

Civil Report Card On GPS Performance

October 2009

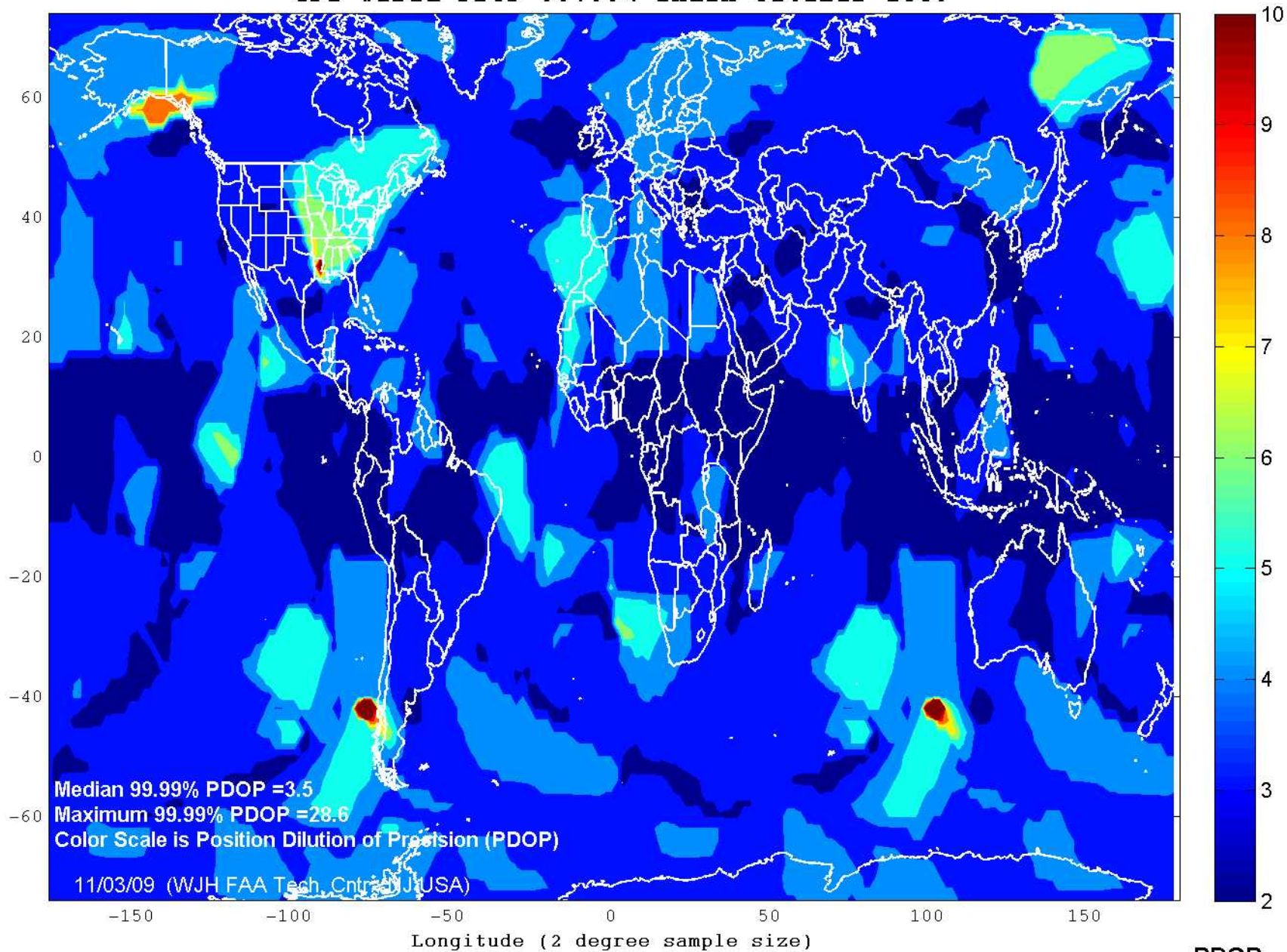
Operational Performance Parameter	CY 2008	Sept 2009	October 2009	Long term	Short term
Availability Parameters					
<i>Average Number of satellites usable</i>	30.48	30.91	30.39	↓	↓
<i>Average number of satellites usable in primary slots</i>	23.95 (99.80%)	23.97 (99.88%)	23.55 (98.13%)	↓	↓
<i>Average availability 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	3.6	13.6	↓	↓
99.99% Vertical DOP					
<i>Area Median</i>	3.3	2.8	3.1	↑	↓
<i>Worst Site</i>	17.6	9.8	25.2	↓	↓
99.99% Position DOP (PDOP)					
<i>Area Median</i>	3.6	3.1	3.5	↑	↓
<i>Worst Site</i>	18.3	10.2	28.6	↓	↓
Accuracy Parameters					
RMS Single Frequency User Range Error					
<i>Constellation Median</i>	1.72	1.67	1.74	↓	↓
<i>Worst Satellite</i>	2.14	2.29	2.38	↓	↓
95% Horizontal Error					
<i>Area Median</i>	2.36	2.12	1.98	↑	↑
<i>Worst Site</i>	3.35	3.37	3.88	↓	↓
<i>Availability (% <4.5m (historical 3-sigma))</i>	99.77%	99.90%	99.86%	↑	↓
95% Vertical Error					
<i>Area Median</i>	4.46	4.06	4.16	↑	↓
<i>Worst Site</i>	4.95	5.24	4.91	↑	↑
<i>Availability (% < 9m (historical 3-sigma))</i>	99.94%	99.98%	99.97%	↑	↓

Key: ↑ improving ↓ worsening → no significant change

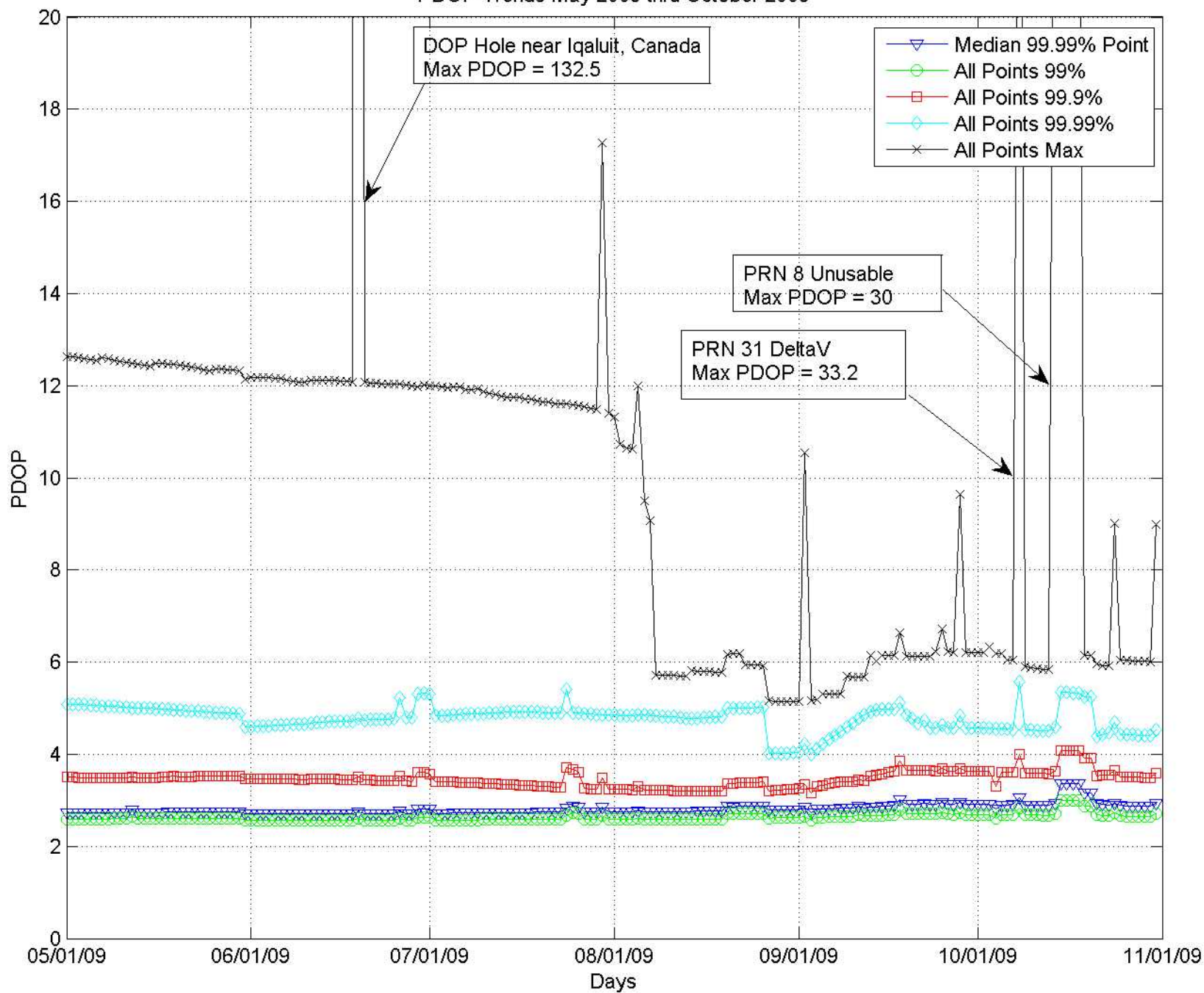
Long Term is current month vs. prior 24 months; Short Term is current month vs. prior month

Compiled from WAAS network as requested by the Defense Science Board

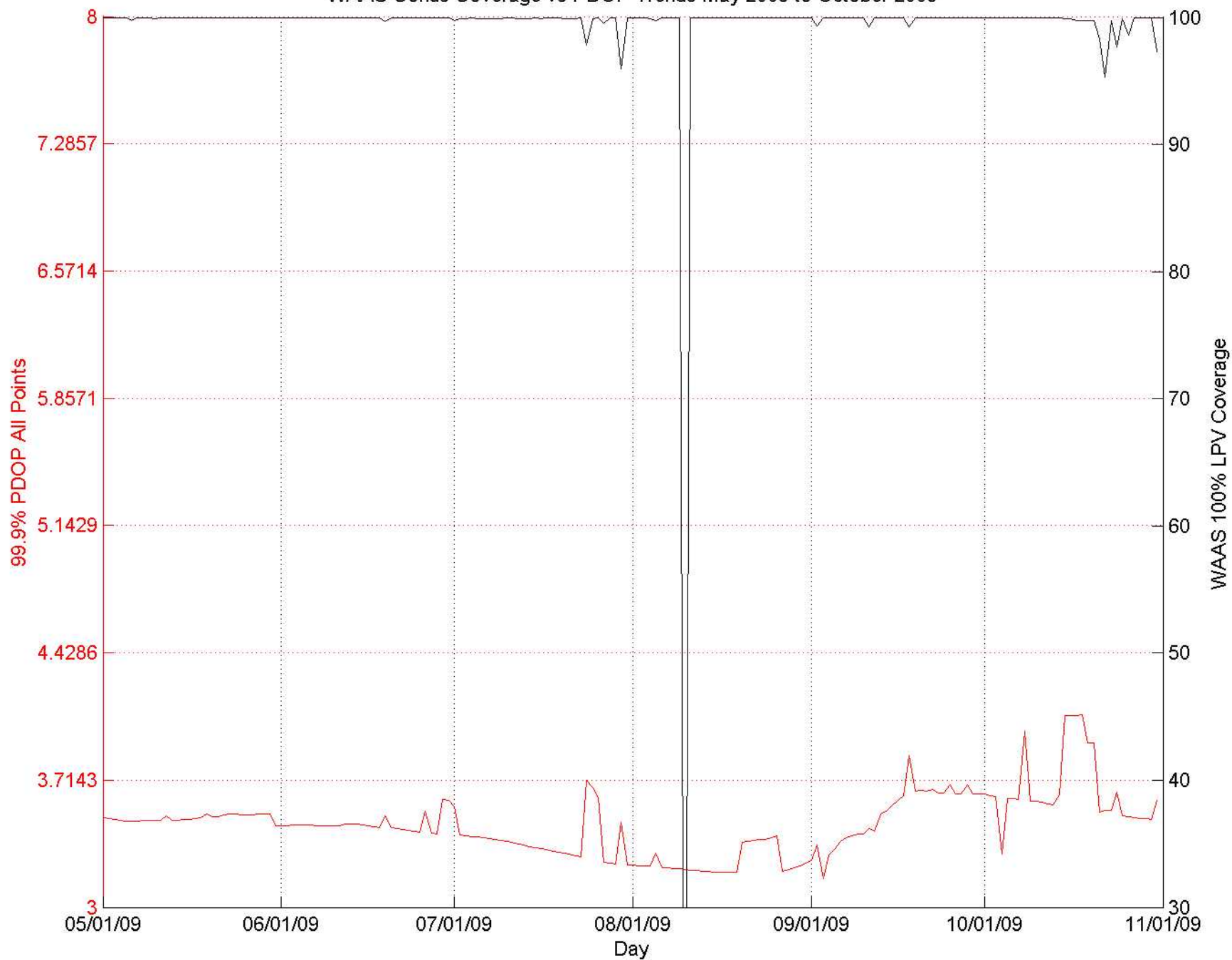
GPS World PDOP 99.99% Index October 2009



PDOP Trends May 2009 thru October 2009



WAAS Conus Coverage vs PDOP Trends May 2009 to October 2009



Six Satellite Availability Trends May 2009 thru October 2009

