

Civil Report Card On GPS Performance

November 2010

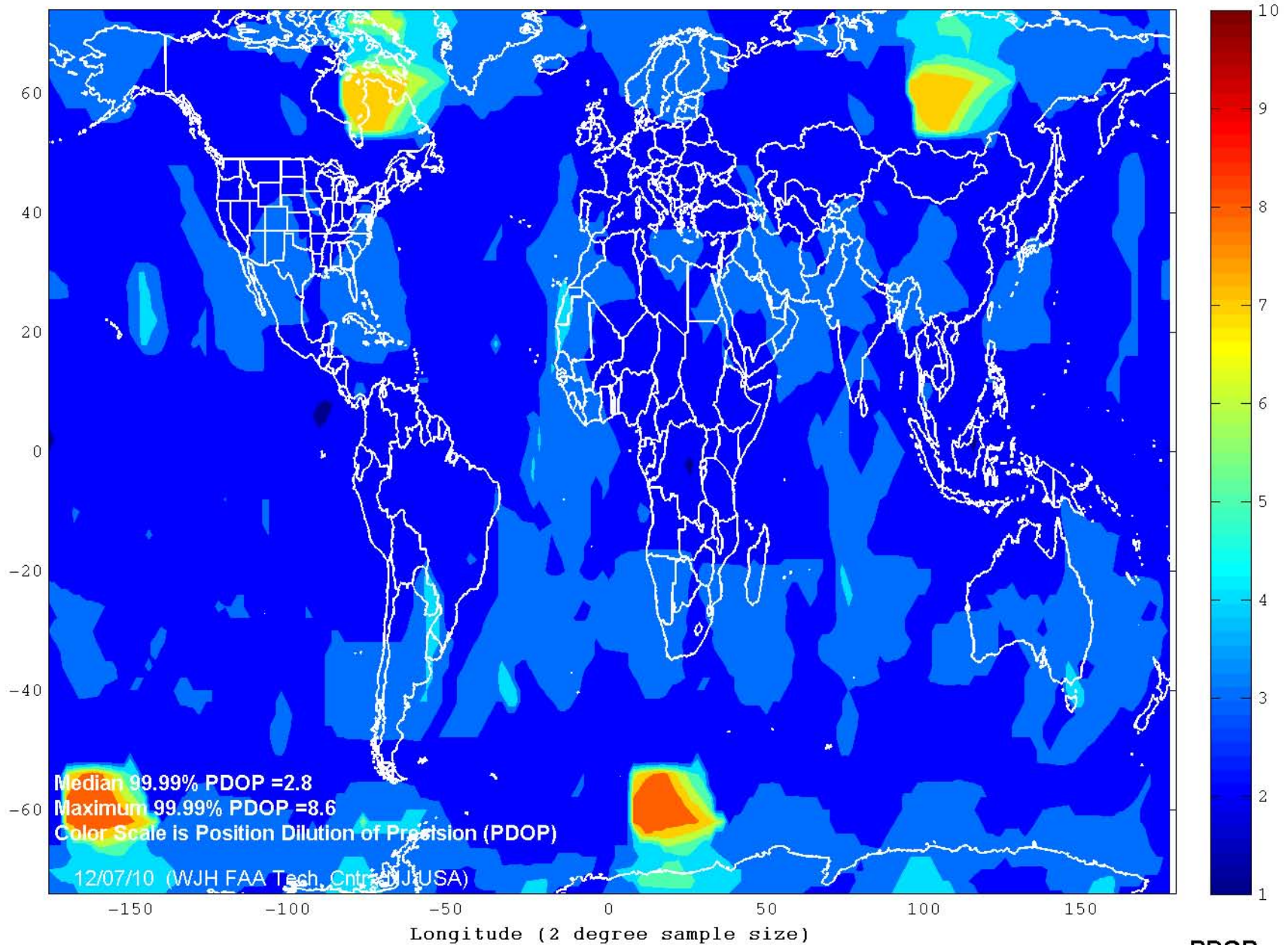
Operational Performance Parameter	CY 2009	Oct 2010	Nov 2010	Long term	Short term
Availability Parameters					
<i>Average Number of satellites usable</i>	30.85	30.97	30.96	↑	↓
<i>Average number of satellites usable in primary slots</i>	23.90 (99.59%)	23.97 (99.89%)	23.96 (99.86%)	↑	↓
<i>Average availability of 6 satellites in view</i>	99.99%	100%	100%	↑	→
99.99% Horizontal DOP					
<i>Area Median</i>	1.7	1.4	1.4	↑	→
<i>Worst Site</i>	4.8	6.2	3.9	↑	↑
99.99% Vertical DOP					
<i>Area Median</i>	3.1	2.4	2.5	↑	↓
<i>Worst Site</i>	12.0	14.5	8.1	↑	↑
99.99% Position DOP (PDOP)					
<i>Area Median</i>	3.5	2.8	2.8	↑	→
<i>Worst Site</i>	12.8	15.5	8.6	↑	↑
Accuracy Parameters					
RMS Single Frequency User Range Error					
<i>Constellation Median</i>	1.67	1.65	1.71	↓	↓
<i>Worst Satellite</i>	2.26	2.11	2.70	↓	↓
95% Horizontal Error					
<i>Area Median</i>	2.10	2.14	2.16	↓	↓
<i>Worst Site</i>	3.95	4.34	4.72	↓	↓
<i>Availability (% <4.5m (historical 3-sigma))</i>	99.80%	99.83%	99.77%	↓	↓
95% Vertical Error					
<i>Area Median</i>	4.11	3.91	4.09	↑	↓
<i>Worst Site</i>	5.97	4.45	4.75	↑	↓
<i>Availability (% < 9m (historical 3-sigma))</i>	99.98%	99.98%	99.99%	↑	↓

Key: ↑ improving ↓ worsening → no significant change

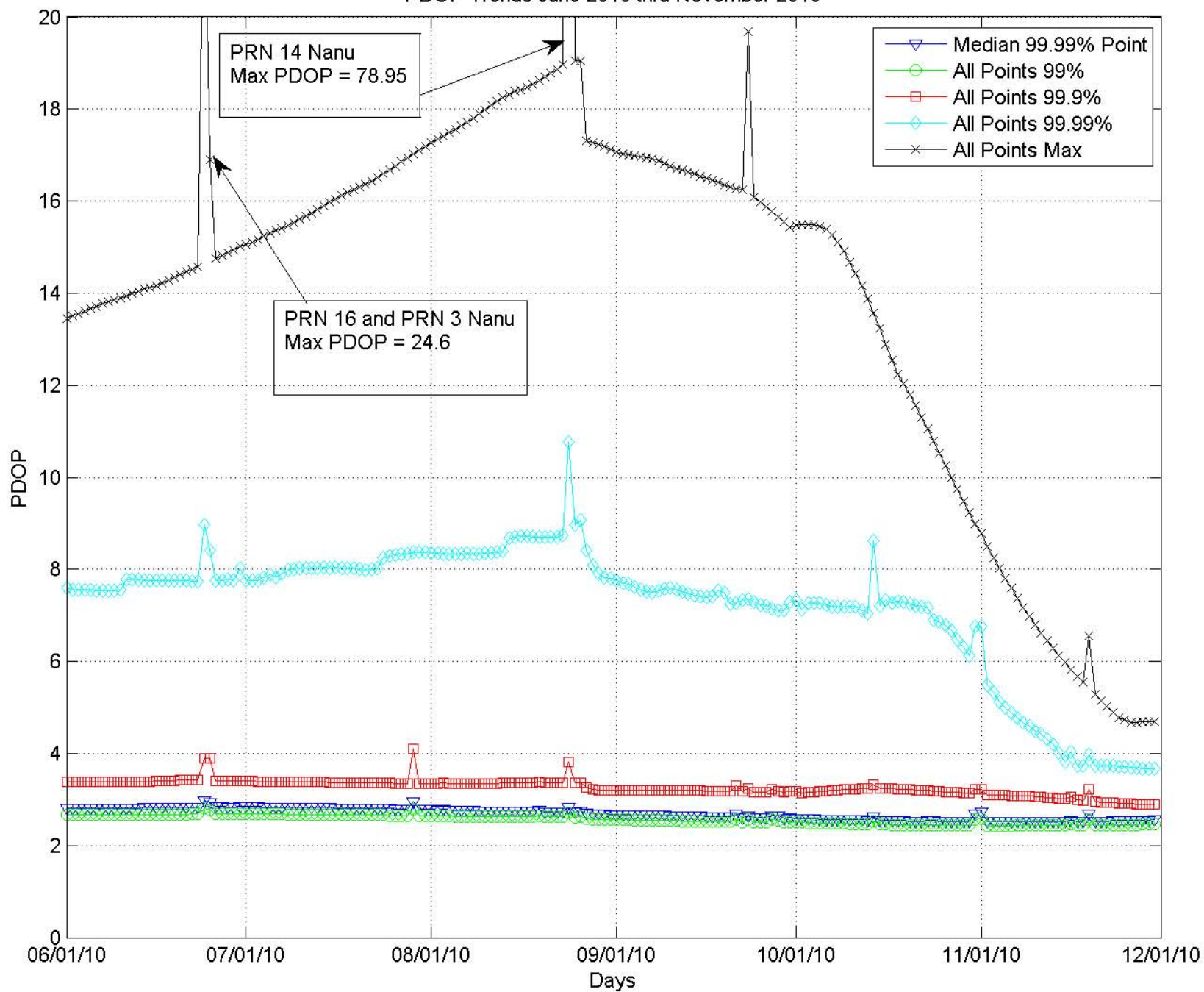
Long Term is current month vs. prior 24 months; Short Term is current month vs. prior month

Compiled from WAAS network as requested by the Defense Science Board

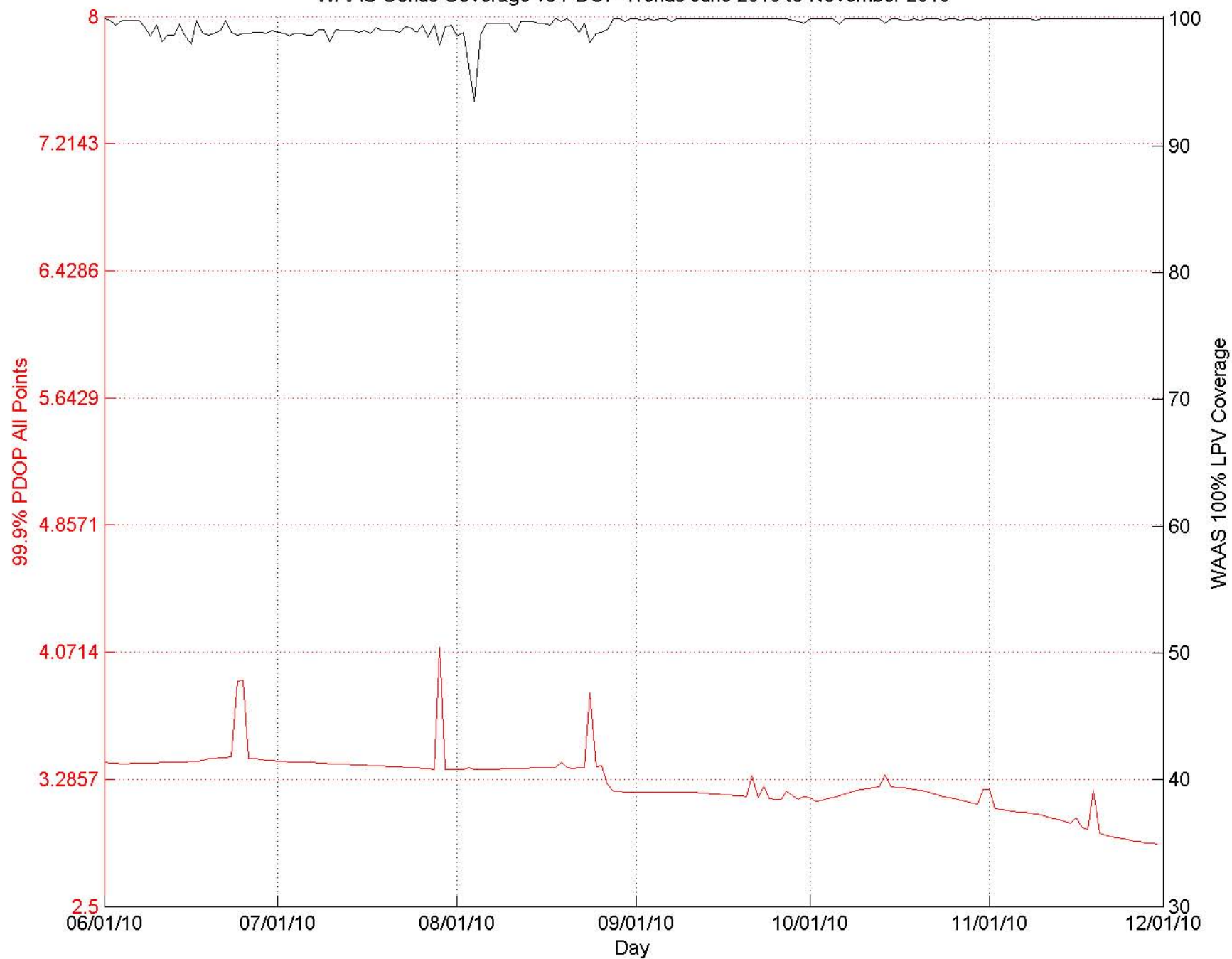
GPS World PDOP 99.99% Index November 2010



PDOP Trends June 2010 thru November 2010



WAAS Conus Coverage vs PDOP Trends June 2010 to November 2010



Six Satellite Availability Trends June 2010 thru November 2010

