

Civil Report Card On GPS Performance

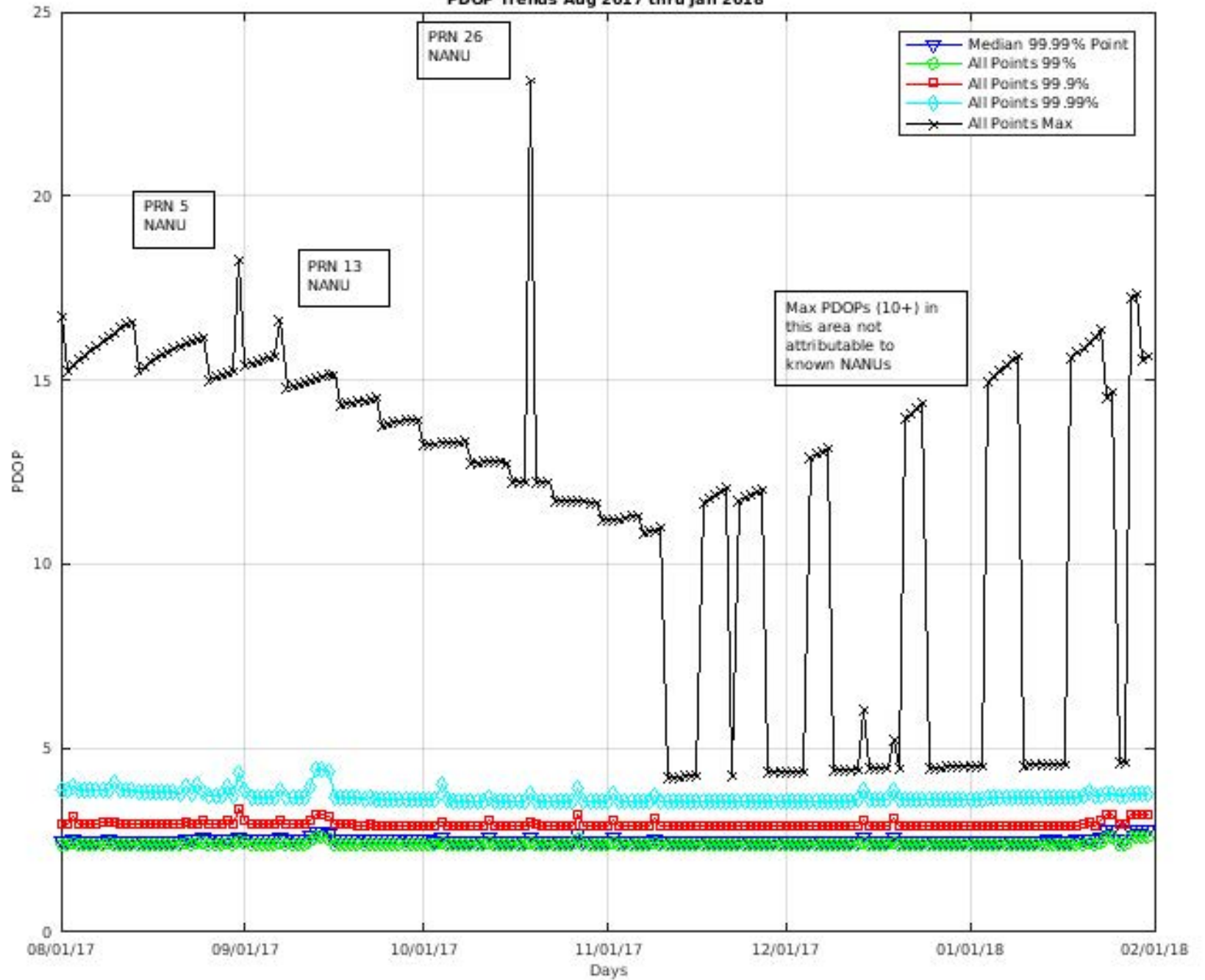
Jan 2018

Operational Performance Parameter	CY 2017	Dec 2017	Jan 2018	Long term	Short term
Availability Parameters					
<i>Average Number of satellites usable</i>	30.97	30.99	30.73	↓	↓
<i>Average number of satellites usable in primary slots</i>	23.97 (99.88%)	23.99 (99.94%)	23.73 (98.88%)	↓	↓
<i>Average availability of 6 satellites in view</i>	100%	100%	100%	→	→
99.99% Horizontal DOP					
<i>Area Median</i>	1.3	1.3	1.3	→	→
<i>Worst Site</i>	4.3	2.9	3.6	↑	↓
99.99% Vertical DOP					
<i>Area Median</i>	2.3	2.3	2.5	↓	↓
<i>Worst Site</i>	15.9	12.9	15.4	↑	↓
99.99% Position DOP (PDOP)					
<i>Area Median</i>	2.6	2.6	2.8	↓	↓
<i>Worst Site</i>	16.5	13.2	15.8	↑	↓
100% RAIM Availability (HAL=185m)					
<i>NPA Service Area (NSA)</i>	72.87%	74.21%	83.79%	↑	↑
<i>World</i>	73.40%	77.42%	76.00%	↑	↓
Accuracy Parameters					
RMS Single Frequency User Range Error					
<i>Constellation Median</i>	1.57	1.62	1.60	↓	↑
<i>Worst Satellite</i>	20.74	11.81	9.54	↑	↑
95% Horizontal Error					
<i>Area Median</i>	1.80	1.74	1.75	↑	↓
<i>Worst Site</i>	4.67	2.77	2.82	↑	↓
<i>Availability (% <4.5m (historical 3-sigma))</i>	99.90%	99.99%	99.99%	↑	→
95% Vertical Error					
<i>Area Median</i>	3.81	3.89	3.81	→	↑
<i>Worst Site</i>	6.43	4.50	4.68	↑	↓
<i>Availability (% < 9m (historical 3-sigma))</i>	99.99%	100%	100%	↑	→

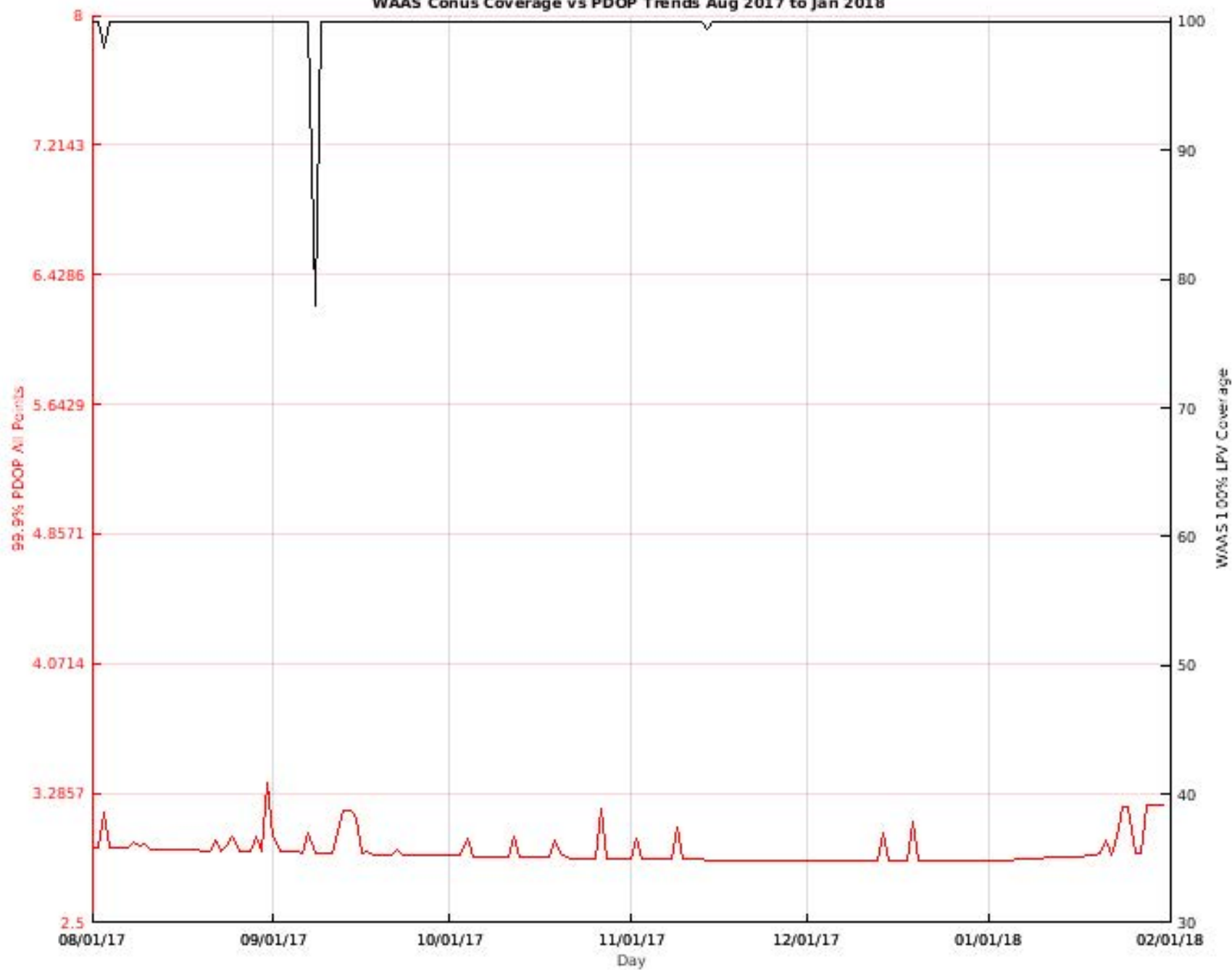
Key: ↑ improving ↓ worsening → no significant change

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

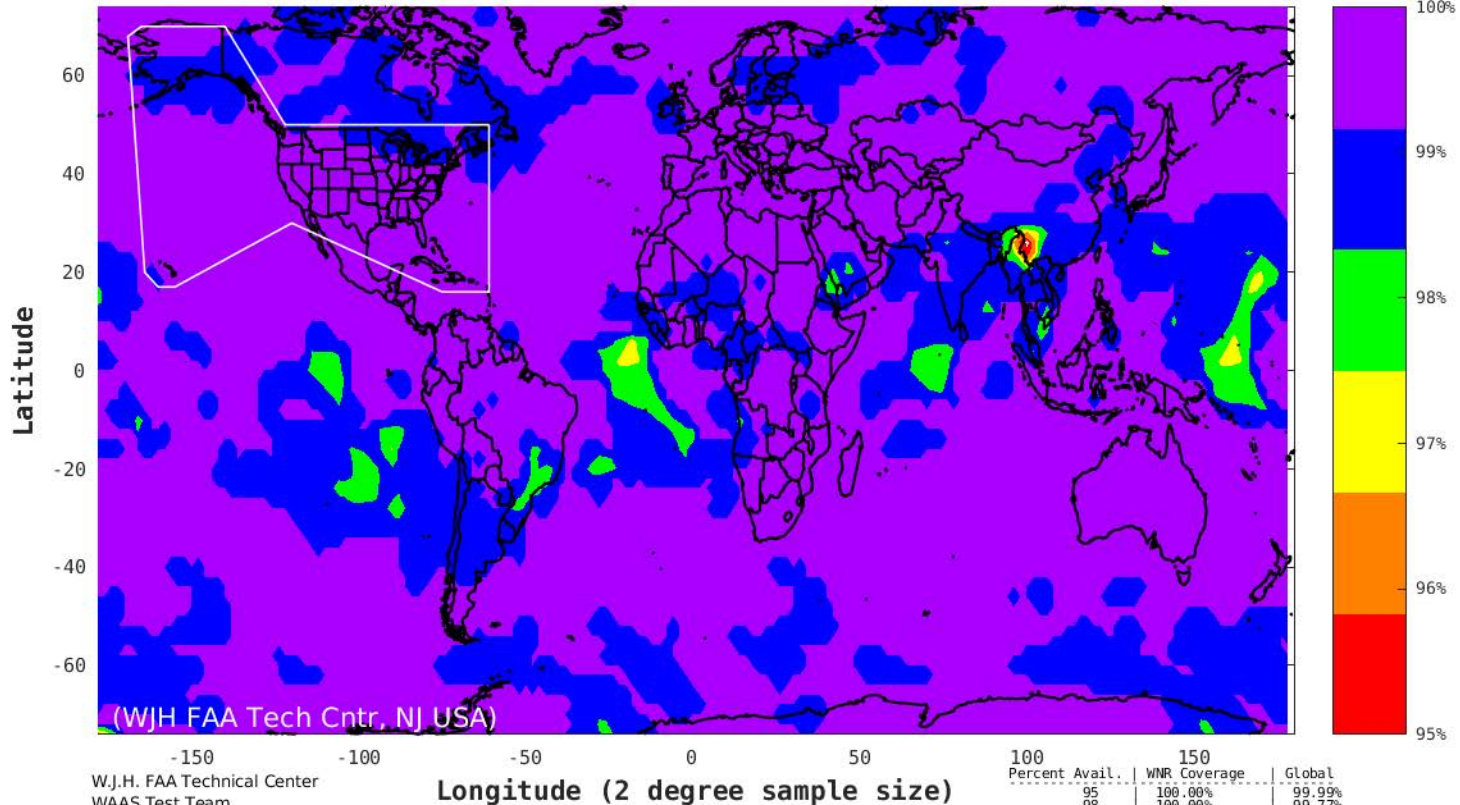
PDOP Trends Aug 2017 thru Jan 2018



WAAS Conus Coverage vs PDOP Trends Aug 2017 to Jan 2018

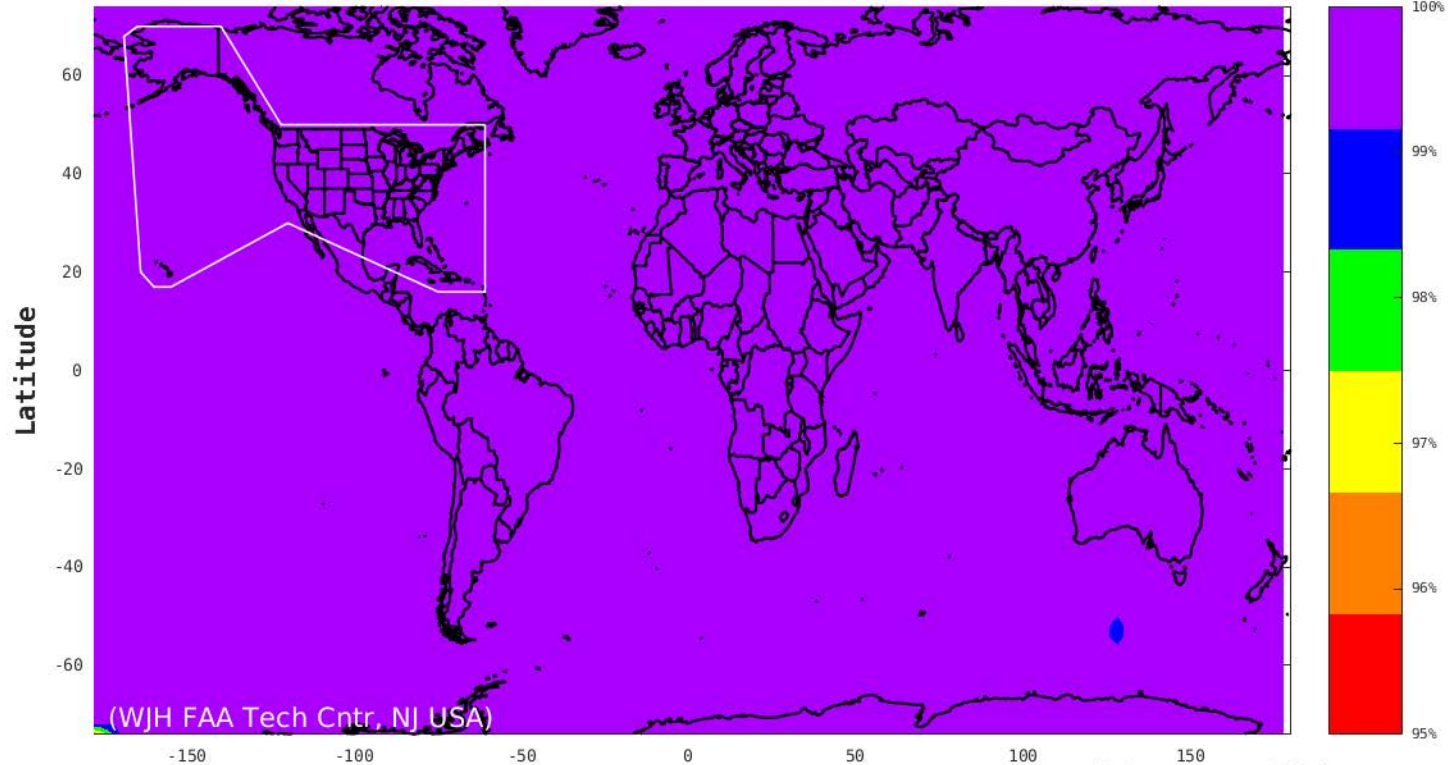


**SPS RAIM RNP 0.1 (HAL = 185m) Availability
FD Only, SA Off, without Baro-Aiding
Jan 1 - Jan 31, 2018**



W.J.H. FAA Technical Center
WAAS Test Team
02/08/18

**SPS RAIM RNP 0.3 (HAL = 556m) Availability
 FD Only, SA Off, without Baro-Aiding
 Jan 1 - Jan 31, 2018**



W.J.H. FAA Technical Center
 WAAS Test Team
 02/08/18

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%	99.99%

GPS World PDOP 99.99% Index Jan 2018

