

Civil Report Card On GPS Performance

September 2009

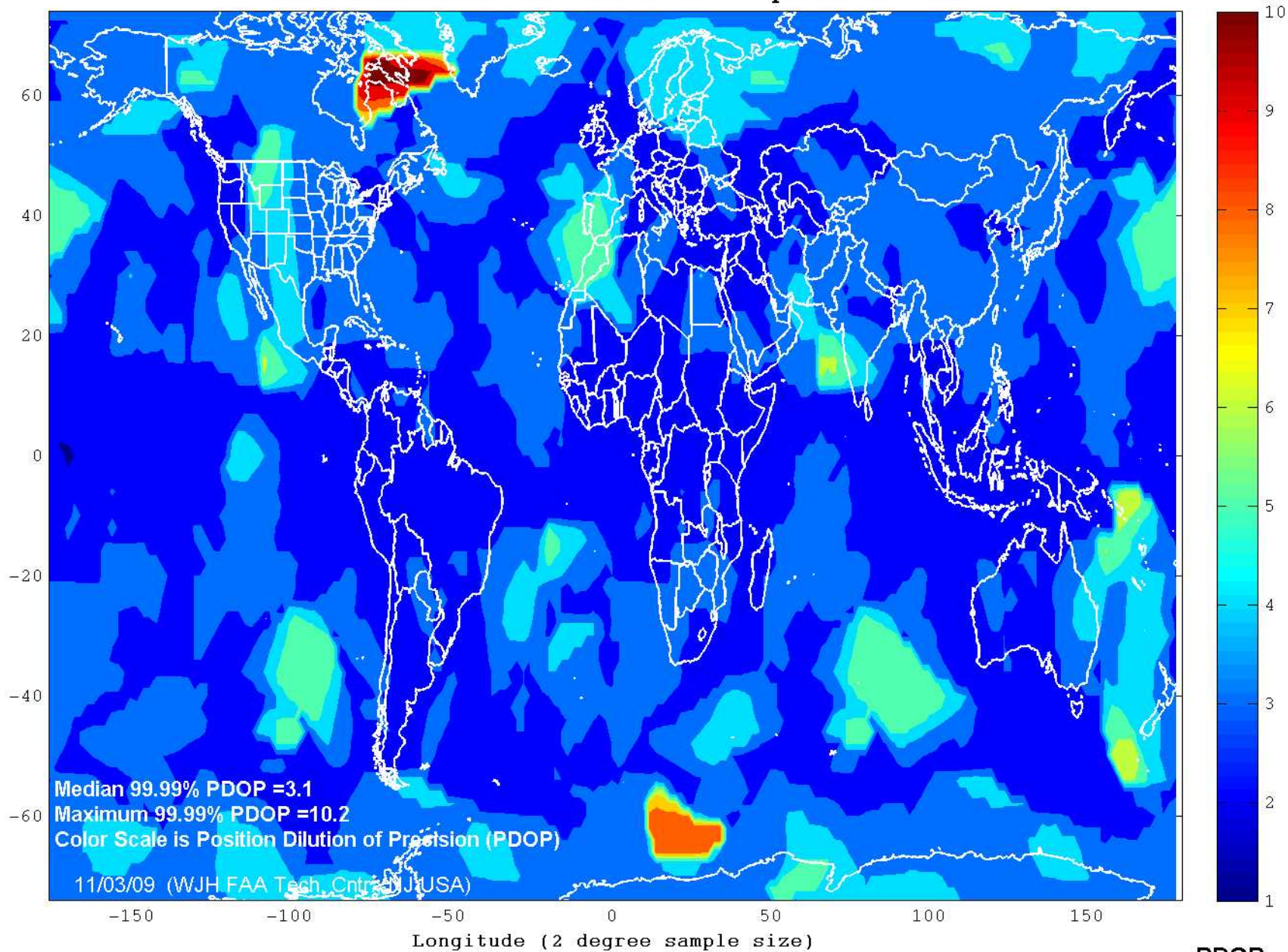
Operational Performance Parameter	CY 2008	August 2009	Sept 2009	Long term	Short term
Availability Parameters					
<i>Average Number of satellites usable</i>	30.48	30.99	30.91	↑	↓
<i>Average number of satellites usable in primary slots</i>	23.95 (99.80%)	23.99 (99.96%)	23.97 (99.88%)	↑	↓
<i>Average availability of 6 satellites in view</i>	99.99%	100%	99.99%	→	↓
99.99% Horizontal DOP					
<i>Area Median</i>	1.8	1.5	1.5	↑	→
<i>Worst Site</i>	5.8	4.0	3.6	↑	↑
99.99% Vertical DOP					
<i>Area Median</i>	3.3	2.6	2.8	↑	↓
<i>Worst Site</i>	17.6	10.2	9.8	↑	↑
99.99% Position DOP (PDOP)					
<i>Area Median</i>	3.6	2.9	3.1	↑	↓
<i>Worst Site</i>	18.3	10.8	10.2	↑	↑
Accuracy Parameters					
RMS Single Frequency User Range Error					
<i>Constellation Median</i>	1.72	1.44	1.67	↑	↓
<i>Worst Satellite</i>	2.14	2.02	2.29	↓	↓
95% Horizontal Error					
<i>Area Median</i>	2.36	1.94	2.12	↑	↓
<i>Worst Site</i>	3.35	2.49	3.37	↓	↓
<i>Availability (% <4.5m (historical 3-sigma))</i>	99.77%	99.99%	99.90%	↑	↓
95% Vertical Error					
<i>Area Median</i>	4.46	3.42	4.06	↑	↓
<i>Worst Site</i>	4.95	4.18	5.24	↓	↓
<i>Availability (% < 9m (historical 3-sigma))</i>	99.94%	99.99%	99.98%	↑	↓

Key: ↑ improving ↓ worsening → no significant change

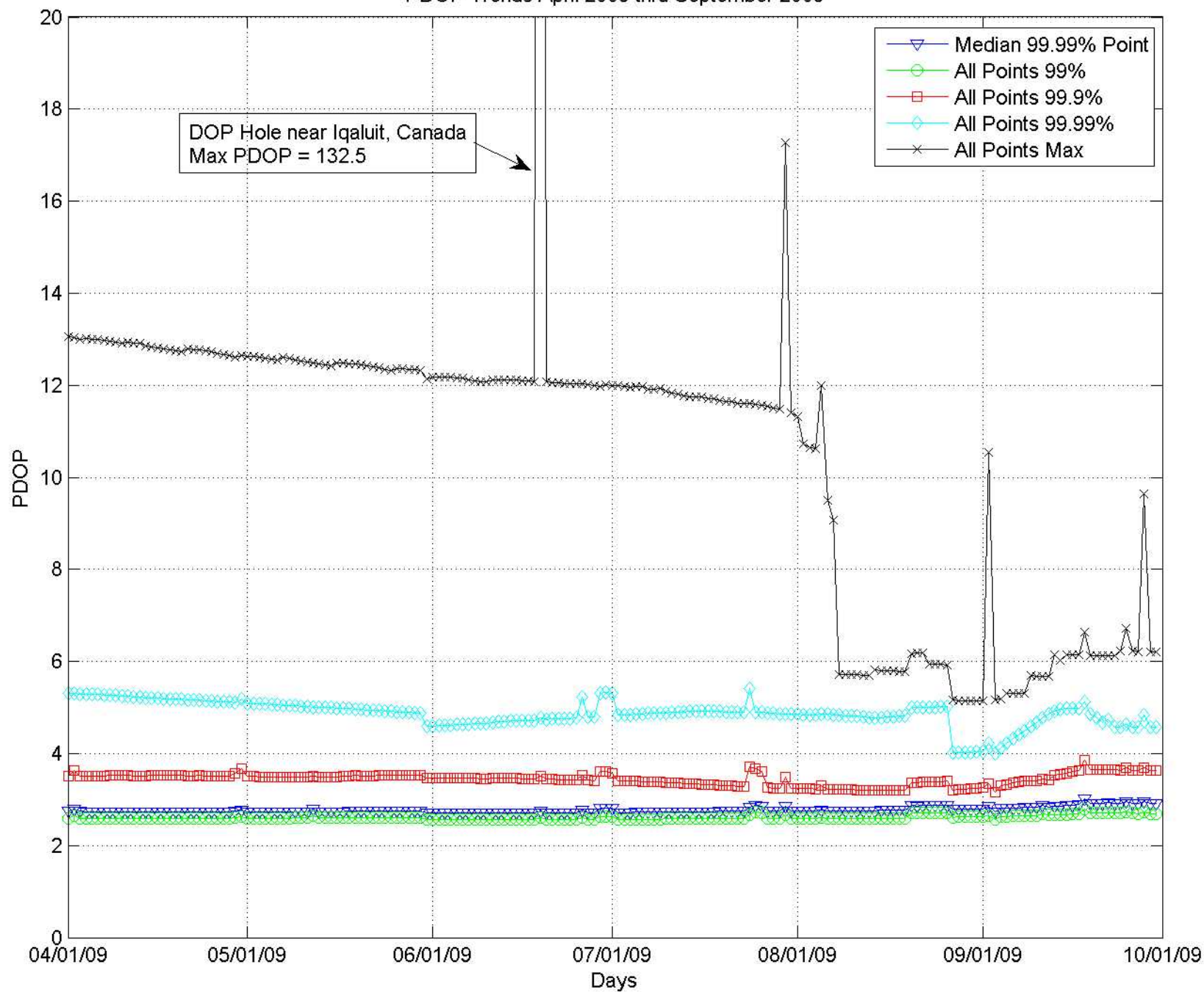
Long Term is current month vs. prior 24 months; Short Term is current month vs. prior month

Compiled from WAAS network as requested by the Defense Science Board

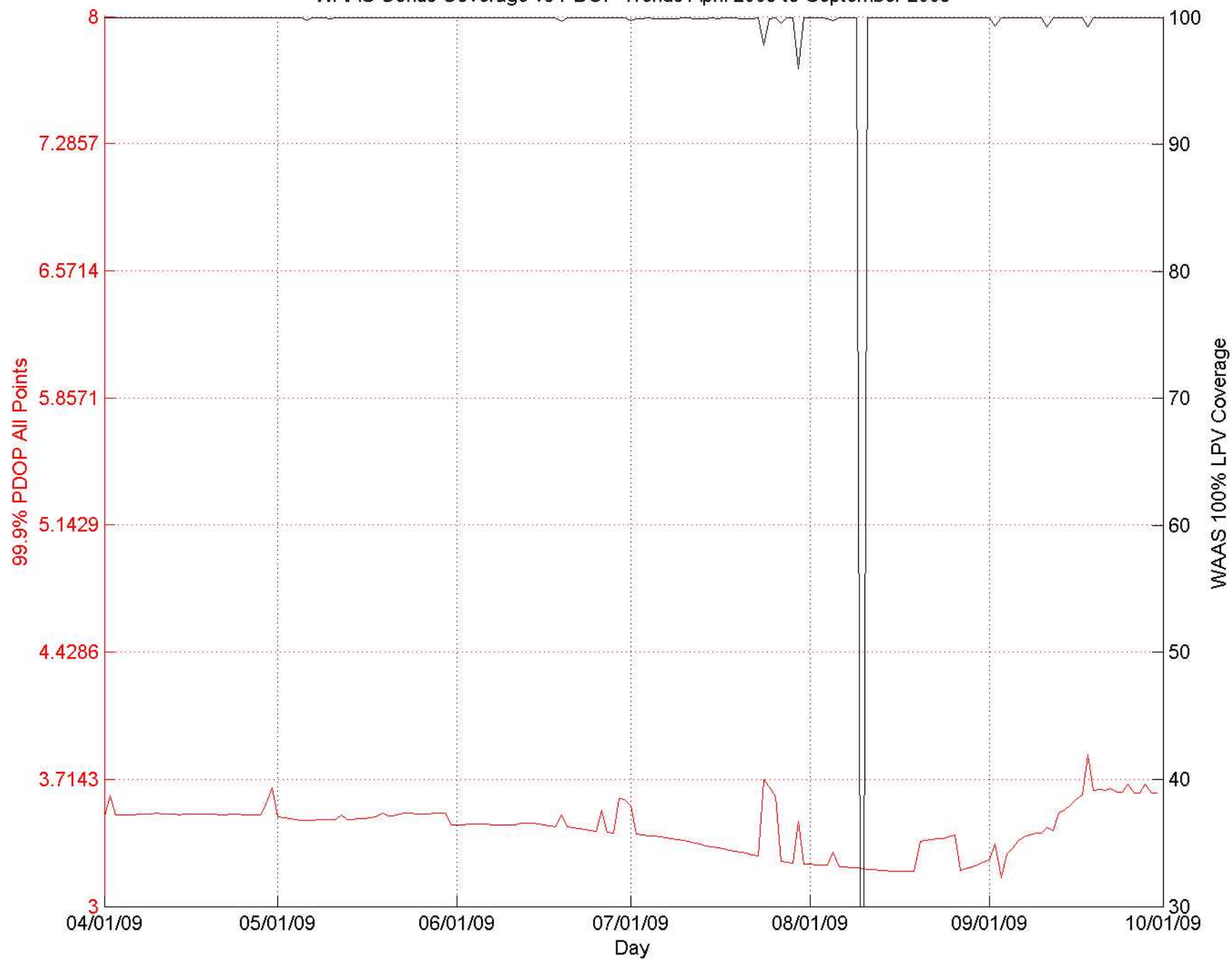
GPS World PDOP 99.99% Index September 2009



PDOP Trends April 2009 thru September 2009



WAAS Conus Coverage vs PDOP Trends April 2009 to September 2009



Six Satellite Availability Trends April 2009 thru September 2009

