

Civil Report Card On GPS Performance

November 2009

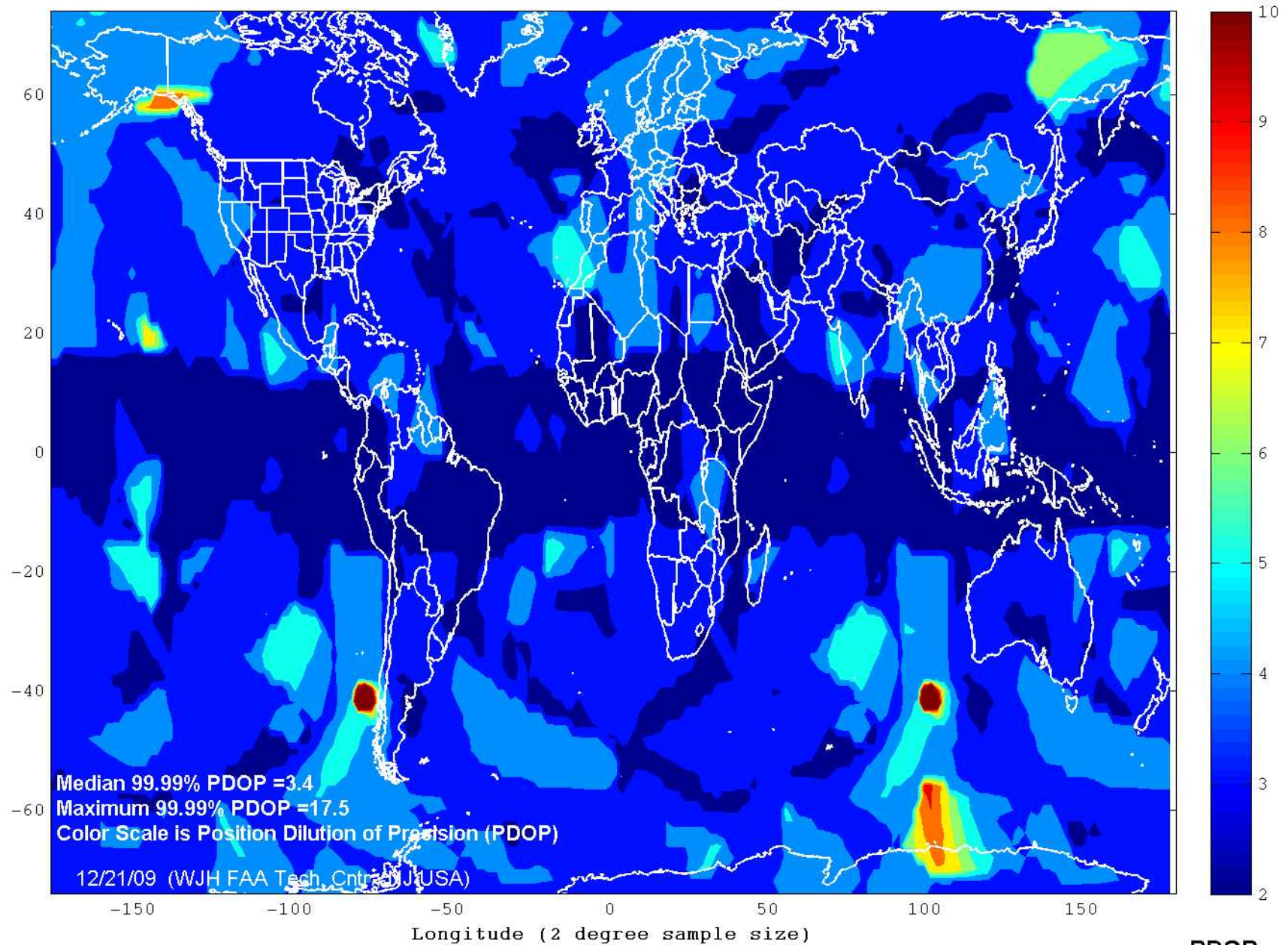
Operational Performance Parameter	CY 2008	Oct 2009	Nov 2009	Long term	Short term
Availability Parameters					
<i>Average Number of satellites usable</i>	30.48	30.39	30.30	↓	↓
<i>Average number of satellites usable in primary slots</i>	23.95 (99.80%)	23.55 (98.13%)	23.47 (97.79%)	↓	↓
<i>Average availability of 6 satellites in view</i>	99.99%	99.99%	99.99%	→	→
99.99% Horizontal DOP					
<i>Area Median</i>	1.8	1.6	1.6	↑	→
<i>Worst Site</i>	5.8	13.6	8.6	↓	↑
99.99% Vertical DOP					
<i>Area Median</i>	3.3	3.1	3.1	↑	→
<i>Worst Site</i>	17.6	25.2	15.5	↑	↑
99.99% Position DOP (PDOP)					
<i>Area Median</i>	3.6	3.5	3.4	↑	↑
<i>Worst Site</i>	18.3	28.6	17.5	↑	↑
Accuracy Parameters					
RMS Single Frequency User Range Error					
<i>Constellation Median</i>	1.72	1.74	1.75	↓	→
<i>Worst Satellite</i>	2.14	2.38	2.37	↓	→
95% Horizontal Error					
<i>Area Median</i>	2.36	1.98	2.21	↑	↓
<i>Worst Site</i>	3.35	3.88	3.94	↓	↓
<i>Availability (% <4.5m (historical 3-sigma))</i>	99.77%	99.86%	99.87%	↑	→
95% Vertical Error					
<i>Area Median</i>	4.46	4.16	4.25	↑	↓
<i>Worst Site</i>	4.95	4.91	5.24	↓	↓
<i>Availability (% < 9m (historical 3-sigma))</i>	99.94%	99.97%	99.98%	↑	→

Key: ↑ improving ↓ worsening → no significant change

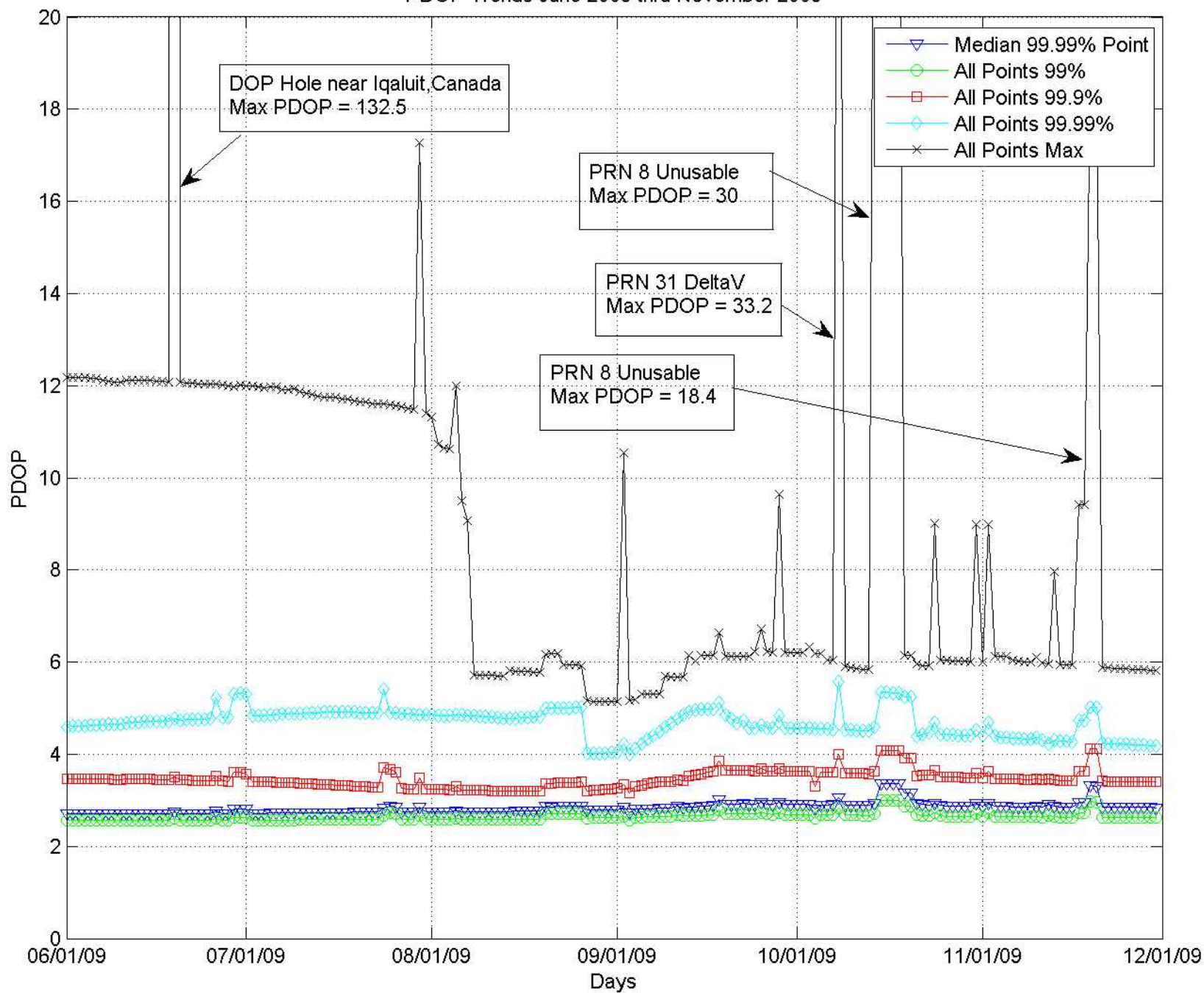
Long Term is current month vs. prior 24 months; Short Term is current month vs. prior month

Compiled from WAAS network as requested by the Defense Science Board

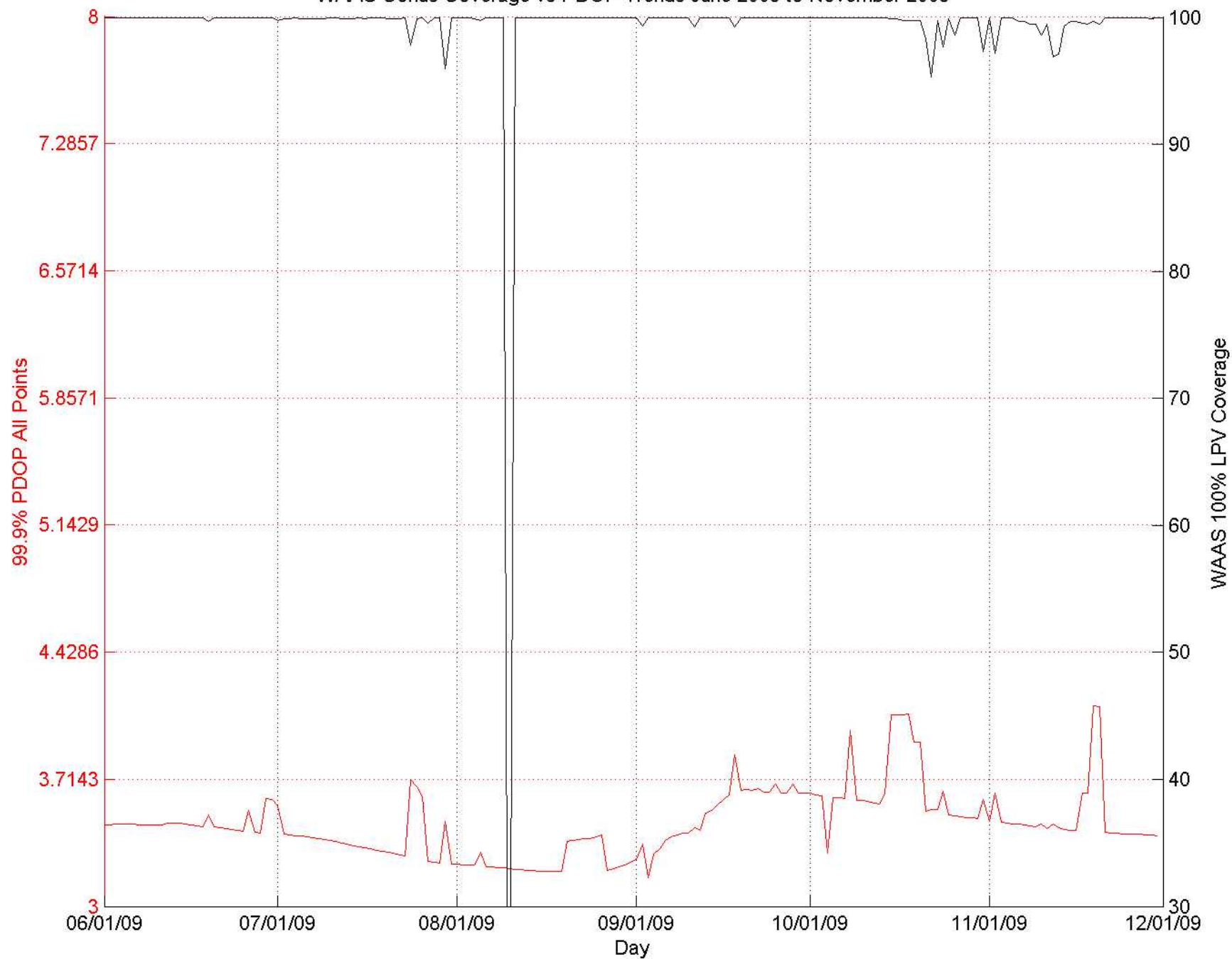
GPS World PDOP 99.99% Index November 2009



PDOP Trends June 2009 thru November 2009



WAAS Conus Coverage vs PDOP Trends June 2009 to November 2009



Six Satellite Availability Trends June 2009 thru November 2009

