

Civil Report Card On GPS Performance

August 2011

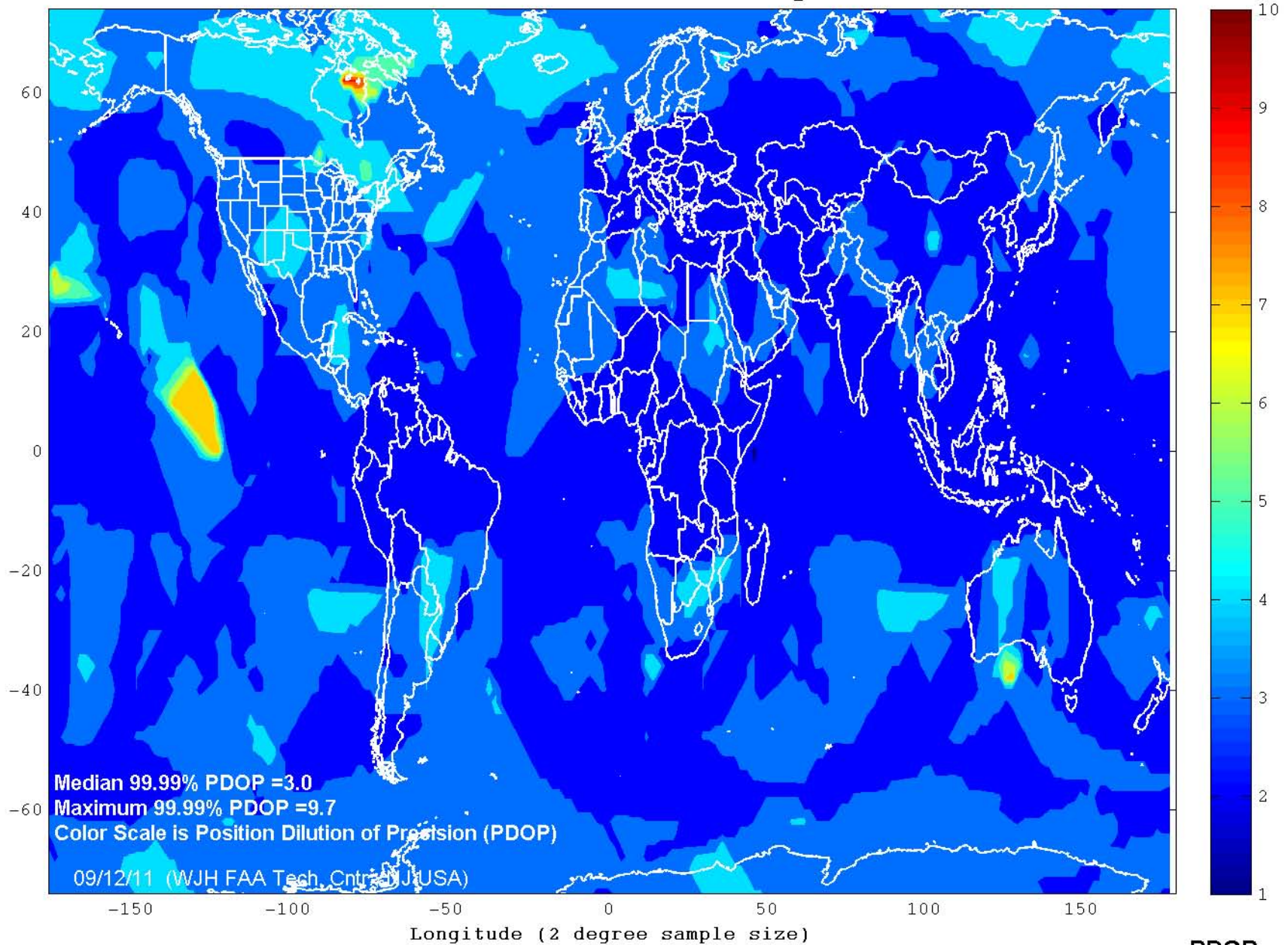
Operational Performance Parameter	CY 2010	July 2011	August 2011	Long term	Short term
Availability Parameters					
<i>Average Number of satellites usable</i>	30.90	30.00	30.34	↓	↑
<i>Average number of satellites usable in primary slots</i>	23.92 (99.68%)	23.00 (95.83%)	23.66 (98.56%)	↓	↑
<i>Average availability of 6 satellites in view</i>	99.99%	100%	100%	↑	→
99.99% Horizontal DOP					
<i>Area Median</i>	1.7	1.4	1.5	↑	↓
<i>Worst Site</i>	7.9	2.2	3.8	↑	↓
99.99% Vertical DOP					
<i>Area Median</i>	3.1	2.4	2.7	↑	↓
<i>Worst Site</i>	18.1	5.1	9.0	↑	↓
99.99% Position DOP (PDOP)					
<i>Area Median</i>	3.4	2.7	3.0	↑	↓
<i>Worst Site</i>	19.1	5.2	9.7	↑	↓
Accuracy Parameters					
RMS Single Frequency User Range Error					
<i>Constellation Median</i>	1.63	1.47	1.59	↑	↓
<i>Worst Satellite</i>	2.11	1.93	2.11	→	↓
95% Horizontal Error					
<i>Area Median</i>	2.23	2.07	2.36	↓	↓
<i>Worst Site</i>	4.51	3.26	4.25	↑	↓
<i>Availability (% <4.5m (historical 3-sigma))</i>	99.71%	99.95%	99.60%	↓	↓
95% Vertical Error					
<i>Area Median</i>	3.93	3.54	3.62	↑	↓
<i>Worst Site</i>	5.35	5.04	5.54	↓	↓
<i>Availability (% < 9m (historical 3-sigma))</i>	99.96%	99.99%	99.93%	↓	↓

Key: ↑ improving ↓ worsening → no significant change

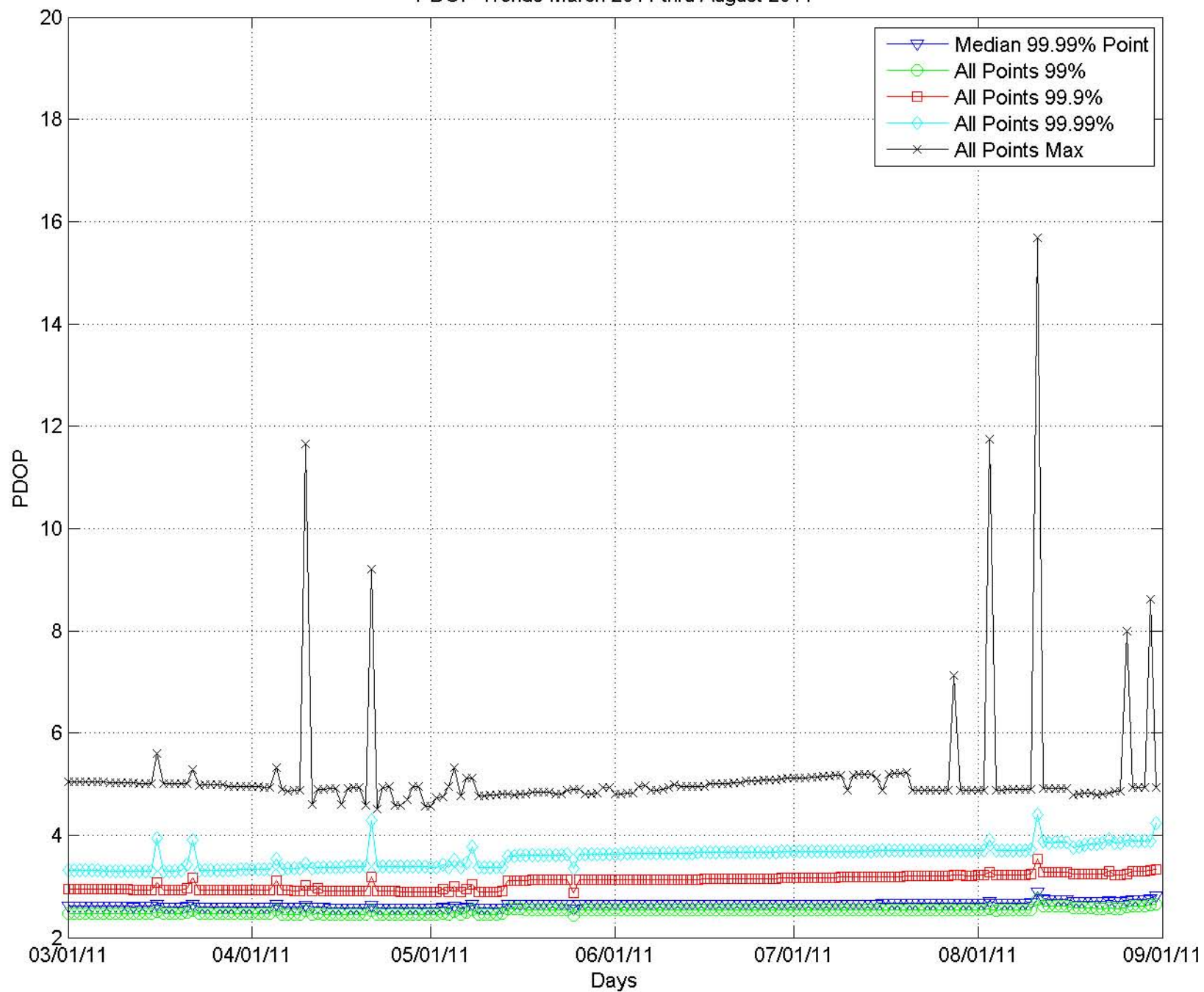
Long Term is current month vs. prior 24 months; Short Term is current month vs. prior month

Compiled from WAAS network as requested by the Defense Science Board

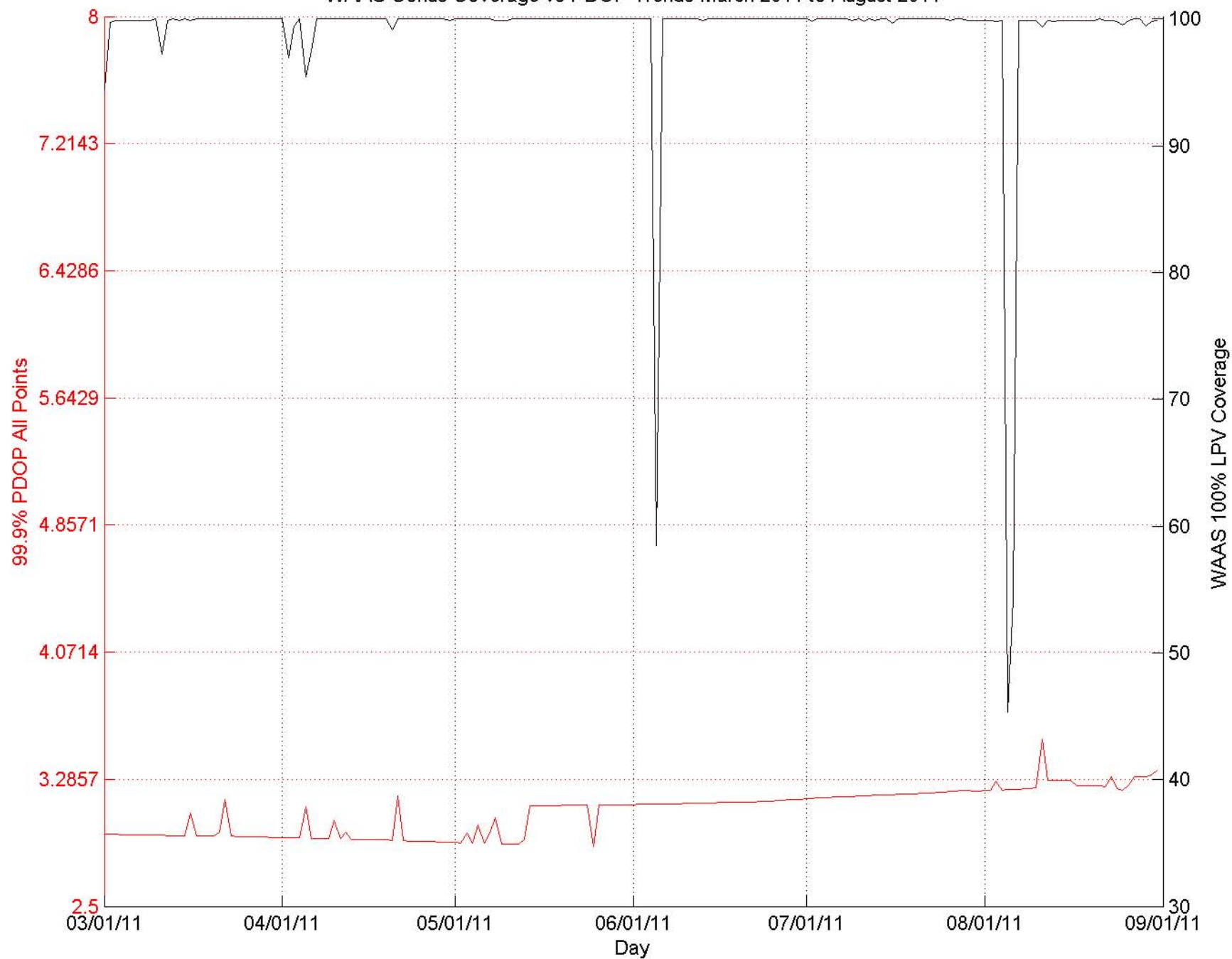
GPS World PDOP 99.99% Index August 2011



PDOP Trends March 2011 thru August 2011



WAAS Conus Coverage vs PDOP Trends March 2011 to August 2011



Six Satellite Availability Trends March 2011 thru August 2011

