

Civil Report Card On GPS Performance

January 2010

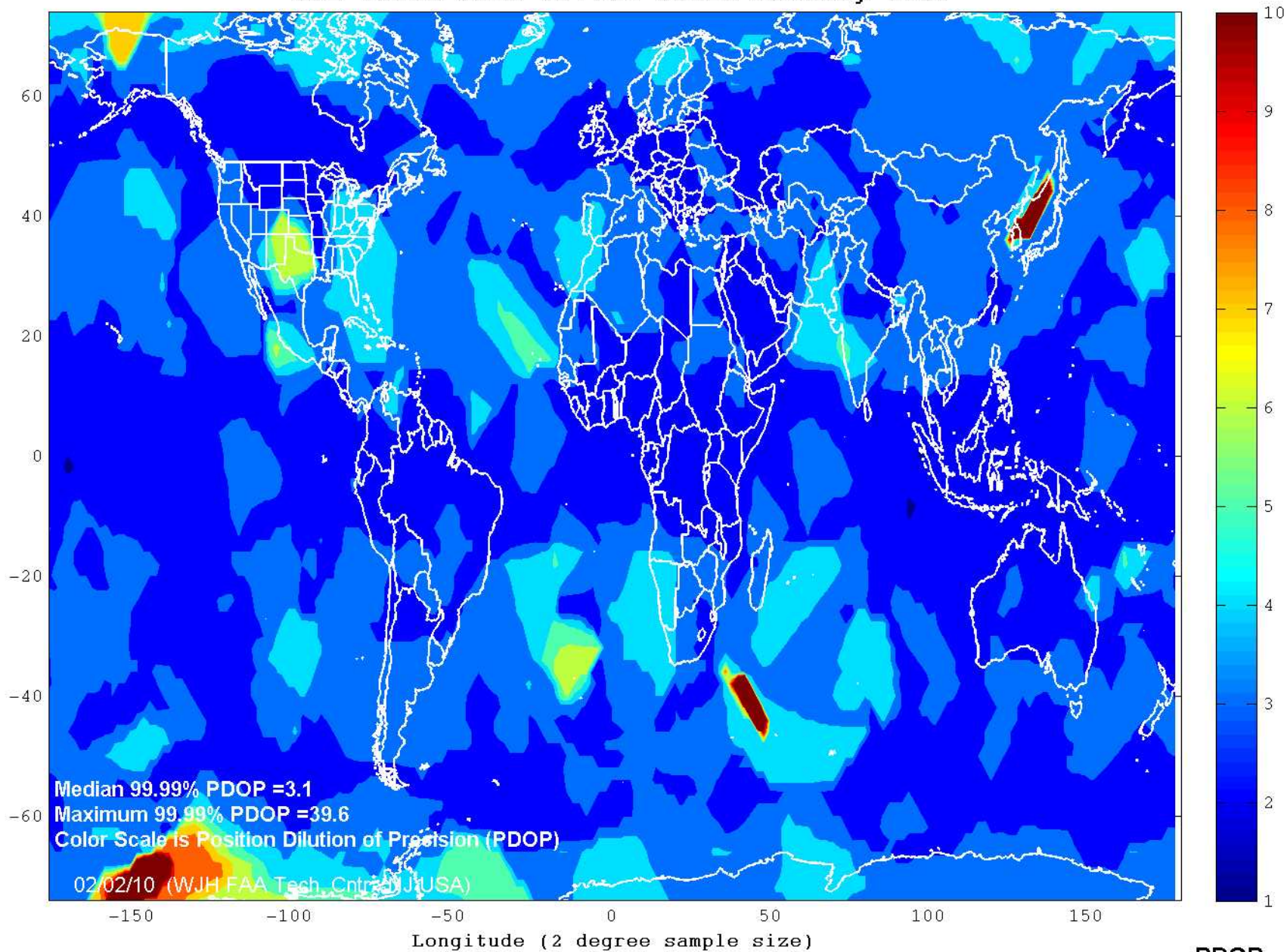
Operational Performance Parameter	CY 2009	Dec 2009	January 2010	Long term	Short term
Availability Parameters					
<i>Average Number of satellites usable</i>	30.85	30.98	30.96	↑	↓
<i>Average number of satellites usable in primary slots</i>	23.902 (99.59%)	23.98 (99.93%)	23.97 (99.89%)	↑	↓
<i>Average availability of 6 satellites in view</i>	99.99%	99.99%	99.99%	→	→
99.99% Horizontal DOP					
<i>Area Median</i>	1.7	1.5	1.5	↑	→
<i>Worst Site</i>	4.8	6.2	12.0	↓	↓
99.99% Vertical DOP					
<i>Area Median</i>	3.1	2.8	2.8	↑	→
<i>Worst Site</i>	12.0	11.7	38.2	↓	↓
99.99% Position DOP (PDOP)					
<i>Area Median</i>	3.5	3.1	3.1	↑	→
<i>Worst Site</i>	12.8	13.3	39.6	↓	↓
Accuracy Parameters					
RMS Single Frequency User Range Error					
<i>Constellation Median</i>	1.67	1.76	1.74	↓	↑
<i>Worst Satellite</i>	2.26	2.66	2.50	↓	↑
95% Horizontal Error					
<i>Area Median</i>	2.10	2.10	2.18	↓	↓
<i>Worst Site</i>	3.95	2.73	3.36	↑	↓
<i>Availability (% <4.5m (historical 3-sigma))</i>	99.80%	99.98%	99.83%	↑	↓
95% Vertical Error					
<i>Area Median</i>	4.11	4.29	4.22	↓	↑
<i>Worst Site</i>	5.97	4.94	4.94	↑	→
<i>Availability (% < 9m (historical 3-sigma))</i>	99.98%	99.98%	99.94%	↓	↓

Key: ↑ improving ↓ worsening → no significant change

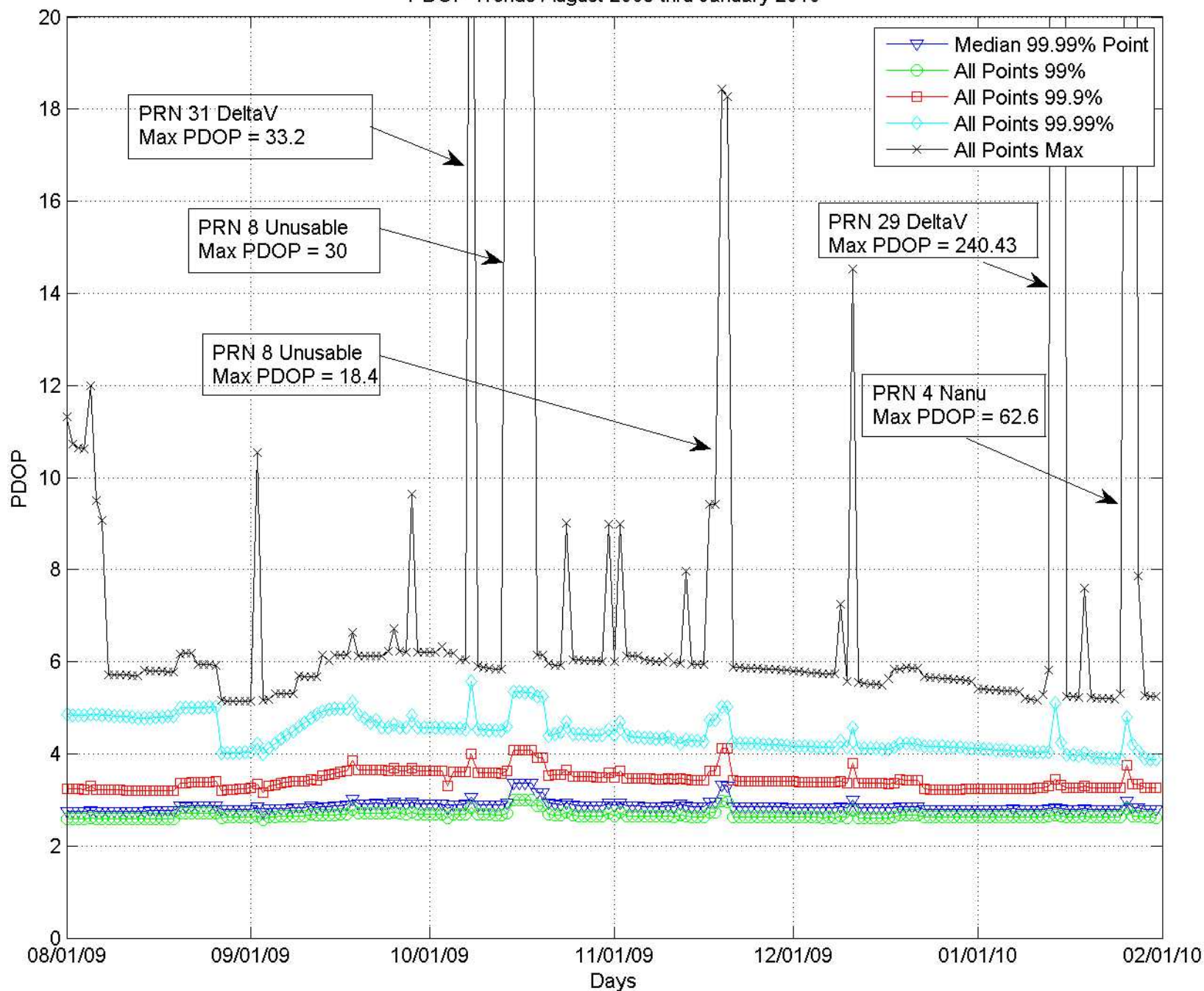
Long Term is current month vs. prior 24 months; Short Term is current month vs. prior month

Compiled from WAAS network as requested by the Defense Science Board

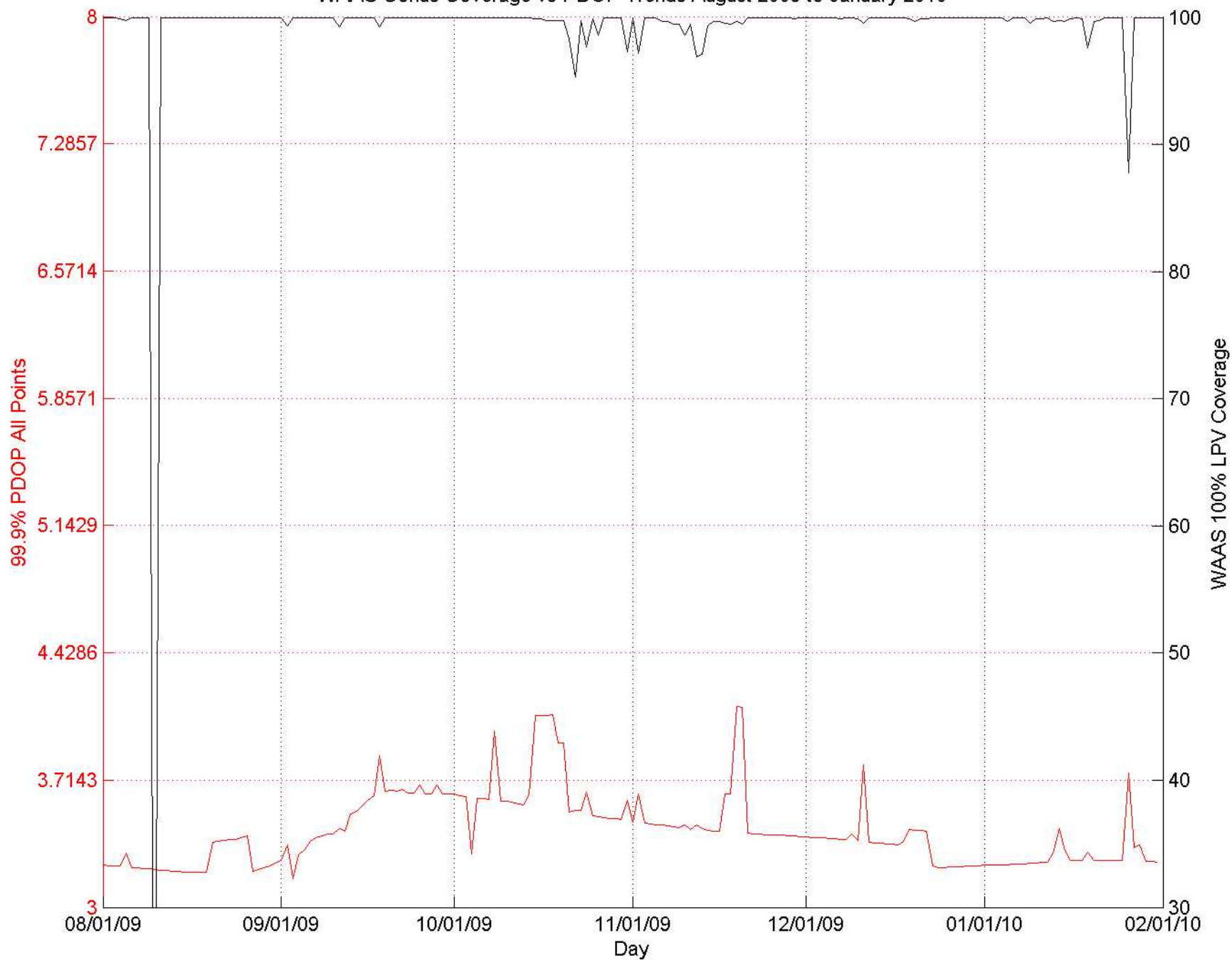
GPS World PDOP 99.99% Index January 2010



PDOP Trends August 2009 thru January 2010



WAAS Conus Coverage vs PDOP Trends August 2009 to January 2010



Six Satellite Availability Trends Aug 2009 thru Jan 2010

