

Civil Report Card On GPS Performance

May 2011

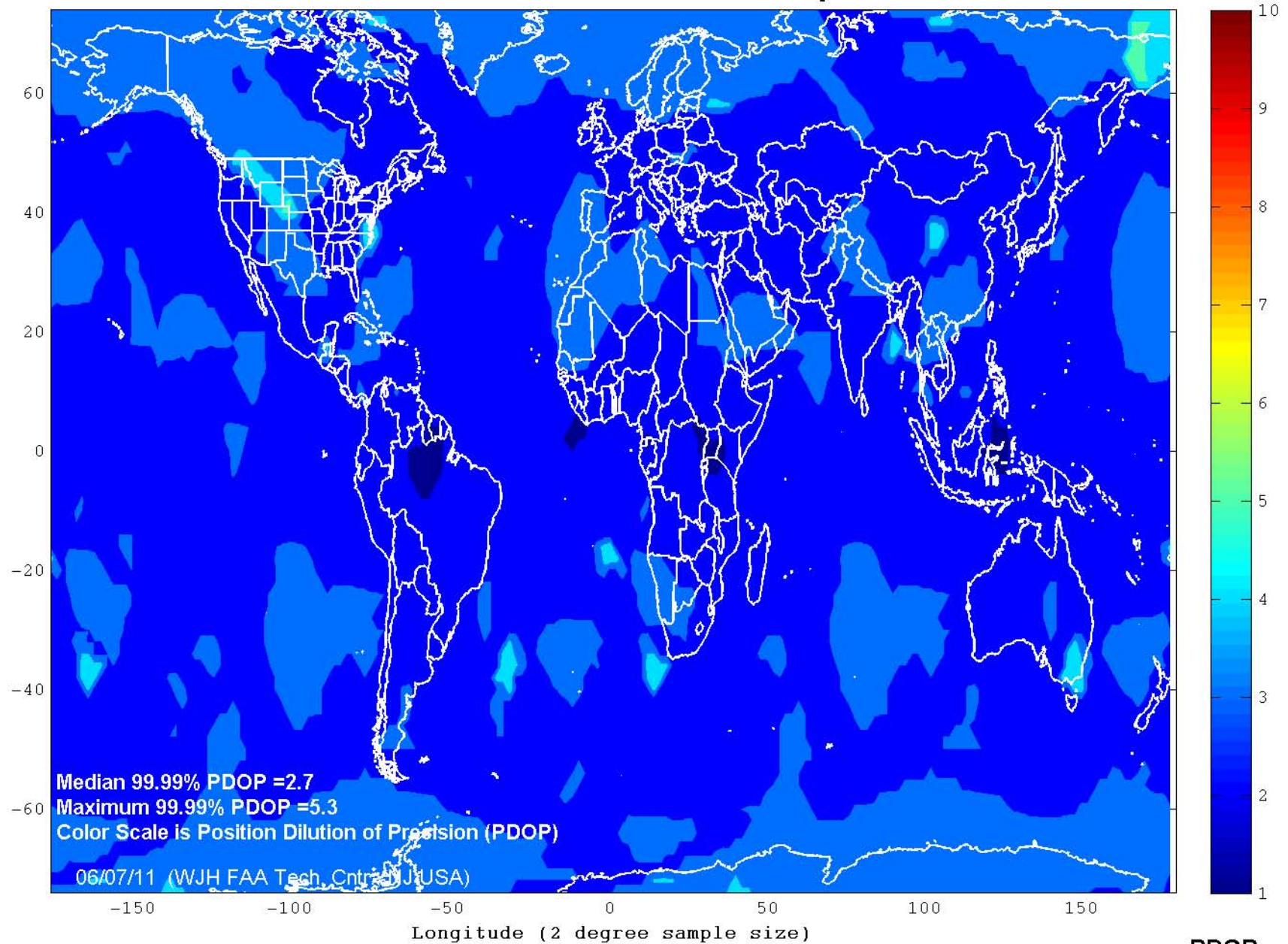
Operational Performance Parameter	CY 2010	Apr 2011	May 2011	Long term	Short term
Availability Parameters					
<i>Average Number of satellites usable</i>	30.90	30.94	30.30	↓	↓
<i>Average number of satellites usable in primary slots</i>	23.92 (99.68%)	23.98 (99.93%)	23.98 (99.93%)	↑	→
<i>Average availability of 6 satellites in view</i>	99.99%	99.99%	100%	↑	↑
99.99% Horizontal DOP					
<i>Area Median</i>	1.7	1.4	1.4	↑	→
<i>Worst Site</i>	7.9	2.6	2.7	↑	↓
99.99% Vertical DOP					
<i>Area Median</i>	3.1	2.5	2.5	↑	→
<i>Worst Site</i>	18.1	6.4	4.9	↑	↑
99.99% Position DOP (PDOP)					
<i>Area Median</i>	3.4	2.7	2.7	↑	→
<i>Worst Site</i>	19.1	6.6	5.3	↑	↑
Accuracy Parameters					
RMS Single Frequency User Range Error					
<i>Constellation Median</i>	1.63	1.98	1.80	↓	↑
<i>Worst Satellite</i>	2.11	2.48	2.26	↓	↑
95% Horizontal Error					
<i>Area Median</i>	2.23	3.00	2.90	↓	↑
<i>Worst Site</i>	4.51	7.05	5.40	↓	↑
<i>Availability (% <4.5m (historical 3-sigma))</i>	99.71%	98.12%	98.96%	↓	↑
95% Vertical Error					
<i>Area Median</i>	3.93	4.38	3.94	↓	↑
<i>Worst Site</i>	5.35	7.70	6.60	↓	↑
<i>Availability (% < 9m (historical 3-sigma))</i>	99.96%	99.73%	99.90%	↓	↑

Key: ↑ improving ↓ worsening → no significant change

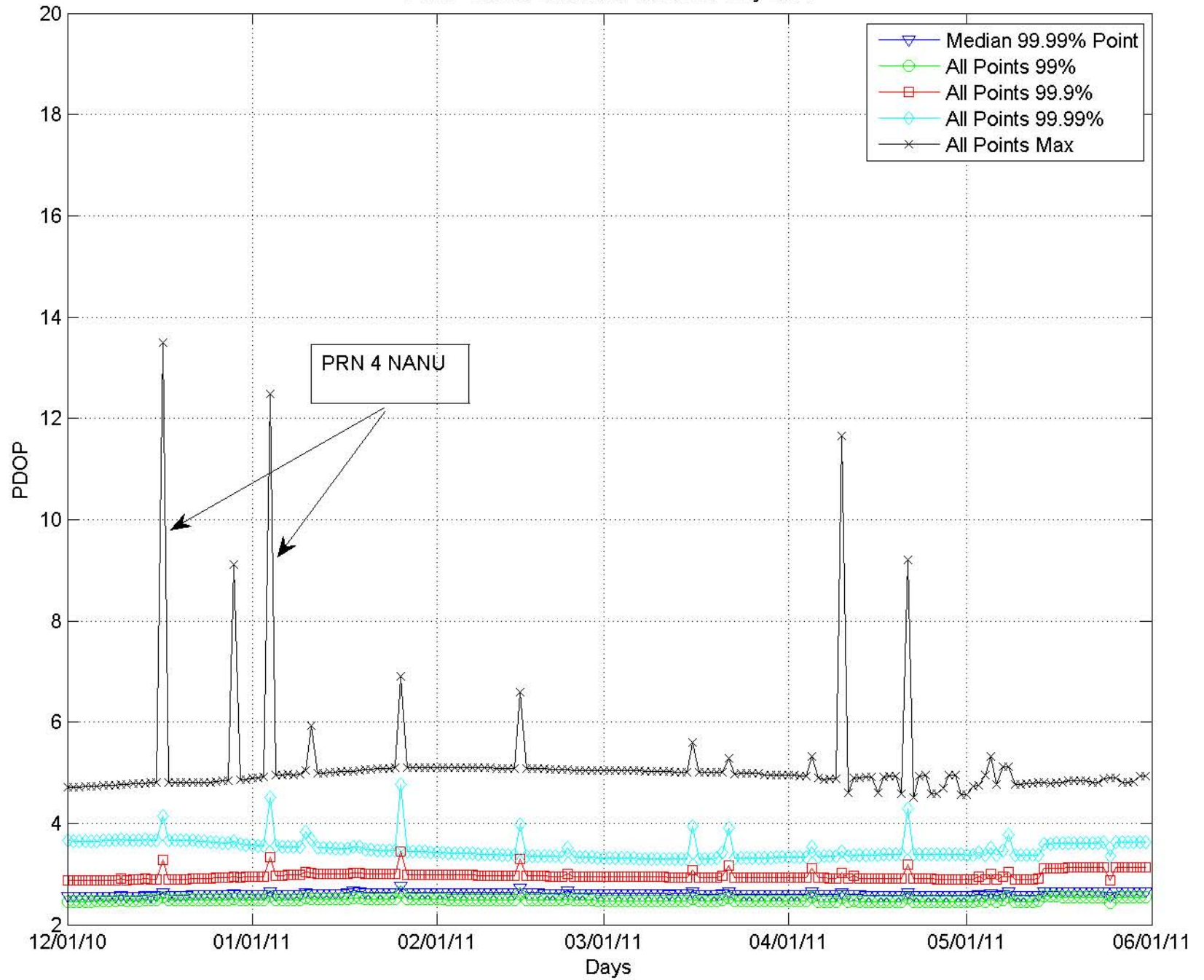
Long Term is current month vs. prior 24 months; Short Term is current month vs. prior month

Compiled from WAAS network as requested by the Defense Science Board

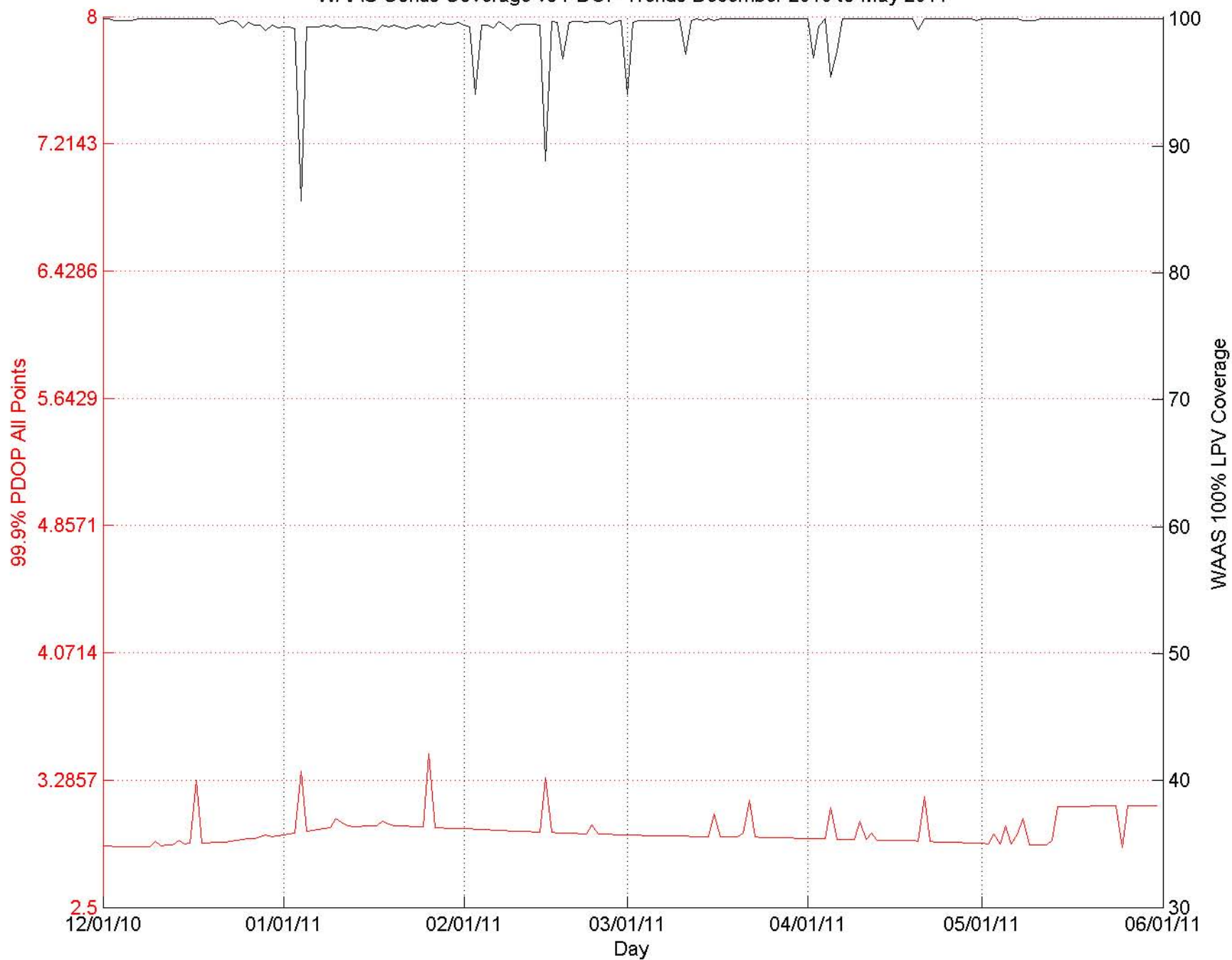
GPS World PDOP 99.99% Index May 2011



PDOP Trends December 2010 thru May 2011



WAAS Conus Coverage vs PDOP Trends December 2010 to May 2011



Six Satellite Availability Trends December 2010 thru May 2011

