

# Civil Report Card On GPS Performance

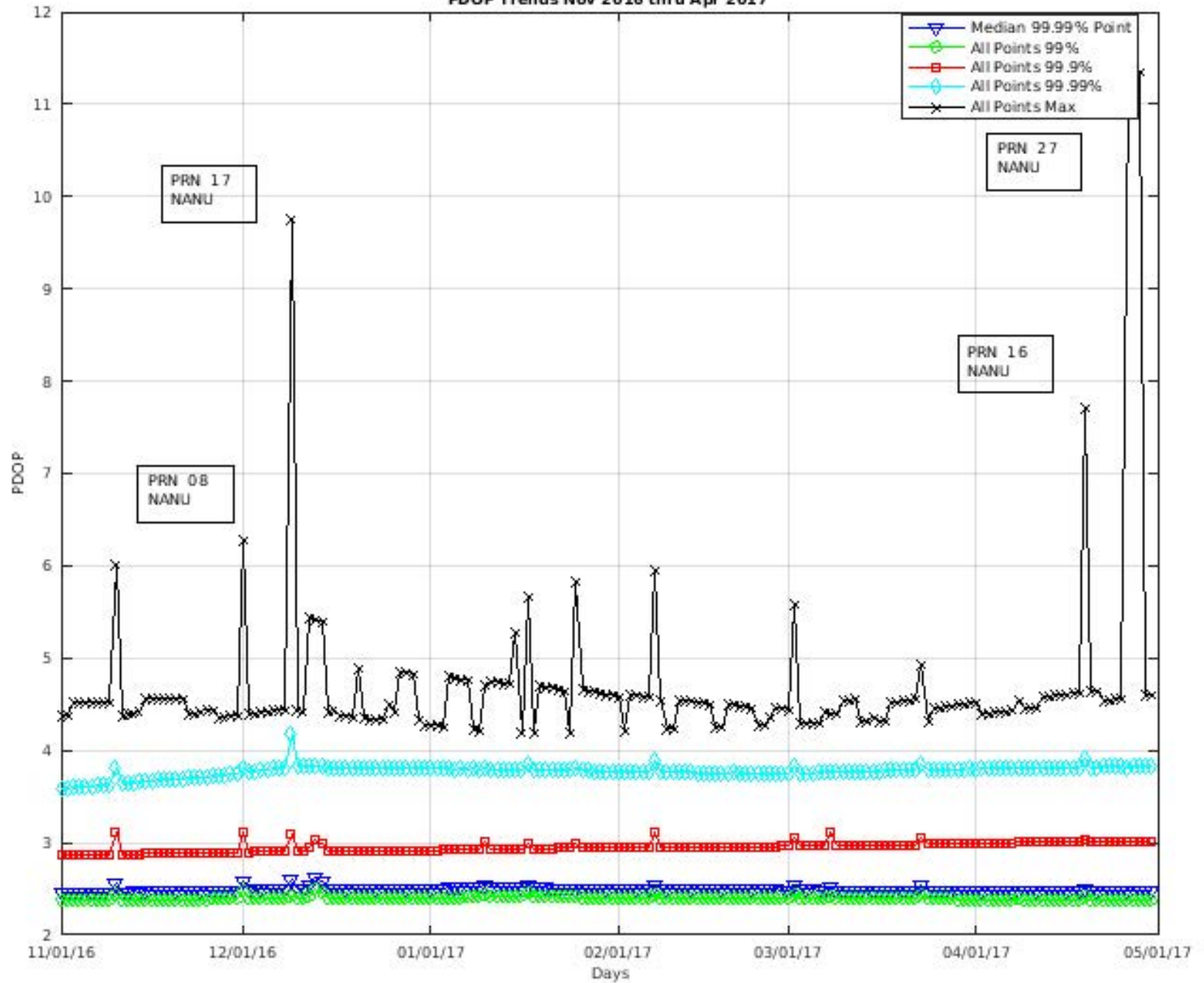
## Apr 2017

Operational Performance Parameter	CY 2016	Mar 2017	Apr 2017	Long term	Short term
<b>Availability Parameters</b>					
<i>Average Number of satellites usable</i>	30.85	30.98	30.99	↑	↑
<i>Average number of satellites usable in primary slots</i>	23.99 (99.94%)	23.99 (99.94%)	23.99 (99.97%)	↑	↑
<i>Average availability of 6 satellites in view</i>	99.94%	100%	100%	↑	→
<b>99.99% Horizontal DOP</b>					
<i>Area Median</i>	1.3	1.3	1.3	→	→
<i>Worst Site</i>	4.9	2.4	2.1	↑	↑
<b>99.99% Vertical DOP</b>					
<i>Area Median</i>	2.3	2.3	2.2	↑	↑
<i>Worst Site</i>	15.1	5.3	5.2	↑	↑
<b>99.99% Position DOP (PDOP)</b>					
<i>Area Median</i>	2.6	2.6	2.5	↑	↑
<i>Worst Site</i>	15.8	5.5	5.3	↑	↑
<b>100% RAIM Availability (HAL=185m)</b>					
<i>NPA Service Area (NSA)</i>	76.93%	77.05%	99.37%	↑	↑
<i>World</i>	68.27%	77.24%	86.69%	↑	↑
<b>Accuracy Parameters</b>					
<b>RMS Single Frequency User Range Error</b>					
<i>Constellation Median</i>	1.64	1.78	1.86	↓	↓
<i>Worst Satellite</i>	16.90	14.51	16.03	↑	↓
<b>95% Horizontal Error</b>					
<i>Area Median</i>	1.98	2.03	2.17	↓	↓
<i>Worst Site</i>	7.82	4.67	4.33	↑	↑
<i>Availability (% &lt;4.5m (historical 3-sigma))</i>	99.65%	99.74%	99.79%	↑	↑
<b>95% Vertical Error</b>					
<i>Area Median</i>	3.87	4.15	4.99	↓	↓
<i>Worst Site</i>	15.03	4.81	6.43	↑	↓
<i>Availability (% &lt; 9m (historical 3-sigma))</i>	99.98%	100%	99.89%	↓	↓

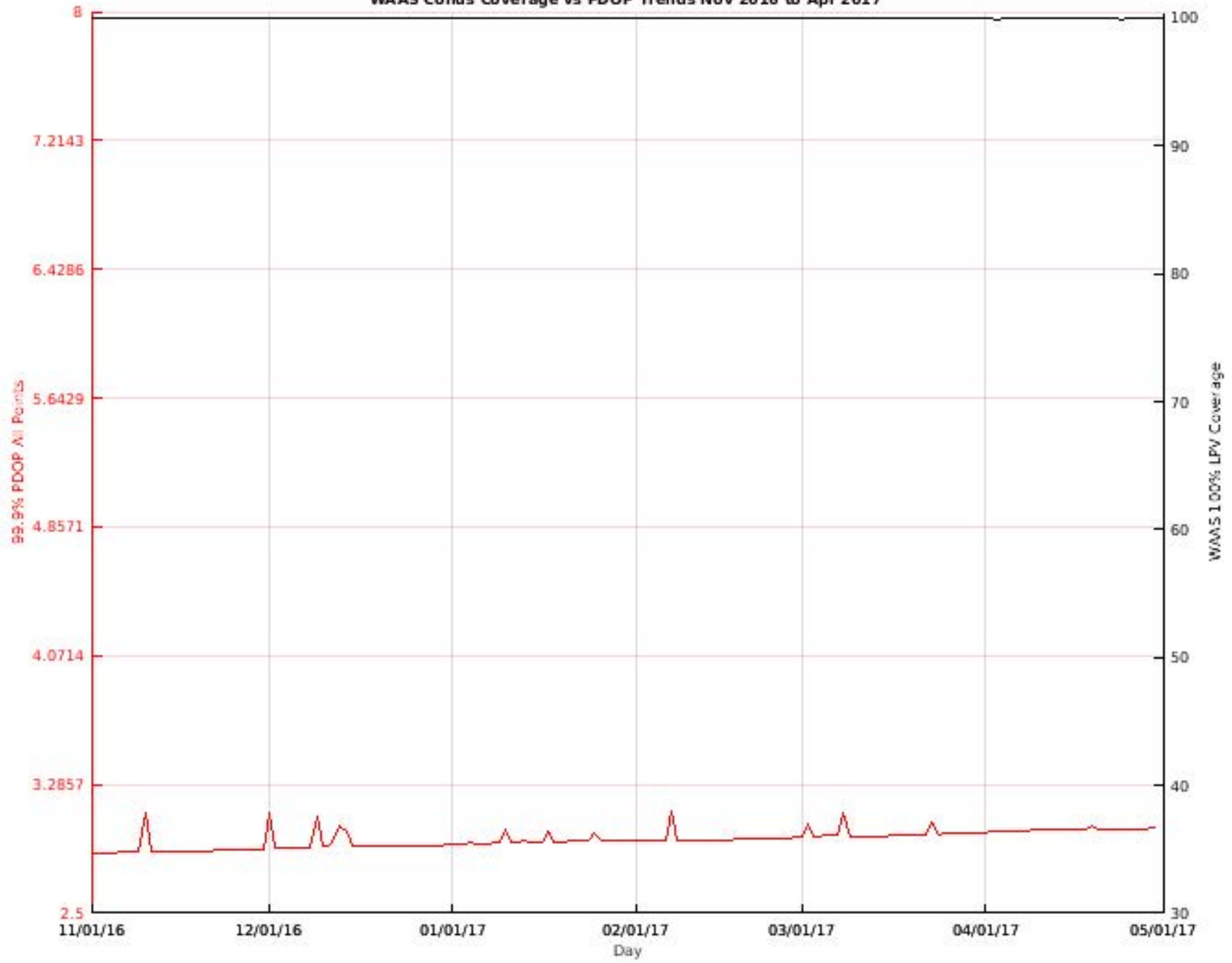
Key: ↑ improving ↓ worsening → no significant change

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

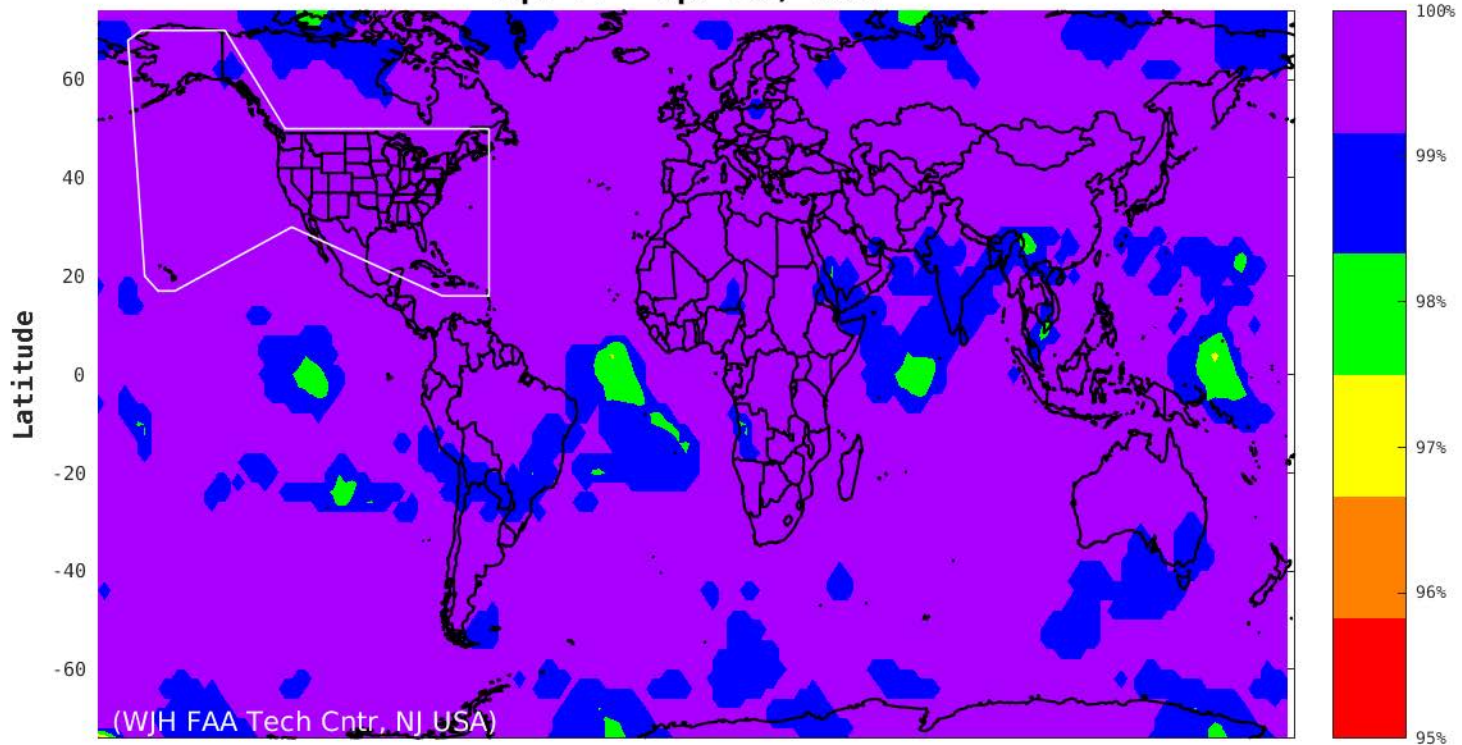
PDOP Trends Nov 2016 thru Apr 2017



WAAS Conus Coverage vs PDOP Trends Nov 2016 to Apr 2017



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



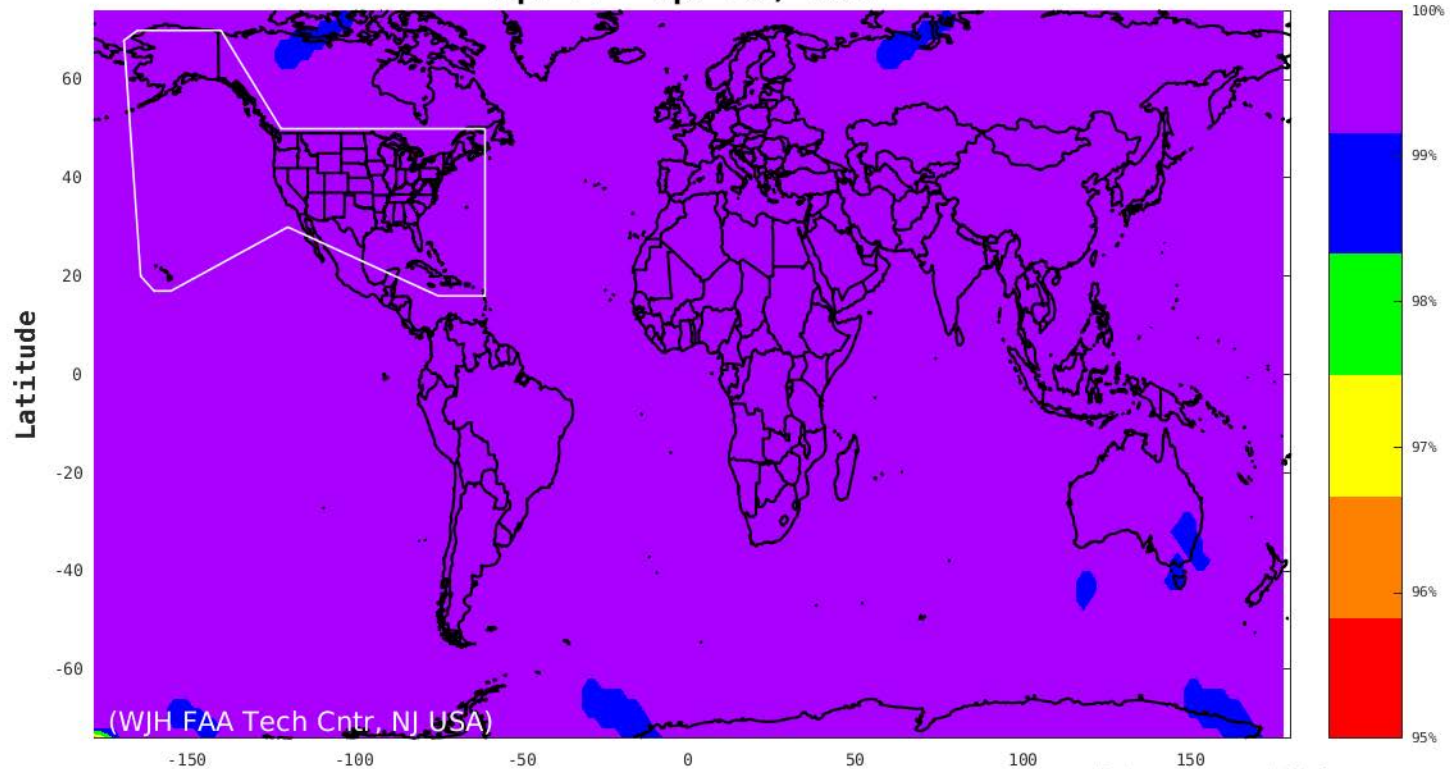
(WJH FAA Tech Cntr, NJ USA)

W.J.H. FAA Technical Center  
 WAAS Test Team  
 05/15/17

**Longitude (2 degree sample size)**

100 Percent Avail.	150 WNR Coverage	Global
95	100.00%	100.00%
98	100.00%	99.98%
99	100.00%	98.74%
100	99.37%	86.69%

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



(WJH FAA Tech Cntr, NJ USA)

W.J.H. FAA Technical Center  
 WAAS Test Team  
 05/15/17

Longitude (2 degree sample size)

Percent Avail.	WNR Coverage	Global
95	100.00%	100.00%
98	100.00%	100.00%
99	100.00%	100.00%
100	100.00%	99.04%

GPS World PDOP 99.99% Index Apr 2017

