

Civil Report Card On GPS Performance

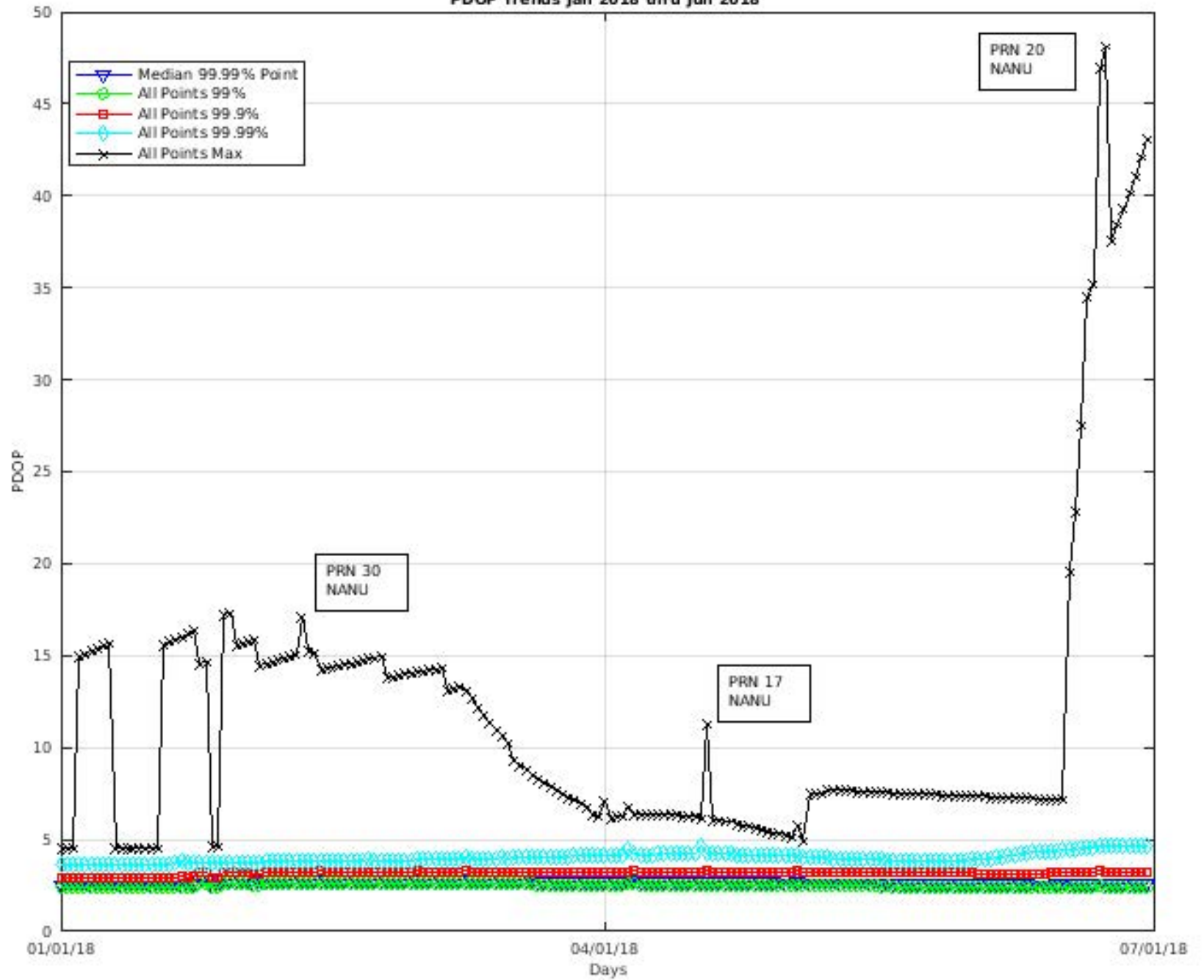
Jun 2018

Operational Performance Parameter	CY 2017	May 2018	Jun 2018	Long term	Short term
Availability Parameters					
<i>Average Number of satellites usable</i>	30.97	30.98	30.99	↑	↑
<i>Average number of satellites usable in primary slots</i>	23.97 (99.88%)	23.99 (99.96%)	23.99 (99.96%)	↑	→
<i>Average availability of 6 satellites in view</i>	100%	100%	100%	→	→
99.99% Horizontal DOP					
<i>Area Median</i>	1.3	1.4	1.3	→	↑↓
<i>Worst Site</i>	4.3	2.9	8.7	↓	↓
99.99% Vertical DOP					
<i>Area Median</i>	2.3	2.4	2.3	→	↑↓
<i>Worst Site</i>	15.9	7.1	40.2	↓	↓
99.99% Position DOP (PDOP)					
<i>Area Median</i>	2.6	2.7	2.7	↓	→
<i>Worst Site</i>	16.5	7.7	41.1	↓	↓
100% RAIM Availability (HAL=185m)					
<i>NPA Service Area (NSA)</i>	72.87%	77.26%	76.21%	↑↓	↓
<i>World</i>	73.40%	71.26%	70.05%	↓	↓
Accuracy Parameters					
RMS Single Frequency User Range Error					
<i>Constellation Median</i>	1.57	1.59	1.37	↑	↑
<i>Worst Satellite</i>	20.74	11.44	8.16	↑	↑
95% Horizontal Error					
<i>Area Median</i>	1.80	1.87	1.59	↑	↑
<i>Worst Site</i>	4.67	3.11	2.34	↑	↑
<i>Availability (% <4.5m (historical 3-sigma))</i>	99.90%	99.99%	100%	↑	↑
95% Vertical Error					
<i>Area Median</i>	3.81	3.94	3.30	↑	↑
<i>Worst Site</i>	6.43	4.62	4.02	↑	↑
<i>Availability (% < 9m (historical 3-sigma))</i>	99.99%	100%	100%	↑	→

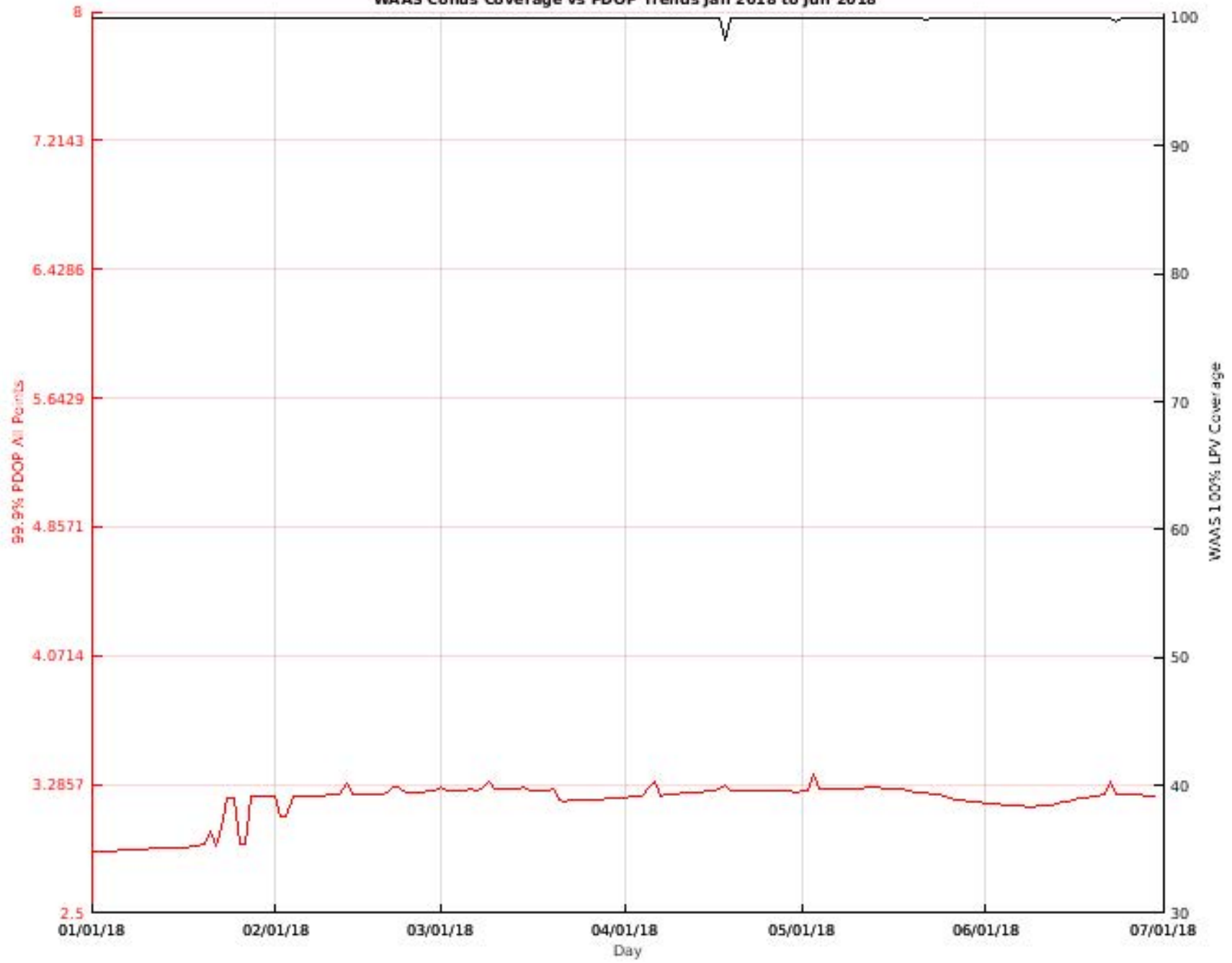
Key: ↑ improving ↓ worsening → no significant change

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

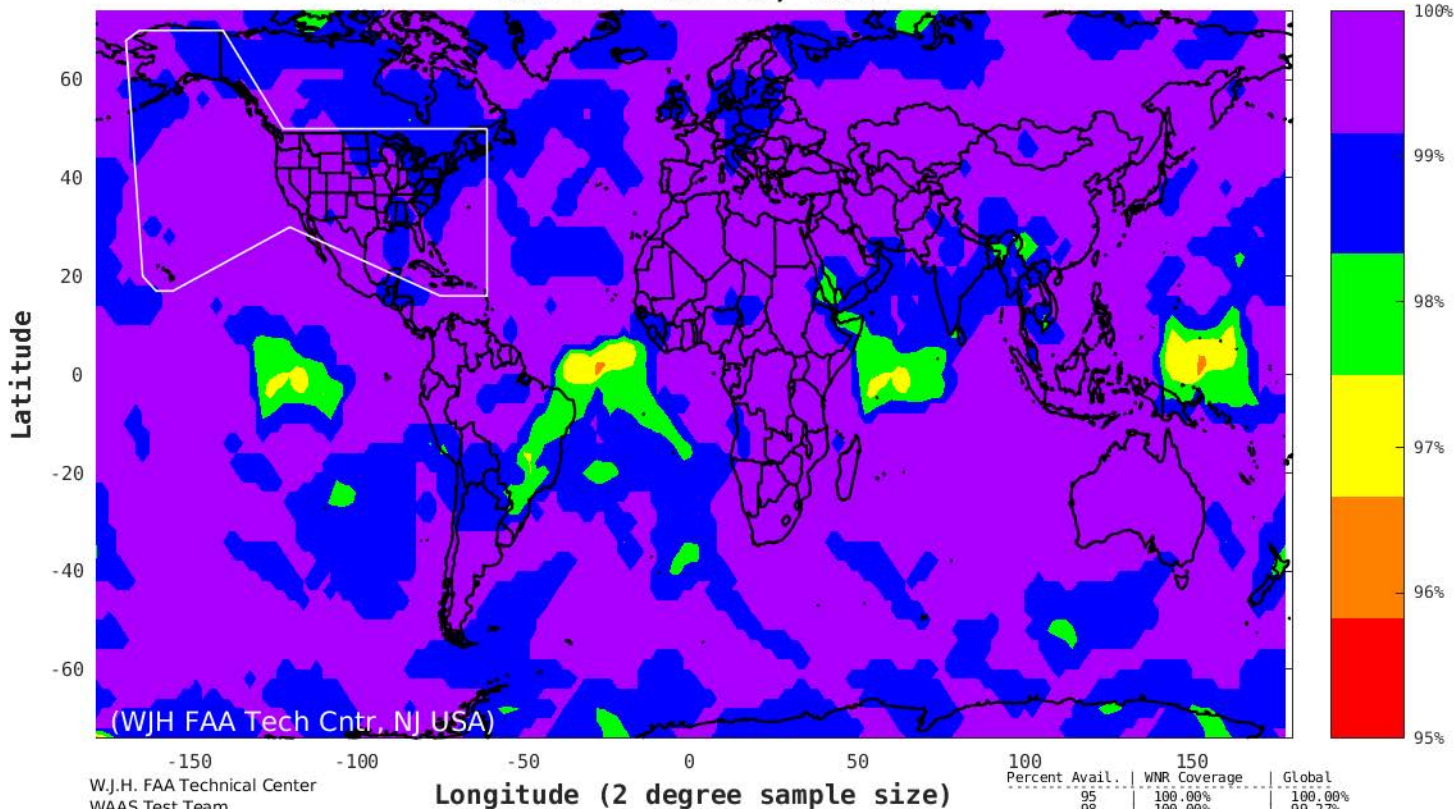
PDOP Trends Jan 2018 thru Jun 2018



WAAS Conus Coverage vs PDOP Trends Jan 2018 to Jun 2018



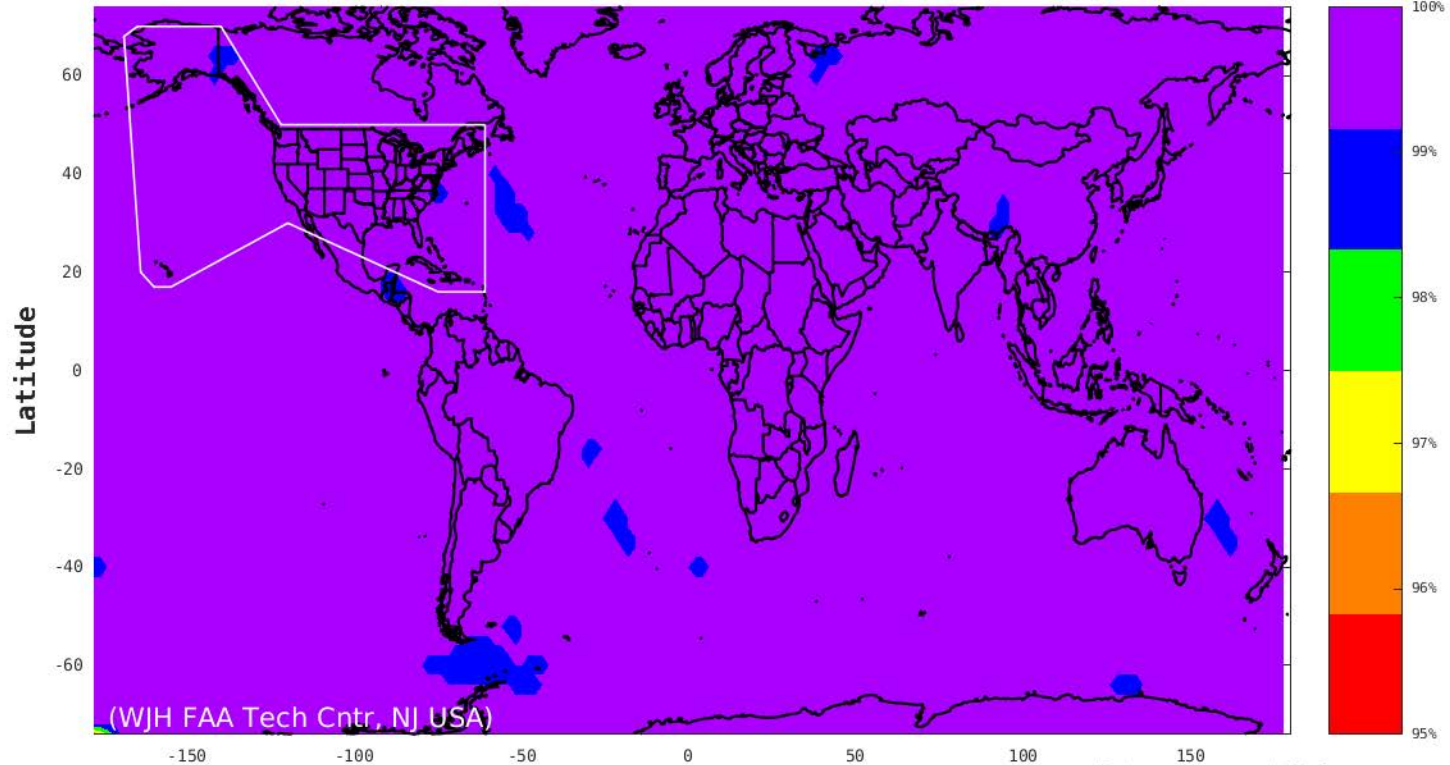
**SPS RAIM RNP 0.1 (HAL = 185m) Availability
FD Only, SA Off, without Baro-Aiding
Jun 1 - Jun 30, 2018**



(WJH FAA Tech Cntr, NJ USA)

W.J.H. FAA Technical Center
WAAS Test Team
07/03/18

**SPS RAIM RNP 0.3 (HAL = 556m) Availability
 FD Only, SA Off, without Baro-Aiding
 Jun 1 - Jun 30, 2018**



W.J.H. FAA Technical Center
 WAAS Test Team
 07/03/18

Longitude (2 degree sample size)

100 Percent Avail.	150 WNR Coverage	Global
95	100.00%	100.00%
98	100.00%	100.00%
99	100.00%	100.00%
100	99.16%	99.16%

GPS World PDOP 99.99% Index Jun 2018

