

Civil Report Card On GPS Performance

August 2009

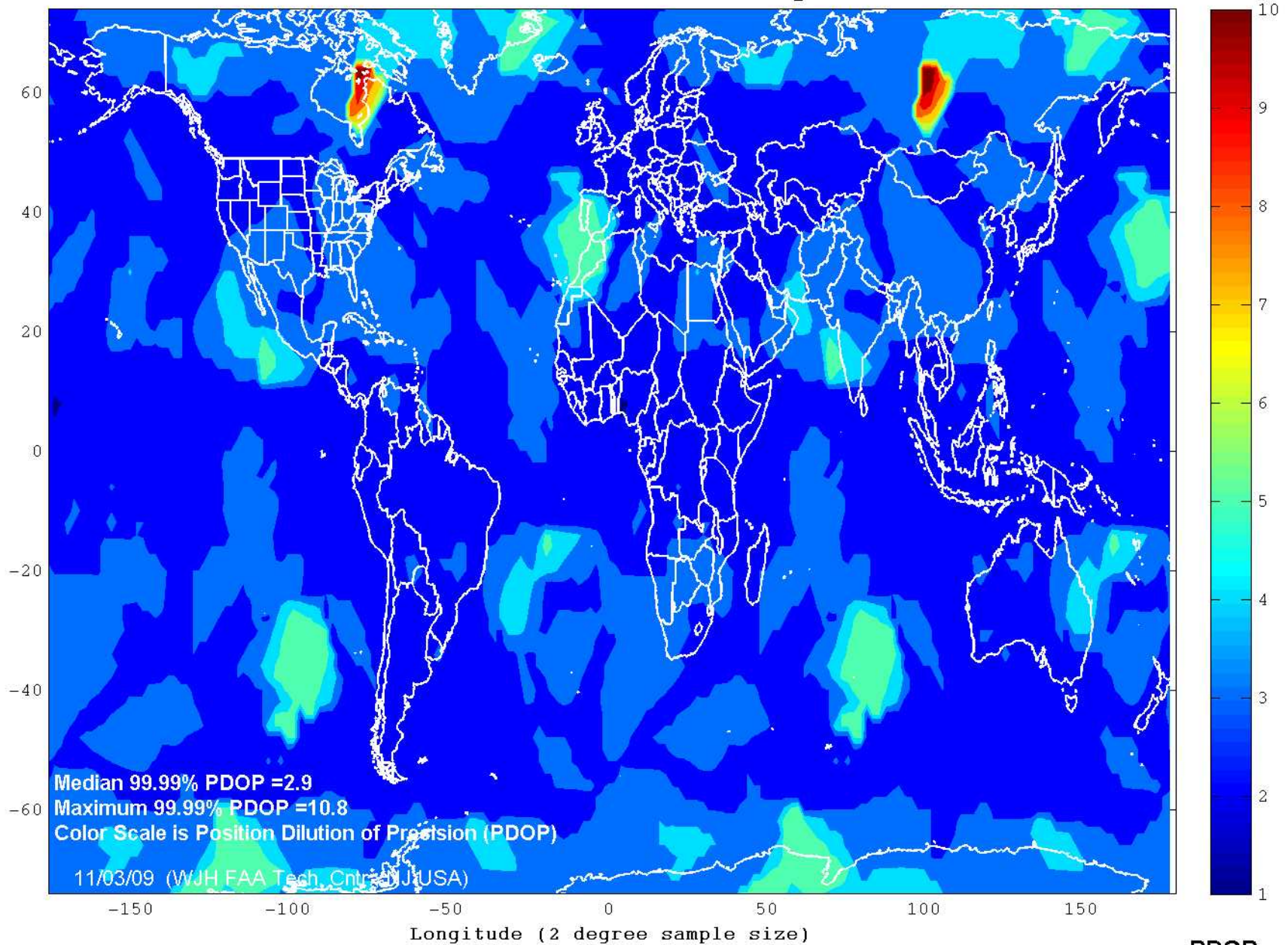
Operational Performance Parameter	CY 2008	July 2009	August 2009	Long term	Short term
Availability Parameters					
<i>Average Number of satellites usable</i>	30.48	30.90	30.99	↑	↑
<i>Average number of satellites usable in primary slots</i>	23.95 (99.80%)	23.93 (99.70%)	23.99 (99.96%)	↑	↑
<i>Average availability of 6 satellites in view</i>	99.99%	99.99%	100%	↑	↑
99.99% Horizontal DOP					
<i>Area Median</i>	1.8	1.6	1.5	↑	↑
<i>Worst Site</i>	5.8	4.2	4.0	↑	↑
99.99% Vertical DOP					
<i>Area Median</i>	3.3	2.7	2.6	↑	↑
<i>Worst Site</i>	17.6	13.1	10.2	↑	↑
99.99% Position DOP (PDOP)					
<i>Area Median</i>	3.6	3.0	2.9	↑	↑
<i>Worst Site</i>	18.3	13.6	10.8	↑	↑
Accuracy Parameters					
RMS Single Frequency User Range Error					
<i>Constellation Median</i>	1.72	1.37	1.44	↑	↓
<i>Worst Satellite</i>	2.14	2.07	2.02	↑	↑
95% Horizontal Error					
<i>Area Median</i>	2.36	1.88	1.94	↑	↓
<i>Worst Site</i>	3.35	2.30	2.49	↑	↓
<i>Availability (% <4.5m (historical 3-sigma))</i>	99.77%	99.96%	99.99%	↑	↑
95% Vertical Error					
<i>Area Median</i>	4.46	3.22	3.42	↑	↓
<i>Worst Site</i>	4.95	3.97	4.18	↑	↓
<i>Availability (% < 9m (historical 3-sigma))</i>	99.94%	99.97%	99.99%	↑	↑

Key: ↑ improving ↓ worsening → no significant change

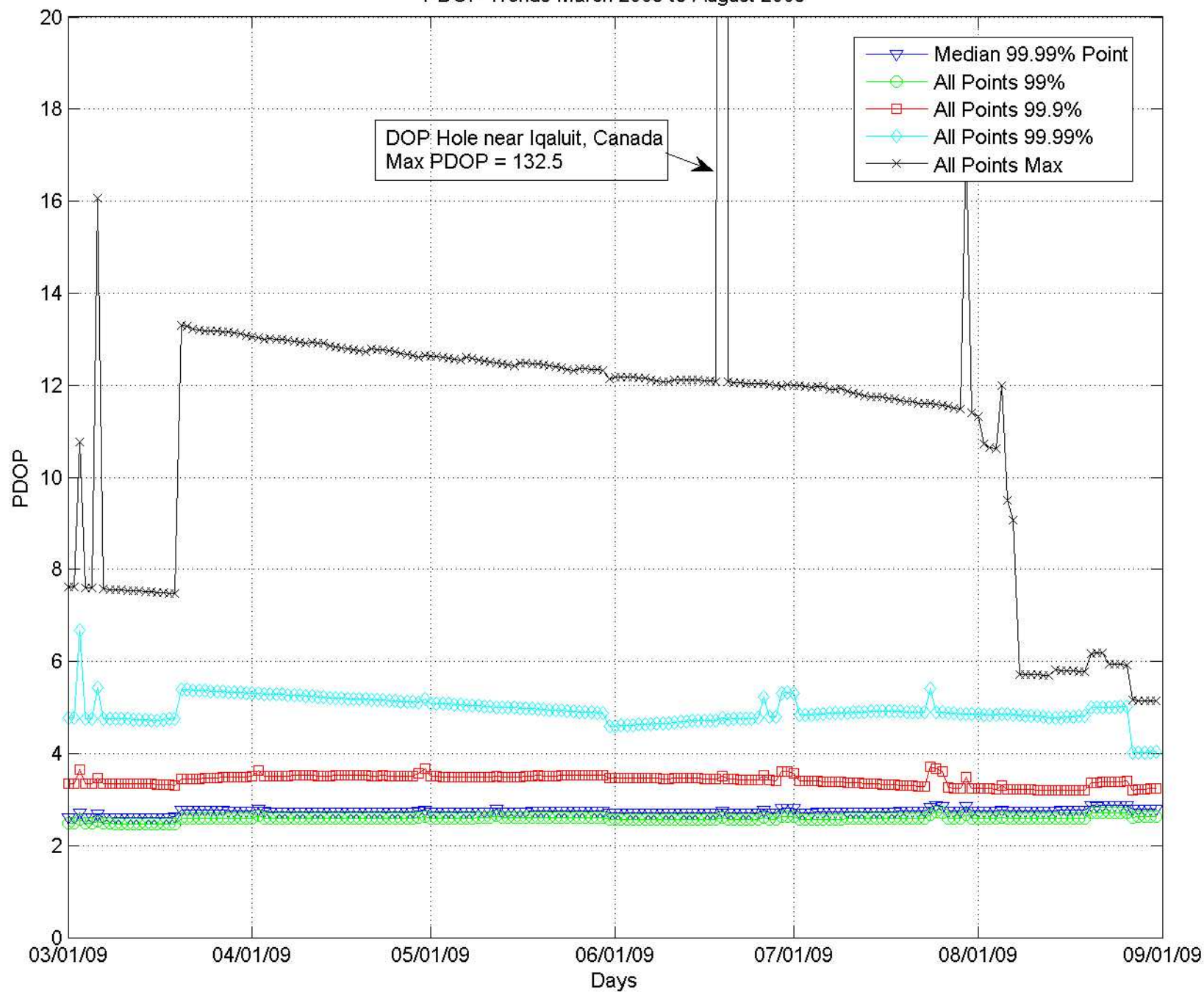
Long Term is current month vs. prior 24 months; Short Term is current month vs. prior month

Compiled from WAAS network as requested by the Defense Science Board

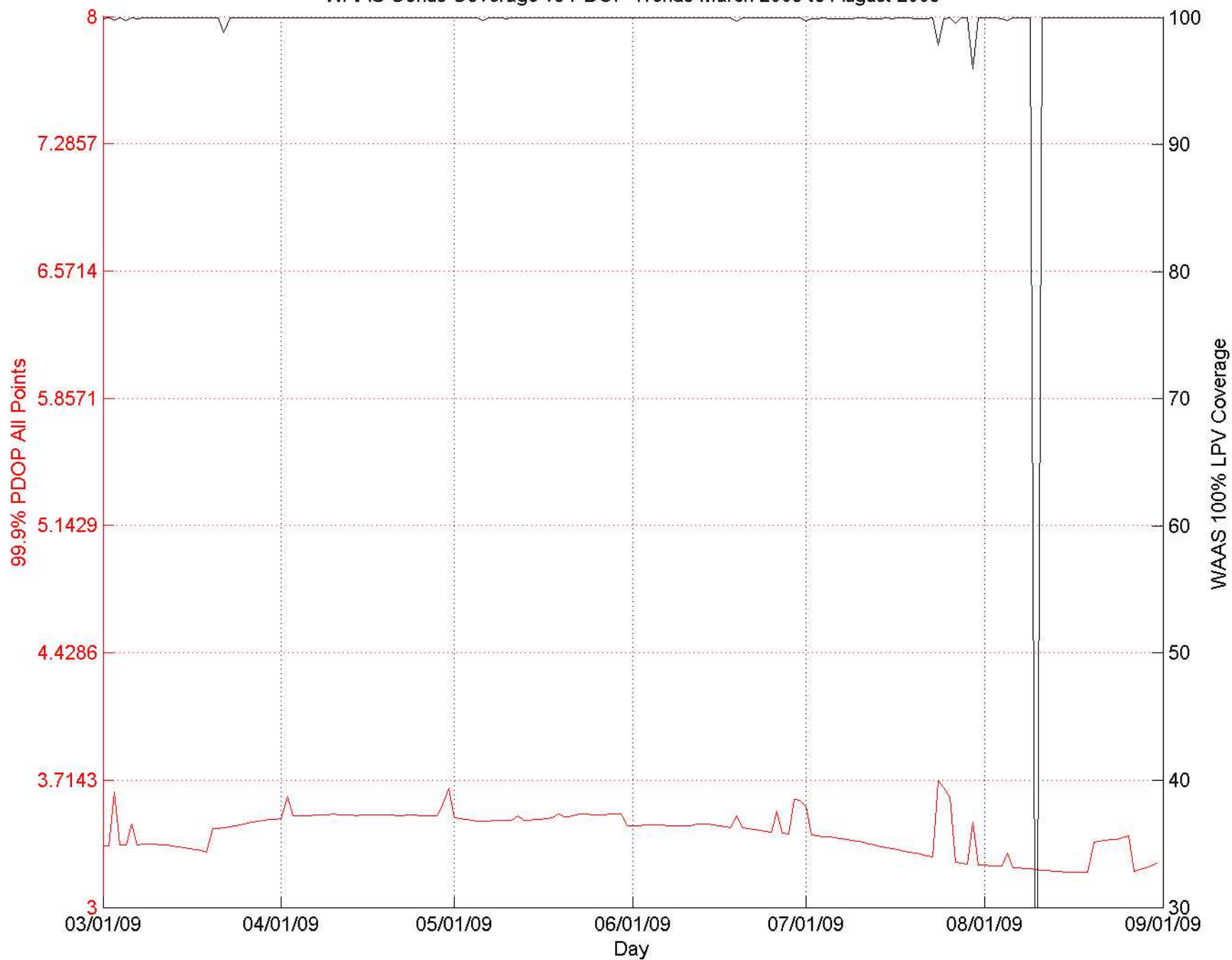
GPS World PDOP 99.99% Index August 2009



PDOP Trends March 2009 to August 2009



WAAS Conus Coverage vs PDOP Trends March 2009 to August 2009



Six Satellite Availability Trends March 2009 to August 2009

