

Civil Report Card On GPS Performance

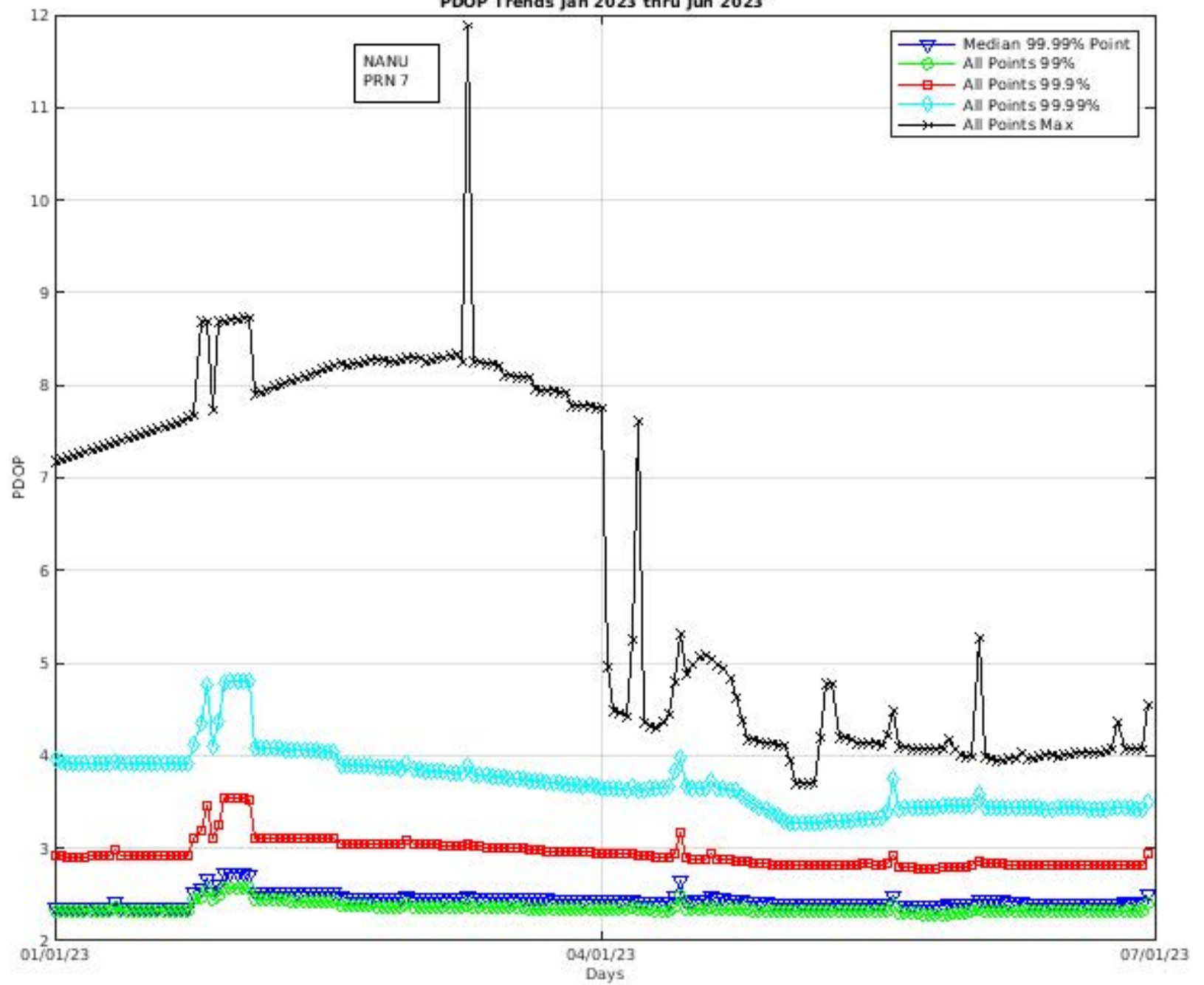
June 2023

Operational Performance Parameter	CY 2022	May 2023	Jun 2023	Long term	Short term
Availability Parameters					
<i>Average Number of satellites usable</i>	30.46	30.99	30.97	↑	↓
<i>Average number of satellites usable in primary slots</i>	23.93 (99.70%)	24.00 (100%)	23.99 (99.96%)	↑	↓
<i>Average availability of 6 satellites in view</i>	100%	100%	100%	→	→
99.99% Horizontal DOP					
<i>Area Median</i>	1.32	1.28	1.29	↑	↓
<i>Worst Site</i>	5.42	2.52	2.56	↑	↓
99.99% Vertical DOP					
<i>Area Median</i>	2.39	2.22	2.22	↑	→
<i>Worst Site</i>	14.65	3.92	4.44	↑	↓
99.99% Position DOP (PDOP)					
<i>Area Median</i>	2.69	2.53	2.57	↑	↓
<i>Worst Site</i>	15.62	4.47	4.78	↑	↓
100% RAIM Availability (HAL=185m)					
<i>NPA Service Area (NSA)</i>	75.09%	96.32%	96.21%	↑	↓
<i>World</i>	76.87%	84.93%	83.44%	↑	↓
Accuracy Parameters					
RMS Single Frequency User Range Error					
<i>Constellation Median (m)</i>	1.81	2.13	1.91	↓	↑
<i>Worst Satellite (m)</i>	33.65	24.37	13.69	↑	↑
95% Horizontal Error					
<i>Area Median (m)</i>	2.51	3.20	2.77	↓	↑
<i>Worst Site (m)</i>	9.73	7.78	4.99	↑	↑
<i>Availability (% <4.5m (historical 3-sigma))</i>	98.74%	98.02%	99.30%	↑	↑
95% Vertical Error					
<i>Area Median (m)</i>	4.37	4.84	3.97	↑	↑
<i>Worst Site (m)</i>	10.68	7.06	6.55	↑	↑
<i>Availability (% < 9m (historical 3-sigma))</i>	99.69%	99.79%	99.95%	↑	↑

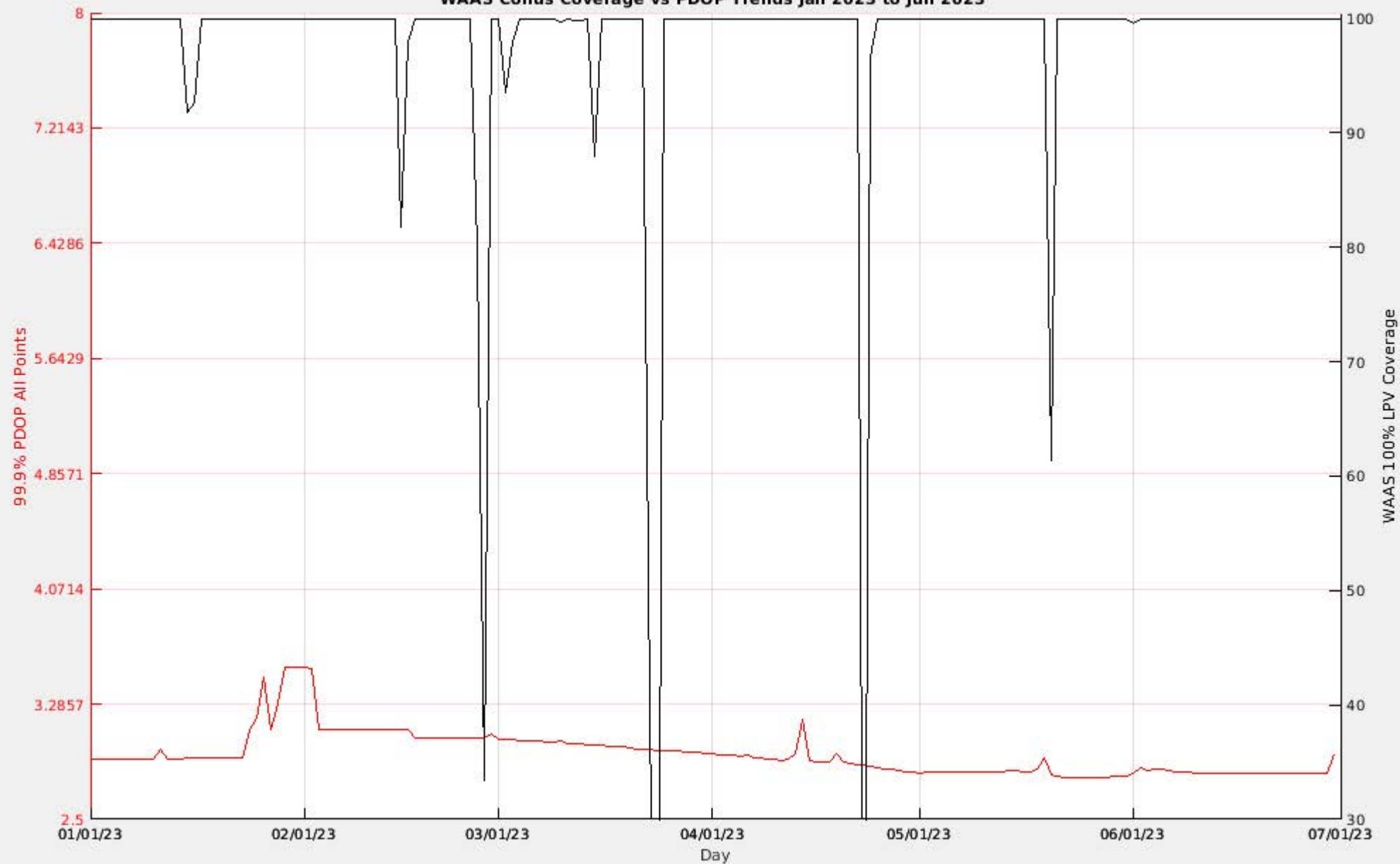
Key: ↑ improving ↓ worsening → no significant change

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

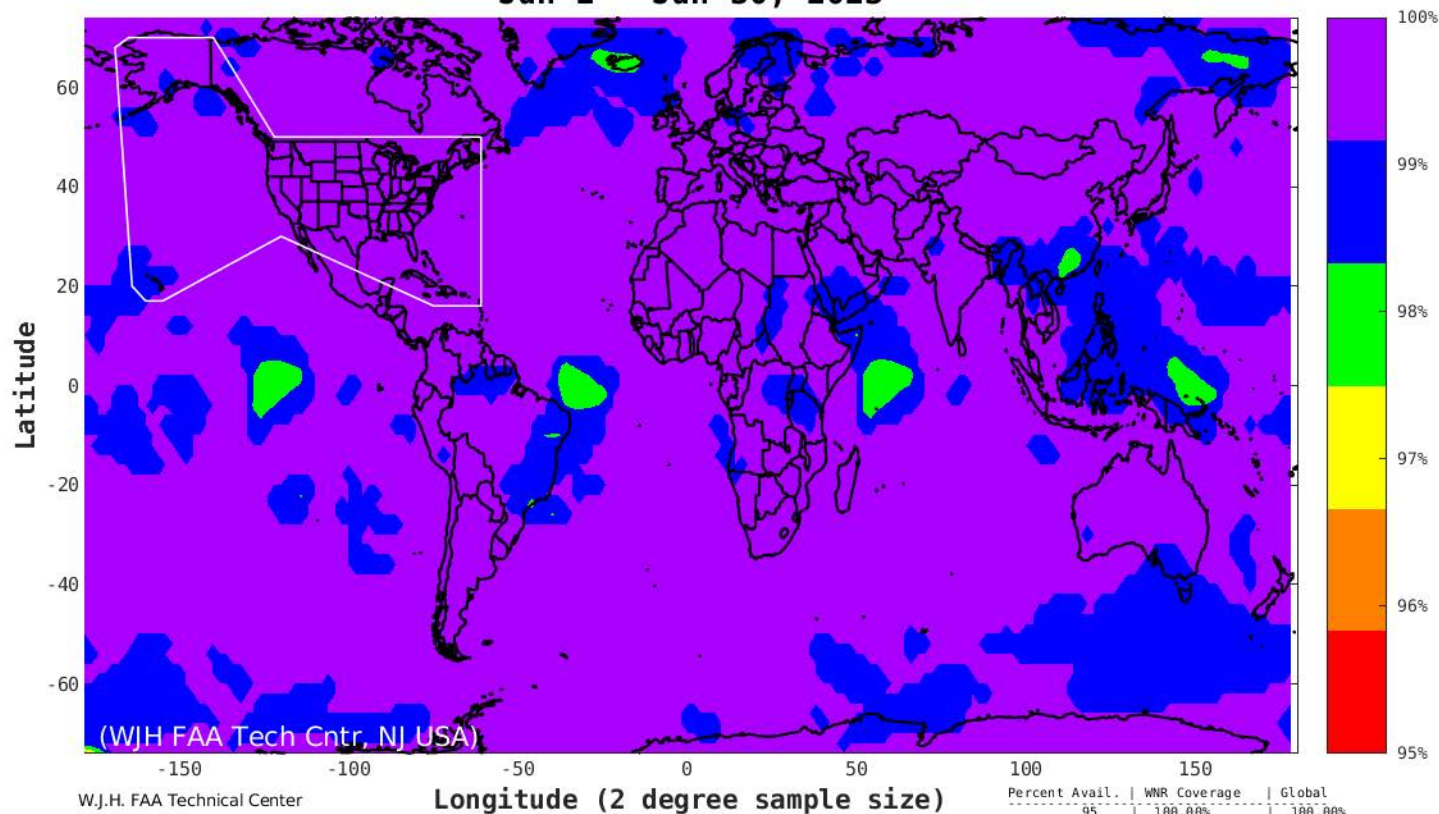
PDOP Trends Jan 2023 thru Jun 2023



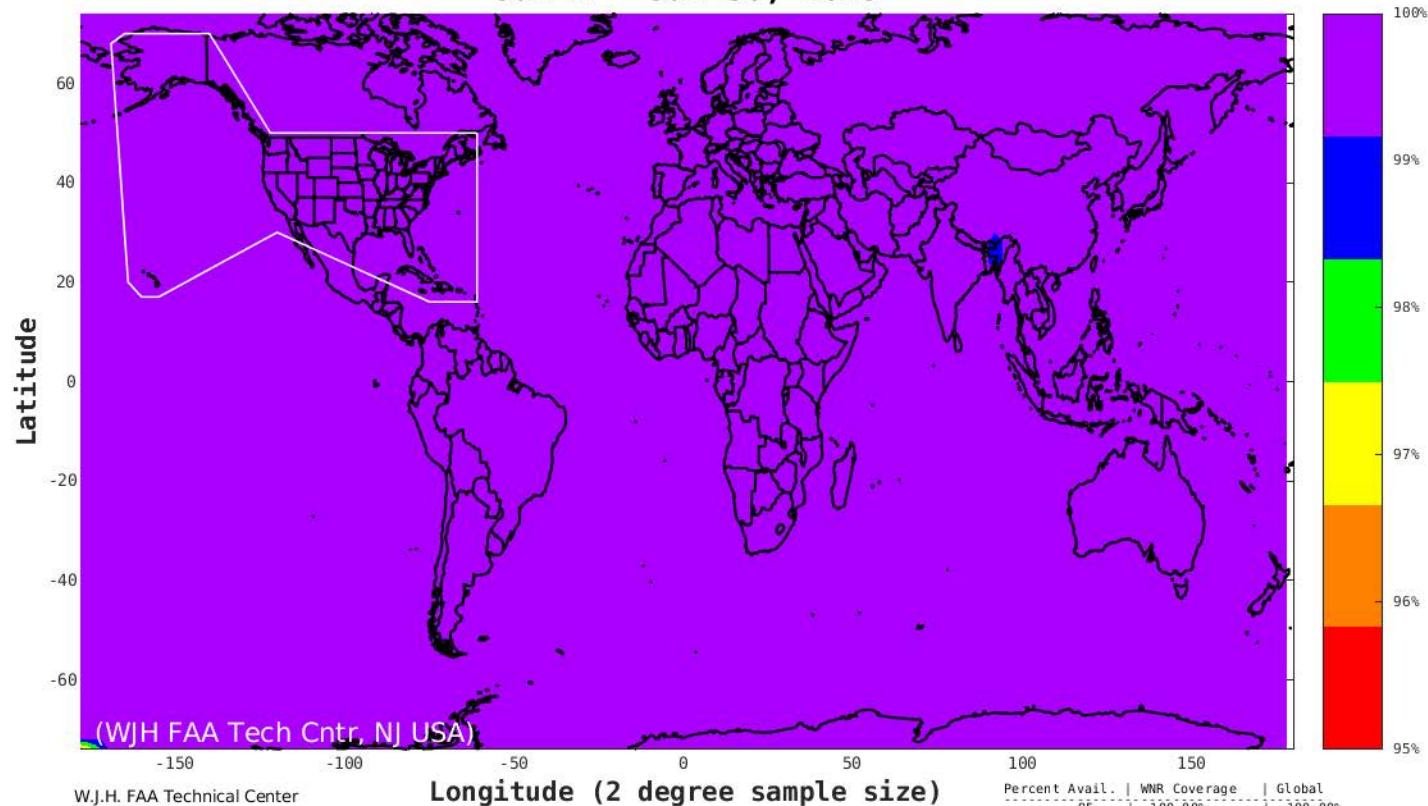
WAAS Conus Coverage vs PDOP Trends Jan 2023 to Jun 2023



SPS RAIM RNP 0.1 (HAL = 185m) Availability
FD Only, SA Off, without Baro-Aiding
Jun 1 - Jun 30, 2023



SPS RAIM RNP 0.3 (HAL = 556m) Availability
FD Only, SA Off, without Baro-Aiding
Jun 1 - Jun 30, 2023



W.J.H. FAA Technical Center
WAAS Test Team
07/05/23

Percent Avail.	WNR Coverage	Global
95	100.00%	100.00%
98	100.00%	100.00%
99	100.00%	100.00%
100	100.00%	99.98%

GPS World PDOP 99.99% Index Jun 2023

