

# Civil Report Card On GPS Performance

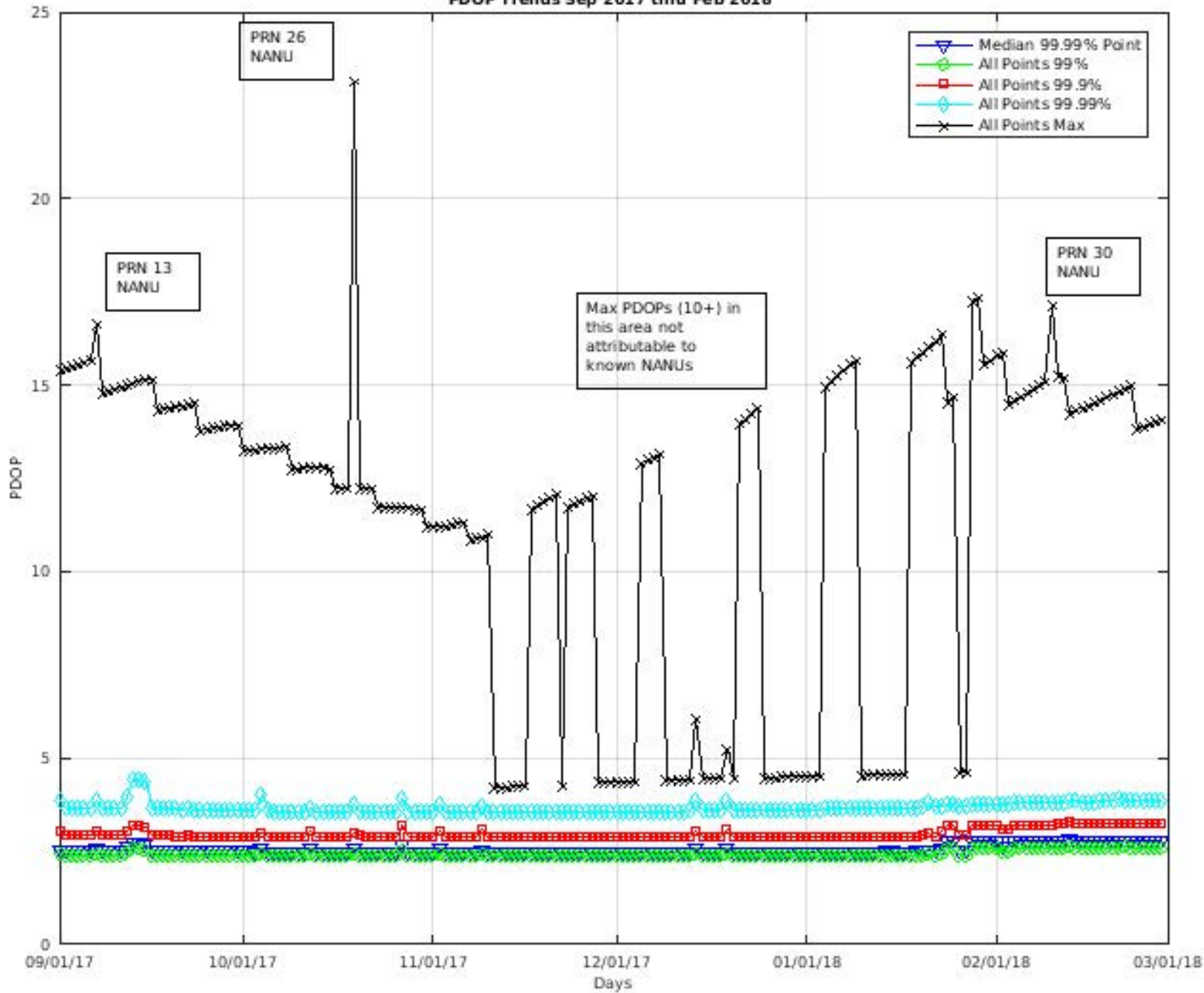
## Feb 2018

Operational Performance Parameter	CY 2017	Jan 2018	Feb 2018	Long term	Short term
<b>Availability Parameters</b>					
<i>Average Number of satellites usable</i>	30.97	30.73	29.99	↓	↓
<i>Average number of satellites usable in primary slots</i>	23.97 (99.88%)	23.73 (98.88%)	22.99 (95.79%)	↓	↓
<i>Average availability of 6 satellites in view</i>	100%	100%	100%	→	→
<b>99.99% Horizontal DOP</b>					
<i>Area Median</i>	1.3	1.3	1.4	↓	↓
<i>Worst Site</i>	4.3	3.6	3.6	↑	→
<b>99.99% Vertical DOP</b>					
<i>Area Median</i>	2.3	2.5	2.5	↓	→
<i>Worst Site</i>	15.9	15.4	14.6	↑	↑
<b>99.99% Position DOP (PDOP)</b>					
<i>Area Median</i>	2.6	2.8	2.9	↓	↓
<i>Worst Site</i>	16.5	15.8	14.9	↑	↑
<b>100% RAIM Availability (HAL=185m)</b>					
<i>NPA Service Area (NSA)</i>	72.87%	83.79%	70.84%	↓	↓
<i>World</i>	73.40%	76.00%	69.93%	↓	↓
<b>Accuracy Parameters</b>					
<b>RMS Single Frequency User Range Error</b>					
<i>Constellation Median</i>	1.57	1.60	1.64	↓	↓
<i>Worst Satellite</i>	20.74	9.54	10.08	↑	↓
<b>95% Horizontal Error</b>					
<i>Area Median</i>	1.80	1.75	1.69	↑	↑
<i>Worst Site</i>	4.67	2.82	3.27	↑	↓
<i>Availability (% &lt;4.5m (historical 3-sigma))</i>	99.90%	99.99%	99.94%	↑	↓
<b>95% Vertical Error</b>					
<i>Area Median</i>	3.81	3.81	3.98	↓	↓
<i>Worst Site</i>	6.43	4.68	4.76	↑	↓
<i>Availability (% &lt; 9m (historical 3-sigma))</i>	99.99%	100%	100%	↑	→

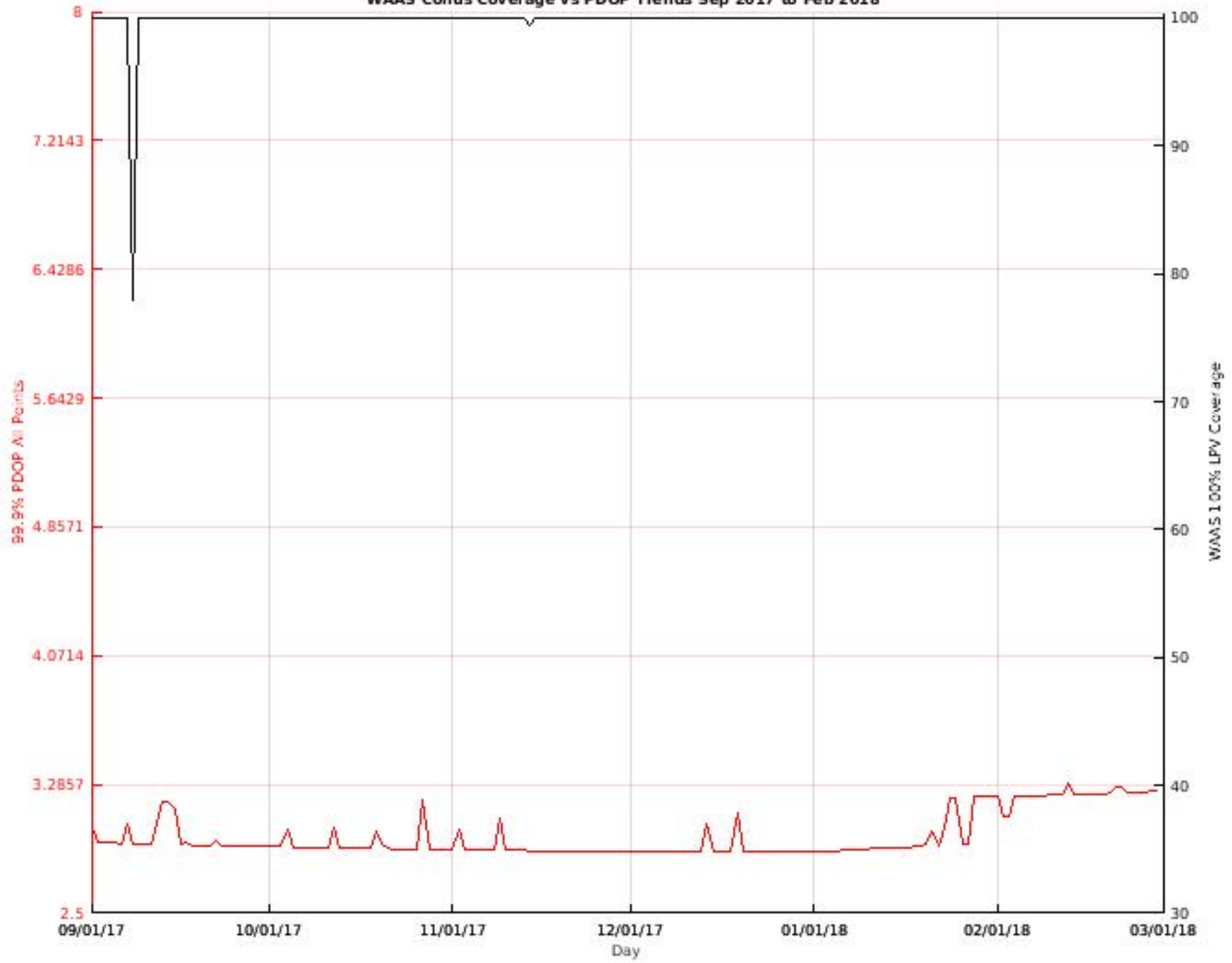
Key: ↑ improving ↓ worsening → no significant change

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

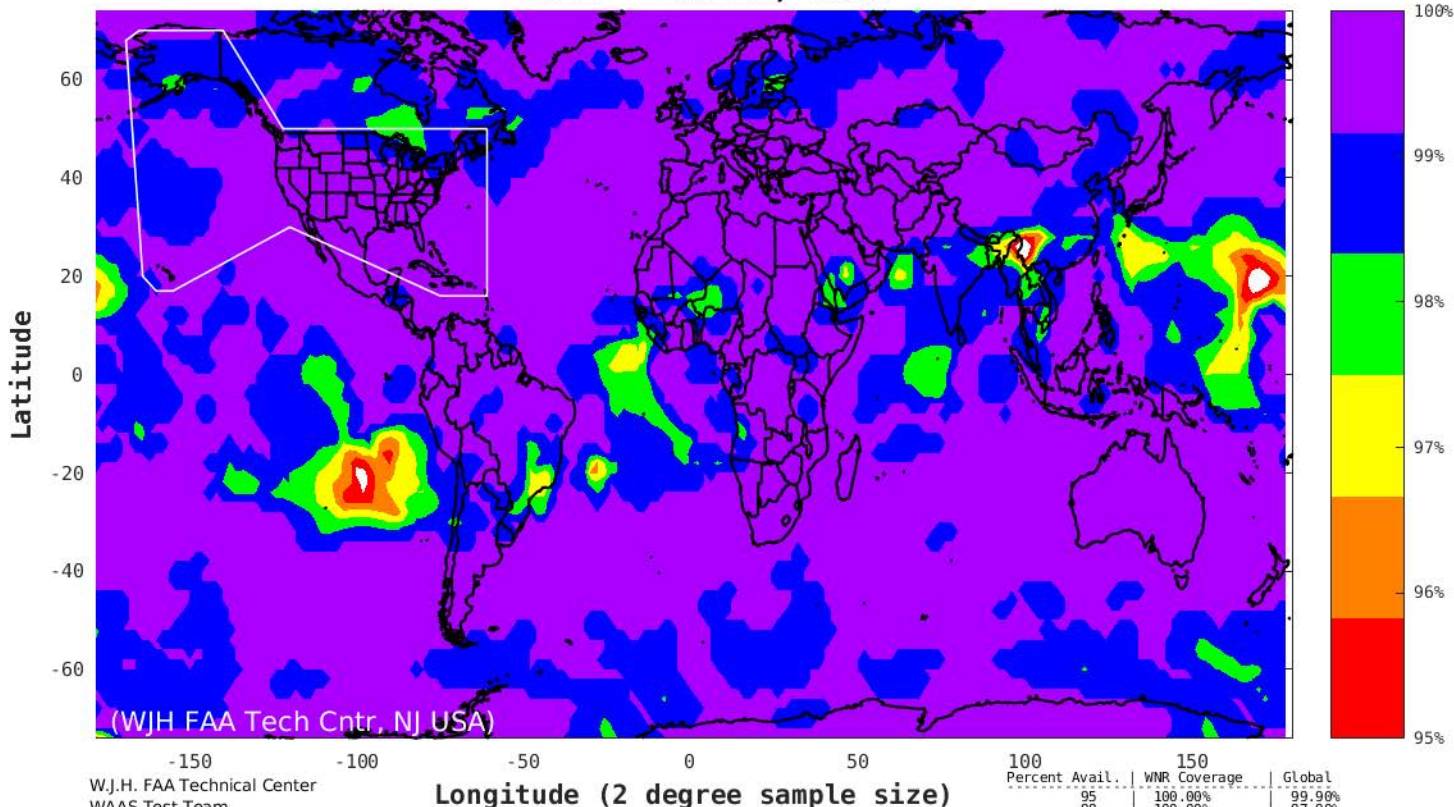
PDOP Trends Sep 2017 thru Feb 2018



WAAS Conus Coverage vs PDOP Trends Sep 2017 to Feb 2018

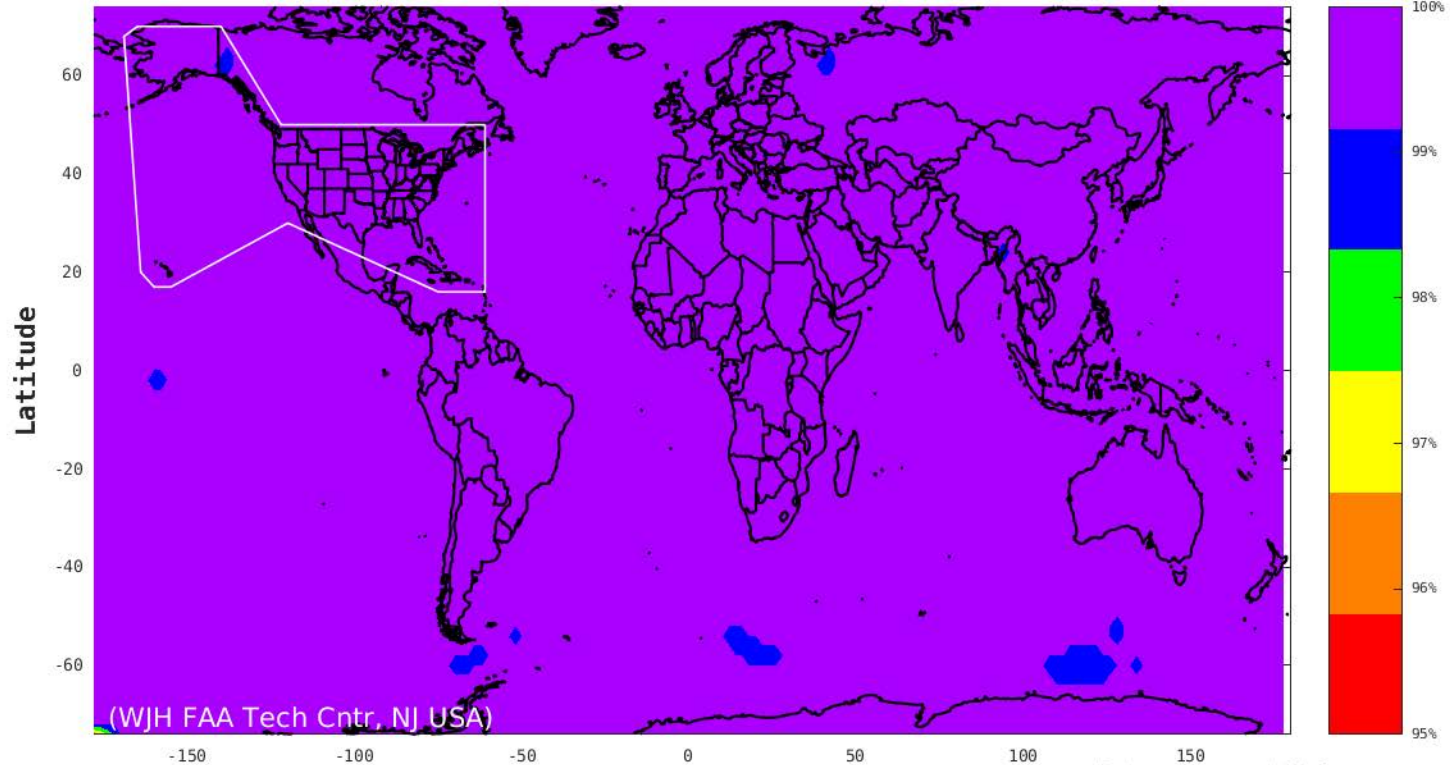


**SPS RAIM RNP 0.1 (HAL = 185m) Availability  
 FD Only, SA Off, without Baro-Aiding  
 Feb 1 - Feb 28, 2018**



W.J.H. FAA Technical Center  
 WAAS Test Team  
 03/19/18

**SPS RAIM RNP 0.3 (HAL = 556m) Availability  
FD Only, SA Off, without Baro-Aiding  
Feb 1 - Feb 28, 2018**



(WJH FAA Tech Cntr, NJ USA)

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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	99.68%	99.61%

# GPS World PDOP 99.99% Index Feb 2018

