

Civil Report Card On GPS Performance

January 2011

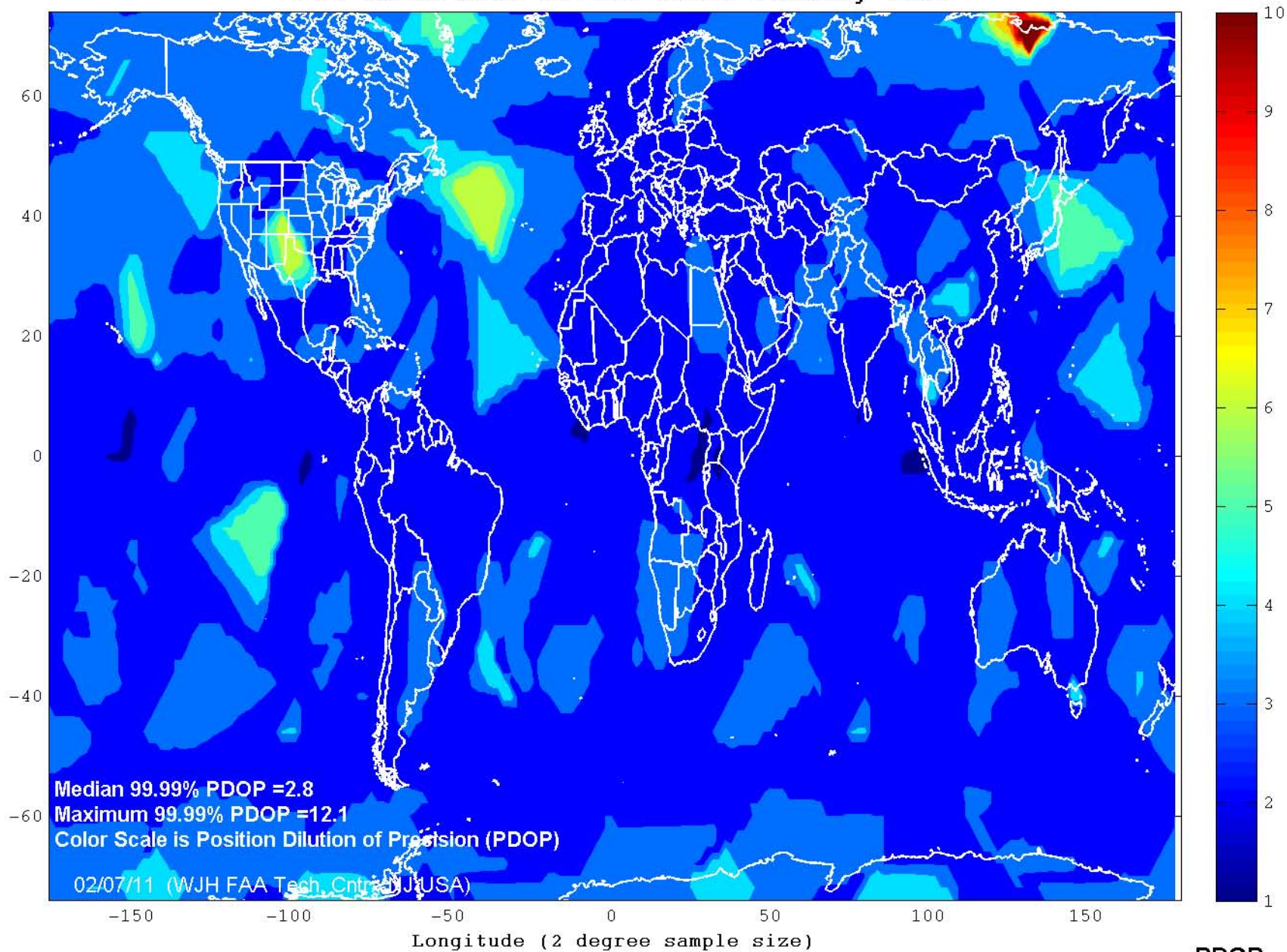
Operational Performance Parameter	CY 2010	Dec 2010	Jan 2011	Long term	Short term
Availability Parameters					
<i>Average Number of satellites usable</i>	30.90	30.97	30.95	↑	↓
<i>Average number of satellites usable in primary slots</i>	23.92 (99.68%)	23.99 (99.96%)	23.98 (99.90%)	↑	↓
<i>Average availability of 6 satellites in view</i>	99.99%	100%	99.99%	→	↓
99.99% Horizontal DOP					
<i>Area Median</i>	1.7	1.3	1.4	↑	↓
<i>Worst Site</i>	7.9	2.8	3.2	↑	↓
99.99% Vertical DOP					
<i>Area Median</i>	3.1	2.4	2.5	↑	↓
<i>Worst Site</i>	18.1	6.8	11.7	↑	↓
99.99% Position DOP (PDOP)					
<i>Area Median</i>	3.4	2.7	2.8	↑	↓
<i>Worst Site</i>	19.1	7.2	12.1	↑	↓
Accuracy Parameters					
RMS Single Frequency User Range Error					
<i>Constellation Median</i>	1.63	1.77	1.70	↓	↑
<i>Worst Satellite</i>	2.11	2.66	2.35	↓	↑
95% Horizontal Error					
<i>Area Median</i>	2.23	2.26	2.21	↑	↑
<i>Worst Site</i>	4.51	4.22	3.85	↑	↑
<i>Availability (% <4.5m (historical 3-sigma))</i>	99.71%	99.87%	99.92%	↑	↑
95% Vertical Error					
<i>Area Median</i>	3.93	4.34	4.20	↓	↑
<i>Worst Site</i>	5.35	5.21	5.02	↑	↑
<i>Availability (% < 9m (historical 3-sigma))</i>	99.96%	99.99%	99.99%	↑	→

Key: ↑ improving ↓ worsening → no significant change

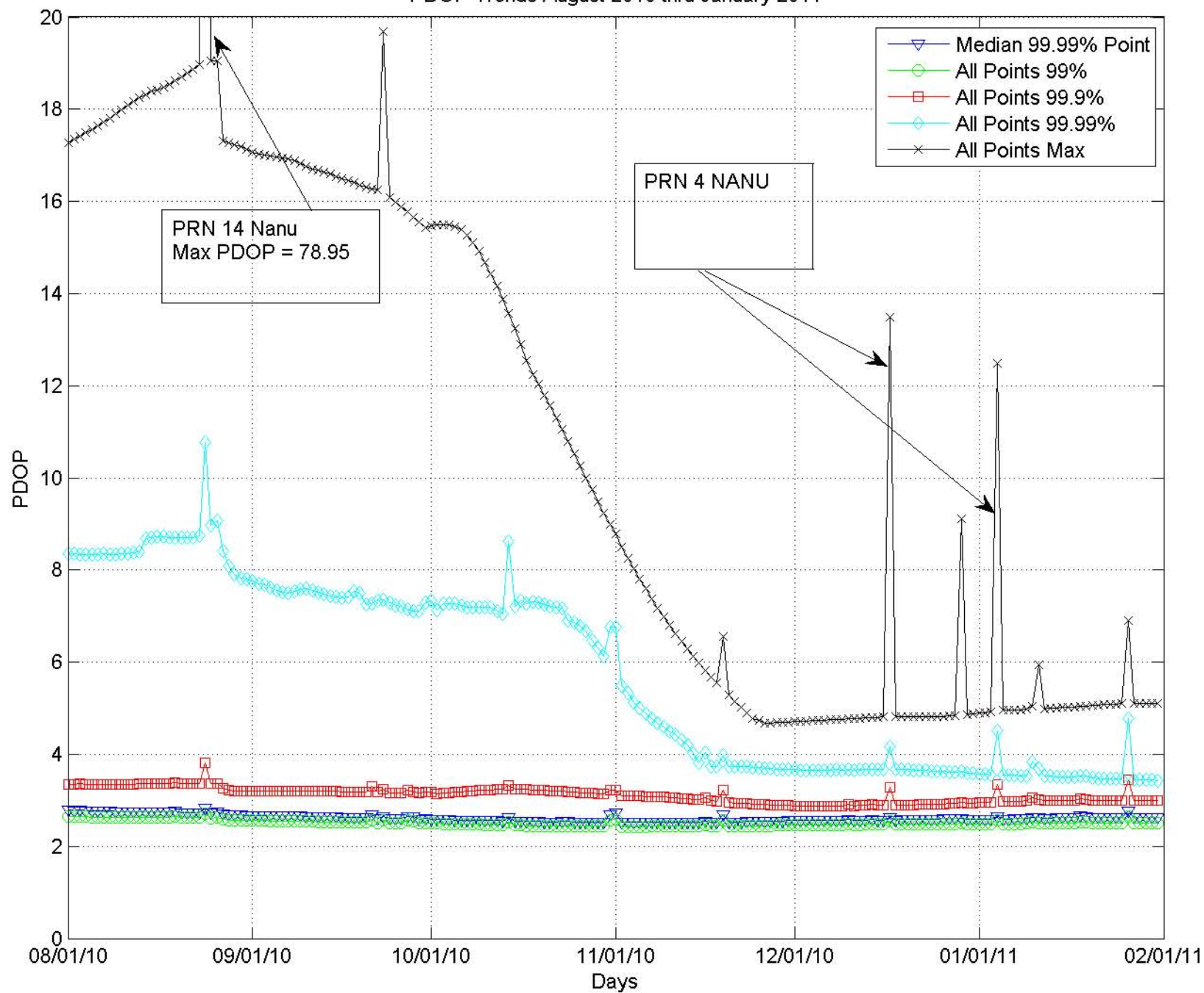
Long Term is current month vs. prior 24 months; Short Term is current month vs. prior month

Compiled from WAAS network as requested by the Defense Science Board

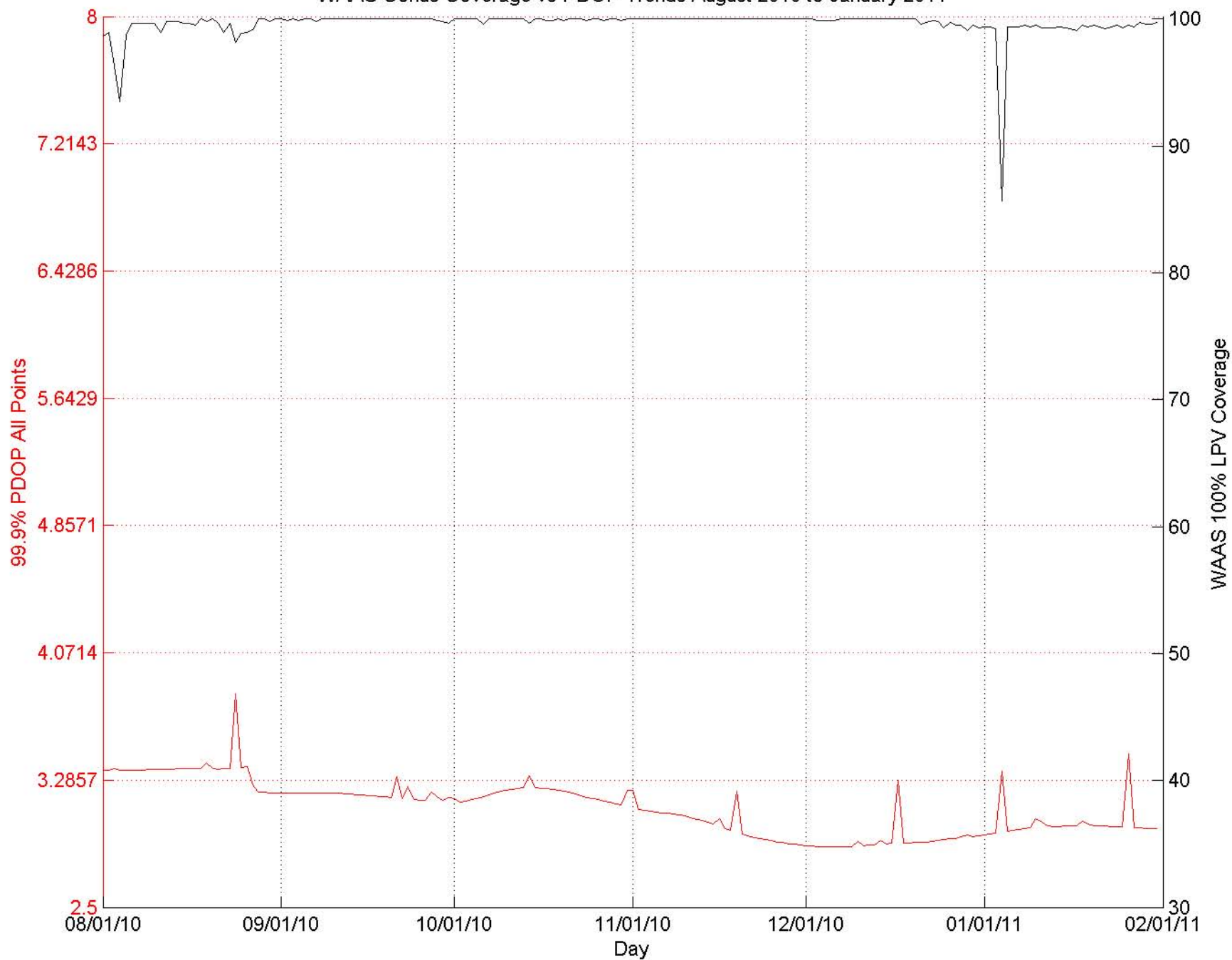
GPS World PDOP 99.99% Index January 2011



PDOP Trends August 2010 thru January 2011



WAAS Conus Coverage vs PDOP Trends August 2010 to January 2011



Six Satellite Availability Trends August 2010 thru January 2011

