

# Civil Report Card On GPS Performance

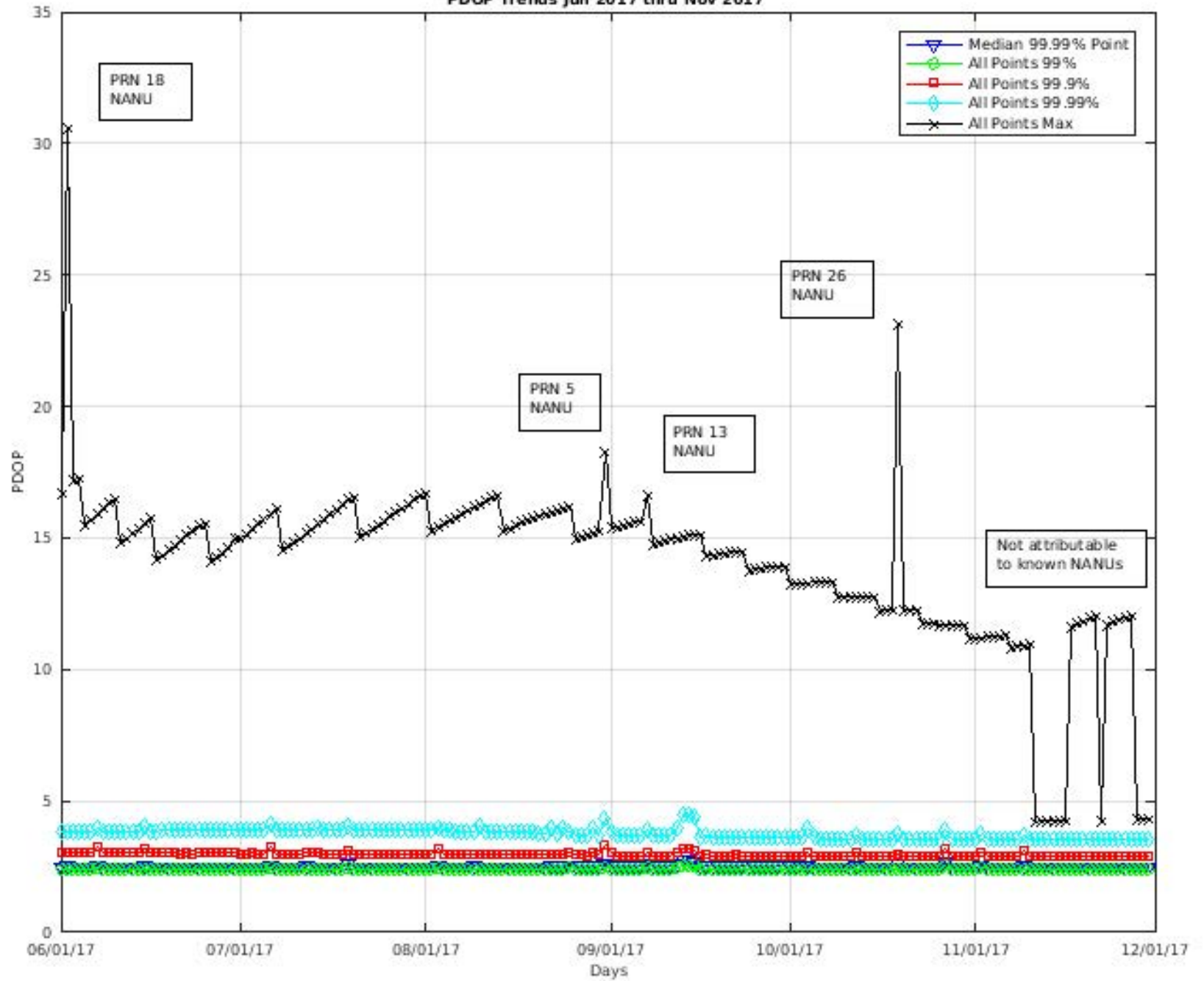
## Nov 2017

Operational Performance Parameter	CY 2016	Oct 2017	Nov 2017	Long term	Short term
<b>Availability Parameters</b>					
<i>Average Number of satellites usable</i>	30.85	30.97	30.99	↑	↑
<i>Average number of satellites usable in primary slots</i>	23.99 (99.94%)	23.98 (99.90%)	23.99 (99.94%)	→	↑
<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	1.4	1.3	→	↑
<i>Worst Site</i>	4.9	3.1	3.2	↑	↓
<b>99.99% Vertical DOP</b>					
<i>Area Median</i>	2.3	2.5	2.3	→	↑
<i>Worst Site</i>	15.1	13.0	11.4	↑	↑
<b>99.99% Position DOP (PDOP)</b>					
<i>Area Median</i>	2.6	2.8	2.6	→	↑
<i>Worst Site</i>	15.8	13.3	11.7	↑	↑
<b>100% RAIM Availability (HAL=185m)</b>					
<i>NPA Service Area (NSA)</i>	76.93%	83.47%	71.47%	↓	↓
<i>World</i>	68.27%	68.97%	80.25%	↑	↑
<b>Accuracy Parameters</b>					
<b>RMS Single Frequency User Range Error</b>					
<i>Constellation Median</i>	1.64	1.58	1.70	↓	↓
<i>Worst Satellite</i>	16.90	15.48	12.35	↑	↑
<b>95% Horizontal Error</b>					
<i>Area Median</i>	1.98	1.75	1.77	↑	↓
<i>Worst Site</i>	7.82	4.12	3.62	↑	↑
<i>Availability (% &lt;4.5m (historical 3-sigma))</i>	99.65%	99.88%	99.98%	↑	↑
<b>95% Vertical Error</b>					
<i>Area Median</i>	3.87	3.79	3.95	↓	↓
<i>Worst Site</i>	15.03	4.49	4.94	↑	↓
<i>Availability (% &lt; 9m (historical 3-sigma))</i>	99.98%	100%	100%	↑	→

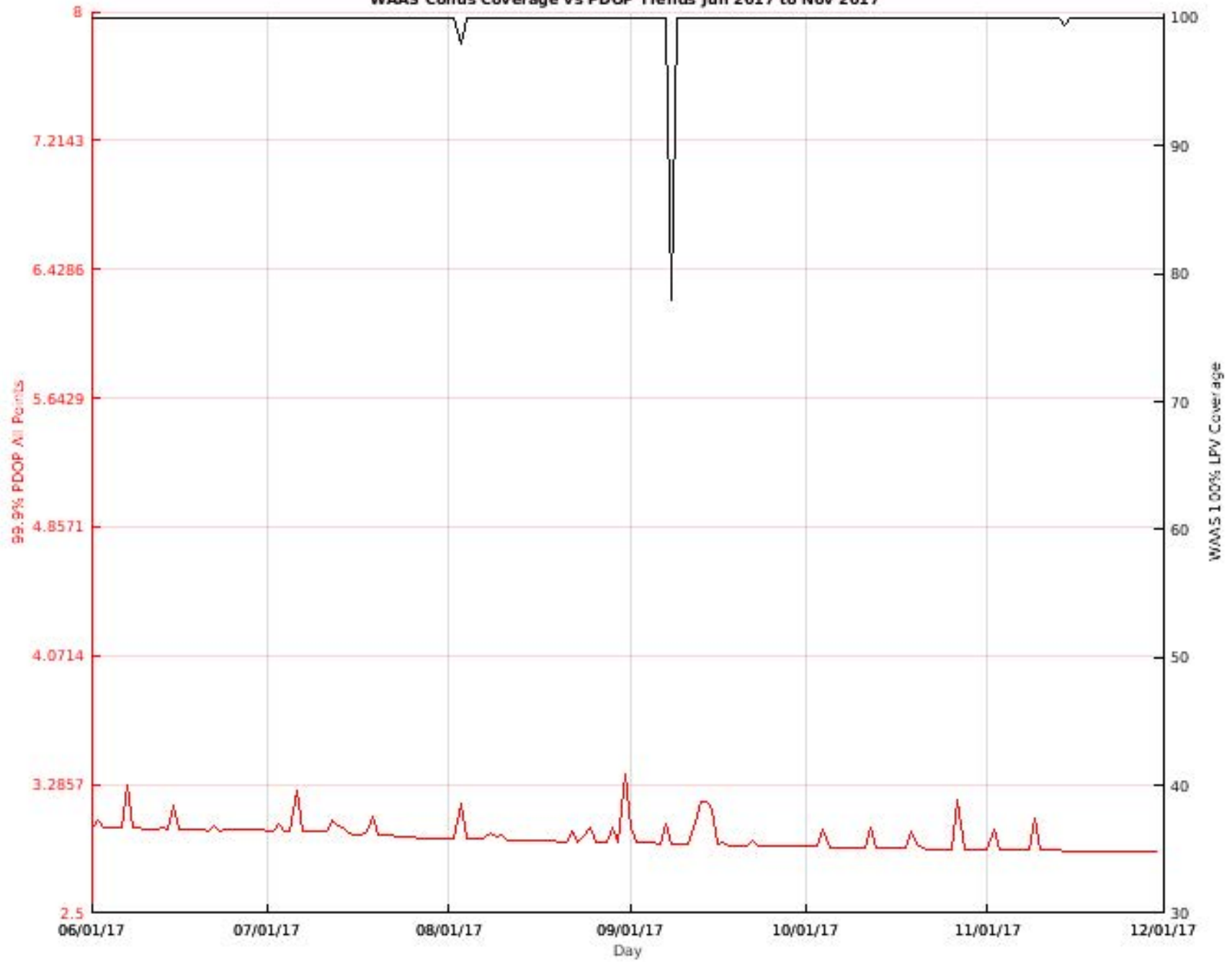
Key: ↑ improving ↓ worsening → no significant change

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

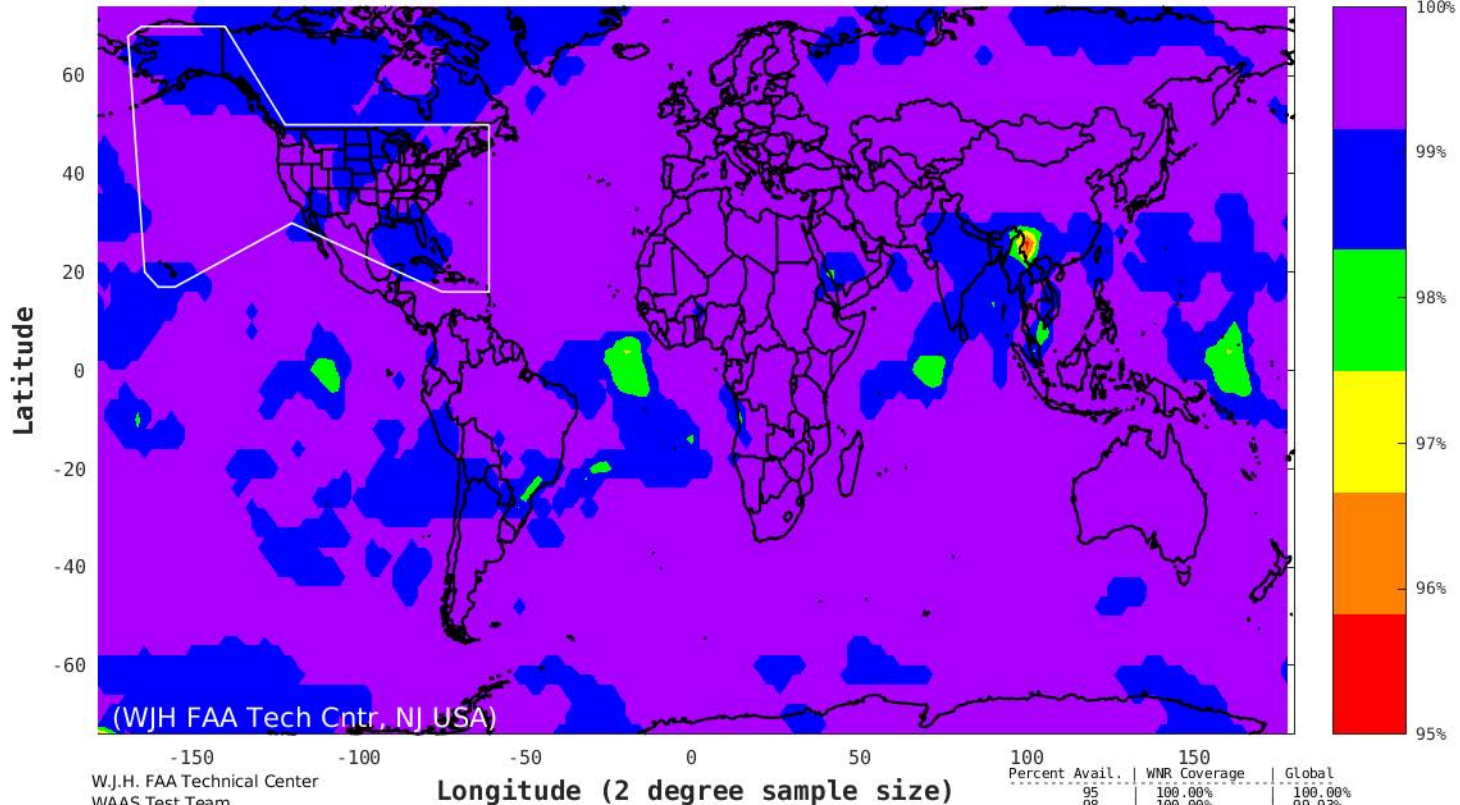
PDOP Trends Jun 2017 thru Nov 2017



WAAS Conus Coverage vs PDOP Trends Jun 2017 to Nov 2017

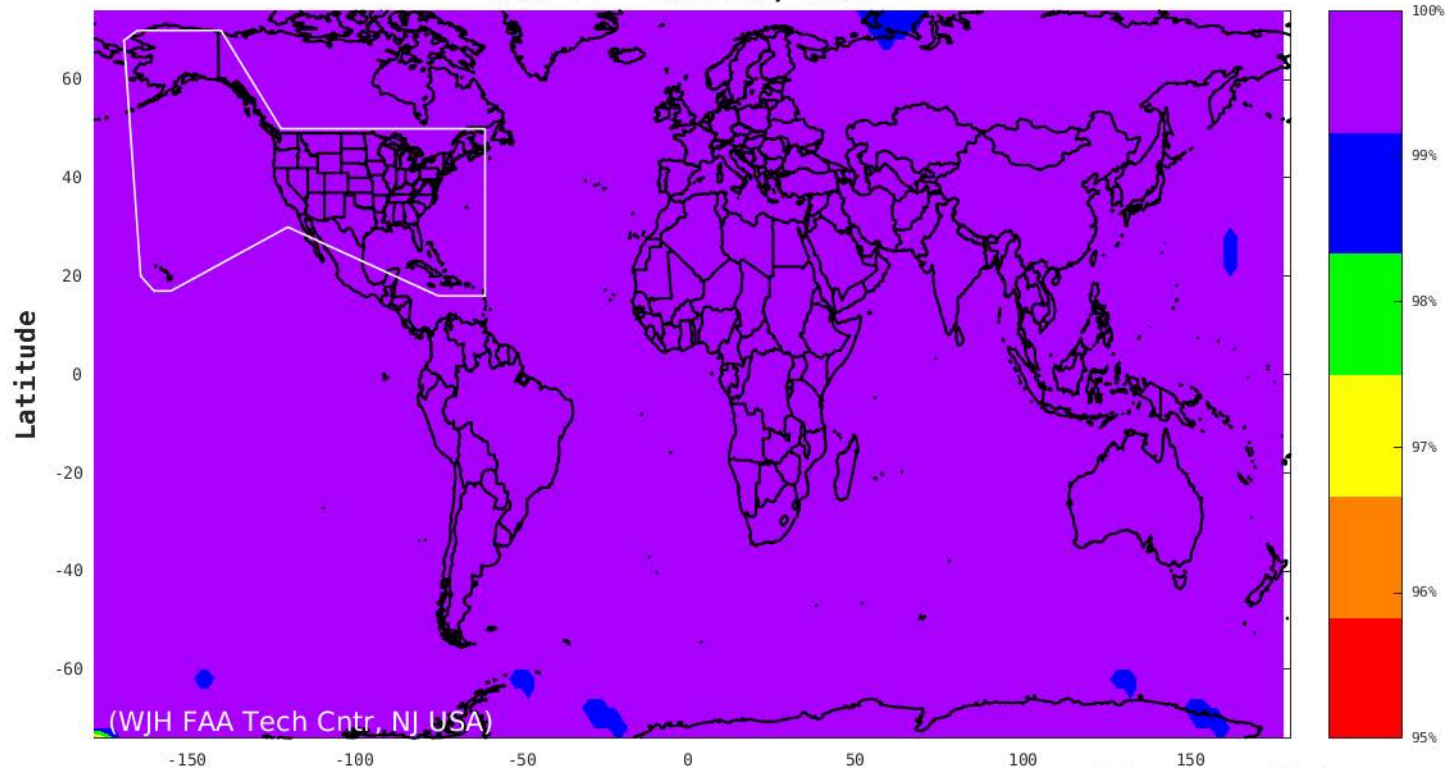


**SPS RAIM RNP 0.1 (HAL = 185m) Availability  
 FD Only, SA Off, without Baro-Aiding  
 Nov 1 - Nov 30, 2017**



W.J.H. FAA Technical Center  
 WAAS Test Team  
 12/07/17

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



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 12/07/17

Percent Avail.	WNR Coverage	Global
95	100.00%	100.00%
98	100.00%	100.00%
99	100.00%	100.00%
100	100.00%	99.58%

# GPS World PDOP 99.99% Index Nov 2017

