

Civil Report Card On GPS Performance

July 2009

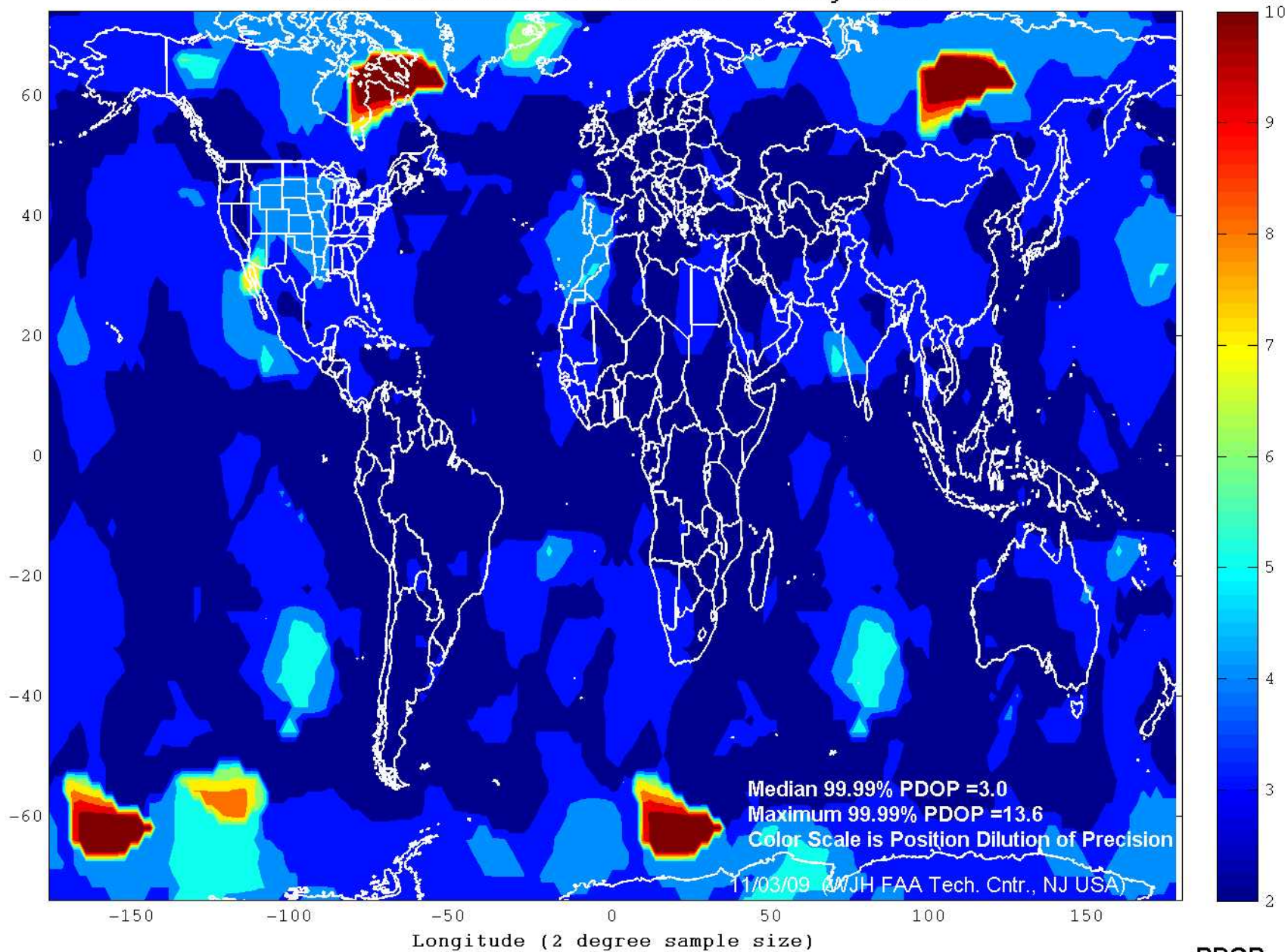
Operational Performance Parameter	CY 2008	June 2009	July 2009	Long term	Short term
Availability Parameters					
<i>Average Number of satellites usable</i>	30.48	30.84	30.90	↑	↑
<i>Average number of satellites usable in primary slots</i>	23.95 (99.80%)	24.00 (100%)	23.93 (99.70%)	↓	↓
<i>Average availability of 6 satellites in view</i>	99.99%	99.99%	99.99%	→	→
99.99% Horizontal DOP					
<i>Area Median</i>	1.8	1.5	1.6	↑	↓
<i>Worst Site</i>	5.8	8.7	4.2	↑	↑
99.99% Vertical DOP					
<i>Area Median</i>	3.3	2.5	2.7	↑	↓
<i>Worst Site</i>	17.6	32.6	13.1	↑	↑
99.99% Position DOP (PDOP)					
<i>Area Median</i>	3.6	2.9	3.0	↑	↓
<i>Worst Site</i>	18.3	33.7	13.6	↑	↑
Accuracy Parameters					
RMS Single Frequency User Range Error					
<i>Constellation Median</i>	1.72	1.41	1.37	↑	↑
<i>Worst Satellite</i>	2.14	1.99	2.07	↑	↓
95% Horizontal Error					
<i>Area Median</i>	2.36	1.94	1.88	↑	↑
<i>Worst Site</i>	3.35	2.50	2.30	↑	↑
<i>Availability (% <4.5m (historical 3-sigma))</i>	99.77%	99.98%	99.96%	↑	↓
95% Vertical Error					
<i>Area Median</i>	4.46	3.21	3.22	↑	↓
<i>Worst Site</i>	4.95	3.95	3.97	↑	→
<i>Availability (% < 9m (historical 3-sigma))</i>	99.94%	99.99%	99.97%	↑	↓

Key: ↑ improving ↓ worsening → no significant change

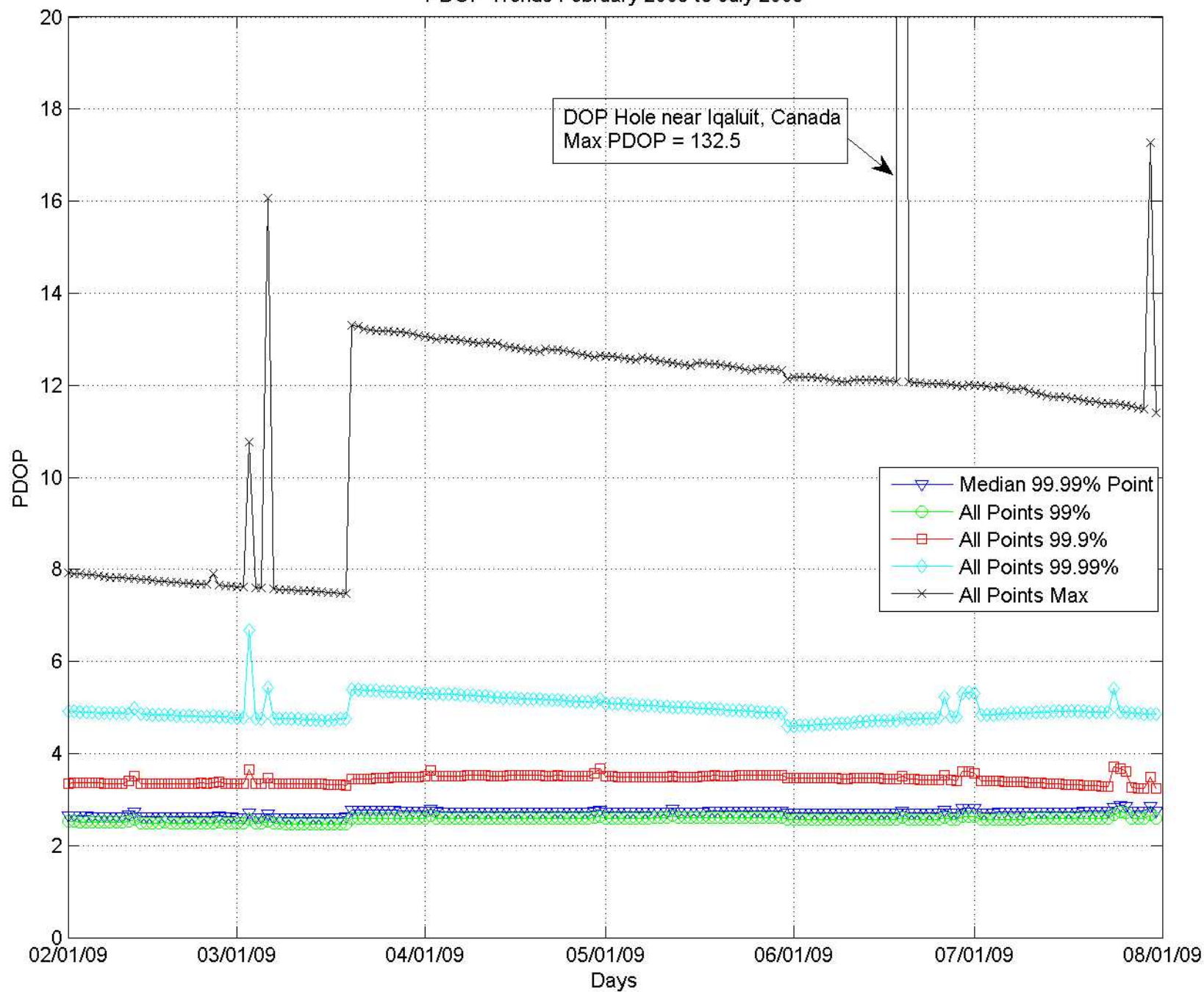
Long Term is current month vs. prior 24 months; Short Term is current month vs. prior month

Compiled from WAAS network as requested by the Defense Science Board

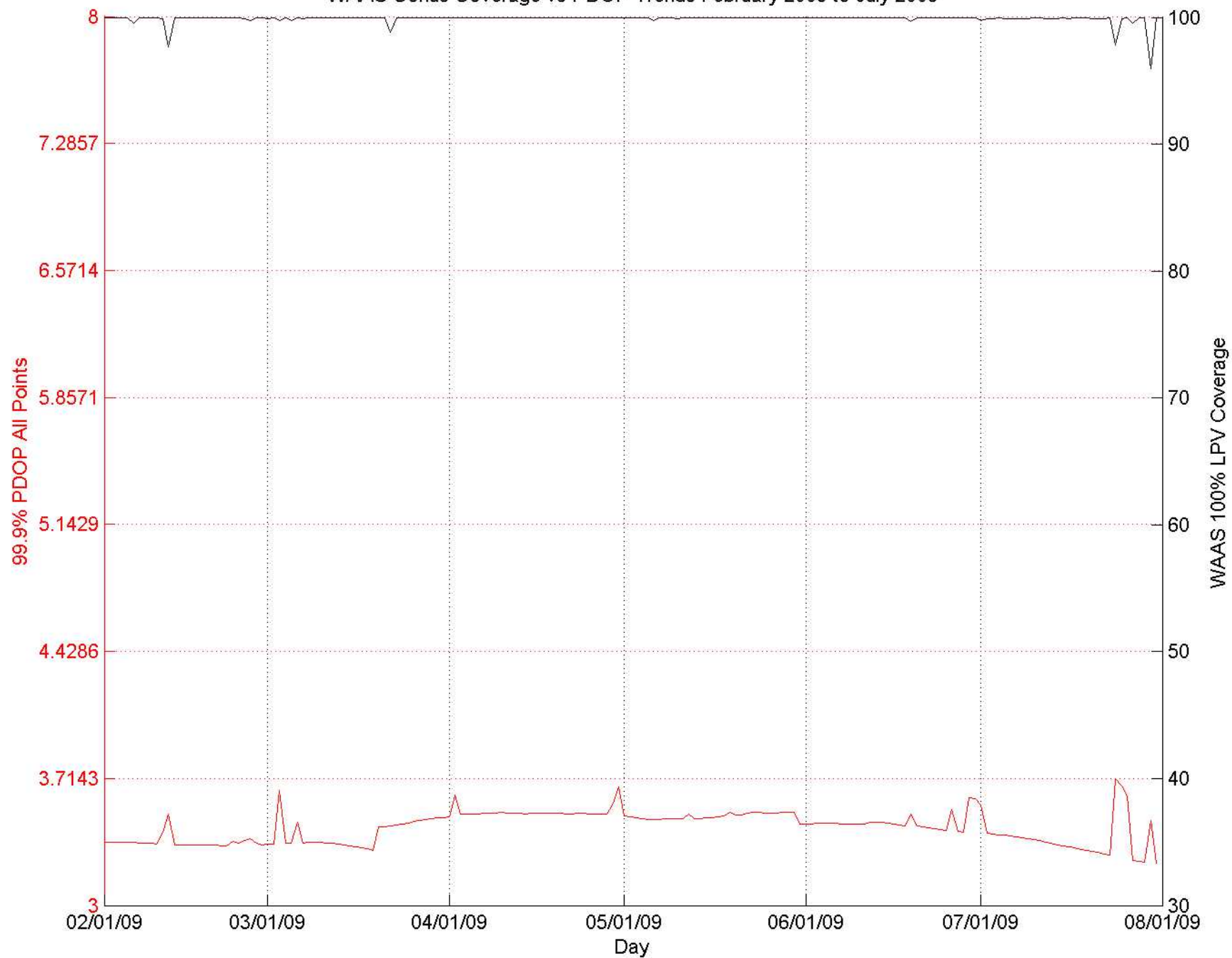
GPS World PDOP 99.99% Index July 2009



PDOP Trends February 2009 to July 2009



WAAS Conus Coverage vs PDOP Trends February 2009 to July 2009



Six Satellite Availability Trends February 2009 to July 2009

