

Civil Report Card On GPS Performance

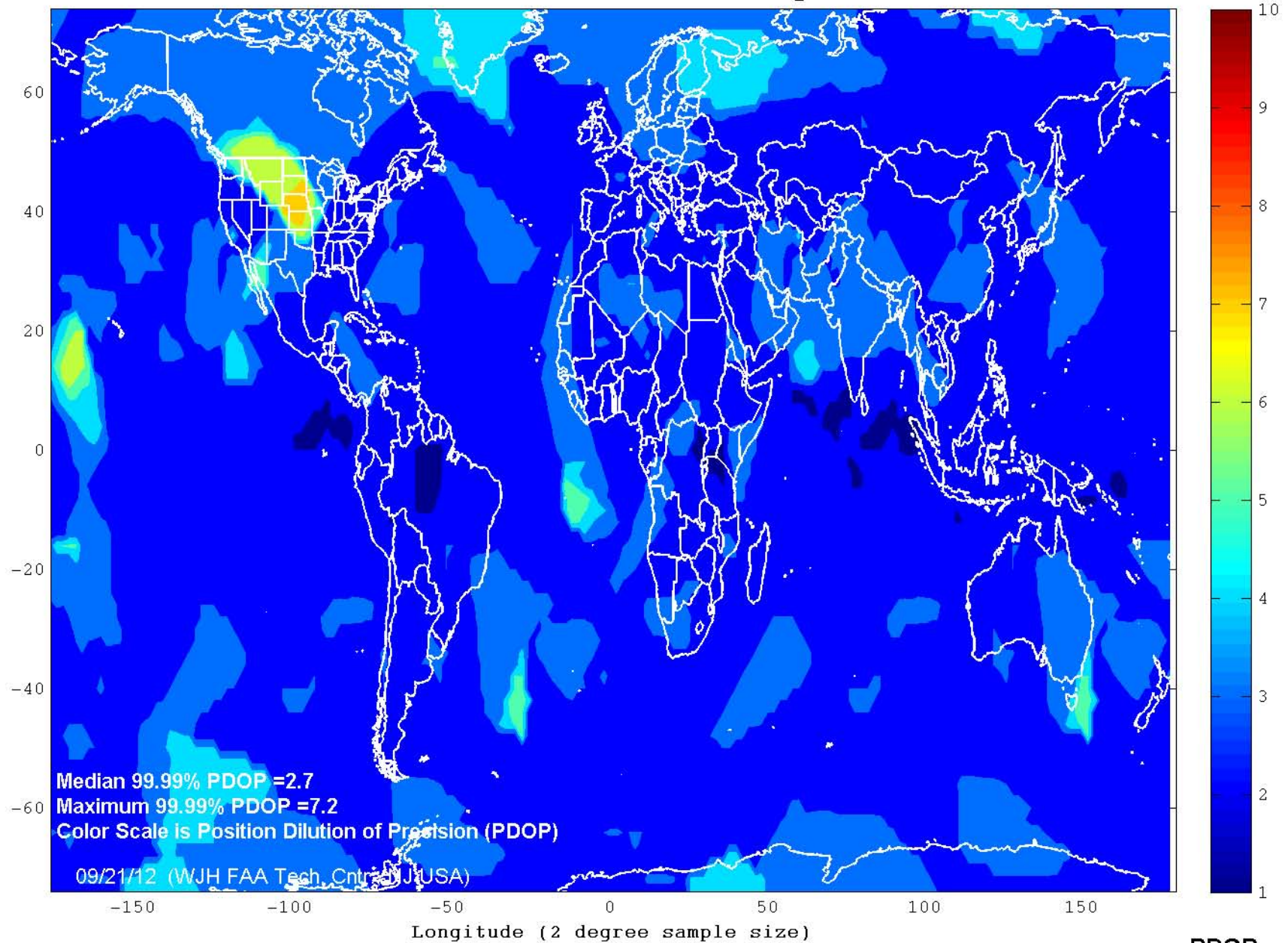
August 2012

Operational Performance Parameter	CY 2011	July 2012	Aug 2012	Long term	Short term
Availability Parameters					
<i>Average Number of satellites usable</i>	30.65	30.99	30.99	↑	→
<i>Average number of satellites usable in primary slots</i>	23.78 (99.10%)	23.99 (99.97%)	23.99 (99.94%)	↑	↓
<i>Average availability of 6 satellites in view</i>	99.99%	100%	100%	↑	→
99.99% Horizontal DOP					
<i>Area Median</i>	1.5	1.3	1.4	↑↓	↓
<i>Worst Site</i>	3.0	2.2	3.7	↓	↓
99.99% Vertical DOP					
<i>Area Median</i>	2.8	2.3	2.4	↑↓	↓
<i>Worst Site</i>	5.8	4.8	6.6	↓	↓
99.99% Position DOP (PDOP)					
<i>Area Median</i>	3.1	2.6	2.7	↑↓	↓
<i>Worst Site</i>	6.5	5.1	7.2	↓	↓
99% RAIM Availability (HAL=100m)					
<i>NPA Service Area (NSA)</i>	-	97.05%	94.84%	-	↓
<i>World</i>	-	96.67%	96.09%	-	↓
Accuracy Parameters					
RMS Single Frequency User Range Error					
<i>Constellation Median</i>	1.95	1.76	1.81	↑	↓
<i>Worst Satellite</i>	2.57	2.34	2.21	↑	↑
95% Horizontal Error					
<i>Area Median</i>	2.71	2.54	2.68	↑	↓
<i>Worst Site</i>	10.10	4.16	5.32	↓	↓
<i>Availability (% <4.5m (historical 3-sigma))</i>	98.74%	99.83%	99.94%	↑	↑
95% Vertical Error					
<i>Area Median</i>	5.03	4.45	3.90	↑	↑
<i>Worst Site</i>	10.39	5.57	7.82	↑	↓
<i>Availability (% < 9m (historical 3-sigma))</i>	99.53%	99.98%	99.99%	↑	↑

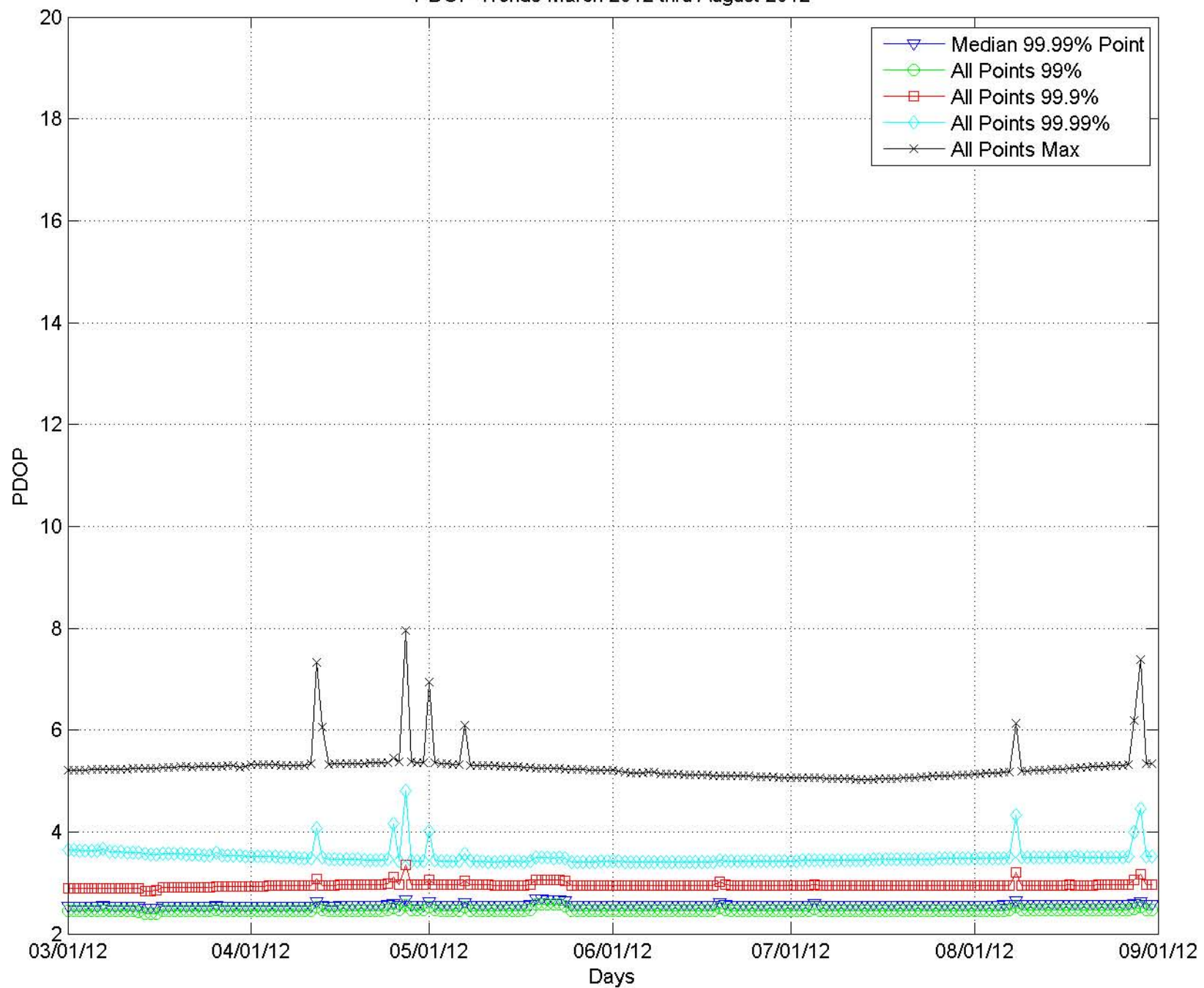
Key: ↑ improving ↓ worsening → no significant change

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

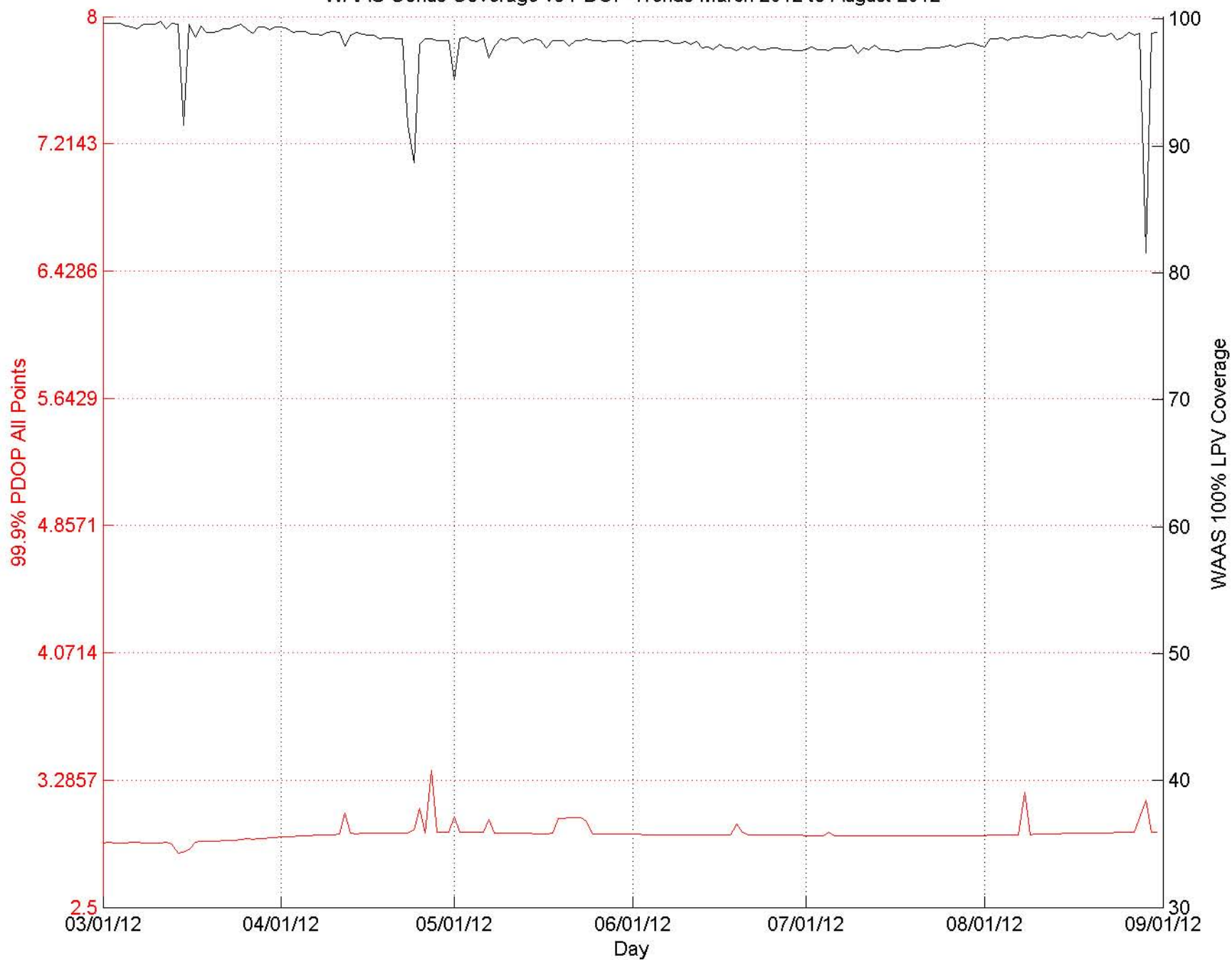
GPS World PDOP 99.99% Index August 2012



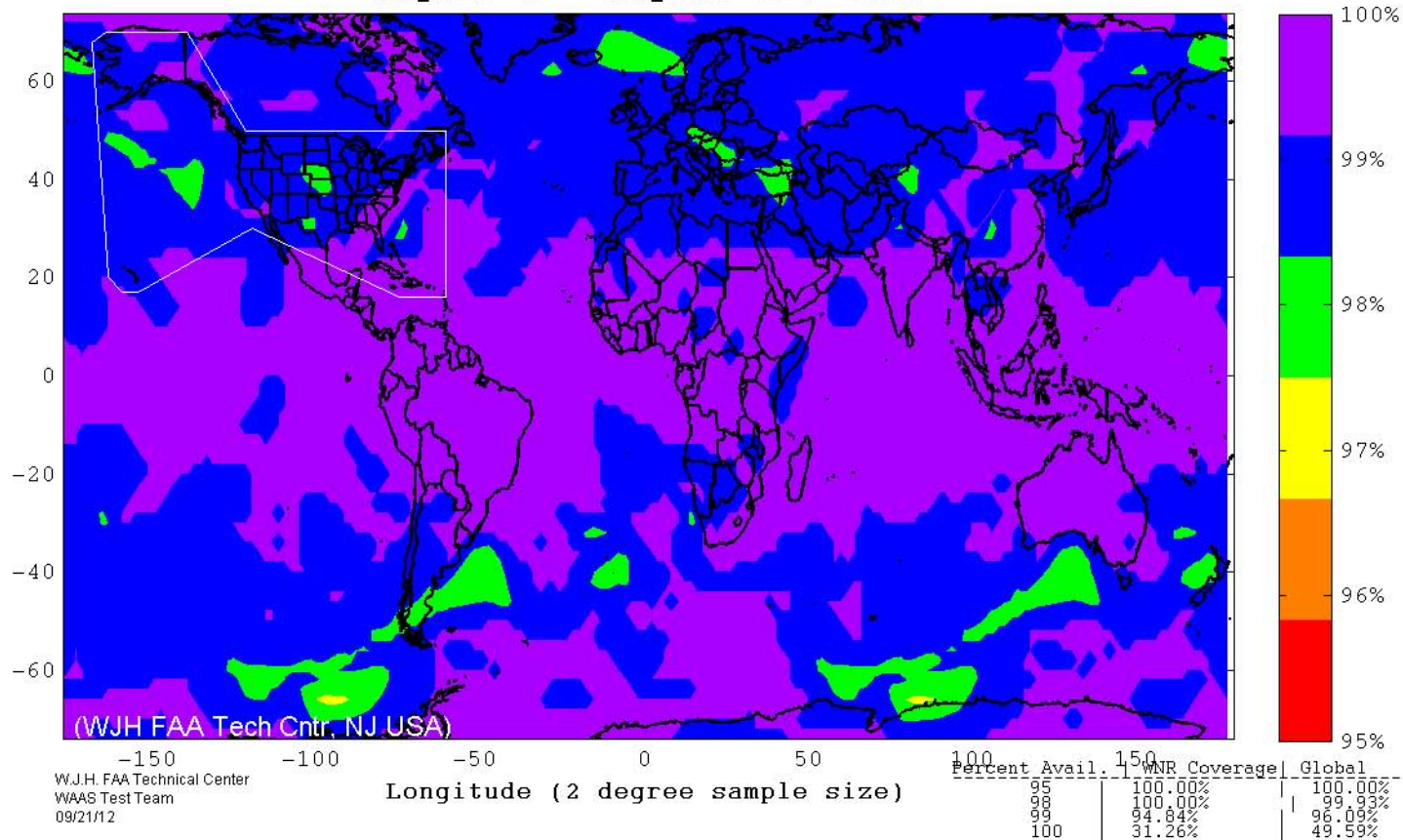
PDOP Trends March 2012 thru August 2012



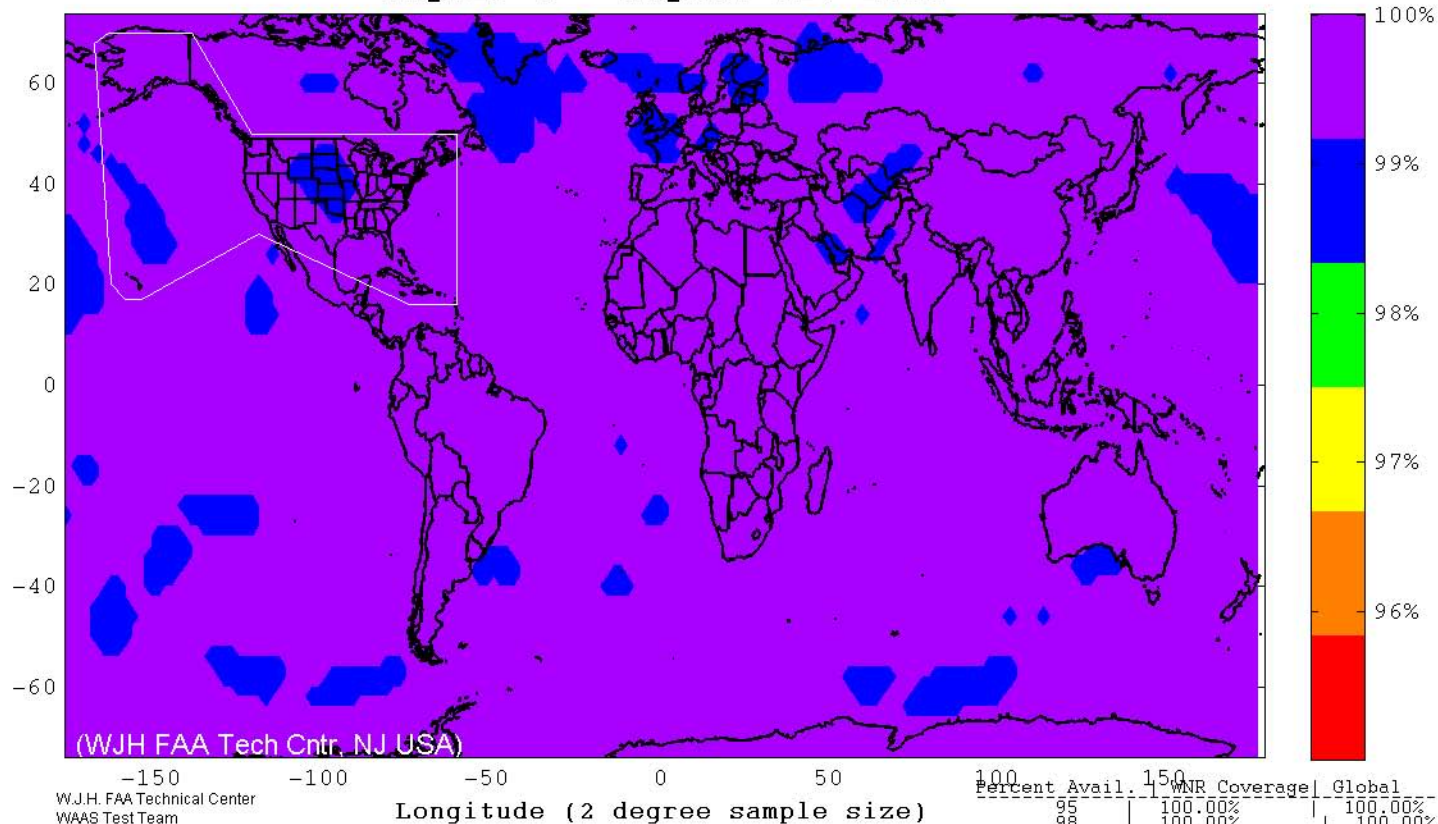
WAAS Conus Coverage vs PDOP Trends March 2012 to August 2012



SPS RAIM (HAL=100m) Availability
 FD Only, SA Off, without Baro-Aiding
 August 1 - August 31, 2012



SPS RAIM RNP 0.1 (HAL = 185m) Availability
 FD Only, SA Off, without Baro-Aiding
 August 1 - August 31, 2012



WJH FAA Technical Center
 WAAS Test Team
 09/21/12

Longitude (2 degree sample size)

SPS RAIM RNP 0.3 (HAL = 556m) Availability
 FD Only, SA Off, without Baro-Aiding
 August 1 - August 31, 2012

