

Civil Report Card On GPS Performance

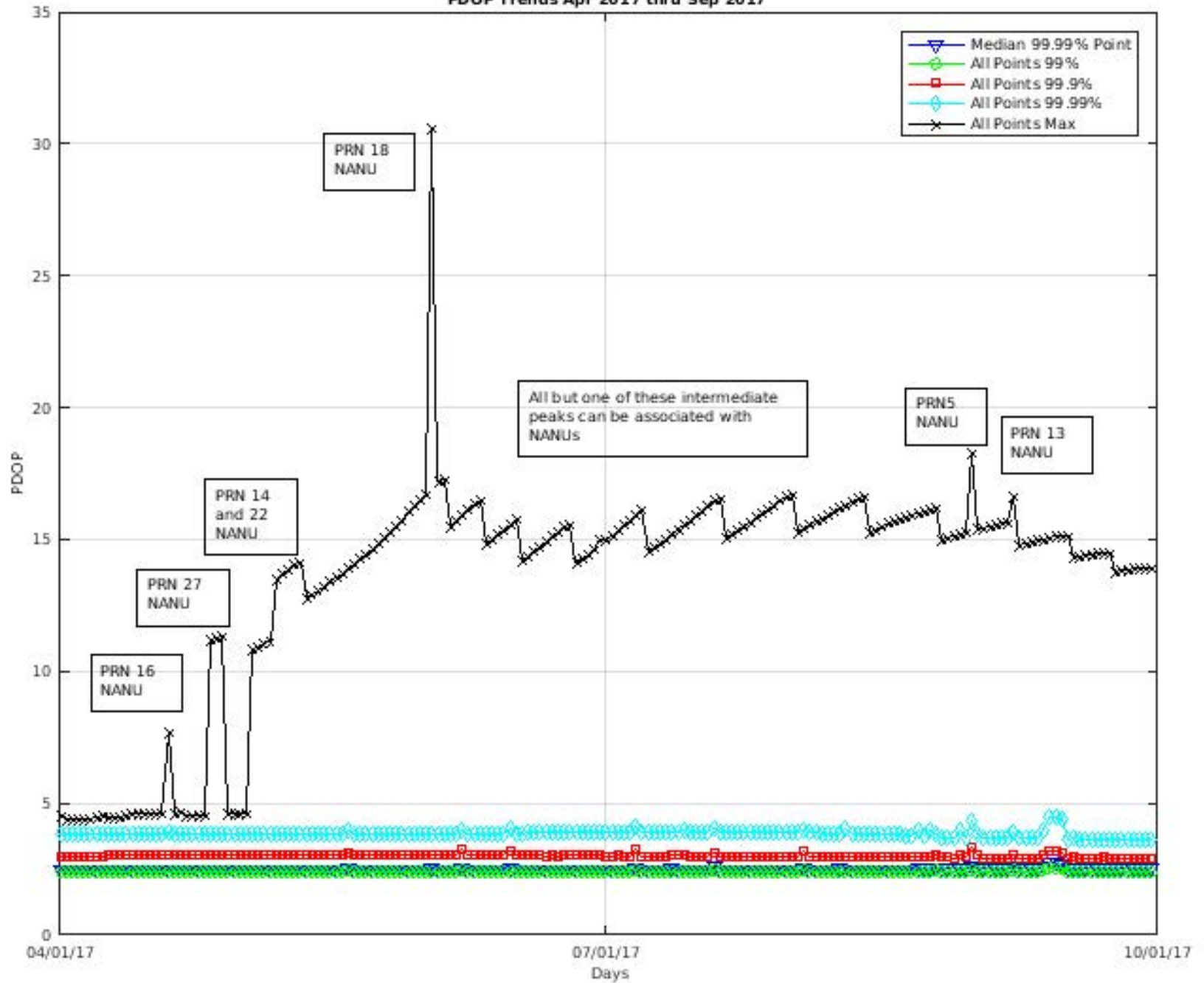
Sep 2017

Operational Performance Parameter	CY 2016	Aug 2017	Sep 2017	Long term	Short term
Availability Parameters					
<i>Average Number of satellites usable</i>	30.85	30.95	30.86	↑	↓
<i>Average number of satellites usable in primary slots</i>	23.99 (99.94%)	23.95 (99.80%)	23.87 (99.45%)	↓	↓
<i>Average availability of 6 satellites in view</i>	99.94%	100%	100%	↑	→
99.99% Horizontal DOP					
<i>Area Median</i>	1.3	1.4	1.4	↓	→
<i>Worst Site</i>	4.9	3.8	3.4	↑	↑
99.99% Vertical DOP					
<i>Area Median</i>	2.3	2.5	2.5	↓	→
<i>Worst Site</i>	15.1	15.9	15.1	→	↑
99.99% Position DOP (PDOP)					
<i>Area Median</i>	2.6	2.8	2.8	↓	→
<i>Worst Site</i>	15.8	16.2	15.5	↑	↑
100% RAIM Availability (HAL=185m)					
<i>NPA Service Area (NSA)</i>	76.93%	32.63%	75.89%	↓	↑
<i>World</i>	68.27%	60.09%	64.39%	↓	↑
Accuracy Parameters					
RMS Single Frequency User Range Error					
<i>Constellation Median</i>	1.64	1.34	1.76	↓	↓
<i>Worst Satellite</i>	16.90	20.74	20.26	↓	↑
95% Horizontal Error					
<i>Area Median</i>	1.98	1.67	2.07	↓	↓
<i>Worst Site</i>	7.82	2.61	4.41	↑	↓
<i>Availability (% <4.5m (historical 3-sigma))</i>	99.65%	100%	99.69%	↑	↓
95% Vertical Error					
<i>Area Median</i>	3.87	3.16	4.63	↓	↓
<i>Worst Site</i>	15.03	3.62	5.70	↑	↓
<i>Availability (% < 9m (historical 3-sigma))</i>	99.98%	100%	99.99%	↑	↓

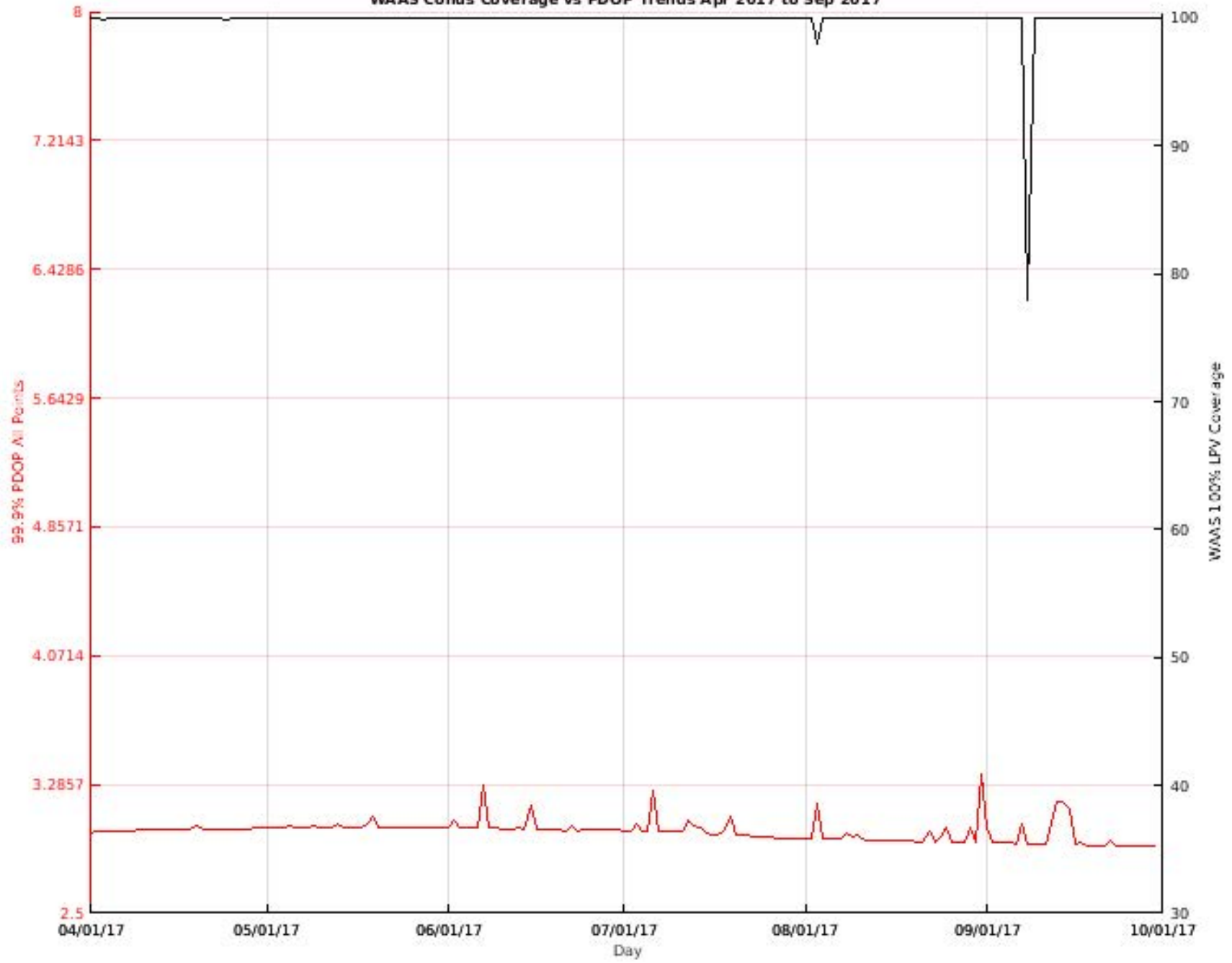
Key: ↑ improving ↓ worsening → no significant change

Long Term is current month vs. prior 12 months; Short Term is current month vs. prior month

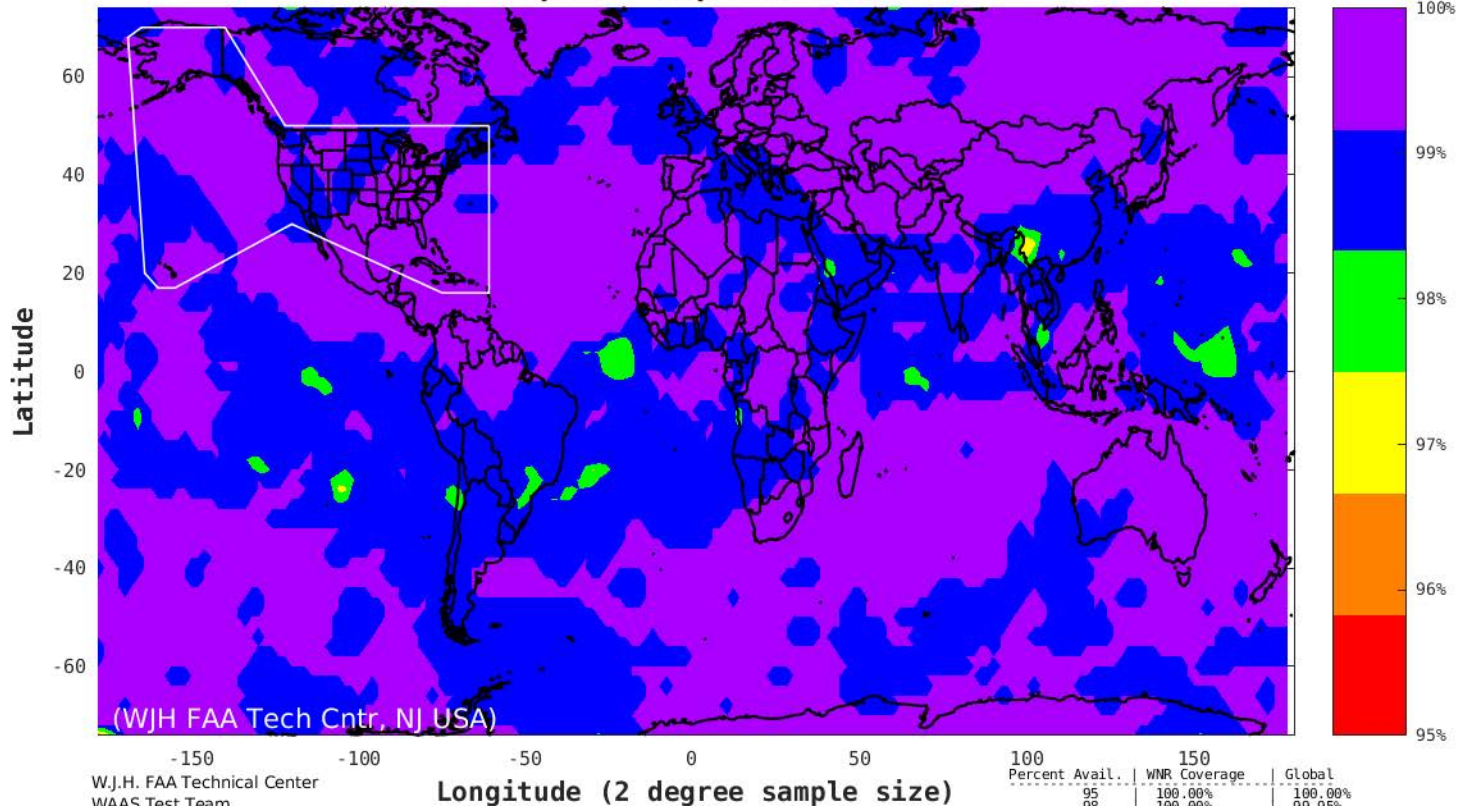
PDOP Trends Apr 2017 thru Sep 2017



WAAS Conus Coverage vs PDOP Trends Apr 2017 to Sep 2017



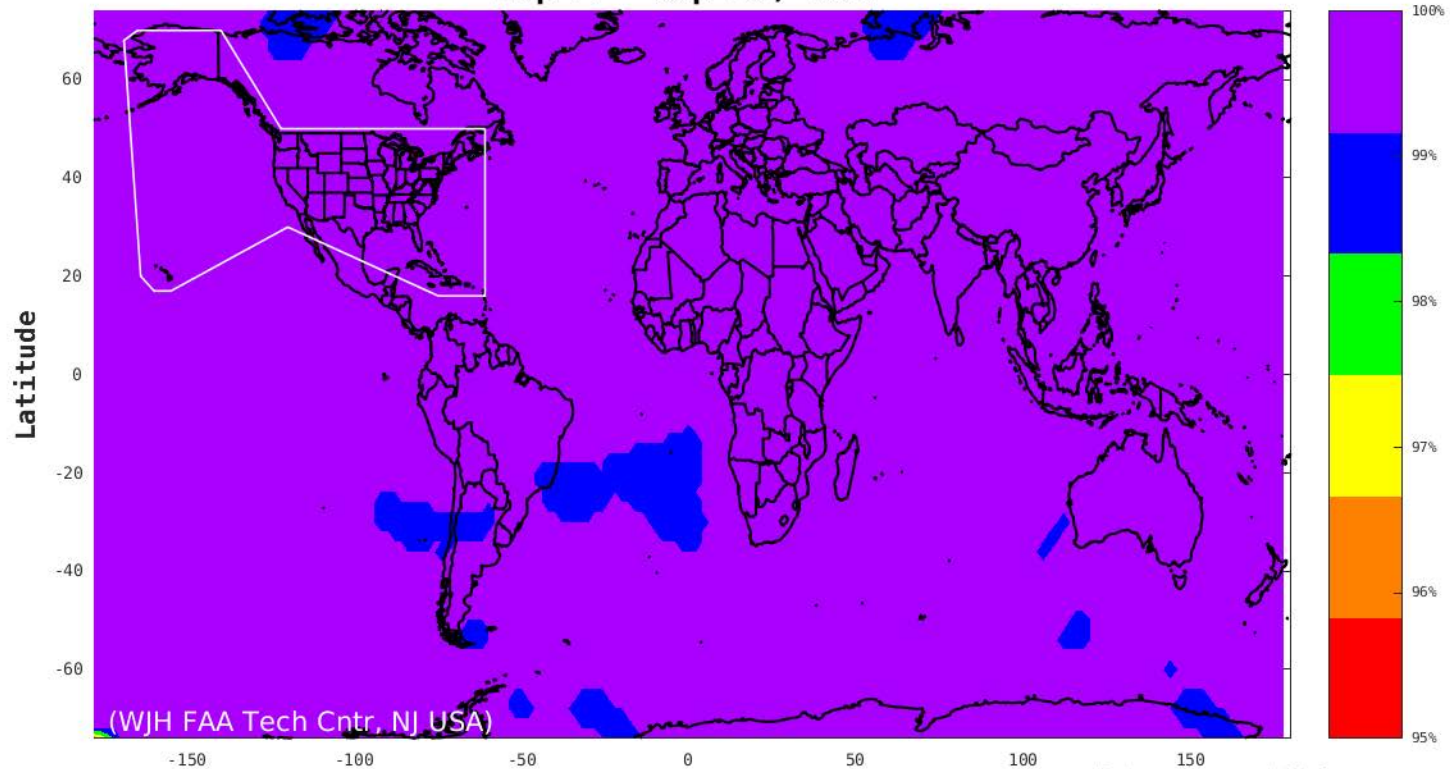
**SPS RAIM RNP 0.1 (HAL = 185m) Availability
 FD Only, SA Off, without Baro-Aiding
 Sep 1 - Sep 30, 2017**



(WJH FAA Tech Cntr, NJ USA)

W.J.H. FAA Technical Center
 WAAS Test Team
 10/03/17

**SPS RAIM RNP 0.3 (HAL = 556m) Availability
 FD Only, SA Off, without Baro-Aiding
 Sep 1 - Sep 30, 2017**



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W.J.H. FAA Technical Center
 WAAS Test Team
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Longitude (2 degree sample size)

100	150	Global
Percent Avail.	WNR Coverage	
95	100.00%	100.00%
98	100.00%	100.00%
99	100.00%	100.00%
100	100.00%	97.45%

GPS World PDOP 99.99% Index Sep 2017

