

Civil Report Card On GPS Performance

August 2010

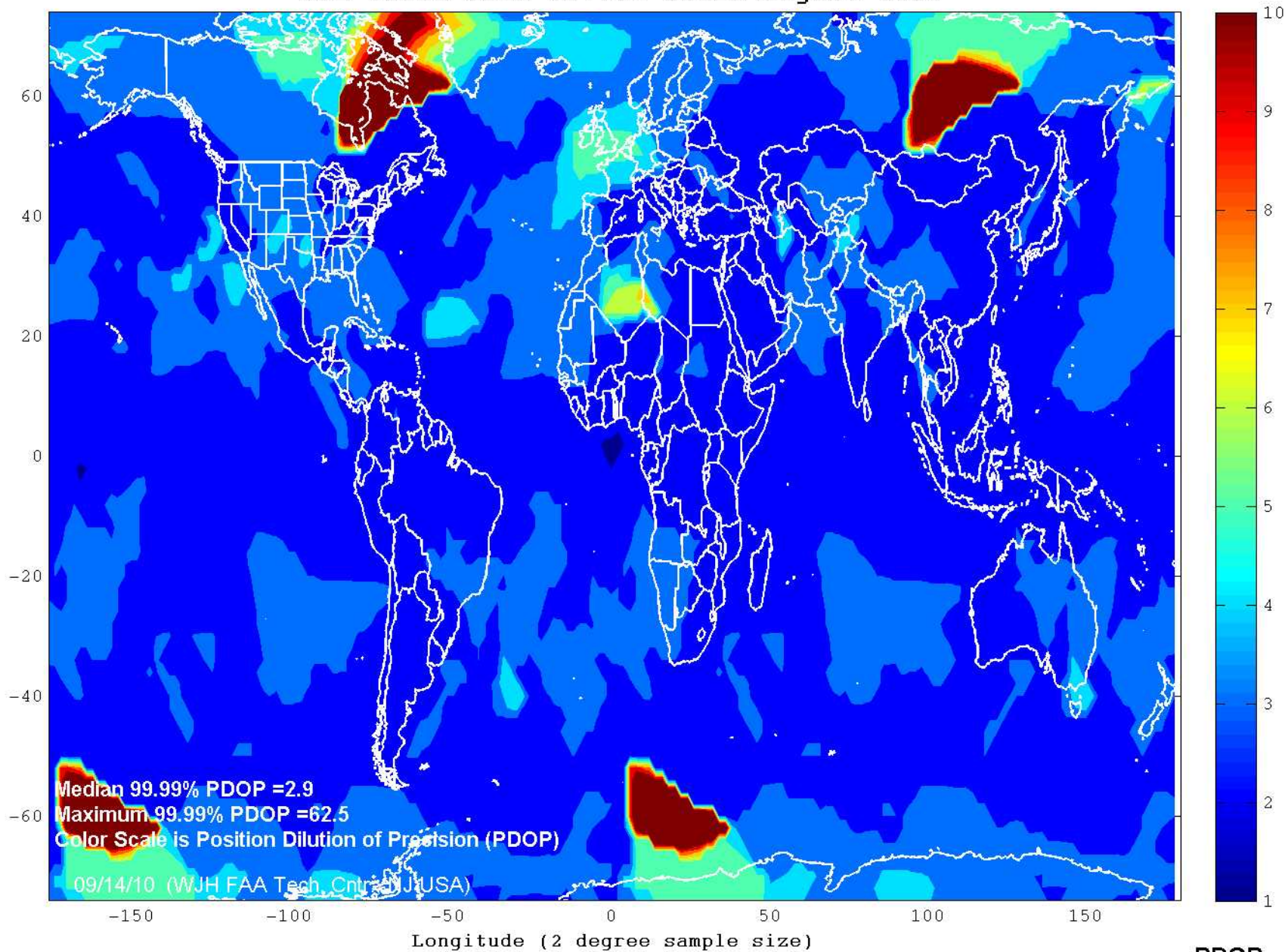
Operational Performance Parameter	CY 2009	July 2010	August 2010	Long term	Short term
Availability Parameters					
<i>Average Number of satellites usable</i>	30.85	30.99	30.96	↑	↓
<i>Average number of satellites usable in primary slots</i>	23.90 (99.59%)	23.99 (99.96%)	23.98 (99.92%)	↑	↓
<i>Average availability of 6 satellites in view</i>	99.99%	99.99%	99.99%	→	→
99.99% Horizontal DOP					
<i>Area Median</i>	1.7	1.5	1.5	↑	→
<i>Worst Site</i>	4.8	7.1	37.0	↓	↓
99.99% Vertical DOP					
<i>Area Median</i>	3.1	2.7	2.5	↑	↑
<i>Worst Site</i>	12.0	15.7	52.0	↓	↓
99.99% Position DOP (PDOP)					
<i>Area Median</i>	3.5	3.0	2.9	↑	↑
<i>Worst Site</i>	12.8	17.0	62.5	↓	↓
Accuracy Parameters					
RMS Single Frequency User Range Error					
<i>Constellation Median</i>	1.67	1.43	1.47	↑	↓
<i>Worst Satellite</i>	2.26	1.80	1.78	↑	↑
95% Horizontal Error					
<i>Area Median</i>	2.10	2.37	2.01	↑	↑
<i>Worst Site</i>	3.95	4.51	3.58	↑	↑
<i>Availability (% <4.5m (historical 3-sigma))</i>	99.80%	99.84%	99.92%	↑	↑
95% Vertical Error					
<i>Area Median</i>	4.11	3.89	3.48	↑	↑
<i>Worst Site</i>	5.97	5.11	5.35	↑	↓
<i>Availability (% < 9m (historical 3-sigma))</i>	99.98%	99.94%	99.96%	↑	↑

Key: ↑ improving ↓ worsening → no significant change

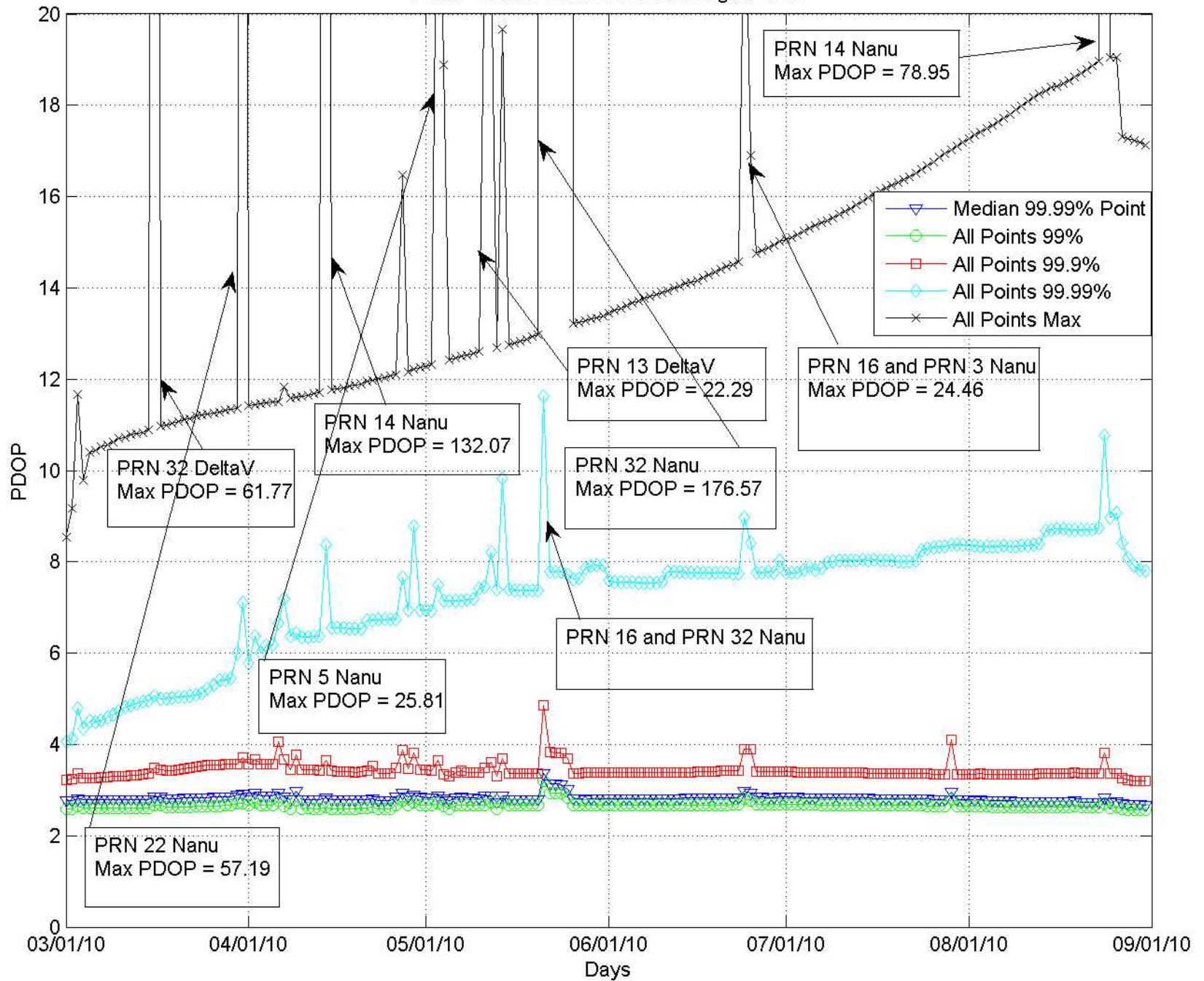
Long Term is current month vs. prior 24 months; Short Term is current month vs. prior month

Compiled from WAAS network as requested by the Defense Science Board

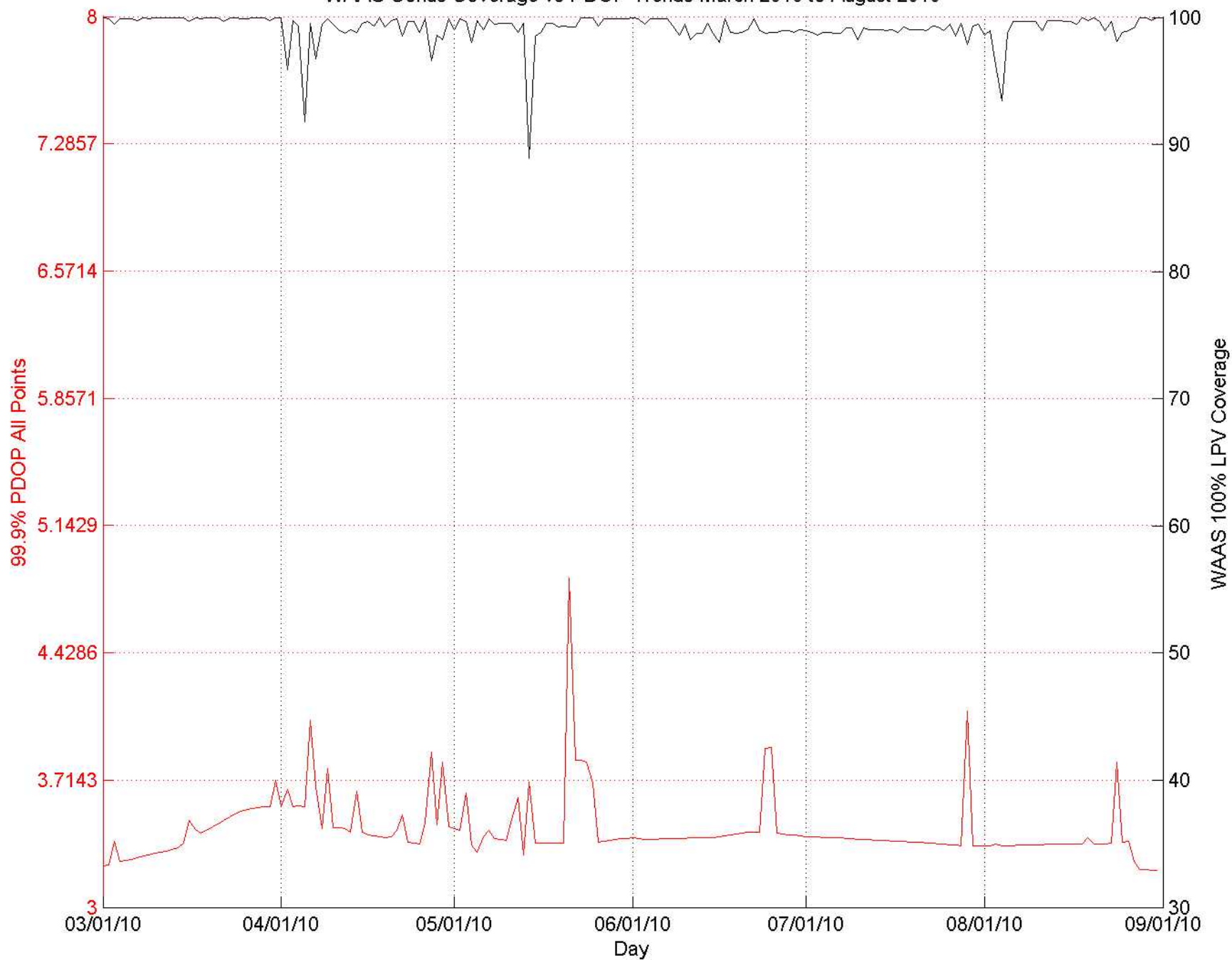
GPS World PDOP 99.99% Index August 2010



PDOP Trends March 2010 thru August 2010



WAAS Conus Coverage vs PDOP Trends March 2010 to August 2010



Six Satellite Availability Trends March 2010 thru August 2010

