

Civil Report Card On GPS Performance

December 2008

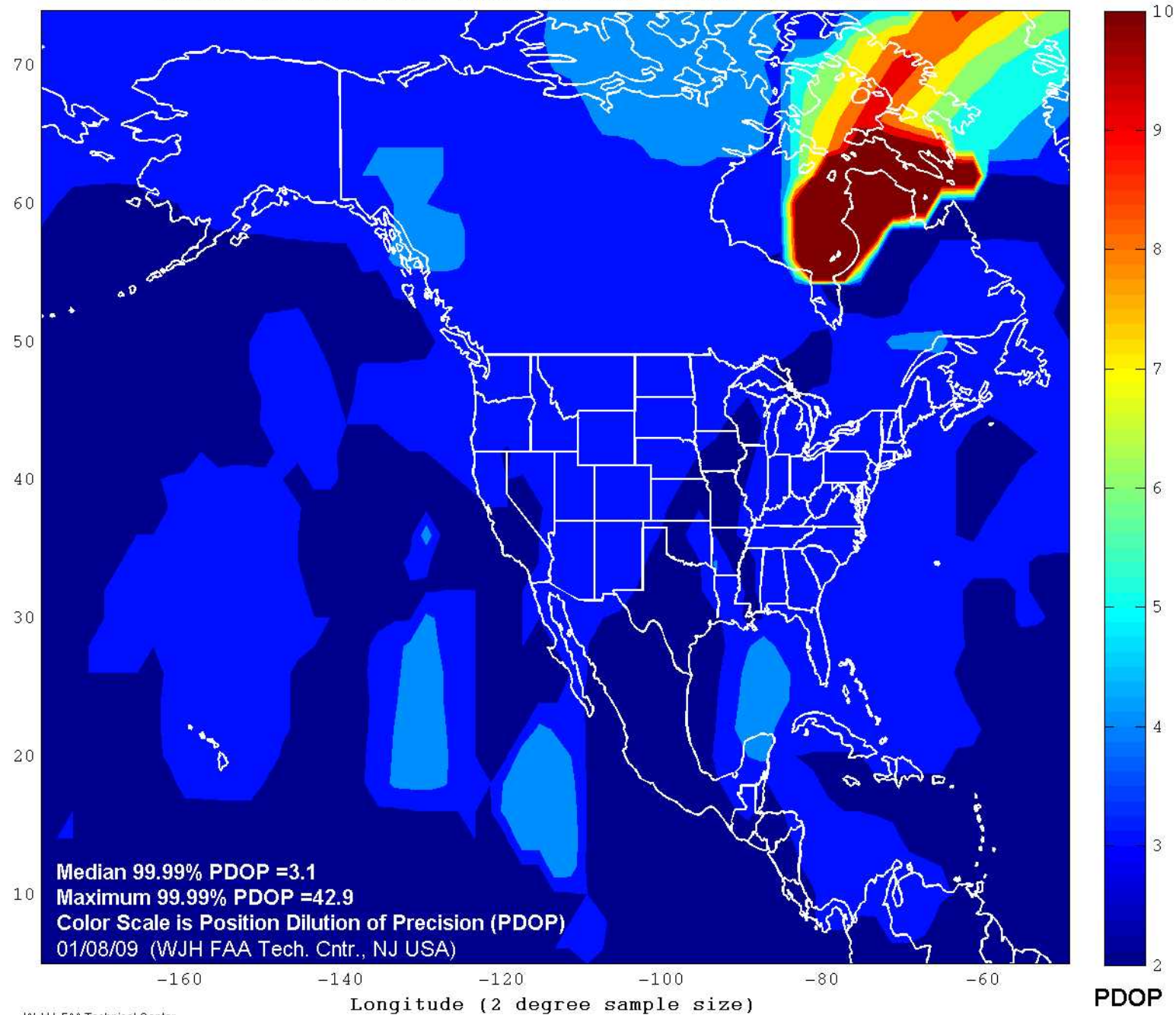
Operational Performance Parameter	CY 2007	Nov 2008	Dec 2008	Long term	Short term
Availability Parameters					
<i>Average Number of satellites usable</i>	29.80	30.98	30.98	↑	→
<i>Average number of satellites usable in primary slots</i>	23.91 (99.62%)	23.98 (99.91%)	23.98 (99.91%)	↑	→
<i>Average availability of 6 satellites in view</i>	99.99%	100%	99.99%	→	↓
99.99% Horizontal DOP					
<i>Area Median</i>	1.8	1.4	1.5	↑	→
<i>Worst Site</i>	3.4	5.8	22.0	↓	↓
99.99% Vertical DOP					
<i>Area Median</i>	3.3	2.5	2.7	↑	↓
<i>Worst Site</i>	7.4	13.1	36.4	↓	↓
99.99% Position DOP (PDOP)					
<i>Area Median</i>	3.6	2.9	3.1	↑	↓
<i>Worst Site</i>	7.8	14.0	42.9	↓	↓
Accuracy Parameters					
RMS Single Frequency User Range Error					
<i>Constellation Median</i>	1.77	1.87	1.90	↓	↓
<i>Worst Satellite</i>	2.29	2.58	2.70	↓	↓
95% Horizontal Error					
<i>Area Median</i>	2.32	2.18	2.22	↑	↓
<i>Worst Site</i>	3.63	3.42	2.77	↑	↑
<i>Availability (% <4.5m (historical 3-sigma))</i>	99.81%	99.96%	99.96%	↑	→
95% Vertical Error					
<i>Area Median</i>	4.45	5.08	4.92	↓	↑
<i>Worst Site</i>	4.95	5.82	5.98	↓	↓
<i>Availability (% < 9m (historical 3-sigma))</i>	99.92%	99.92%	99.94%	↑	↑

Key: ↑ improving ↓ worsening → no significant change

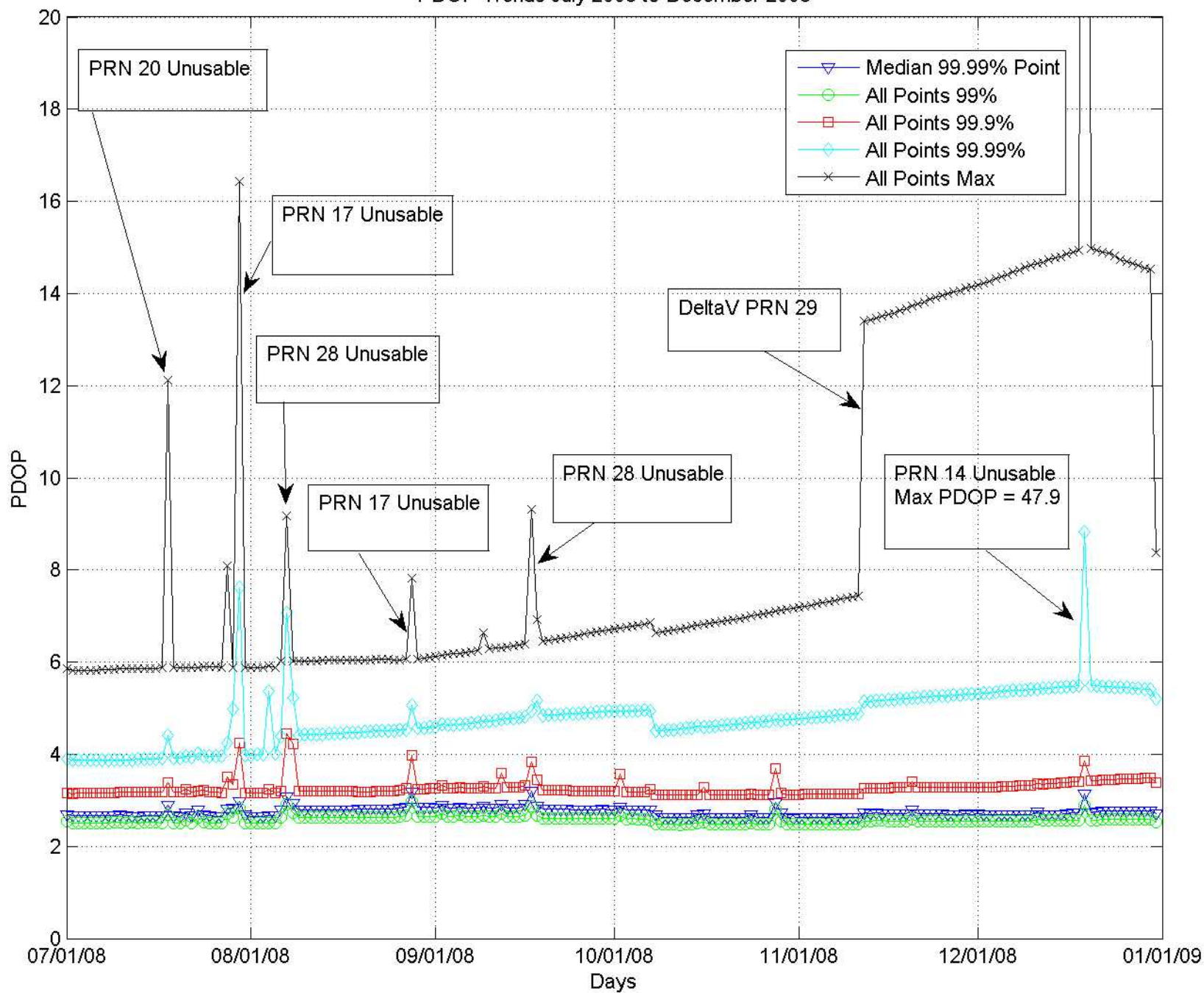
Long Term is current month vs. prior 24 months; Short Term is current month vs. prior month

Compiled from WAAS network as requested by the Defense Science Board

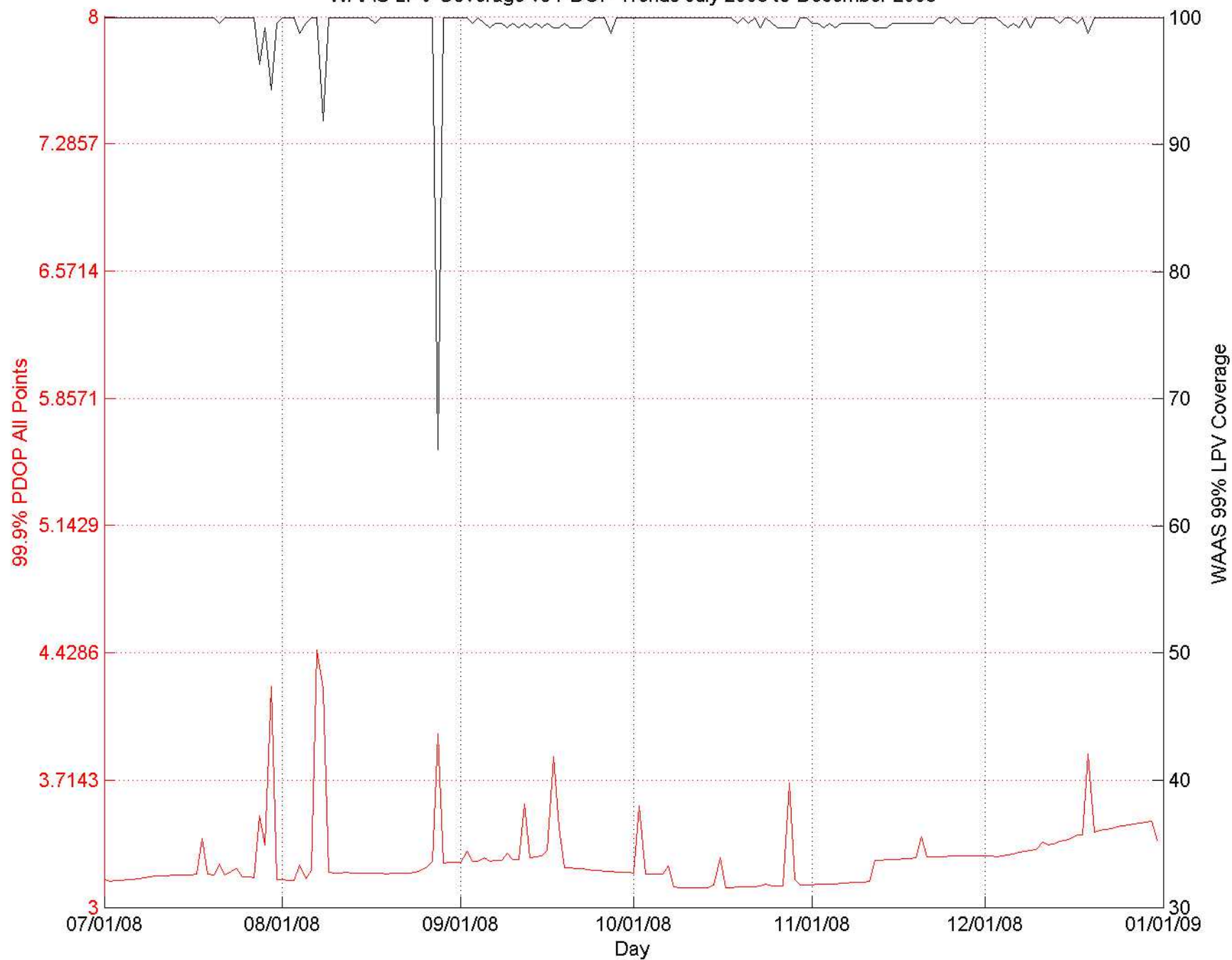
North America GPS PDOP 99.99% Index December 2008



PDOP Trends July 2008 to December 2008



WAAS LPV Coverage vs PDOP Trends July 2008 to December 2008



Six Satellite Availability Trends July 2008 to December 2008

