

Civil Report Card On GPS Performance

September 2010

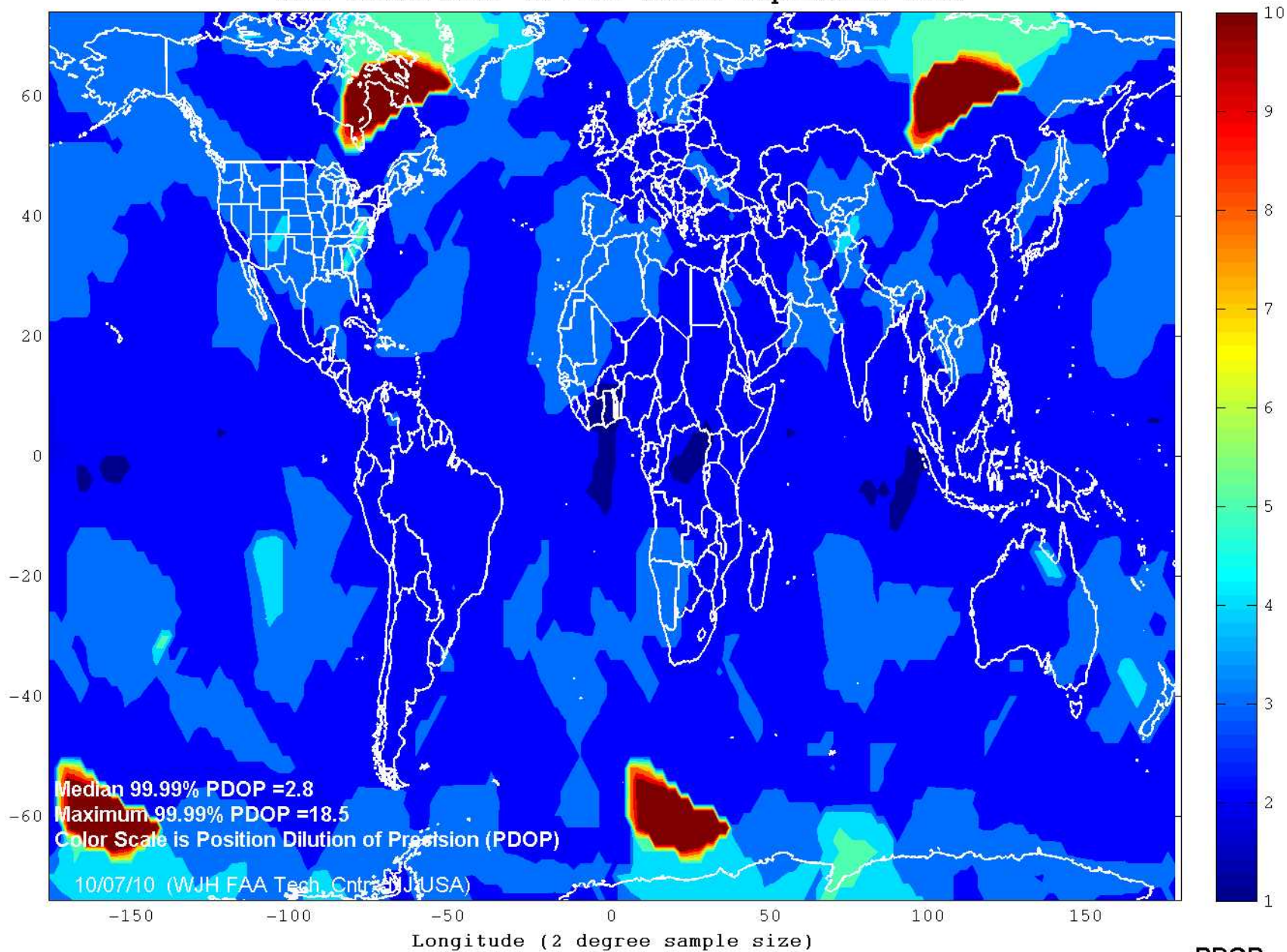
Operational Performance Parameter	CY 2009	August 2010	Sept 2010	Long term	Short term
Availability Parameters					
<i>Average Number of satellites usable</i>	30.85	30.96	30.97	↑	↑
<i>Average number of satellites usable in primary slots</i>	23.90 (99.59%)	23.98 (99.92%)	23.97 (99.89%)	↑	↓
<i>Average availability of 6 satellites in view</i>	99.99%	99.99%	99.99%	→	→
99.99% Horizontal DOP					
<i>Area Median</i>	1.7	1.5	1.4	↑	↑
<i>Worst Site</i>	4.8	37.0	7.1	↓	↑
99.99% Vertical DOP					
<i>Area Median</i>	3.1	2.5	2.5	↑	→
<i>Worst Site</i>	12.0	52.0	17.4	↓	↑
99.99% Position DOP (PDOP)					
<i>Area Median</i>	3.5	2.9	2.8	↑	↑
<i>Worst Site</i>	12.8	62.5	18.5	↓	↑
Accuracy Parameters					
RMS Single Frequency User Range Error					
<i>Constellation Median</i>	1.67	1.47	1.58	↑	↓
<i>Worst Satellite</i>	2.26	1.78	2.04	↑	↓
95% Horizontal Error					
<i>Area Median</i>	2.10	2.01	2.29	↓	↓
<i>Worst Site</i>	3.95	3.58	4.21	↓	↓
<i>Availability (% <4.5m (historical 3-sigma))</i>	99.80%	99.92%	99.75%	↓	↓
95% Vertical Error					
<i>Area Median</i>	4.11	3.48	3.59	↑	↓
<i>Worst Site</i>	5.97	5.35	5.13	↑	↑
<i>Availability (% < 9m (historical 3-sigma))</i>	99.98%	99.96%	99.96%	↓	→

Key: ↑ improving ↓ worsening → no significant change

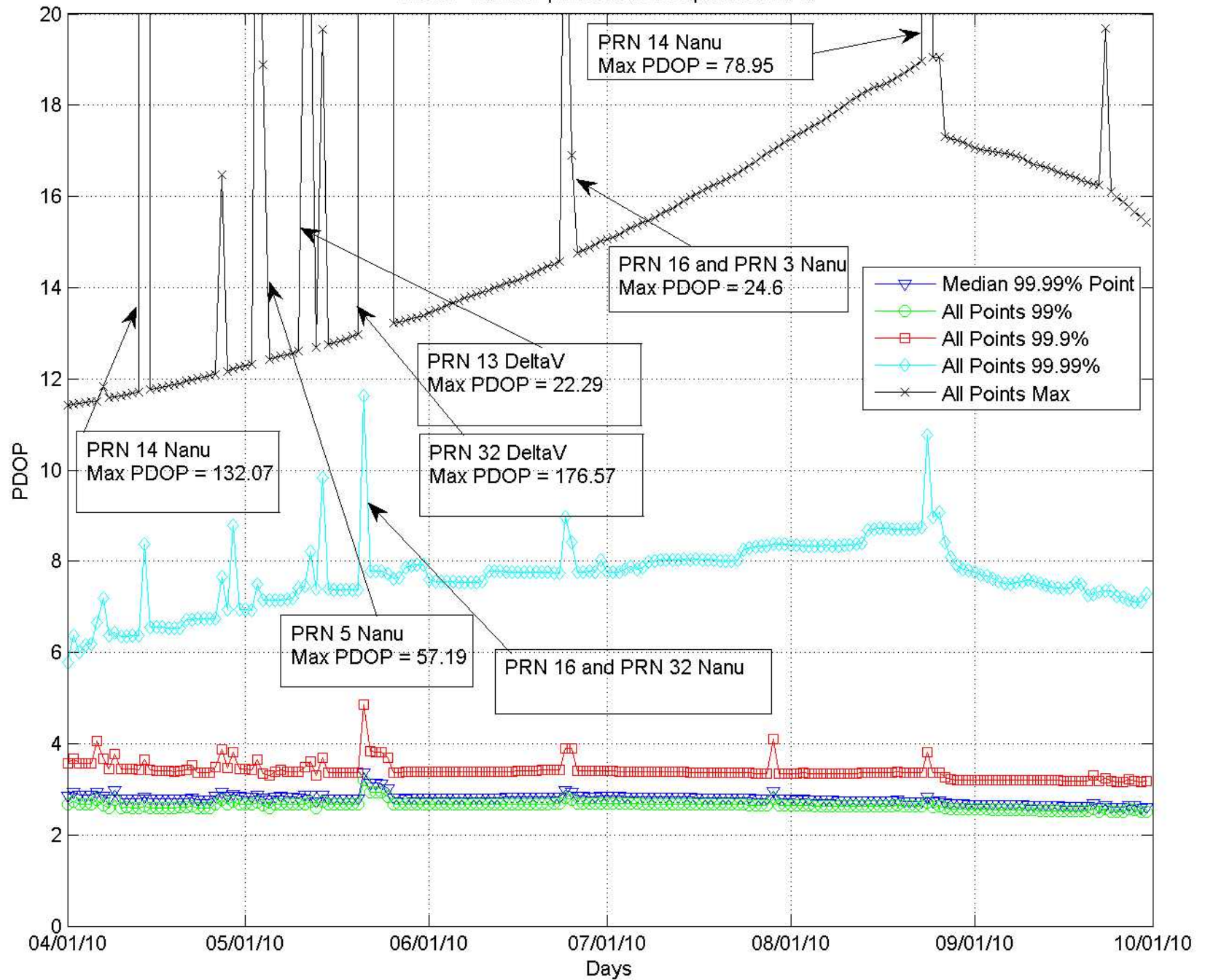
Long Term is current month vs. prior 24 months; Short Term is current month vs. prior month

Compiled from WAAS network as requested by the Defense Science Board

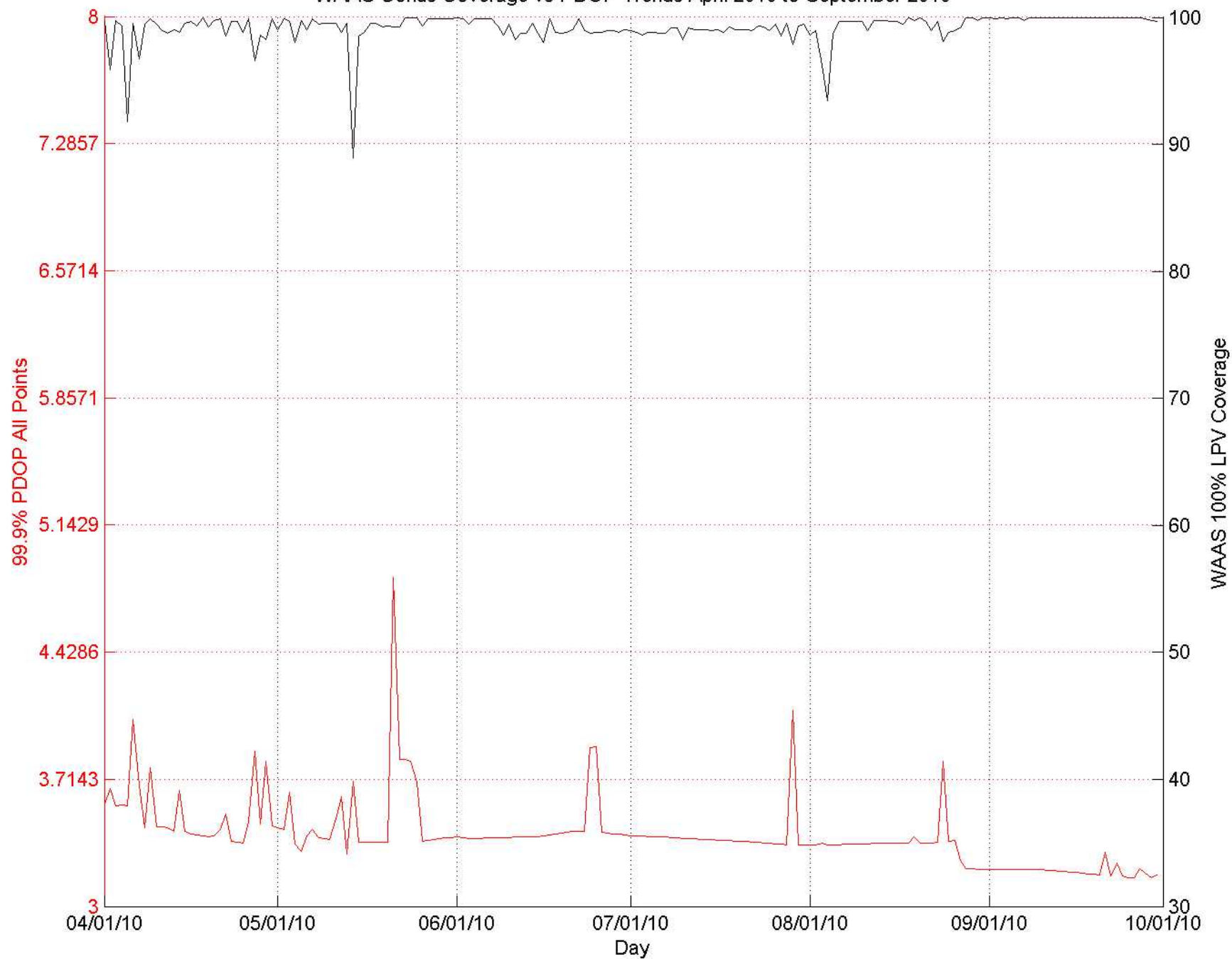
GPS World PDOP 99.99% Index September 2010



PDOP Trends April 2010 thru September 2010



WAAS Conus Coverage vs PDOP Trends April 2010 to September 2010



Six Satellite Availability Trends April 2010 thru September 2010

