

Civil Report Card On GPS Performance

July 2010

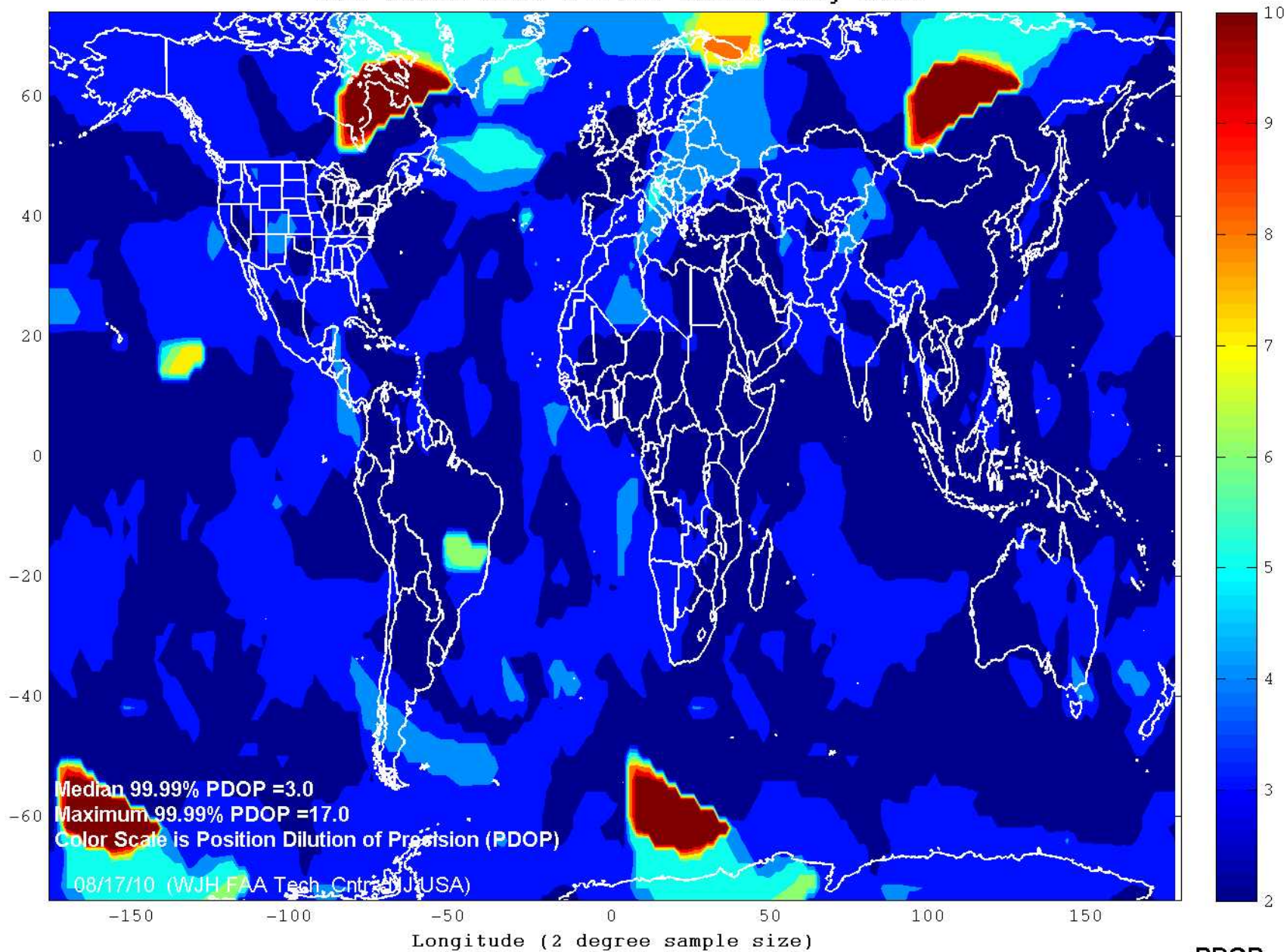
Operational Performance Parameter	CY 2009	June 2010	July 2010	Long term	Short term
Availability Parameters					
<i>Average Number of satellites usable</i>	30.85	30.99	30.99	↑	→
<i>Average number of satellites usable in primary slots</i>	23.90 (99.59%)	23.99 (99.94%)	23.99 (99.96%)	↑	↑
<i>Average availability of 6 satellites in view</i>	99.99%	99.99%	99.99%	→	→
99.99% Horizontal DOP					
<i>Area Median</i>	1.7	1.6	1.5	↑	↑
<i>Worst Site</i>	4.8	6.2	7.1	↓	↓
99.99% Vertical DOP					
<i>Area Median</i>	3.1	2.7	2.7	↑	→
<i>Worst Site</i>	12.0	22.0	15.7	↓	↑
99.99% Position DOP (PDOP)					
<i>Area Median</i>	3.5	3.1	3.0	↑	↑
<i>Worst Site</i>	12.8	22.1	17.0	↓	↑
Accuracy Parameters					
RMS Single Frequency User Range Error					
<i>Constellation Median</i>	1.67	1.49	1.43	↑	↑
<i>Worst Satellite</i>	2.26	2.19	1.80	↑	↑
95% Horizontal Error					
<i>Area Median</i>	2.10	2.12	2.37	↓	↓
<i>Worst Site</i>	3.95	2.85	4.51	↓	↓
<i>Availability (% <4.5m (historical 3-sigma))</i>	99.80%	99.89%	99.84%	↑	↓
95% Vertical Error					
<i>Area Median</i>	4.11	3.61	3.89	↑	↓
<i>Worst Site</i>	5.97	4.42	5.11	↑	↓
<i>Availability (% < 9m (historical 3-sigma))</i>	99.98%	99.96%	99.94%	↓	↓

Key: ↑ improving ↓ worsening → no significant change

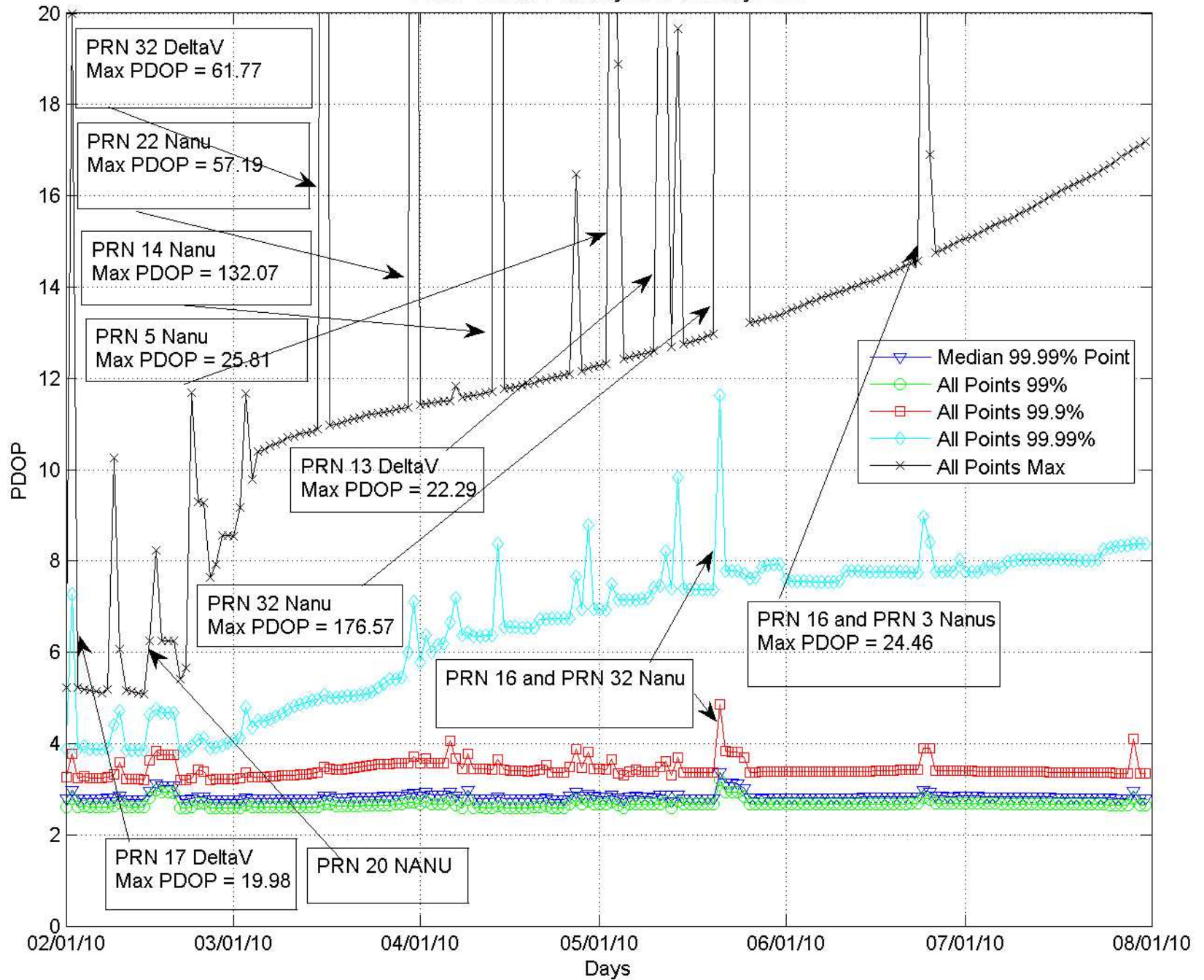
Long Term is current month vs. prior 24 months; Short Term is current month vs. prior month

Compiled from WAAS network as requested by the Defense Science Board

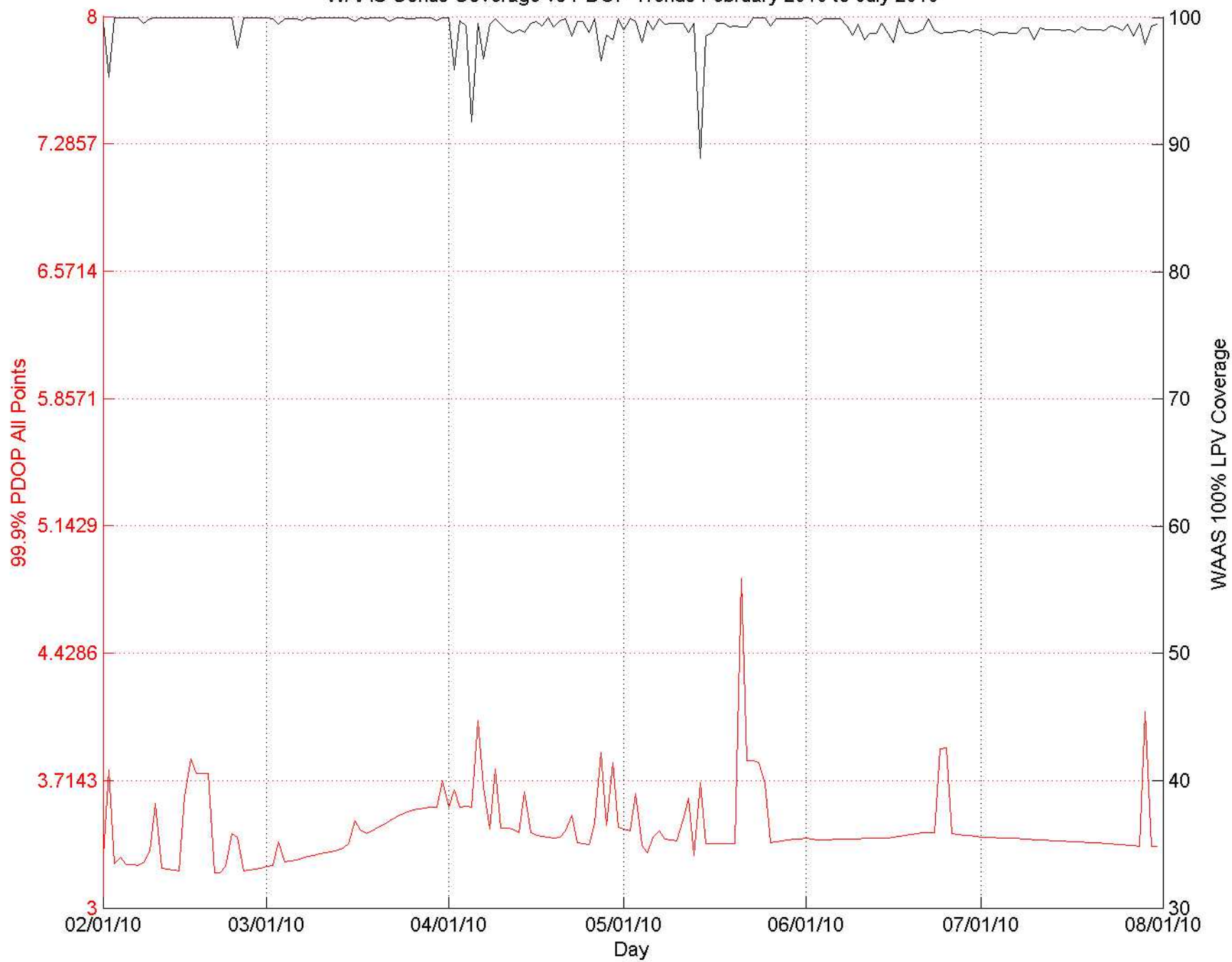
GPS World PDOP 99.99% Index July 2010



PDOP Trends February 2010 thru July 2010



WAAS Conus Coverage vs PDOP Trends February 2010 to July 2010



Six Satellite Availability Trends February 2010 thru July 2010

