

Civil Report Card On GPS Performance

May 2010

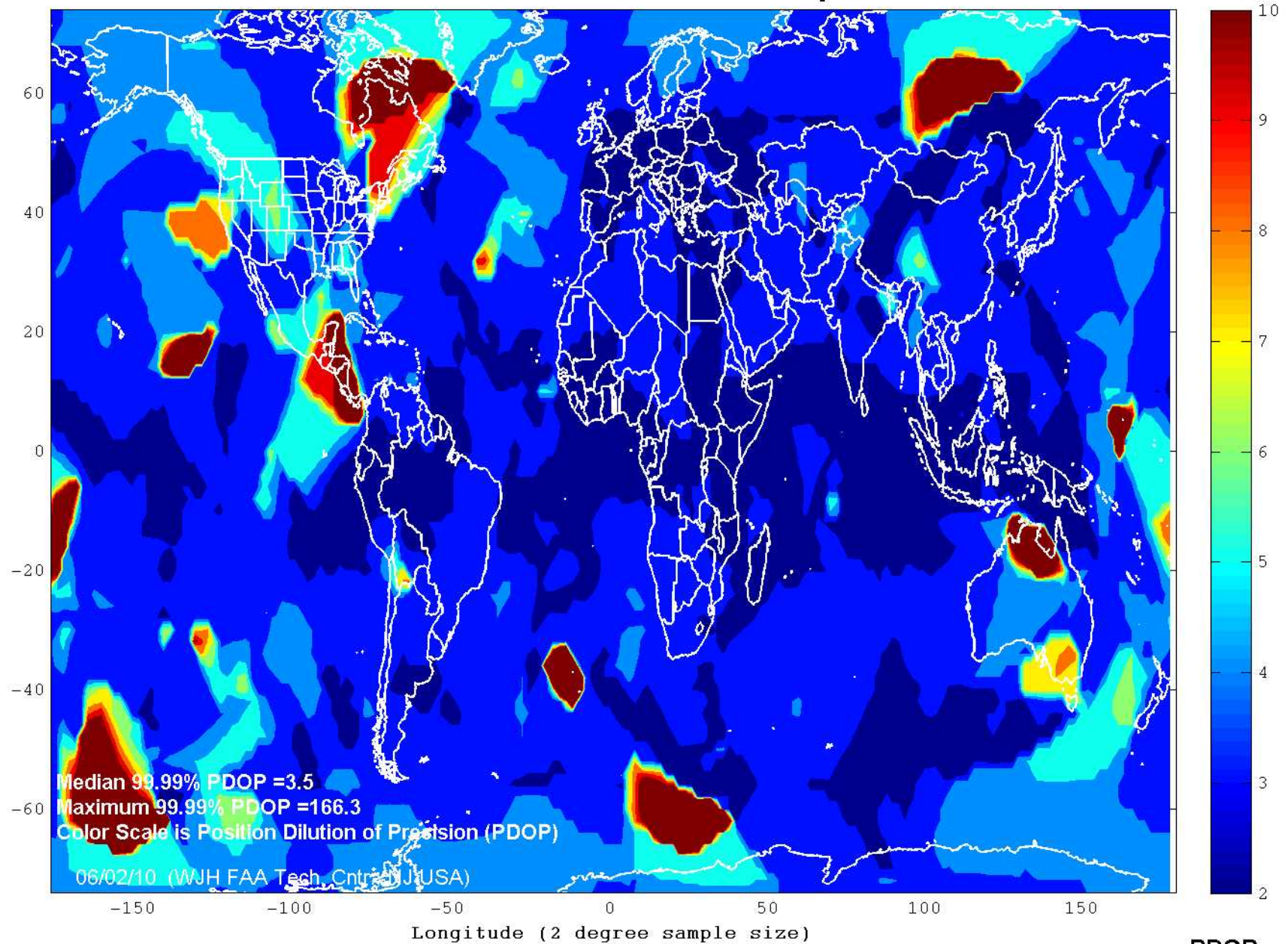
Operational Performance Parameter	CY 2009	April 2010	May 2010	Long term	Short term
Availability Parameters					
<i>Average Number of satellites usable</i>	30.85	30.57	30.81	↓	↑
<i>Average number of satellites usable in primary slots</i>	23.90 (99.59%)	23.57 (98.22%)	23.93 (99.72%)	↑	↑
<i>Average availability of 6 satellites in view</i>	99.99%	99.99%	99.99%	→	→
99.99% Horizontal DOP					
<i>Area Median</i>	1.7	1.6	1.7	→	↓
<i>Worst Site</i>	4.8	39.9	63.6	↓	↓
99.99% Vertical DOP					
<i>Area Median</i>	3.1	3.0	3.1	→	↓
<i>Worst Site</i>	12.0	61.1	153.7	↓	↓
99.99% Position DOP (PDOP)					
<i>Area Median</i>	3.5	3.3	3.5	→	↓
<i>Worst Site</i>	12.8	71.4	166.3	↓	↓
Accuracy Parameters					
RMS Single Frequency User Range Error					
<i>Constellation Median</i>	1.67	1.72	1.57	↑	↑
<i>Worst Satellite</i>	2.26	2.24	1.98	↑	↑
95% Horizontal Error					
<i>Area Median</i>	2.10	2.43	2.43	↓	→
<i>Worst Site</i>	3.95	5.29	4.28	↓	↑
<i>Availability (% <4.5m (historical 3-sigma))</i>	99.80%	99.04%	99.52%	↓	↑
95% Vertical Error					
<i>Area Median</i>	4.11	4.27	3.68	↑	↑
<i>Worst Site</i>	5.97	6.10	4.71	↑	↑
<i>Availability (% < 9m (historical 3-sigma))</i>	99.98%	99.90%	99.96%	↓	↑

Key: ↑ improving ↓ worsening → no significant change

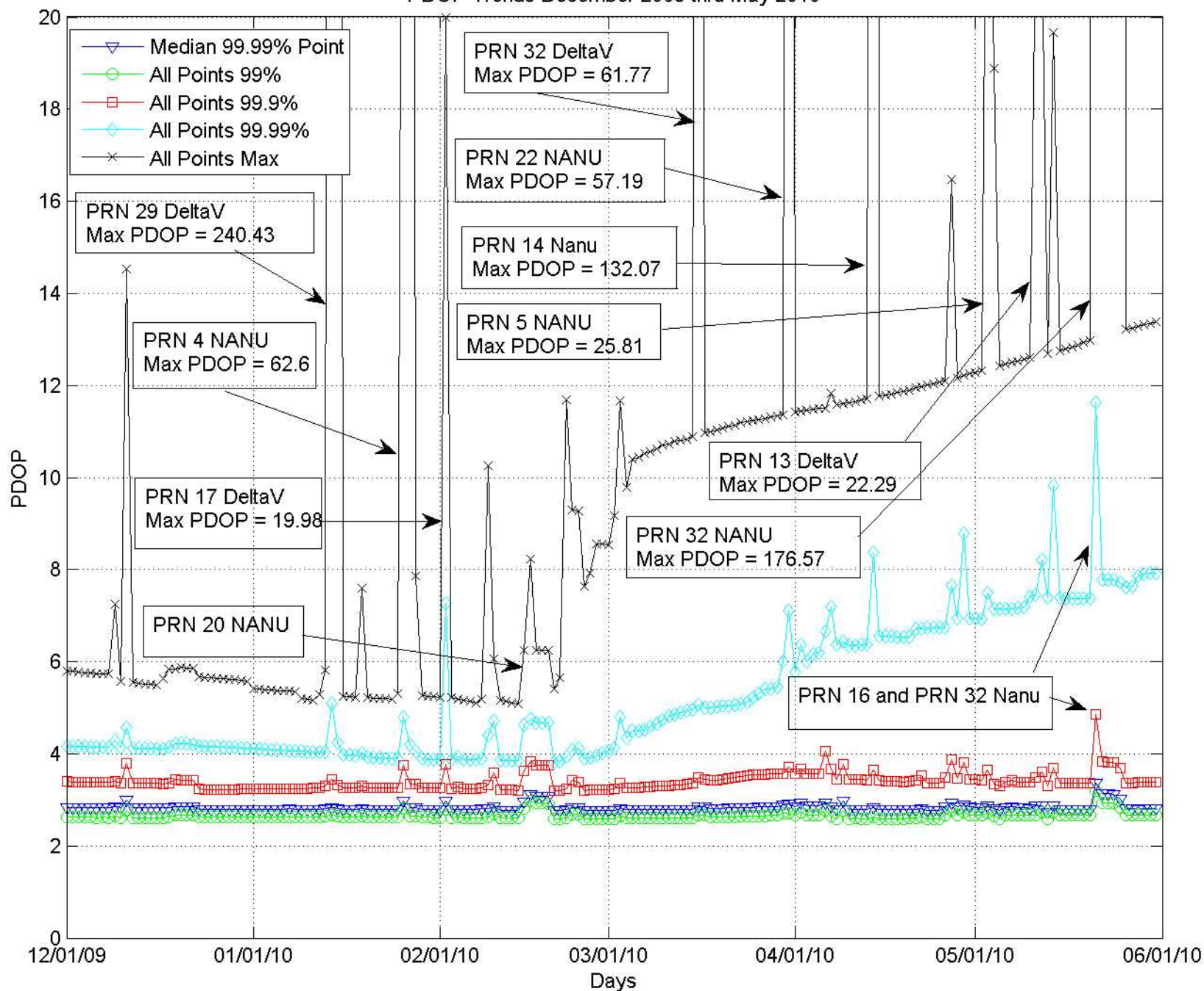
Long Term is current month vs. prior 24 months; Short Term is current month vs. prior month

Compiled from WAAS network as requested by the Defense Science Board

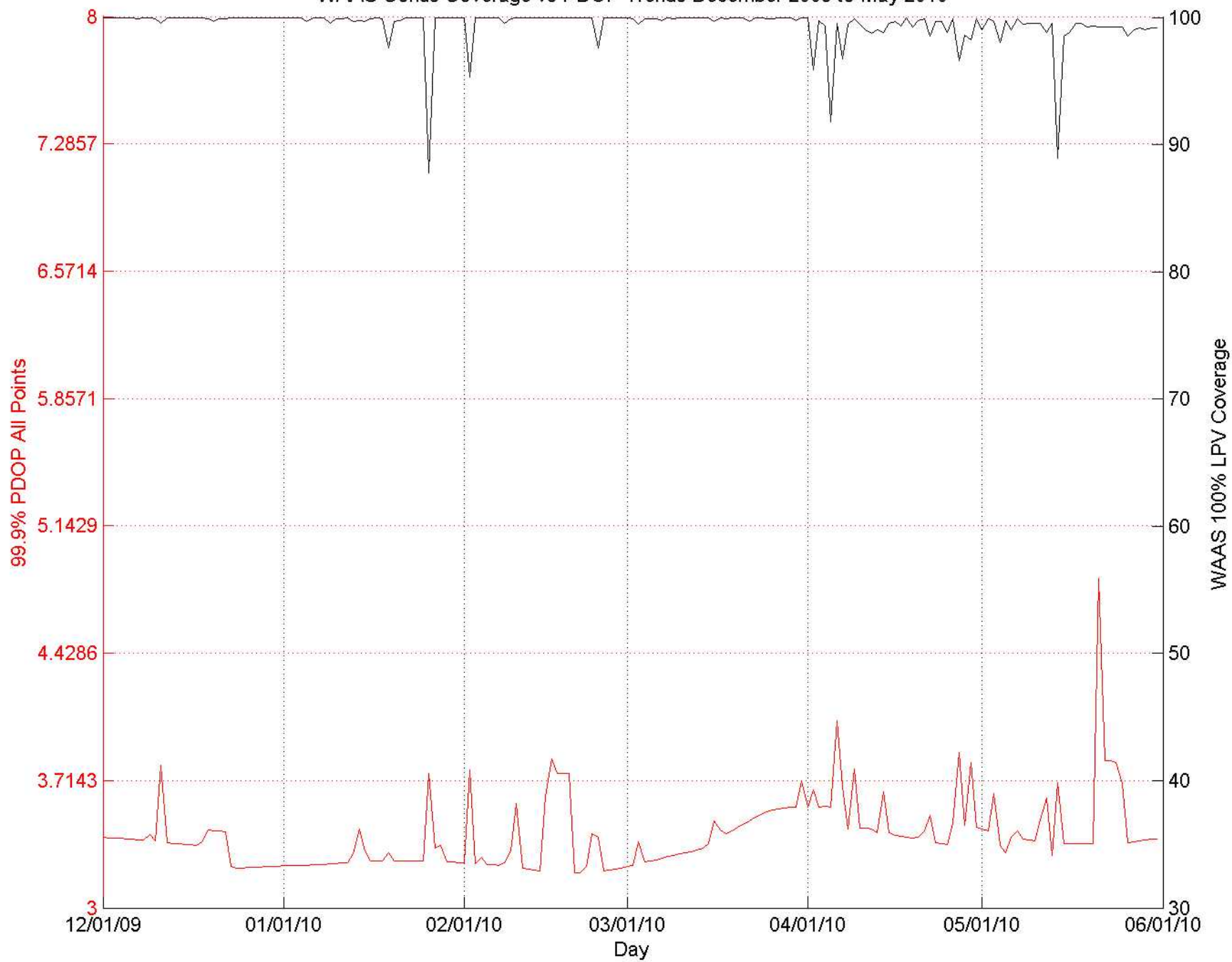
GPS World PDOP 99.99% Index May 2010



PDOP Trends December 2009 thru May 2010



WAAS Conus Coverage vs PDOP Trends December 2009 to May 2010



Six Satellite Availability Trends December 2009 thru May 2010

