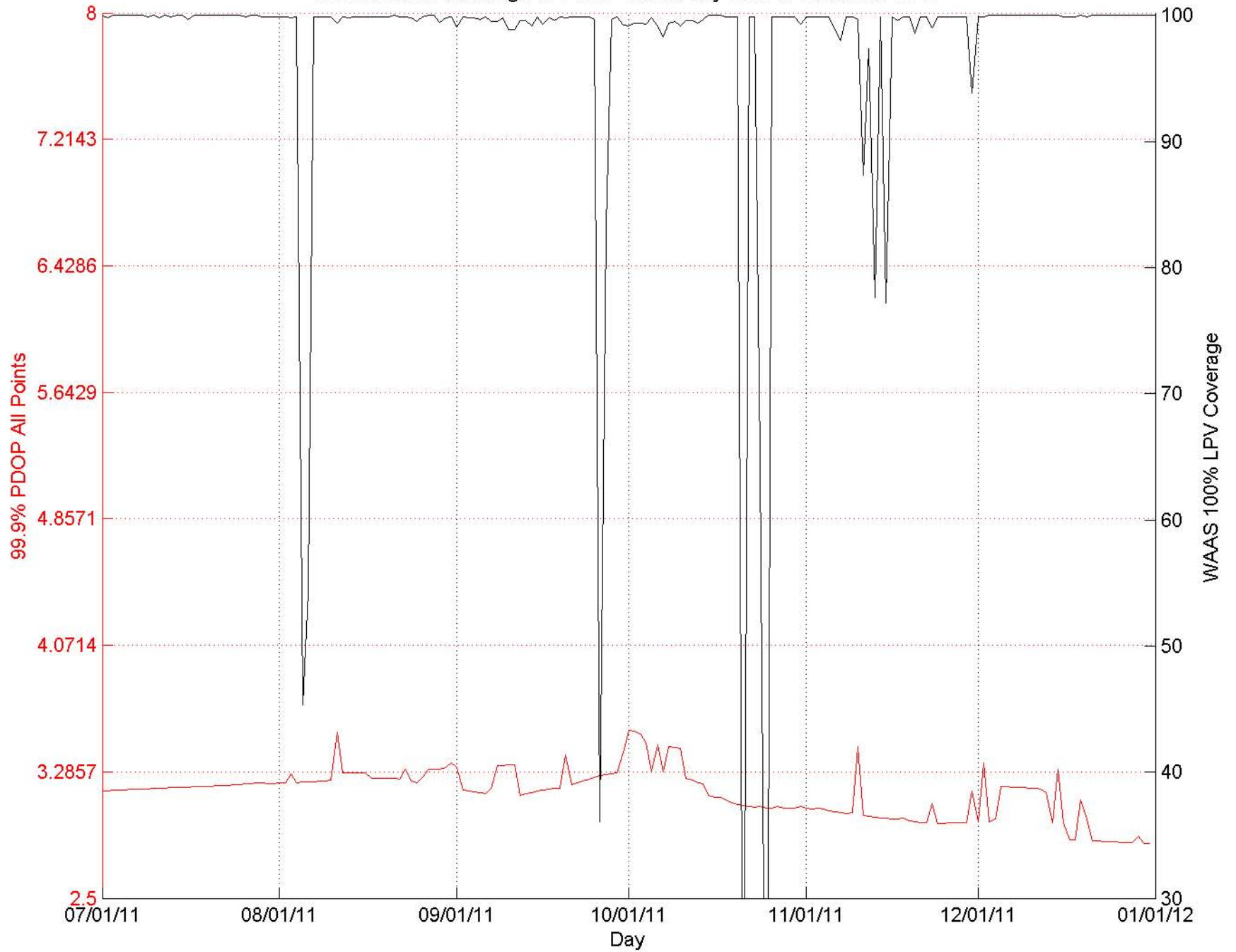
GPS World PDOP 99.99% Index December 2011



PDOP Trends July 2011 thru December 2011



WAAS Conus Coverage vs PDOP Trends July 2011 to December 2011



Six Satellite Availability Trends July 2011 thru December 2011

