



**Satellite Navigation Branch, ANG-E66
NSTB/WAAS T&E Team**

WIDE AREA AUGMENTATION SYSTEM PERFORMANCE ANALYSIS REPORT

January 2026

Report #95

Reporting Period: October 01 to December 31, 2025

<http://www.nstb.tc.faa.gov>

**FAA William J. Hughes Technical Center for Advanced Aerospace
Atlantic City International Airport, NJ 08405**

DOCUMENT VERSION CONTROL

VERSION	DESCRIPTION OF CHANGE	DATE
0.1	Initial Version of Document	01/15/2026
0.2	Technical Edit	01/16/2026
0.3	Peer Review	01/20/2026
1.0	Final Edit	01/30/2026

Executive Summary

Since 1999, the Wide Area Augmentation System (WAAS) Test Team at the FAA William J. Hughes Technical Center for Advanced Aerospace (WJHTC) has reported Global Positioning System (GPS) performance as measured against the GPS Standard Positioning Service (SPS) Signal Specification in quarterly GPS Performance Analysis Network (PAN) Reports. In addition to the GPS PAN reports, the WAAS Test Team has provided quarterly reports on WAAS performance. The current WAAS PAN Report #95 provides WAAS performance data from the October 1 through December 31, 2025 reporting period.

This report provides the following results: accuracy, availability, coverage, safety index, range accuracy, WAAS broadcast message rates, geostationary satellite ranging availability, WAAS airport availability, WAAS Code Noise and Multipath analysis, WAAS reference station survey validation, and WAAS Signal Quality Monitoring.

The following table shows observations for accuracy and availability made during the reporting period for Continental United States (CONUS) and Alaska sites (the international sites are presented in the body of this report). Localizer Performance (LP) service is available when the calculated horizontal protection level (HPL) is less than 40 meters. Localizer Performance with Vertical Guidance (LPV) service is available when the calculated HPL is less than 40 meters and the Vertical Protection Level (VPL) is less than 50 meters. Localizer Performance with Vertical Guidance to 200-foot decision height (LPV200) service is available when the calculated HPL is less than 40 meters and the VPL is less than 35 meters. The FAA's National Satellite Test Bed sites—Grand Forks, North Dakota; Atlantic City, New Jersey; and Arcata, California—are outliers due to receiver quality issues, and not because of the WAAS signal in space quality.

Parameter	CONUS Site/Maximum	CONUS Site/Minimum	Alaska Site/Maximum	Alaska Site/Minimum
95% Horizontal Accuracy (HPL <=40 meters)	Arcata 1.310 meters	Memphis 0.587 meters	Barrow 0.885 meters	Bethel 0.715 meters
95% Vertical Accuracy (VPL <=50 meters)	Miami 1.691 meters	Salt Lake City 0.840 meters	Barrow 1.958 meters	Juneau 1.215 meters
LP Availability (HPL <=40 meters)	Multiple Sites 100%	Grand Forks 99.73%	Anchorage 99.79%	Barrow 99.57%
LPV Availability (HPL <=40 meters & VPL <=50 meters)	Multiple Sites 100%	Grand Forks 99.65%	Anchorage 99.69%	Barrow 99.46%
LPV200 Availability (HPL <=40 meters & VPL <=35 meters)	Atlanta 100%	Grand Forks 99.46%	Anchorage 99.50%	Barrow 98.93%
99% HPL	Miami 19.085 meters	Salt Lake City 10.738 meters	Cold Bay 21.838 meters	Anchorage 15.623 meters
99% VPL	Los Angeles 31.108 meters	Kansas City 20.350 meters	Barrow 33.693 meters	Anchorage 24.077 meters

TABLE OF CONTENTS

1.0	INTRODUCTION.....	1
1.1	Event Summary	4
1.2	Report Overview.....	45
2.0	WAAS POSITION ACCURACY.....	45
3.0	AVAILABILITY	62
4.0	COVERAGE.....	82
5.0	INTEGRITY.....	94
5.1	HMI Analysis	94
5.2	Broadcast Alerts	95
5.3	Availability of WAAS Messages (SM9, S15, and G30).....	96
5.4	Satellite Glitches.....	108
6.0	SV RANGE ACCURACY	110
7.0	GEO RANGING PERFORMANCE	120
8.0	WAAS AIRPORT AVAILABILITY	122
9.0	WAAS CNMP BOUNDING ANALYSIS	198
10.0	WRS ANTENNA SURVEY VALIDATION	201
11.0	SQM.....	212
11.1	Alpha Metrics	212
11.2	Type Bias.....	212
11.3	PRN Bias	215
11.4	SQM Trips.....	225
APPENDIX A: GENERAL TERMS AND DEFINITIONS.....		A-1
APPENDIX B: ADDITIONAL COVERAGE PLOTS.....		B-1
APPENDIX C: RTCA TABLE DO-229F		C-1

LIST OF FIGURES

Figure 2-1 LPV 95% Horizontal Accuracy	51
Figure 2-2 LPV 95% Horizontal Accuracy	52
Figure 2-3 LPV 95% Horizontal Accuracy	53
Figure 2-4 LPV 95% Vertical Accuracy.....	54
Figure 2-5 LPV 95% Vertical Accuracy.....	55
Figure 2-6 LPV 95% Vertical Accuracy.....	56
Figure 2-7 NPA 95% Horizontal Accuracy	57
Figure 2-8 NPA 95% Horizontal Accuracy	58
Figure 2-9 LPV 2-D Horizontal Error Distribution Histogram	59
Figure 2-10 LPV 2-D Vertical Error Distribution Histogram.....	60
Figure 2-11 LPV Horizontal Error Bounding Triangle Chart.....	61
Figure 2-12 LPV Vertical Error Bounding Triangle Chart.....	62
Figure 3-1 LPV Instantaneous Availability	67
Figure 3-2 LPV Instantaneous Availability	68
Figure 3-3 LPV Instantaneous Availability	69
Figure 3-4 LPV200 Instantaneous Availability	70
Figure 3-5 LPV200 Instantaneous Availability	71
Figure 3-6 LPV200 Instantaneous Availability	72
Figure 3-7 LPV Outages.....	73
Figure 3-8 LPV Outages.....	74
Figure 3-9 LPV Outages.....	75
Figure 3-10 LPV200 Outages.....	76
Figure 3-11 LPV200 Outages.....	77
Figure 3-12 LPV200 Outages.....	78
Figure 4-1 LP North America Coverage for the Quarter	84
Figure 4-2 LPV North America Coverage for the Quarter	85
Figure 4-3 LPV200 North America Coverage for the Quarter	86
Figure 4-4 Daily LPV and LPV200 CONUS Coverage	87
Figure 4-5 Daily LPV and LPV200 Alaska Coverage.....	88
Figure 4-6 Daily LPV and LPV200 Canada Coverage.....	89
Figure 4-7 RNP 0.1 Coverage for the Quarter	91
Figure 4-8 RNP 0.3 Coverage for the Quarter	92
Figure 4-9 Daily RNP Coverage.....	93
Figure 5-1 SV Daily Alert Trend.....	96
Figure 5-2 SV Glitch Trend.....	109
Figure 6-1 Range Error (PRN1–PRN16)—Washington, DC	113
Figure 6-2 Range Error (PRN17–PRN32)—Washington, DC	114
Figure 6-3 Range Error (PRN131, PRN133, and PRN138)—Washington, DC.....	115
Figure 6-4 Ionospheric Error (PRN1–PRN16)—Washington, DC.....	118
Figure 6-5 Ionospheric Error (PRN17–PRN32)—Washington, DC.....	119
Figure 7-1 Daily PA SM9 GEO Ranging Availability Trend.....	120
Figure 7-2 Daily PA S15 GEO Ranging Availability Trend	121
Figure 7-3 Daily PA G30 GEO Ranging Availability Trend.....	121
Figure 8-1 WAAS LP Availability at Airports in the U.S. and Canada with GPS RNAV IAPs	192
Figure 8-2 WAAS LP Outages at Airports in the U.S. and Canada with GPS RNAV IAPs	193
Figure 8-3 WAAS LPV Availability Airports in the U.S. and Canada with GPS RNAV IAPs	194
Figure 8-4 WAAS LPV Outages at Airports in the U.S. and Canada with GPS RNAV IAPs	195
Figure 8-5 WAAS LPV200 Availability at Airports in the U.S. and Canada with GPS RNAV IAPs	196
Figure 8-6 WAAS LPV200 Outages at Airports in the U.S. and Canada with GPS RNAV IAPs	197
Figure 10-1 WAAS C&V Calculated Antenna Positions Deltas OPUS Survey.....	206
Figure 10-2 WAAS C&V Calculated Antenna Positions Deltas OPUS Survey.....	206
Figure 10-3 WAAS C&V Calculated Antenna Positions Deltas OPUS Survey.....	207
Figure 10-4 OPUS Survey Overall RMS Qualities	207
Figure 10-5 OPUS Survey Overall RMS Qualities	208

Figure 10-6 OPUS Survey Overall RMS Qualities	208
Figure 10-7 OPUS vs. CSRS RSS ECEF Deltas	209
Figure 10-8 OPUS vs. CSRS RSS ECEF Deltas	209
Figure 10-9 OPUS vs. CSRS RSS ECEF Deltas	210
Figure 10-10 CSRS Survey Qualities	210
Figure 10-11 CSRS Survey Qualities	211
Figure 10-12 CSRS Survey Qualities	211
Figure 11-1 Type Bias Average Trend	214
Figure 11-2 PRN Bias Average for the Quarter.....	216
Figure 11-3 PRN Bias Average Trend (PRN1–PRN4).....	217
Figure 11-4 PRN Bias Average Trend (PRN5–PRN8).....	218
Figure 11-5 PRN Bias Average Trend (PRN9–PRN12).....	219
Figure 11-6 PRN Bias Average Trend (PRN13–PRN16).....	220
Figure 11-7 PRN Bias Average Trend (PRN17–PRN20).....	221
Figure 11-8 PRN Bias Average Trend (PRN21–PRN24).....	222
Figure 11-9 PRN Bias Average Trend (PRN25–PRN28).....	223
Figure 11-10 PRN Bias Average Trend (PRN29–PRN32).....	224
Figure B-1 98% CONUS LP Availability Contour	B-2
Figure B-2 98% Alaska LP Availability Contour.....	B-3
Figure B-3 98% CONUS LPV Availability Contour.....	B-4
Figure B-4 98% Alaska LPV Availability Contour.....	B-5
Figure B-5 99% CONUS LPV200 Availability Contour.....	B-6
Figure B-6 99% Alaska LPV200 Availability Contour	B-7

LIST OF TABLES

Table 1-1 WAAS Service Levels.....	1
Table 1-2 PA Evaluation Sites.....	2
Table 1-3 NPA Evaluation Site	3
Table 1-4 WAAS Performance Parameters	4
Table 1-5 Events.....	5
Table 1-6 WAAS Upgrades.....	42
Table 1-7 GUS Switchovers	42
Table 2-1 PA 95% Horizontal and Vertical Accuracy	46
Table 2-2 NPA 95% and 99.999% Horizontal Accuracy	48
Table 2-3 Maximum LPV Error Statistics	49
Table 3-1 99% Protection Level.....	63
Table 3-2 PA Availability (15-minute window).....	64
Table 3-3 LPV and LPV200 Outage Rate (Per 150 sec approach).....	65
Table 3-4 NPA Availability (15-minute window).....	79
Table 3-5 NPA Outage Rates (Excluding FD/FDE).....	79
Table 5-1 Minimum Safety Margin Index and HMI Statistics	94
Table 5-2 WAAS SV Alert.....	96
Table 5-3 Update Rates for WAAS Messages.....	97
Table 5-4 WAAS Fast Correction and Degradation Message Rates–SM9.....	98
Table 5-5 WAAS Long Correction Message Rates (Type 24 and 25)–SM9.....	99
Table 5-6 WAAS Ephemeris Covariance Message Rates (Type 28)–SM9.....	100
Table 5-7 WAAS Ionospheric Correction Message Rates (Type 26)–SM9	101
Table 5-8 WAAS Ionospheric Mask Message Rates (Type 18)–SM9	101
Table 5-9 WAAS Fast Correction and Degradation Message Rates–S15	102
Table 5-10 WAAS Long Correction Message Rates (Type 24 and 25)–S15	102
Table 5-11 WAAS Ephemeris Covariance Message Rates (Type 28)–S15	103
Table 5-12 WAAS Ionospheric Correction Message Rates (Type 26)–S15.....	104
Table 5-13 WAAS Ionospheric Mask Message Rates (Type 18)–S15.....	105
Table 5-14 WAAS Fast Correction and Degradation Message Rates–G30.....	105
Table 5-15 WAAS Long Correction Message Rates (Type 24 and 25)–G30.....	105
Table 5-16 WAAS Ephemeris Covariance Message Rates (Type 28)–G30.....	106
Table 5-17 WAAS Ionospheric Correction Message Rates (Type 26)–G30	107
Table 5-18 WAAS Ionospheric Mask Message Rates (Type 18)–G30	108
Table 6-1 Range Error 95% Index and 3.29 Sigma Bounding	111
Table 6-2 Range Error 95% Index and 99.9% Bounding	112
Table 6-3 Ionospheric Error 95% Index and 99.9% Sigma Bounding.....	116
Table 6-4 Ionospheric Error 95% Index and 99.9% Sigma Bounding.....	117
Table 7-1 GEO Ranging Availability	120
Table 8-1 WAAS LP, LPV, and LPV200 Outages and Availability.....	123
Table 9-1 CNMP Bounding Statistics	199
Table 10-1 WAAS Antenna Positions (OPUS IGS08) as of 04/02/2017	202
Table 11-1 Alpha Metrics.....	212
Table 11-2 Type Bias Average for the Quarter.....	213
Table 11-3 Type Bias Average since January 1, 2008.....	213
Table 11-4 PRN Bias Average for the Quarter	215

1.0 INTRODUCTION

The FAA monitors the Wide Area Augmentation System (WAAS) and GPS Standard Positioning Service (SPS) performance to ensure the safe and effective use of the satellite navigation system in the National Airspace System (NAS). The WAAS augments timely integrity monitoring and improves GPS position accuracy and availability within the WAAS coverage area.

The objectives of this report are:

1. To evaluate and monitor the WAAS ability to augment GPS by characterizing important performance parameters.
2. To analyze the effects of GPS satellite operation and maintenance as well as ionospheric activity on WAAS performance.
3. To investigate GPS and WAAS anomalies and determine potential user impact.
4. To archive GPS and WAAS performance for future evaluations.

The evaluation uses the WAAS data transmitted from geostationary satellites (GEOs) pseudo-random noise (PRN) 131 (SM9), 133 (S15), and 135 (G30). SM9, S15, and G30 GEOs provide a precision approach (PA) ranging capability that supports all levels of WAAS service.

In this report, the terms “PA” and “NPA” are used in reference of the two modes of user equipment operation. These terms were used in the original WAAS specification, FAA-E-2892. See Table 1-1 for a mapping of PA and NPA to the user service levels.

Table 1-1 WAAS Service Levels

User Service	NPA or PA	WAAS Protection Levels
RNP 0.3	NPA	HPL ≤556 m
RNP 0.1	NPA	HPL ≤185 m
LNAV	NPA	HPL ≤556 m
LNAV/VNAV	PA	HPL ≤556 m VPL ≤50 m
LP	PA	HPL ≤40 m
LPV	PA	HPL ≤40 m VPL ≤50 m
LPV200	PA	HPL ≤40 m VPL ≤35 m

The receivers in PA mode are required to: (1) use all WAAS corrections, (2) use only corrected satellites, (3) never mix corrections from multiple GEOs, (4) exclusively use the designated Space Based Augmentation System (SBAS) for the published approach procedure, and (5) never use ranging from a GPS or GEO satellite with a User Differential Range Error (UDRE) status of greater than 15 meters. The receivers in NPA mode are allowed to: (1) mix corrected and uncorrected satellites, (2) mix corrections from different GEOs or SBASs, (3) use either the WAAS ionosphere corrections or the GPS Klobuchar model for ionosphere corrections, and (4) use ranging from a GPS or GEO satellite with a UDRE status of greater than 15 meters. The receivers in NPA mode can also operate using Fault Detection/Fault Detection Exclusion (FD/FDE) in the absence of an SBAS. The data presented in this report does not take credit for the additional NPA mode availability and continuity through use of either full or partial FD/FDE, which allowed the mixing of corrected and uncorrected satellites. To remain conservative, the NPA accuracy data presented in this report uses Klobuchar ionosphere corrections.

The results in this report are based on the application of the WAAS corrections to receiver data from the WAAS network and the FAA’s National Satellite Test Bed (NSTB) network, and from analyses based on the WAAS-broadcasted correction data. Table 1-2 lists the receivers used in the PA analyses, and Table 1-3 lists the receivers used in the NPA analyses.

Table 1-2 PA Evaluation Sites

Location	Number of Days Evaluated	Number of Samples
NSTB:		
Arcata	89	7665079
Atlantic City	88	7634399
Bangor	80	6925081
Elko	48	4108905
Grand Forks	82	7088990
Oklahoma City	91	7850066
WAAS:		
Albuquerque	92	7946930
Anchorage	92	7945839
Atlanta	92	7947816
Barrow	92	7946054
Bethel	92	7947766
Billings	92	7947246
Boston	92	7946916
Chicago	92	7946977
Cleveland	92	7929234
Cold Bay	92	7933567
Dallas	92	7947571
Denver	92	7946667
Fairbanks	92	7947172
Gander	92	7943789
Goose Bay	91	7876357
Houston	92	7947655
Iqaluit	92	7922140
Jacksonville	92	7947403
Juneau	92	7945817
Kansas City	92	7944585
Kotzebue	92	7947773
Los Angeles	92	7941141
Memphis	92	7948800
Merida	89	7692474
Mexico City	90	7818157
Miami	92	7943996
Minneapolis	92	7948551
New York	92	7945463
Oakland	92	7945505

Location	Number of Days Evaluated	Number of Samples
Puerto Vallarta	90	7792069
Salt Lake City	92	7945727
San Jose Del Cabo	90	7818448
Seattle	92	7943640
Washington, DC	92	7946954
Winnipeg	92	7948446

Table 1-3 NPA Evaluation Site

Location	Number of Days Evaluated	Number of Samples
Albuquerque	92	7948799
Anchorage	92	7948800
Atlanta	92	7948800
Barrow	92	7948389
Bethel	92	7948145
Billings	92	7948374
Boston	92	7948797
Cleveland	92	7948799
Cold Bay	92	7933689
Fairbanks	92	7948374
Gander	92	7948297
Honolulu	92	7948793
Houston	92	7948800
Iqaluit	90	7771689
Juneau	92	7948768
Kansas City	92	7948799
Kotzebue	92	7948004
Los Angeles	92	7948799
Merida	71	6110688
Miami	92	7942934
Minneapolis	92	7948800
Oakland	76	6576000
Salt Lake City	92	7942597
San Jose Del Cabo	91	7874571
San Juan	92	7948147
Seattle	90	7760575
Tapachula	89	7691925
Washington, DC	92	7946418

Note: Locations with decreased number of days evaluated are due to selected WRE for that location being offline. This does not mean all WREs at the location were offline.

The report is divided by the performance category:

1. WAAS Position Accuracy
2. WAAS Operational Service Availability
3. WAAS Coverage
4. WAAS Integrity
5. WAAS Range Domain Accuracy
6. WAAS GEO Ranging Performance
7. WAAS Airport Availability
8. WAAS Code Noise and Multipath (CNMP) Analysis
9. WAAS Antenna Survey Validation
10. WAAS Signal Quality Monitor (SQM) Analysis

Table 1-4 lists the evaluated WAAS performance parameters for this report. Note that these are the performance parameters associated with the WAAS system, and that these requirements are extracted from FAA Specification FAA-E-2892.

Table 1-4 WAAS Performance Parameters

Performance Parameter	Expected WAAS Performance
LPV Accuracy Horizontal	≤ 1.5 m error 95% of the time
LPV Accuracy Vertical	≤ 2 m error 95% of the time
LNAV Accuracy Horizontal	≤ 36 m error 95% of the time
Availability LPV CONUS	99% availability of 100% of CONUS
Availability LPV Alaska	95% availability of 75% of Alaska
Availability LNAV CONUS	99.99% availability with HPL <556 m
Availability LNAV Alaska	99.9% availability with HPL <556 m
Availability En Route OCONUS	99.9% availability with HPL <2 nmi
Probability of Hazardous Misleading Information	<10e-7 per approach

1.1 Event Summary

Table 1-5 lists events that affected WAAS performance or the ability to determine the WAAS performance during the reporting period. The events include GPS or WAAS anomalies, relevant receiver malfunctions, receiver maintenance, and ionospheric activity. The reporting of ionospheric activity includes reference to the planetary index (Kp) for the event time period. The Kp index quantifies the disturbance in the Earth's magnetic field and is an indicator of solar storms causing geomagnetic disturbances resulting in an unpredictable ionosphere. The detection of an ionospheric disturbance causes the WAAS to increase Grid Ionospheric Vertical Error (GIVE) values, making PA service unavailable.

Analyses of events that merit more detailed investigations are documented in the Discrepancy Reports (DRs). The DRs are available at <http://www.nstb.tc.faa.gov> under "WAAS Technical Reports" and also accessible via hyperlink in Table 1-5. Note that "TOW" is the time of GPS week, which is the cumulative number of seconds beginning 00:00:00 Sunday (GMT without leap seconds). Table 1-6 lists events related to WAAS upgrades during this reporting period, and Table 1-7 lists events related to ground uplink station (GUS) switchovers, which are transitions from one GEO uplink site to another GEO uplink site.

Table 1-5 Events

Start Date	End Date	Location	Service Affected	Description
10/1/2025	10/1/2025	Washington D.C. (CnV), Los Angeles (CnV), Atlanta (CnV)	LPV_Canada, LPV200_CONUS, LPV200_Canada	Geomagnetic activity (KP = 6) disturbed the ionosphere causing elevated GIVE values. This resulted in significant degradation of LPV200 service coverage in Canada from 00:10 UTC to 00:40 UTC, 00:45 UTC to 00:50 UTC, 05:35 UTC to 06:05 UTC, 20:05 UTC to 22:30 UTC, and from 22:40 UTC to 22:50 UTC. The elevated GIVE values also caused moderate degradation of LPV service coverage in Canada from 20:35 UTC to 21:15 UTC. The elevated GIVE values also caused minor degradation of LPV200 service coverage in CONUS (FL) from 14:35 UTC to 15:00 UTC, 15:45 UTC to 16:00 UTC, and from 16:55 UTC to 17:10 UTC.
10/2/2025	10/2/2025	Washington D.C. (CnV), Los Angeles (CnV), Atlanta (CnV)	LPV_CONUS, LPV200_CONUS, LPV200_Alaska, LPV200_Canada	Geomagnetic activity (KP = 6.67) disturbed the ionosphere causing elevated GIVE values. This resulted in moderate degradation of: (1) LPV200 service coverage in CONUS from 20:00 UTC to 20:50 UTC and from 23:25 UTC to 23:40 UTC; and (2) LPV200 service coverage in Canada from 20:00 UTC to 23:55 UTC. This also resulted in minor degradation of: (1) LPV service coverage in CONUS from 20:10 UTC to 20:40 UTC; and (2) LPV200 service coverage in Alaska from 03:00 UTC to 04:05 UTC and from 23:10 UTC to 23:20 UTC. Please see plot(s): Cov vs Time Canada 10/2/25 Cov vs Time Conus 10/2/25 LPV 10/2/25

Start Date	End Date	Location	Service Affected	Description
				Cov vs Time Alaska_10/2/25 LPV200_10/2/25
10/3/2025	10/3/2025	Washington D.C. (CnV), Los Angeles (CnV), Atlanta (CnV)	LPV_Canada, LPV200_CONUS, LPV200_Canada	Geomagnetic activity (KP = 5) disturbed the ionosphere causing elevated GIVE values. This resulted in significant degradation of: (1) LPV service coverage in Canada from 19:35 UTC to 21:35 UTC, and (2) LPV200 service coverage in Canada from 00:20 UTC to 01:05 UTC, and from 17:40 UTC to 20:20 UTC. The elevated GIVE values also resulted in minor degradation of LPV200 service coverage in southern CONUS from 09:05 UTC to 09:15 UTC, and from 23:25 UTC to 23:30 UTC. Please see plot(s): Cov vs Time Canada_10/3/25 LPV_10/3/25 LPV200_10/3/25 Cov vs Time Conus_10/3/25
10/4/2025	10/4/2025	Washington D.C. (CnV), Los Angeles (CnV), Atlanta (CnV)	LPV200_Canada	Geomagnetic activity (KP = 3.67) disturbed the ionosphere causing elevated GIVE values. This resulted in moderate degradation of LPV200 service coverage in Canada from 05:45 UTC to 06:25 UTC, 09:25 UTC to 15:20 UTC, 17:00 UTC to 17:10 UTC, and from 20:30 UTC to 23:10 UTC. Please see plot(s): LPV200_10/4/25 Cov vs Time Canada_10/4/25
10/5/2025	10/5/2025	Washington D.C. (CnV), Los Angeles (CnV), Atlanta (CnV)	LPV200_CONUS, LPV200_Canada	Geomagnetic activity (KP = 3.33) disturbed the ionosphere causing elevated GIVE values. This resulted in moderate degradation of LPV200 service coverage in Canada from 05:20 UTC to 05:45 UTC and from 21:15 UTC to 21:25 UTC. The elevated GIVE values

Start Date	End Date	Location	Service Affected	Description
				also caused minor degradation of LPV200 service coverage in CONUS (CA, NM, TX, FL) from 08:50 UTC to 09:05 UTC, 16:40 UTC to 17:00 UTC, and from 23:15 UTC to 23:44. Please see plot(s): Cov vs Time Conus 10/5/25 Cov vs Time Canada 10/5/25 LPV200 10/5/25
10/6/2025	10/7/2025	Washington D.C. (CnV), Los Angeles (CnV), Atlanta (CnV)	LPV_Canada, LPV200_CONUS, LPV200_Canada	Geomagnetic activity (KP = 2.33) disturbed the ionosphere causing elevated GIVE values. This resulted in moderate degradation of: (1) LPV service coverage in Canada from 03:00 UTC to 03:55 UTC, from 15:05 UTC to 15:30 UTC, from 16:00 UTC to 17:15 UTC and from 21:45 UTC to 23:05 UTC; and (2) LPV200 service coverage in Canada from 15:20 UTC to 17:50 UTC, from 18:55 UTC to 19:20 UTC, from 20:15 UTC to 20:35 UTC, from 21:20 UTC to 23:05 UTC and from 23:50 UTC to 01:40 UTC on 10/07. The elevated GIVE values along with outages on all Mexico WRS sites resulted in minor degradation of LPV200 service coverage in CONUS (South CA and South FL) from 16:35 UTC to 16:55 UTC and from 23:05 UTC to 23:30 UTC. Please see plot(s): LPV200 10/6/25 LPV200 10/7/25 LPV 10/7/25 Cov vs Time Conus 10/7/25 Cov vs Time Canada 10/6/25 Cov vs Time Canada 10/7/25

Start Date	End Date	Location	Service Affected	Description
				LPV 10/6/25 Cov vs Time Conus 10/6/25
10/7/2025	10/7/2025	Washington D.C. (CnV), Los Angeles (CnV), Atlanta (CnV)	LPV200_CONUS, LPV200_Canada	Geomagnetic activity (KP = 4.33) disturbed the ionosphere causing elevated GIVE values. This resulted in moderate degradation of LPV200 service coverage in Canada from 00:20 UTC to 02:50 UTC. The elevated GIVE values also resulted in minor degradation of LPV200 service coverage in southwest CONUS from 08:45 UTC to 08:50 UTC, and from 16:35 UTC to 17:15 UTC. Please see plot(s): LPV200 10/7/25 Cov vs Time Conus 10/7/25 Cov vs Time Canada 10/7/25
10/8/2025	10/8/2025	Washington D.C. (CnV), Los Angeles (CnV), Atlanta (CnV)	LPV200_CONUS, LPV200_Canada	Geomagnetic activity (KP = 3.67) disturbed the ionosphere causing elevated GIVE values. This resulted in moderate degradation of LPV 200 service coverage in CONUS (CA, AZ, NM, TX, FL) from 08:35 UTC to 08:55 UTC, 14:05 UTC to 14:30 UTC, and from 23:00 UTC to 23:20 UTC. The elevated GIVE values also caused minor degradation of LPV200 service coverage in Canada from 14:05 UTC to 14:15 UTC. Please see plot(s): Cov vs Time Conus 10/8/25 Cov vs Time Canada 10/8/25 LPV200 10/8/25
10/8/2025	10/8/2025	PRN20	None	A GPS NANU 2025072 announced SVN51 to begin broadcasting as PRN-20 starting October 8th, 2025 at 19:37 UTC

Start Date	End Date	Location	Service Affected	Description
10/9/2025	10/9/2025	Washington D.C. (CnV), Los Angeles (CnV), Atlanta (CnV)	LPV200_Canada	Geomagnetic activity (KP = 2) disturbed the ionosphere causing elevated GIVE values. This resulted in moderate degradation of LPV200 service coverage in Canada from 18:35 UTC to 18:45 UTC, from 20:05 UTC to 21:40 UTC, from 21:50 UTC to 22:05 UTC and from 23:20 UTC to 23:59 UTC. Please see plot(s): Cov_vs_Time_Canada_10/9/25 LPV200_10/9/25
10/10/2025	10/10/2025	Washington D.C. (CnV), Los Angeles (CnV), Atlanta (CnV)	LPV_Canada, LPV200_Canada	Geomagnetic activity (KP = 3.67) disturbed the ionosphere causing elevated GIVE values. This resulted in moderate degradation of LPV service coverage in Canada from 03:25 UTC to 04:35 UTC, and from 16:00 UTC to 17:10 UTC. The elevated GIVE values also resulted in LPV200 service coverage in Canada from 02:05 UTC to 04:35 UTC, 05:40 UTC to 06:00 UTC, 14:55 UTC to 15:20 UTC, and from 18:40 UTC to 19:45 UTC. Please see plot(s): Cov_vs_Time_Canada_10/10/25 LPV_10/10/25 LPV200_10/10/25
10/11/2025	10/11/2025	Washington D.C. (CnV), Los Angeles (CnV), Atlanta (CnV)	LPV200_CONUS, LPV200_Canada	Geomagnetic activity (KP = 2.33) disturbed the ionosphere causing elevated GIVE values. This resulted in moderate degradation of LPV200 service coverage in Canada from 05:10 UTC to 05:15 UTC, 08:55 UTC to 09:45 UTC, 13:20 UTC to 13:40 UTC, 15:10 UTC to 16:45 UTC, 18:40 UTC to 18:50 UTC, and from 23:25 UTC to 23:45 UTC. The elevated GIVE values also resulted in minor degradation of LPV200 service

Start Date	End Date	Location	Service Affected	Description
				coverage in CONUS from 22:55 UTC to 23:05 UTC. Please see plot(s): LPV200_10/11/25 Cov_vs_Time_Canada_10/11/25 Cov_vs_Time_Conus_10/11/25
10/12/2025	10/13/2025	Washington D.C. (CnV), Los Angeles (CnV), Atlanta (CnV)	LPV_Canada, LPV200_Canada	Geomagnetic activity (KP = 5.33) disturbed the ionosphere causing elevated GIVE values. This resulted in significant degradation of: (1) LPV service coverage in Canada from 14:40 UTC to 18:10 UTC, 19:10 UTC to 21:25 UTC, and from 22:10 UTC to 23:00 UTC; (2) LPV200 service coverage in Canada from 14:15 UTC on 10/12 to 00:40 UTC on 10/13. Please see plot(s): LPV200_10/13/25 LPV200_10/12/25 LPV_10/13/25 Cov_vs_Time_Canada_10/13/25 LPV_10/12/25 Cov_vs_Time_Canada_10/12/25
10/13/2025	10/13/2025	Washington D.C. (CnV), Los Angeles (CnV), Atlanta (CnV)	LPV200_CONUS	Geomagnetic activity (KP = 4.67) disturbed the ionosphere causing elevated GIVE values. This along with outages on all Mexico WRS sites resulted in minor degradation of LPV200 service coverage in CONUS (South FL) from 22:45 UTC to 22:55 UTC. Please see plot(s): Cov_vs_Time_Conus_10/13/25 LPV200_10/13/25
10/14/2025	10/14/2025	Washington D.C. (CnV), Los Angeles (CnV), Atlanta (CnV)	LPV_Canada, LPV200_Canada	Geomagnetic activity (KP = 2.67) disturbed the ionosphere causing elevated GIVE values. This resulted in moderate degradation of: (1) LPV service coverage in Canada from 11:40

Start Date	End Date	Location	Service Affected	Description
				UTC to 13:10 UTC, and from 21:15 UTC to 22:00 UTC; and (2) LPV200 service coverage in Canada from 01:30 UTC to 02:00 UTC, from 04:40 UTC to 05:40 UTC, and from 21:10 UTC to 22:30 UTC. Please see plot(s): Cov_vs_Time_Canada_10/14/25 LPV200_10/14/25 LPV_10/14/25
10/15/2025	10/15/2025	Washington D.C. (CnV), Los Angeles (CnV), Atlanta (CnV)	LPV200_CONUS, LPV200_Canada	Geomagnetic activity (KP = 3.67) disturbed the ionosphere causing elevated GIVE values. This resulted in moderate degradation of Canada from 21:45 UTC to 22:25 UTC. The elevated GIVE values also cause minor degradation of LPV200 service coverage in CONUS (AZ, NM, FL) from 08:10 UTC to 08:25 UTC and from 22:35 UTC to 23:05 UTC. Please see plot(s): Cov_vs_Time_Conus_10/15/25 LPV200_10/15/25 Cov_vs_Time_Canada_10/15/25
10/16/2025	10/17/2025	PRN4	LPV_Canada, LPV200_CONUS, LPV200_Alaska, LPV200_Canada	There was a GPS NANU on PRN 4 (see NANU 2025074) which was unusable from 18:15 UTC on 10/16 to 02:48 UTC on 10/17. This resulted in moderate degradation of: (1) LPV service coverage in Canada from 19:05 UTC to 20:25 UTC and from 21:20 UTC to 21:40 UTC; (2) LPV200 service coverage in Alaska from 19:25 UTC to 20:05 UTC; (3) LPV200 service coverage in Canada from 19:45 UTC to 21:40 UTC and from 22:40 UTC to 22:45 UTC. This also resulted in minor degradation of LPV200 service coverage in CONUS from 20:05

Start Date	End Date	Location	Service Affected	Description
				UTC to 20:20 UTC. Please see plot(s): Cov_vs_Time_Conus_10/16/25 LPV_10/16/25 LPV200_10/16/25 Cov_vs_Time_Canada_10/16/25 Cov_vs_Time_Alaska_10/16/25
10/17/2025	10/17/2025	Washington D.C. (CnV), Los Angeles (CnV), Atlanta (CnV)	LPV_Canada, LPV200_Canada	Geomagnetic activity (KP = 3.33) disturbed the ionosphere causing elevated GIVE values. This resulted in moderate degradation of: (1) LPV200 service coverage in Alaska from 04:30 UTC to 05:00 UTC, 09:20 UTC to 11:00 UTC, and from 13:50 UTC to 14:05 UTC; and (2) LPV200 service coverage in Canada from 09:10 UTC to 09:25 UTC. Please see plot(s): Cov_vs_Time_Canada_10/17/25 LPV_10/17/25 LPV200_10/17/25
10/18/2025	10/18/2025	Washington D.C. (CnV), Los Angeles (CnV), Atlanta (CnV)	LPV_CONUS, LPV_Alaska, LPV_Canada, LPV200_CONUS, LPV200_Alaska, LPV200_Canada	Geomagnetic activity (KP = 3.67) disturbed the ionosphere causing elevated GIVE values. This resulted in significant degradation of: (1) LPV service coverage in CONUS from 20:00 UTC to 22:50 UTC; (2) LPV service coverage in Canada from 03:00 UTC to 03:10 UTC, 07:35 UTC to 08:00 UTC, 11:45 UTC to 11:50 UTC, and from 17:10 UTC on 10/18 to 01:20 UTC on 10/19; (3) LPV200 service coverage in CONUS from 19:45 UTC to 23:50 UTC; (4) LPV200 service coverage in Alaska from 04:30 UTC to 04:45 UTC, 07:00 UTC to 08:00 UTC, 10:30 UTC to 11:15 UTC, and from 20:25 UTC on 10/18 to 01:50 UTC on 10/19; and (5) LPV200 service coverage in Canada from 02:00

Start Date	End Date	Location	Service Affected	Description
				UTC to 03:35 UTC, 04:45 UTC to 05:10 UTC, 07:20 UTC to 09:55 UTC, 11:05 UTC to 13:00 UTC, and from 16:20 UTC on 10/18 to 03:10 UTC on 10/19. The elevated GIVE values also resulted in moderate degradation of LPV service coverage in Alaska from 07:35 UTC to 08:10 UTC, and from 20:50 UTC to 22:55 UTC. Please see plot(s): Cov_vs_Time_Conus_10/18/25 Cov_vs_Time_Alaska_10/18/25 Cov_vs_Time_Canada_10/18/25 LPV_10/18/25 LPV200_10/18/25
10/19/2025	10/20/2025	Washington D.C. (CnV), Los Angeles (CnV), Atlanta (CnV)	LPV200_CONUS, LPV200_Alaska, LPV200_Canada	Geomagnetic activity (KP = 5) disturbed the ionosphere causing elevated GIVE values. This resulted in significant degradation of: (1) LPV service coverage in Canada from 16:55 UTC to 17:20 UTC, 17:40 UTC to 18:40 UTC, 19:55 UTC to 21:15 UTC, and from 21:25 UTC to 23:20 UTC; (2) LPV200 service coverage in Canada from 01:30 UTC to 01:50 UTC, 01:55 UTC to 02:35 UTC, 04:20 UTC to 04:50 UTC, 16:50 UTC to 19:00 UTC, 19:15 UTC to 19:35 UTC, 19:55 UTC to 23:35 UTC, and from 23:40 UTC on 10/19 to 02:20 UTC on 10/20. The elevated GIVE values also caused moderate degradation of: (1) LPV service coverage in CONUS from 00:35 UTC to 01:20 UTC; (2) LPV200 service coverage in CONUS from 00:30 UTC to 01:20 UTC, and from 22:15 UTC to 22:45 UTC; (3) LPV200 service coverage in Alaska from 01:00 UTC to 01:30 UTC, 01:40 UTC to 01:45 UTC, 02:00 UTC to 02:55 UTC, 13:40 UTC to

Start Date	End Date	Location	Service Affected	Description
				14:10 UTC, 21:45 UTC to 21:10 UTC, and from 22:10 UTC to 23:20 UTC. Please see plot(s): Cov vs Time Alaska_10/20/25 LPV200_10/19/25 Cov vs Time Canada_10/19/25 Cov vs Time Conus_10/20/25 Cov vs Time Conus_10/19/25 LPV200_10/20/25 Cov vs Time Canada_10/20/25 Cov vs Time Alaska_10/19/25
10/20/2025	10/20/2025	Washington D.C. (CnV), Los Angeles (CnV), Atlanta (CnV)	LPV_Alaska, LPV_Canada, LPV200_Alaska	Geomagnetic activity (KP = 3) caused by an IGP storm disturbed the ionosphere causing elevated GIVE values. This resulted in moderate degradation of: (1) LPV service coverage in Alaska from 00:50 UTC to 01:40 UTC; (2) LPV service coverage in Canada from 00:40 UTC to 01:40 UTC and from 02:30 UTC to 03:00 UTC; (3) LPV200 service coverage in Alaska from 00:40 UTC to 02:45 UTC, from 04:30 UTC to 04:50 UTC and from 21:45 UTC to 22:05 UTC. Please see plot(s): Cov vs Time Alaska_10/20/25 LPV200_10/20/25 Cov vs Time Canada_10/20/25 LPV_10/20/25
10/21/2025	10/21/2025	Washington D.C. (CnV), Los Angeles (CnV), Atlanta (CnV)	LPV200_CONUS, LPV200_Canada	Geomagnetic activity (KP = 3.33) disturbed the ionosphere causing elevated GIVE values. This resulted in moderate degradation of LPV200 service coverage in Canada from 17:50 UTC to 22:35 UTC. The elevated GIVEs also resulted in minor degradation of LPV200 service coverage in southwest CONUS

Start Date	End Date	Location	Service Affected	Description
				from 07:30 to 07:50 and from 22:10 UTC to 22:25 UTC. Please see plot(s): Cov_vs_Time_Conus_10/21/25 Cov_vs_Time_Canada_10/21/25 LPV200_10/21/25
10/22/2025	10/22/2025	Washington D.C. (CnV), Los Angeles (CnV), Atlanta (CnV)	LPV200_Canada	Geomagnetic activity (KP = 1.67) disturbed the ionosphere causing elevated GIVE values. This resulted in moderate degradation of: (1) LPV service coverage in Canada from 22:30 UTC to 22:40 UTC; (2) LPV200 service coverage in Canada from 04:10 UTC to 04:40 UTC, 09:30 UTC to 09:35 UTC, 21:55 UTC to 22:00 UTC, and from 22:25 UTC to 23:05 UTC.
10/23/2025	10/23/2025	Washington D.C. (CnV), Los Angeles (CnV), Atlanta (CnV)	LPV200_CONUS, LPV200_Canada	Geomagnetic activity (KP = 2.33) disturbed the ionosphere causing elevated GIVE values. This resulted in moderate degradation of LPV200 service coverage in Canada from 00:15 UTC to 00:45 UTC, from 01:20 UTC to 01:30 UTC, from 02:10 UTC to 02:20 UTC, from 19:00 UTC to 19:10 UTC, from 20:30 UTC to 21:05 UTC and from 21:40 UTC to 22:00 UTC. This also resulted in minor degradation of LPV200 service coverage in CONUS (South FL) from 22:00 UTC to 22:10 UTC. Please see plot(s): LPV200_10/23/25 Cov_vs_Time_Conus_10/23/25 Cov_vs_Time_Canada_10/23/25
10/24/2025	10/24/2025	Washington D.C. (CnV), Los Angeles (CnV), Atlanta (CnV)	LPV_Canada, LPV200_Canada	Geomagnetic activity (KP = 3) disturbed the ionosphere causing elevated GIVE values. This resulted in moderate degradation of: (1) LPV service coverage

Start Date	End Date	Location	Service Affected	Description
				in Canada from 17:40 UTC to 20:10 UTC; and (2) LPV200 service coverage in Canada from 19:10 UTC to 22:00 UTC. Please see plot(s): LPV_10/24/25 LPV200_10/24/25 Cov_vs_Time_Canada_10/24/25
10/25/2025	10/25/2025	Washington D.C. (CnV), Los Angeles (CnV), Atlanta (CnV)	LPV200_Canada	Geomagnetic activity (KP = 2.67) disturbed the ionosphere causing elevated GIVE values. This resulted in minor degradation of LPV200 service coverage in Canada from 02:30 UTC to 04:50 UTC, 08:10 UTC to 08:20 UTC, 10:30 UTC to 10:35 UTC, and from 22:40 UTC to 22:45 UTC. Please see plot(s): Cov_vs_Time_Canada_10/25/25 LPV200_10/25/25
10/26/2025	10/26/2025	Washington D.C. (CnV), Los Angeles (CnV), Atlanta (CnV)	LPV200_CONUS	There was a comm outage across all Mexico sites from the start of the day until 11:38:52. Due to a lack observation during that time the GIVE values became elevated and caused minor degradation of LPV200 service coverage in CONUS (FL) from 07:20 UTC to 07:55 UTC. Please see plot(s): Cov_vs_Time_Conus_10/26/25 LPV200_10/26/25
10/27/2025	10/27/2025	Washington D.C. (CnV), Los Angeles (CnV), Atlanta (CnV)	LPV_Canada, LPV200_Canada	Geomagnetic activity (KP = 2.33) disturbed the ionosphere causing elevated GIVE values. This resulted in moderate degradation of (1) LPV service coverage in Canada from 18:30 UTC to 18:45 UTC, from 19:00 UTC to 19:35 UTC and from 19:55 UTC to 22:15 UTC; (2) LPV200 service coverage in Canada from 15:40 UTC to 15:55 UTC,

Start Date	End Date	Location	Service Affected	Description
				from 18:30 UTC to 19:35 UTC, from 20:55 UTC to 21:20 UTC and from 21:30 UTC to 22:00 UTC. Please see plot(s): LPV200_10/27/25 Cov_vs_Time_Canada_10/27/25 LPV_10/27/25
10/28/2025	10/28/2025	Washington D.C. (CnV), Los Angeles (CnV), Atlanta (CnV)	LPV_Canada, LPV200_Canada	Geomagnetic activity (KP = 4.33) disturbed the ionosphere causing elevated GIVE values. This resulted in significant degradation of LPV200 service coverage in Canada from 17:55 UTC on 10/28 to 01:00 UTC on 10/29. The elevated GIVE values also resulted in moderate degradation of LPV service coverage in Canada from 19:40 UTC on 10/28 to 00:10 UTC on 10/29. Please see plot(s): LPV200_10/28/25 Cov_vs_Time_Canada_10/28/25 LPV_10/28/25
10/29/2025	10/30/2025	Washington D.C. (CnV), Los Angeles (CnV), Atlanta (CnV)	LPV_Canada, LPV200_Canada	Geomagnetic activity (KP = 4.33) disturbed the ionosphere causing elevated GIVE values. This resulted in significant degradation of: (1) LPV service coverage in Canada from 15:40 UTC to 15:45 UTC, 16:00 UTC to 16:15 UTC, 16:30 UTC to 20:25 UTC, 20:50 UTC to 21:45 UTC, 21:50 UTC to 21:55 UTC, 22:25 UTC to 22:40 UTC, and from 23:40 UTC on 10/29 to 00:45 UTC on 10/30; (2) LPV200 service coverage in Canada from 00:45 UTC to 01:05 UTC, 15:35 UTC to 23:05 UTC, and from 23:20 UTC on 10/29 to 00:50 UTC on 10/30. Please see plot(s):

Start Date	End Date	Location	Service Affected	Description
				LPV_10/29/25 LPV200_10/30/25 Cov vs Time Canada_10/30/25 LPV200_10/29/25 LPV_10/30/25 Cov vs Time Canada_10/29/25
10/30/2025	10/31/2025	Washington D.C. (CnV), Los Angeles (CnV), Atlanta (CnV)	LPV200_Canada	Geomagnetic activity (KP = 5.33) disturbed the ionosphere causing elevated GIVE values. This resulted in moderate degradation of LPV200 service coverage in Canada from 12:10 UTC to 12:55 UTC, from 22:35 UTC to 23:05 UTC and from 23:30 UTC on 10/30 to 00:30 UTC on 10/31. Please see plot(s): LPV200_10/31/25 LPV200_10/30/25 Cov vs Time Canada_10/31/25 Cov vs Time Canada_10/30/25
10/31/2025	10/31/2025	Washington D.C. (CnV), Los Angeles (CnV), Atlanta (CnV)	LPV_Canada, LPV200_Canada	Geomagnetic activity (KP = 4.67) disturbed the ionosphere causing elevated GIVE values. This resulted in moderate degradation of: (1) LPV service coverage in Canada from 15:50 UTC to 16:20 UTC; and (2) LPV200 service coverage in Canada from 15:10 UTC to 17:00 UTC, and from 18:40 UTC to 20:10 UTC. Please see plot(s): LPV_10/31/25 Cov vs Time Canada_10/31/25 LPV200_10/31/25
11/1/2025	11/1/2025	Washington D.C. (CnV), Los Angeles (CnV), Atlanta (CnV)	LPV200_CONUS, LPV200_Canada	Geomagnetic activity (KP = 3) disturbed the ionosphere causing elevated GIVE values. This resulted in minor degradation of: (1) LPV200 service coverage in CONUS from 07:05 UTC to 07:15 UTC, 12:45 UTC to 12:55 UTC, and from 21:25 UTC to 21:40 UTC; and (2) LPV200 service coverage in Canada

Start Date	End Date	Location	Service Affected	Description
				from 06:25 UTC to 06:30 UTC, 10:05 UTC to 10:15 UTC, 15:00 UTC to 16:15 UTC, and from 20:45 UTC to 20:55 UTC. Please see plot(s): Cov vs Time Conus 11/1/25 LPV200 11/1/25 Cov vs Time Canada 11/1/25
11/2/2025	11/2/2025	PRN2	LPV200_CONUS	There was an SV alert on PRN2 at 20:28:24. The UDREs reached PA-mode later than usual at 22:23:09. The SV alert resulted in minor degradation of LPV200 service coverage in CONUS (FL) from 21:20 UTC to 21:35 UTC. TOW 73722-80607 (14-15) Please see plot(s): LPV200 11/2/25 Cov vs Time Conus 11/2/25
11/2/2025	11/2/2025	Washington D.C. (CnV), Los Angeles (CnV), Atlanta (CnV)	LPV200_CONUS	Geomagnetic activity (KP = 4.33) disturbed the ionosphere causing elevated GIVE values. This along with an SV alert on PRN 2 (see event 28324) that was ongoing from 20:28:24 to 22:23:09 resulted in minor degradation of LPV200 service coverage in CONUS (FL) from 12:40 UTC to 12:50 UTC and from 21:20 UTC to 21:35 UTC. Please see plot(s): LPV200 11/2/25 Cov vs Time Conus 11/2/25
11/4/2025	11/4/2025	Washington D.C. (CnV), Los Angeles (CnV), Atlanta (CnV)	LPV200_CONUS	Geomagnetic activity (KP = 3) disturbed the ionosphere causing elevated GIVE values. This resulted in minor degradation of LPV200 service coverage in southwest CONUS from 12:15 UTC to 12:45 UTC. Please see plot(s):

Start Date	End Date	Location	Service Affected	Description
				LPV200_11/4/25 Cov_vs_Time_Conus_11/4/25
11/5/2025	11/6/2025	Washington D.C. (CnV), Los Angeles (CnV), Atlanta (CnV)	LPV_Canada, LPV200_Canada	Geomagnetic activity (KP = 6) disturbed the ionosphere causing elevated GIVE values. This resulted in moderate degradation of: (1) LPV service coverage in Canada from 22:55 UTC on 11/5 to 00:05 UTC on 11/6; (2) LPV200 service coverage in Canada from 03:10 UTC to 03:40 UTC, 19:55 UTC to 20:00 UTC, and from 22:45 UTC on 11/5 to 01:10 UTC on 11/6. Please see plot(s): Cov_vs_Time_Canada_11/5/25 Cov_vs_Time_Canada_11/6/25 LPV_11/6/25 LPV_11/5/25 LPV200_11/6/25 LPV200_11/5/25
11/6/2025	11/7/2025	Washington D.C. (CnV), Los Angeles (CnV), Atlanta (CnV)	LPV_Canada, LPV200_Alaska, LPV200_Canada	Geomagnetic activity (KP = 6.67) disturbed the ionosphere causing elevated GIVE values. This resulted in moderate degradation of: (1) LPV200 service coverage in Alaska from 00:30 UTC to 01:30 UTC and from 03:05 UTC to 03:45 UTC; (2) LPV200 service coverage in Canada from 01:20 UTC to 01:55 UTC, from 18:30 UTC to 19:05 UTC, from 20:15 UTC to 20:40 UTC and from 23:40 UTC to 01:10 UTC on 11/07. This also resulted in minor degradation of LPV service in Canada from 19:40 UTC to 20:05 UTC, from 20:15 UTC to 20:40 UTC, from 22:20 UTC to 22:40 UTC and from 23:30 UTC to 00:50 UTC on 11/07. Please see plot(s): Cov_vs_Time_Canada_11/6/25 LPV200_11/7/25

Start Date	End Date	Location	Service Affected	Description
				Cov vs Time Canada 11/7/25 LPV 11/6/25 LPV 11/7/25 Cov vs Time Alaska 11/7/25 LPV200 11/6/25 Cov vs Time Alaska 11/6/25
11/6/2025	11/6/2025	Washington D.C. (CnV), Los Angeles (CnV), Atlanta (CnV)	LPV200_Canada	Geomagnetic activity (KP = 4.33) disturbed the ionosphere causing elevated GIVE values. This resulted in moderate degradation of LPV200 service coverage in Canada from 07:25 UTC to 07:30 UTC, from 11:45 UTC to 12:05 UTC, from 13:10 UTC to 13:35 UTC, from 16:25 UTC to 16:35 UTC, from 17:20 UTC to 17:30 UTC and from 18:50 UTC to 19:30 UTC. Please see plot(s): Cov vs Time Canada 11/6/25 LPV200 11/6/25
11/7/2025	11/7/2025	Washington D.C. (CnV), Los Angeles (CnV), Atlanta (CnV)	LPV_Canada, LPV200_CONUS, LPV200_Alaska, LPV200_Canada	Geomagnetic activity (KP = 5.33) disturbed the ionosphere causing elevated GIVE values. This resulted in moderate degradation of: (1) LPV service coverage in Canada from 00:10 UTC to 01:10 UTC; and (2) LPV200 service coverage in Canada from 23:30 UTC on 11/06 to 01:40 UTC on 11/07. The elevated GIVE values also resulted in minor degradation of: (1) LPV200 service coverage in CONUS from 21:00 UTC to 21:15 UTC; and (2) LPV200 service coverage in Alaska from 03:05 UTC to 03:35 UTC, and from 20:45 UTC to 20:55 UTC. Please see plot(s): Cov vs Time Conus 11/7/25 LPV200 11/7/25 Cov vs Time Canada 11/7/25

Start Date	End Date	Location	Service Affected	Description
				LPV_11/7/25 Cov_vs_Time_Alaska_11/7/25
11/8/2025	11/8/2025	Washington D.C. (CnV), Los Angeles (CnV), Atlanta (CnV)	LPV200_Canada	Geomagnetic activity (KP = 6.33) disturbed the ionosphere causing elevated GIVE values. This resulted in moderate degradation of LPV200 service coverage in Canada from 02:30 UTC to 03:05 UTC, 04:25 UTC to 04:30 UTC, 08:20 UTC to 08:25 UTC, 09:40 UTC to 09:45 UTC, 11:20 UTC to 11:30 UTC, 12:55 UTC to 13:10 UTC, 20:10 UTC to 20:15 UTC, and from 21:50 UTC to 22:00 UTC. Please see plot(s): Cov_vs_Time_Canada_11/8/25 LPV200_11/8/25
11/9/2025	11/9/2025	PRN2	LPV200_CONUS	There was an SV alert on PRN2 at 19:55:48. The UDREs reached PA-mode later than usual at 22:23:09. The SV alert resulted in minor degradation of LPV200 service coverage in CONUS (FL) from 20:50 UTC to 21:05 UTC. TOW 71766-80607 (14-15) Please see plot(s): Cov_vs_Time_Conus_11/9/25 LPV200_11/9/25
11/10/2025	11/11/2025	Washington D.C. (CnV), Los Angeles (CnV), Atlanta (CnV)	LPV_Alaska, LPV_Canada, LPV200_Alaska, LPV200_Canada	Geomagnetic activity (KP = 4) caused by an IGP storm disturbed the ionosphere causing elevated GIVE values. This resulted in significant degradation of: (1) LPV service coverage in Canada from 16:10 UTC to 17:35 UTC, 17:55 UTC to 19:55 UTC and from 20:10 UTC to 01:45 UTC on 11/11; (2) LPV200 service coverage in Canada from 16:00 UTC to 19:45 UTC, from 20:40 UTC to 22:00 UTC, from 22:20 UTC to 23:05

Start Date	End Date	Location	Service Affected	Description
				UTC and from 23:35 UTC to 02:00 UTC on 11/11. This also resulted in moderate degradation of: (1) LPV service coverage in Alaska from 23:30 UTC to 00:40 UTC on 11/11; (2) LPV200 service coverage in Alaska from 23:30 UTC to 01:30 UTC on 11/11. Please see plot(s): LPV200_11/11/25 LPV_11/11/25 Cov_vs_Time_Canada_11/10/25 Cov_vs_Time_Alaska_11/11/25 Cov_vs_Time_Alaska_11/10/25 LPV_11/10/25 LPV200_11/10/25 Cov_vs_Time_Canada_11/11/25
11/11/2025	11/11/2025	Washington D.C. (CnV), Los Angeles (CnV), Atlanta (CnV)	LPV_Alaska, LPV_Canada, LPV200_Alaska, LPV200_Canada	Geomagnetic activity (KP = 3) caused by an IGP storm disturbed the ionosphere causing elevated GIVE values. This resulted in moderate degradation of: (1) LPV service coverage in Alaska from 23:30 UTC on 11/10 to 00:40 UTC on 11/11; (2) LPV service coverage in Canada from 23:00 UTC on 11/10 to 01:25 UTC on 11/11; (3) LPV200 service coverage in Alaska from 23:30 UTC on 11/10 to 00:55 UTC on 11/11; and (4) LPV200 service coverage in Canada from 22:30 UTC on 11/10 to 01:25 UTC on 11/11. Please see plot(s): LPV_11/11/25 Cov_vs_Time_Alaska_11/11/25 LPV200_11/11/25 Cov_vs_Time_Canada_11/11/25
11/12/2025	11/12/2025	Washington D.C. (CnV), Los Angeles (CnV), Atlanta (CnV)	LPV_CONUS, LPV_Alaska, LPV_Canada, LPV200_CONUS, LPV200_Alaska, LPV200_Canada	Geomagnetic activity (KP = 8.67) caused by a G3 geomagnetic storm disturbed the ionosphere causing elevated GIVE values. This resulted in significant

Start Date	End Date	Location	Service Affected	Description
				degradation of: (1) LPV service coverage in CONUS from 01:35 UTC to 05:30 UTC and from 08:40 UTC to 08:50 UTC; (2) LPV service coverage in Alaska from 01:20 UTC to 05:45 UTC, 08:30 UTC to 10:35 UTC, and from 12:00 UTC to 12:50 UTC; (3) LPV service coverage in Canada from 00:45 UTC to 05:30 UTC and from 08:30 UTC to 09:15 UTC; (4) LPV200 service coverage in CONUS from 01:00 UTC to 01:15 UTC, 01:30 UTC to 05:30 UTC, 05:55 UTC to 06:10 UTC, 06:15 UTC to 06:30 UTC, and from 08:35 UTC to 08:55 UTC; (5) LPV200 service coverage in Alaska from 00:35 UTC to 06:10 UTC, 08:10 UTC to 10:35 UTC, and from 11:25 UTC to 13:15 UTC; (6) LPV200 service coverage in Canada from 00:40 UTC to 05:45 UTC, 06:25 UTC to 07:00 UTC, 08:30 UTC to 09:15 UTC, 09:20 UTC to 09:30 UTC, 09:45 UTC to 10:00 UTC, and from 10:50 UTC to 11:15 UTC. Please see plot(s): Cov_vs_Time_Alaska_11/12/25 Cov_vs_Time_Canada_11/12/25 Cov_vs_Time_Conus_11/12/25 LPV_11/12/25 LPV200_11/12/25
11/13/2025	11/13/2025	Washington D.C. (CnV), Los Angeles (CnV), Atlanta (CnV)	LPV_CONUS, LPV_Alaska, LPV200_CONUS, LPV200_Alaska, LPV200_Canada	Geomagnetic activity (KP = 7.33) caused by an IGP storm disturbed the ionosphere causing elevated GIVE values. This resulted in significant degradation of: (1) LPV service coverage in CONUS from 02:10 UTC to 03:00 UTC and from 03:20 UTC to 06:20 UTC; (2) LPV service coverage in Alaska from 02:20 UTC to 03:35 UTC

Start Date	End Date	Location	Service Affected	Description
				and from 04:35 UTC to 05:10 UTC; (3) LPV200 service coverage in CONUS from 02:10 UTC to 03:05 UTC, from 03:25 UTC to 06:20 UTC and from 11:45 UTC to 12:10 UTC; (4) LPV200 service coverage in Alaska from 02:10 UTC to 03:40 UTC and from 04:25 UTC to 05:25 UTC. This also resulted in moderate degradation of LPV200 service coverage in Canada from 00:20 UTC to 00:45 UTC, from 01:30 UTC to 01:40 UTC, from 02:25 UTC to 02:40 UTC, from 02:55 UTC to 03:45 UTC, from 05:25 UTC to 05:45 UTC and from 14:25 UTC to 15:00 UTC. Please see plot(s): Cov vs Time Alaska 11/13/25 Cov vs Time Conus 11/13/25 LPV200 11/13/25 LPV 11/13/25 Cov vs Time Canada 11/13/25
11/15/2025	11/16/2025	Washington D.C. (CnV), Los Angeles (CnV), Atlanta (CnV)	LPV200_Alaska, LPV200_Canada	Geomagnetic activity (KP = 1.67) disturbed the ionosphere causing elevated GIVE values. This resulted in significant degradation of LPV200 service coverage in Canada from 09:50 UTC to 10:30 UTC, 12:30 UTC to 12:35 UTC, and from 14:35 UTC on 11/15 to 03:30 UTC on 11/16. The elevated GIVE values also resulted in moderate degradation of: (1) LPV service coverage in Alaska from 23:15 UTC to 23:45 UTC and from 23:15 UTC to 23:45 UTC; (2) LPV service coverage in Canada from 13:30 UTC to 13:35 UTC, 18:50 UTC to 19:10 UTC, and from 20:30 UTC to 23:50 UTC; and (3) LPV200 service coverage in Alaska from 23:10 UTC to 00:00 UTC and from 23:10 UTC on

Start Date	End Date	Location	Service Affected	Description
				11/15 to 00:05 UTC on 11/16. Please see plot(s): LPV200_11/16/25 Cov_vs_Time_Alaska_11/15/25 Cov_vs_Time_Canada_11/15/25 Cov_vs_Time_Alaska_11/16/25 Cov_vs_Time_Canada_11/16/25 LPV200_11/15/25
11/16/2025	11/16/2025	Washington D.C. (CnV), Los Angeles (CnV), Atlanta (CnV)	LPV_Canada, LPV200_Canada	Geomagnetic activity (KP = 3.67) disturbed the ionosphere causing elevated GIVE values. This resulted in moderate degradation of LPV200 service coverage in CONUS from 00:45 UTC to 01:15 UTC, 02:25 UTC to 02:55 UTC, and from 19:50 UTC to 20:20 UTC. Please see plot(s): LPV200_11/16/25 Cov_vs_Time_Canada_11/16/25 LPV_11/16/25
11/17/2025	11/17/2025	Washington D.C. (CnV), Los Angeles (CnV), Atlanta (CnV)	LPV200_Canada	Geomagnetic activity (KP = 4) disturbed the ionosphere causing elevated GIVE values. This resulted in moderate degradation of LPV200 service coverage in Canada from 00:40 UTC to 01:00 UTC, from 01:25 UTC to 01:40 UTC, from 02:35 UTC to 02:45 UTC, from 03:20 UTC to 03:25 UTC, from 10:15 UTC to 10:30 UTC, from 15:35 UTC to 16:05 UTC and from 20:00 UTC to 22:00 UTC. Please see plot(s): Cov_vs_Time_Canada_11/17/25 LPV200_11/17/25
11/18/2025	11/18/2025	Washington D.C. (CnV), Los Angeles (CnV), Atlanta (CnV)	LPV200_Canada	Geomagnetic activity (KP = 2.67) disturbed the ionosphere causing elevated GIVE values. This resulted in moderate degradation of LPV200 service

Start Date	End Date	Location	Service Affected	Description
				coverage in Canada from 01:20 UTC to 02:40 UTC. Please see plot(s): Cov vs Time Canada 11/18/25 LPV200 11/18/25
11/20/2025	11/21/2025	Washington D.C. (CnV), Los Angeles (CnV), Atlanta (CnV)	LPV_Alaska, LPV_Canada, LPV200_Alaska, LPV200_Canada	Geomagnetic activity (KP = 3.33) caused by an IGP storm disturbed the ionosphere causing elevated GIVE values. This resulted in significant degradation of: (1) LPV service coverage in Canada from 12:45 UTC to 13:15 UTC, from 16:15 UTC to 16:25 UTC, from 16:45 UTC to 01:40 UTC on 11/21; (2) LPV200 service coverage in Canada from 16:55 UTC to 01:50 UTC on 11/21. This also resulted in moderate degradation of: (1) LPV service coverage in Alaska from 23:25 UTC to 23:35 UTC and from 23:50 UTC to 02:00 UTC on 11/21; (2) LPV200 service coverage in Alaska from 23:25 UTC to 02:00 UTC on 11/21. Please see plot(s): Cov vs Time Alaska 11/21/25 LPV 11/20/25 LPV200 11/21/25 Cov vs Time Canada 11/21/25 LPV 11/21/25 Cov vs Time Canada 11/20/25 Cov vs Time Alaska 11/20/25 LPV200 11/20/25
11/21/2025	11/21/2025	Washington D.C. (CnV), Los Angeles (CnV), Atlanta (CnV)	LPV200_Canada	Geomagnetic activity (KP = 3) disturbed the ionosphere causing elevated GIVE values. This resulted in moderate degradation of LPV200 service coverage in Canada from 17:30 UTC to 20:45 UTC. Please see plot(s):

Start Date	End Date	Location	Service Affected	Description
				Cov vs Time Canada 11/21/25 LPV200 11/21/25
11/22/2025	11/22/2025	Washington D.C. (CnV), Los Angeles (CnV), Atlanta (CnV)	LPV_Canada, LPV200_Canada	Geomagnetic activity (KP = 2.67) disturbed the ionosphere causing elevated GIVE values. This resulted in moderate degradation of: (1) LPV service coverage in Canada from 14:10 UTC to 18:40 UTC, and from 21:00 UTC to 21:05 UTC; and (2) LPV200 service coverage in Canada from 02:25 UTC to 03:05 UTC, 06:05 UTC to 06:10 UTC, 09:55 UTC to 10:05 UTC, 12:05 UTC to 12:10 UTC, 14:10 UTC to 19:30 UTC, 20:55 UTC to 21:00 UTC, and from 23:45 UTC on 11/22 to 01:55 UTC on 11/23. Please see plot(s): Cov vs Time Canada 11/22/25 LPV200 11/22/25 LPV 11/22/25
11/24/2025	11/24/2025	Washington D.C. (CnV), Los Angeles (CnV), Atlanta (CnV)	LPV_Canada, LPV200_CONUS, LPV200_Canada	Geomagnetic activity (KP = 4.33) disturbed the ionosphere causing elevated GIVE values. This resulted in significant degradation of (1) LPV service coverage in Canada from 12:55 UTC to 13:05 UTC, 13:55 UTC to 17:20 UTC and from 17:35 UTC to 17:45 UTC; (2) LPV200 service coverage in Canada from 12:55 UTC to 13:10 UTC, from 14:05 UTC to 17:50 UTC, from 18:30 UTC to 18:40 UTC, from 19:15 UTC to 19:25 UTC and from 20:55 UTC to 21:35. This also resulted in moderate degradation of LPV200 service coverage in CONUS from 05:30 UTC to 05:40 UTC and from 10:55 UTC to 11:20 UTC. Please see plot(s):

Start Date	End Date	Location	Service Affected	Description
				Cov vs Time Conus 11/24/25 LPV 11/24/25 Cov vs Time Canada 11/24/25 LPV200 11/24/25
11/25/2025	11/25/2025	Washington D.C. (CnV), Los Angeles (CnV), Atlanta (CnV)	LPV_Canada, LPV200_Canada	Geomagnetic activity (KP = 5) disturbed the ionosphere causing elevated GIVE values. This resulted in significant degradation of LPV200 service coverage in Canada from 09:20 UTC to 09:25 UTC, and from 15:20 UTC to 21:20 UTC. The elevated GIVE values also resulted in moderate degradation of LPV service coverage in Canada from 19:30 UTC to 20:25 UTC. Please see plot(s): Cov vs Time Canada 11/25/25 LPV 11/25/25 LPV200 11/25/25
11/26/2025	11/26/2025	Washington D.C. (CnV), Los Angeles (CnV), Atlanta (CnV)	LPV_Canada, LPV200_Canada	Geomagnetic activity (KP = 4) disturbed the ionosphere causing elevated GIVE values. This resulted in significant degradation of: (1) LPV service coverage in Canada from 16:50 UTC to 18:30 UTC; (2) LPV200 service coverage in Canada from 14:40 UTC to 19:15 UTC and from 19:30 UTC to 19:40 UTC. Please see plot(s): Cov vs Time Canada 11/26/25 LPV 11/26/25 LPV200 11/26/25
11/27/2025	11/27/2025	Washington D.C. (CnV), Los Angeles (CnV), Atlanta (CnV)	LPV_Canada, LPV200_Canada	Geomagnetic activity (KP = 4.67) disturbed the ionosphere causing elevated GIVE values. This resulted in moderate degradation of LPV200 service coverage in Canada from 20:35 UTC to 22:15 UTC. This also resulted in minor degradation of LPV service coverage in Canada from 20:40 UTC to 22:25 UTC. Please see plot(s):

Start Date	End Date	Location	Service Affected	Description
				Cov vs Time Canada 11/27/25 LPV200_11/27/25 LPV_11/27/25
11/28/2025	11/28/2025	Washington D.C. (CnV), Los Angeles (CnV), Atlanta (CnV)	LPV200_Canada	Geomagnetic activity (KP = 4) disturbed the ionosphere causing elevated GIVE values. This resulted in moderate degradation of LPV200 service coverage in Canada from 05:40 UTC to 06:45 UTC, and from 15:15 UTC to 16:25 UTC. Please see plot(s): Cov vs Time Canada 11/28/25 LPV200_11/28/25
11/29/2025	11/29/2025	Washington D.C. (CnV), Los Angeles (CnV), Atlanta (CnV)	LPV_Canada, LPV200_Canada	Geomagnetic activity (KP = 2.67) disturbed the ionosphere causing elevated GIVE values. This resulted in significant degradation of LPV200 service coverage in Canada from 01:50 UTC to 02:00 UTC, 05:35 UTC to 06:20 UTC, 09:25 UTC to 09:35 UTC, and from 14:40 UTC to 21:45 UTC. The elevated GIVE values also resulted in moderate degradation of LPV service coverage in Canada from 15:15 UTC to 19:20 UTC, and from 20:55 UTC to 22:00 UTC. Please see plot(s): Cov vs Time Canada 11/29/25 LPV_11/29/25 LPV200_11/29/25
11/30/2025	11/30/2025	Washington D.C. (CnV), Los Angeles (CnV), Atlanta (CnV)	LPV200_Canada	Geomagnetic activity (KP = 4) disturbed the ionosphere causing elevated GIVE values. This resulted in moderate degradation of LPV200 service coverage in Canada from 01:30 UTC to 02:00 UTC, 20:15 UTC to 20:30 UTC, and from 22:15 UTC to 22:25 UTC. Please see plot(s):

Start Date	End Date	Location	Service Affected	Description
				Cov vs Time Canada 11/30/25 LPV200 11/30/25
12/1/2025	12/1/2025	Washington D.C. (CnV), Los Angeles (CnV), Atlanta (CnV)	LPV200_Canada	Geomagnetic activity (KP = 4) disturbed the ionosphere causing elevated GIVE values. This resulted in moderate degradation of LPV200 service coverage in Canada from 00:45 UTC to 01:15 UTC, from 15:25 UTC to 15:40 UTC, 16:50 UTC to 16:55 UTC. 17:40 UTC to 18:00 UTC, 19:25 UTC to 19:40 UT Please see plot(s): Cov vs Time Canada 12/1/25 LPV200 12/1/25
12/2/2025	12/2/2025	Washington D.C. (CnV), Los Angeles (CnV), Atlanta (CnV)	LPV200_Canada	Geomagnetic activity (KP = 3) disturbed the ionosphere causing elevated GIVE values. This resulted in minor degradation of LPV200 service coverage in Canada from 01:40 UTC to 01:50 UTC, and from 18:45 UTC to 19:10 UTC. Please see plot(s): LPV200 12/2/25 Cov vs Time Canada 12/2/25
12/3/2025	12/3/2025	Washington D.C. (CnV), Los Angeles (CnV), Atlanta (CnV)	LPV_CONUS, LPV_Alaska, LPV_Canada, LPV200_CONUS, LPV200_Alaska, LPV200_Canada	Geomagnetic activity (KP = 6.67) caused by a G3 geomagnetic storm disturbed the ionosphere causing elevated GIVE values. This resulted in significant degradation of: (1) LPV service coverage on CONUS from 20:20 UTC to 23:05 UTC; (2) LPV service coverage in Canada from 15:35 UTC on 12/3 to 00:35 UTC on 12/4; (3) LPV200 service coverage in CONUS from 16:45 UTC to 17:05 UTC, 18:20 UTC to 18:45 UTC, and from 20:15 UTC to 23:40 UTC; (4) LPV200 service coverage in Canada from 14:10 UTC on 12/3 to 01:45 UTC

Start Date	End Date	Location	Service Affected	Description
				on 12/4. The elevated GIVE values also caused moderate degradation of: (1) LPV service coverage in Alaska from 23:25 UTC on 12/3 to 00:35 UTC on 12/4; (2) LPV200 service coverage in Alaska from 22:50 UTC to 00:35 UTC on 12/4. Please see plot(s): LPV_12/3/25 Cov_vs_Time_Canada_12/3/25 Cov_vs_Time_Alaska_12/3/25 Cov_vs_Time_Conus_12/3/25 LPV200_12/3/25
12/4/2025	12/5/2025	Washington D.C. (CnV), Los Angeles (CnV), Atlanta (CnV)	LPV_Canada, LPV200_CONUS, LPV200_Canada	Geomagnetic activity (KP = 5) caused by an G3 geomagnetic storm disturbed the ionosphere causing elevated GIVE values. This resulted in significant degradation of: (1) LPV service coverage in Canada from 11:55 UTC to 12:10 UTC, 13:55 UTC to 14:25 UTC, 16:45 UTC to 22:50 UTC and from 23:40 UTC to 00:05 UTC on 12/05; (2) LPV200 service coverage in Canada from 05:55 UTC to 06:05 UTC, from 09:05 UTC to 09:20 UTC, from 11:25 UTC to 11:35 UTC, from 13:30 UTC to 14:40 UTC, from 15:20 UTC to 15:30 UTC, from 16:10 UTC to 22:55 UTC and from 23:35 UTC to 23:45 UTC. This also resulted in moderate degradation of LPV200 service coverage in CONUS from 04:30 UTC to 05:05 UTC and from 10:20 UTC to 10:25 UTC. Please see plot(s): Cov_vs_Time_Canada_12/4/25 LPV_12/5/25 LPV_12/4/25 Cov_vs_Time_Conus_12/5/25

Start Date	End Date	Location	Service Affected	Description
				LPV200_12/4/25 LPV200_12/5/25 Cov_vs_Time_Canada_12/5/25 Cov_vs_Time_Conus_12/4/25
12/5/2025	12/5/2025	Washington D.C. (CnV), Los Angeles (CnV), Atlanta (CnV)	LPV_Canada, LPV200_Canada	Geomagnetic activity (KP = 3.33) disturbed the ionosphere causing elevated GIVE values. This resulted in significant degradation of LPV200 service coverage in Canada from 18:45 UTC to 23:00 UTC. The elevated GIVE values also resulted in moderate degradation of LPV service coverage in Canada from 18:50 UTC to 22:25 UTC. Please see plot(s): LPV_12/5/25 LPV200_12/5/25 Cov_vs_Time_Canada_12/5/25
12/5/2025	12/5/2025	Washington D.C. (CnV), Los Angeles (CnV), Atlanta (CnV)	LPV_Canada, LPV200_Canada	Geomagnetic activity (KP = 3.33) disturbed the ionosphere causing elevated GIVE values. This resulted in significant degradation of LPV200 service coverage in Canada from 18:45 UTC to 22:40 UTC. The elevated GIVE values also resulted in moderate degradation of LPV service coverage in Canada from 18:50 UTC to 21:25 UTC. Please see plot(s): LPV_12/5/25 LPV200_12/5/25 Cov_vs_Time_Canada_12/5/25
12/6/2025	12/6/2025	Washington D.C. (CnV), Los Angeles (CnV), Atlanta (CnV)	LPV_Canada, LPV200_Canada	Geomagnetic activity (KP = 3.67) disturbed the ionosphere causing elevated GIVE values. This resulted in moderate degradation of: (1) LPV service coverage in Canada from 02:00 UTC to 02:05 UTC, 16:35 UTC to 16:40 UTC, 18:05 UTC to 21:50 UTC, and from 23:35 UTC to 23:40 UTC; and (2) LPV200 service coverage in Canada from 01:35 UTC to 01:40 UTC, 05:45

Start Date	End Date	Location	Service Affected	Description
				UTC to 09:05 UTC, 11:10 UTC to 11:15 UTC, 15:05 UTC to 15:15 UTC, and from 16:20 UTC to 22:55 UTC. Please see plot(s): Cov vs Time Canada 12/6/25 LPV200 12/6/25 LPV 12/6/25
12/9/2025	12/9/2025	Washington D.C. (CnV), Los Angeles (CnV), Atlanta (CnV)	LPV_Canada, LPV200_Canada	Geomagnetic activity (KP = 2.33) disturbed the ionosphere causing elevated GIVE values. This resulted in significant degradation of: (1) LPV service coverage in Canada from 18:00 UTC to 19:15 UTC; and (2) LPV200 service coverage in Canada from 16:30 UTC to 21:20 UTC. Please see plot(s): LPV 12/9/25 LPV200 12/9/25 Cov vs Time Canada 12/9/25
12/11/2025	12/11/2025	Washington D.C. (CnV), Los Angeles (CnV), Atlanta (CnV)	LPV_CONUS, LPV_Canada, LPV200_CONUS, LPV200_Alaska, LPV200_Canada	Geomagnetic activity (KP = 5.67) caused by an IGP storm disturbed the ionosphere causing elevated GIVE values. This resulted in significant degradation of: (1) LPV service coverage in CONUS from 02:10 UTC to 02:30 UTC and from 04:30 UTC to 05:05 UTC; (2) LPV200 service coverage in CONUS from 04:20 UTC to 05:05 UTC; (3) LPV200 service coverage in Canada from 03:00 UTC to 03:15 UTC, from 03:35 UTC to 03:55 UTC, from 04:15 UTC to 05:05 UTC, from 05:25 UTC to 05:45 UTC, from 06:40 UTC to 07:10 UTC, from 08:40 UTC to 08:45 UTC, 16:20 UTC to 16:30 UTC, from 18:10 UTC to 21:20 UTC and from 22:45 UTC to 22:50 UTC. This also resulted in moderate degradation of: (1) LPV service coverage in Canada from 03:35

Start Date	End Date	Location	Service Affected	Description
				UTC to 03:55 UTC, from 04:30 UTC to 04:40 UTC, from 18:10 UTC to 20:10 UTC, from 20:35 UTC to 21:15 UTC and from 23:15 UTC to 23:25 UTC; (2) LPV200 service coverage in Alaska from 03:05 UTC to 04:00 UTC. Please see plot(s): Cov_vs_Time_Alaska_12/11/25 LPV_12/11/25 Cov_vs_Time_Canada_12/11/25 LPV200_12/11/25 Cov_vs_Time_Conus_12/11/25
12/11/2025	12/17/2025	PRN27	None	There was a GPS NANU on PRN 27 (see NANU 2025088) which was unusable from 10:41 UTC on 12/11 to 20:41 on 12/17. After the conclusion of the NANU and PRN 27 was set healthy, WAAS continued to alert on PRN 27 from 21:01 on Dec 17 2025 until 18:19 UTC on December 18 2025. This was due to tracking issues for PRN27 from the WRS'. The tracking issues were seen on various networks of receivers.
12/12/2025	12/12/2025	Washington D.C. (CnV), Los Angeles (CnV), Atlanta (CnV)	LPV_CONUS, LPV_Canada, LPV200_CONUS, LPV200_Canada	Geomagnetic activity (KP = 5) due to an IGP storm disturbed the ionosphere causing elevated GIVE values. This resulted in significant degradation of: (1) LPV service coverage in CONUS from 19:10 UTC on 12/12 to 00:05 UTC on 12/13; (2) LPV service coverage in Canada from 17:10 UTC on 12/12 to 00:10 UTC on 12/13; (3) LPV200 service coverage in CONUS from 19:00 UTC on 12/12 to 00:05 UTC on 12/13; and (4) LPV200 service coverage in

Start Date	End Date	Location	Service Affected	Description
				Canada from 19:00 UTC on 12/12 to 00:10 UTC on 12/13. Please see plot(s): Cov_vs_Time_Conus_12/12/25 Cov_vs_Time_Canada_12/12/25 LPV200_12/12/25 LPV_12/12/25
12/13/2025	12/13/2025	Washington D.C. (CnV), Los Angeles (CnV), Atlanta (CnV)	LPV_Canada	Geomagnetic activity (KP = 4.67) disturbed the ionosphere causing elevated GIVE values. This resulted in moderate degradation of: (1) LPV service coverage in Canada from 01:35 UTC to 01:40 UTC, 08:05 UTC to 09:10 UTC, and from 17:15 UTC to 22:30 UTC; and (2) LPV200 service coverage in Canada from 03:40 UTC to 03:45 UTC, 05:20 UTC to 05:25 UTC, 07:10 UTC to 11:00 UTC, 18:25 UTC to 22:30 UTC, and from 23:40 UTC to 23:50 UTC. Please see plot(s): LPV_12/13/25 Cov_vs_Time_Canada_12/13/25
12/14/2025	12/16/2025	PRN1	LPV200_CONUS, LPV200_Canada	There was a GPS NANU on PRN 1 (see NANU 2025086) which was unusable from 18:40 on 12/14 to 01:49 on 12/16. The NANU caused moderate degradation of LPV200 service coverage in Canada from 00:30 UTC to 01:00 UTC, 20:50 UTC to 22:15 UTC, and from 22:40 UTC to 22:55 UTC. The NANU also caused minor degradation of LPV200 service coverage in CONUS (CA, TX) from 09:35 UTC to 10:00 UTC. Please see plot(s): Cov_vs_Time_Conus_12/15/25 LPV200_12/15/25 Cov_vs_Time_Conus_12/14/25

Start Date	End Date	Location	Service Affected	Description
				Cov_vs_Time_Canada_12/14/25 LPV200_12/14/25 Cov_vs_Time_Canada_12/15/25
12/15/2025	12/15/2025	Washington D.C. (CnV), Los Angeles (CnV), Atlanta (CnV)	LPV_Canada, LPV200_CONUS, LPV200_Alaska, LPV200_Canada	Geomagnetic activity (KP = 3) disturbed the ionosphere causing elevated GIVE values. This resulted in moderate degradation of: (1) LPV service coverage in Canada from 00:35 UTC to 00:55 UTC, from 08:10 UTC to 08:35 UTC, from 08:45 UTC to 09:10 UTC, from 11:25 UTC to 11:50 UTC, from 12:35 UTC to 12:45 UTC, from 13:10 UTC to 13:20 UTC, from 16:55 UTC to 17:15 UTC, from 19:20 UTC to 19:40 UTC, from 20:50 UTC to 21:15 UTC and from 22:10 UTC to 23:20 UTC; (2) LPV200 service coverage in Canada from 00:45 UTC to 00:55 UTC, from 07:05 UTC to 07:15 UTC, from 07:50 UTC to 08:20 UTC, 08:45 UTC to 09:10 UTC, from 12:35 UTC to 13:10 UTC, from 14:00 UTC to 14:10 UTC, from 14:35 UTC to 14:40 UTC, from 15:55 UTC to 16:15 UTC, from 16:55 UTC to 17:10 UTC, from 20:45 UTC to 21:20 UTC and from 22:50 UTC to 23:05 UTC. This also resulted in minor degradation of: (1) LPV200 service coverage in CONUS from 09:30 UTC to 10:00 UTC and from 11:50 UTC to 12:10 UTC; (2) LPV200 service coverage in Alaska from 06:25 UTC to 06:40 UTC, from 10:35 UTC to 10:50 UTC and from 12:30 UTC to 13:20 UTC. Please see plot(s): Cov_vs_Time_Conus_12/15/25 LPV200_12/15/25 Cov_vs_Time_Alaska_12/15/25

Start Date	End Date	Location	Service Affected	Description
				LPV_12/15/25 Cov_vs_Time_Canada_12/15/25
12/16/2025	12/16/2025	Washington D.C. (CnV), Los Angeles (CnV), Atlanta (CnV)	LPV_Canada, LPV200_Canada	Geomagnetic activity (KP = 3.33) disturbed the ionosphere causing elevated GIVE values. This resulted in moderate degradation of: (1) LPV service coverage in Canada from 00:30 UTC to 02:05 UTC, and from 18:10 UTC to 19:30 UTC; and (2) LPV200 service coverage in Canada from 00:30 UTC to 01:05 UTC, and from 18:00 UTC to 21:15 UTC. Please see plot(s): LPV200_12/16/25 LPV_12/16/25 Cov_vs_Time_Canada_12/16/25
12/17/2025	12/17/2025	Washington D.C. (CnV), Los Angeles (CnV), Atlanta (CnV)	LPV200_CONUS, LPV200_Canada	Geomagnetic activity (KP = 4.67) disturbed the ionosphere causing elevated GIVE values. This resulted in moderate degradation of LPV200 service coverage in Canada from 21:00 UTC to 21:55 UTC. The elevated GIVE values also caused minor degradation of LPV200 service coverage in CONUS (CA, TX) from 03:35 UTC to 04:10 UTC and from 09:25 UTC to 09:50 UTC. Please see plot(s): LPV200_12/17/25 Cov_vs_Time_Canada_12/17/25 Cov_vs_Time_Conus_12/17/25
12/18/2025	12/18/2025	Washington D.C. (CnV), Los Angeles (CnV), Atlanta (CnV)	LPV200_CONUS, LPV200_Canada	Geomagnetic activity (KP = 4.33) disturbed the ionosphere causing elevated GIVE values. This resulted in minor degradation of: (1) LPV200 service coverage in CONUS from 04:00 UTC to 04:05 UTC, from 09:20 UTC to 09:25 UTC and from 18:10 UTC to

Start Date	End Date	Location	Service Affected	Description
				18:25 UTC; (2) LPV200 service coverage in Canada from 00:00 UTC to 00:15 UTC, from 00:30 UTC to 01:20 UTC, from 10:10 UTC to 10:20 UTC and from 19:05 UTC to 19:25 UTC. Please see plot(s): Cov vs Time Conus 12/18/25 Cov vs Time Canada 12/18/25 LPV200 12/18/25
12/19/2025	12/19/2025	Washington D.C. (CnV), Los Angeles (CnV), Atlanta (CnV)	LPV200_Alaska	Geomagnetic activity (KP = 2.33) disturbed the ionosphere causing elevated GIVE values. This resulted in minor degradation of LPV200 service coverage in Alaska from 00:30 UTC to 01:15 UTC and from 03:20 UTC to 04:15 UTC. Please see plot(s): LPV200 12/19/25 Cov vs Time Alaska 12/19/25
12/21/2025	12/21/2025	Washington D.C. (CnV), Los Angeles (CnV), Atlanta (CnV)	LPV_Canada, LPV200_Canada	Geomagnetic activity (KP = 5) disturbed the ionosphere causing elevated GIVE values. This resulted in significant degradation of LPV200 service coverage in Canada from 15:10 UTC to 19:05 UTC, 20:25 UTC to 20:40 UTC, 20:50 UTC to 21:45 UTC, 22:30 UTC to 23:00 UTC, and from 23:45 UTC to 23:55 UTC. The elevated GIVE values also caused moderate degradation of LPV service coverage in Canada from 16:05 UTC to 17:20 UTC. Please see plot(s): LPV 12/21/25 LPV200 12/21/25 Cov vs Time Canada 12/21/25
12/22/2025	12/22/2025	Washington D.C. (CnV), Los	LPV200_Canada	Geomagnetic activity (KP = 5) disturbed the ionosphere causing elevated GIVE values. This resulted in moderate

Start Date	End Date	Location	Service Affected	Description
		Angeles (CnV), Atlanta (CnV)		degradation of LPV200 service coverage in Canada from 00:55 UTC to 01:05 UTC, from 02:55 UTC to 03:05 UTC, from 04:05 UTC to 04:10 UTC, from 04:40 UTC to 04:50 UTC, from 10:10 UTC to 10:20 UTC, from 13:50 UTC to 14:15 UTC, from 16:15 UTC to 16:35 UTC, from 18:35 UTC to 19:25 UTC, from 20:30 UTC to 20:40 UTC and from 21:40 UTC to 22:05 UTC. Please see plot(s): LPV200_12/22/25 Cov_vs_Time_Canada_12/22/25
12/23/2025	12/23/2025	Washington D.C. (CnV), Los Angeles (CnV), Atlanta (CnV)	LPV200_Canada	Geomagnetic activity (KP = 4) disturbed the ionosphere causing elevated GIVE values. This resulted in moderate degradation of LPV200 service coverage in Canada from 17:45 UTC to 23:05 UTC. Please see plot(s): LPV200_12/23/25 Cov_vs_Time_Canada_12/23/25
12/24/2025	12/24/2025	Washington D.C. (CnV), Los Angeles (CnV), Atlanta (CnV)	LPV200_Canada	Geomagnetic activity (KP = 4.33) disturbed the ionosphere causing elevated GIVE values. This resulted in minor degradation of LPV200 service coverage in Canada from 18:40 UTC to 18:55 UTC and from 23:45 UTC to the end of the day. Please see plot(s): LPV200_12/24/25 Cov_vs_Time_Canada_12/24/25
12/26/2025	12/26/2025	Washington D.C. (CnV), Los Angeles (CnV), Atlanta (CnV)	LPV200_Canada	Geomagnetic activity (KP = 3.33) disturbed the ionosphere causing elevated GIVE values. This resulted in moderate degradation of LPV200 service coverage in Canada from 15:05 UTC to

Start Date	End Date	Location	Service Affected	Description
				16:15 UTC, and from 18:40 UTC to 19:15 UTC. Please see plot(s): LPV200_12/26/25 Cov_vs_Time_Canada_12/26/25
12/27/2025	12/28/2025	Washington D.C. (CnV), Los Angeles (CnV), Atlanta (CnV)	LPV200_Canada	Geomagnetic activity (KP = 1.33) disturbed the ionosphere causing elevated GIVE values. This resulted in moderate degradation of LPV200 service coverage in Canada from 04:15 UTC to 04:25 UTC, 09:35 UTC to 09:45 UTC, and from 18:00 UTC on 12/27 to 00:40 UTC on 12/28. Please see plot(s): LPV200_12/28/25 Cov_vs_Time_Canada_12/28/25 Cov_vs_Time_Canada_12/27/25 LPV200_12/27/25
12/28/2025	12/28/2025	Washington D.C. (CnV), Los Angeles (CnV), Atlanta (CnV)	LPV_Canada, LPV200_Canada	Geomagnetic activity (KP = 3) disturbed the ionosphere causing elevated GIVE values. This resulted in moderate degradation of: (1) LPV service coverage in Canada from 20:35 UTC to 20:45 UTC; (2) LPV200 service coverage in Canada from 19:40 UTC to 21:05 UTC. Please see plot(s): LPV_12/28/25 Cov_vs_Time_Canada_12/28/25 LPV200_12/28/25
12/30/2025	12/30/2025	Washington D.C. (CnV), Los Angeles (CnV), Atlanta (CnV)	LPV_Canada, LPV200_Canada	Geomagnetic activity (KP = 3) disturbed the ionosphere causing elevated GIVE values. This resulted in significant degradation of LPV200 service coverage in Canada from 15:45 UTC to 14:45 UTC, and from 17:45 UTC to 20:50 UTC. The elevated GIVE values also resulted in moderate degradation of LPV

Start Date	End Date	Location	Service Affected	Description
				service coverage in Canada from 17:00 UTC to 17:35 UTC, and from 19:15 UTC to 20:05 UTC. Please see plot(s): LPV200_12/30/25 Cov_vs_Time_Canada_12/30/25 LPV_12/30/25
12/31/2025	12/31/2025	Washington D.C. (CnV), Los Angeles (CnV), Atlanta (CnV)	LPV_Canada, LPV200_Canada	Geomagnetic activity (KP = 3) disturbed the ionosphere causing elevated GIVE values. This resulted in moderate degradation of: (1) LPV service coverage in Canada from 20:30 UTC to 21:00 UTC; (2) LPV200 service coverage in Canada from 20:00 UTC to 20:20 UTC, 20:30 UTC to 21:40 UTC, and from 23:20 UTC to 23:45 UTC. Please see plot(s): LPV_12/31/25 LPV200_12/31/25 Cov_vs_Time_Canada_12/31/25

Table 1-6 WAAS Upgrades

Start Date	End Date	Location/ Satellite	Event Description
N/A	N/A	N/A	N/A

Table 1-7 GUS Switchovers

Start Date	End Date	GUS Switch	Location/ Satellite	Service Affected	Event Description
10/14/2025	10/14/2025	Faulted	GEO131, Santa Paula (SZ1)	None	The uplink for the SM9 GEO, PRN131 switched from the Santa Paula uplink site to the Southbury uplink site at 11:58:22 UTC. This caused a 15-second outage of the GEO 131 broadcast and also caused the WAAS carrier smoothing algorithm to reinitialize for PRN131. There was no impact on coverage. TOW 215920-215936

Start Date	End Date	GUS Switch	Location/ Satellite	Service Affected	Event Description
10/14/2025	10/14/2025	Faulted	GEO133, South Mountain (CM1)	None	The uplink for the S15 GEO, PRN133 switched from the South Mountain uplink site to the Brewster uplink site at 07:26:55 UTC. This caused an 11-second outage of the GEO 133 broadcast and also caused the WAAS carrier smoothing algorithm to reinitialize for PRN133. There was no impact on coverage. TOW 199633-199645
10/14/2025	10/14/2025	Manual	GEO133, Brewster (BR1)	None	The uplink for the S15 GEO, PRN133 switched from the Brewster uplink site to the South Mountain uplink site at 07:26:54 UTC. This caused a 3-second outage of the GEO 133 broadcast and also caused the WAAS carrier smoothing algorithm to reinitialize for PRN133. There was no impact on coverage. TOW 199628-199632
10/15/2025	10/15/2025	Manual	GEO133, Brewster (BR1)	None	The uplink for the S15 GEO, PRN133 switched from the Brewster uplink site to the South Mountain uplink site at 09:40:03 UTC. This caused a 3-second outage of the GEO 133 broadcast and also caused the WAAS carrier smoothing algorithm to reinitialize for PRN133. There was no impact on coverage. TOW 276509-276513
12/03/2025	12/03/2025	Manual	GEO133, South Mountain (CM1)	None	The uplink for the S15 GEO, PRN133 switched from the South Mountain uplink site to the Brewster uplink site at 07:33:22 UTC. This caused a 3-second outage of the GEO 133 broadcast and also caused the WAAS carrier smoothing algorithm to reinitialize for PRN133. There was no impact on coverage. TOW 286420-286424
12/04/2025	12/04/2025	Faulted	GEO133, Brewster (BR1)	None	The uplink for the S15 GEO, PRN133 switched from the South Mountain uplink site to the Brewster uplink site at 03:04:15 UTC. This caused a 16-second outage of the GEO 133 broadcast and also caused the WAAS carrier smoothing algorithm to reinitialize for PRN133. There was no impact on coverage. TOW 356673-356690
12/04/2025	12/04/2025	Manual	GEO135, Napa (AP1)	None	The uplink for the G30 GEO, PRN135 switched from the Napa uplink site to the Brewster uplink site at 07:10:05 UTC. This caused a 3-second outage of the GEO 135 broadcast and also caused the WAAS carrier smoothing algorithm to reinitialize for PRN135. There was no impact on coverage. TOW 371423-371427
12/04/2025	12/04/2025	Manual	GEO133, South Mountain (CM1)	None	The uplink for the S15 GEO, PRN133 switched from the South Mountain uplink site to the Brewster uplink site at 09:03:41 UTC. This caused a 3-second outage of the GEO 133 broadcast and also caused the WAAS carrier smoothing algorithm to reinitialize for PRN133. There was no impact on coverage. TOW 378239-378243

Start Date	End Date	GUS Switch	Location/ Satellite	Service Affected	Event Description
12/11/2025	12/11/2025	Missed Navigation Message	GEO133, Brewster (BR1), Los Angeles (C&V)	None	Brewster had a C&V Source Select from Los Angeles to Atlanta. TOW 346537-346539
12/16/2025	12/16/2025	Manual	GEO133, Brewster (BR1)	None	The uplink for the S15 GEO, PRN133 switched from the Brewster uplink site to the South Mountain uplink site at 07:00:37 UTC. This caused a 4-second outage of the GEO 133 broadcast and also caused the WAAS carrier smoothing algorithm to reinitialize for PRN133. There was no impact on coverage. TOW 198055-198060
12/16/2025	12/16/2025	Manual	GEO131, Southbury (DX1)	None	The uplink for the SM9 GEO, PRN131 switched from the Southbury uplink site to the Santa Paula uplink site at 11:43:59 UTC. This caused a 3-second outage of the GEO 131 broadcast and also caused the WAAS carrier smoothing algorithm to reinitialize for PRN131. There was no impact on coverage. TOW 215057-215061
12/30/2025	12/30/2025	Faulted	GEO135, Brewster (BR2)	None	The uplink for the G30 GEO, PRN135 switched from the Brewster uplink site to the Napa uplink site at 13:25:47 UTC. This caused an 18-second outage of the GEO 135 broadcast and also caused the WAAS carrier smoothing algorithm to reinitialize for PRN135. There was no impact on coverage. TOW 221165-221184

1.2 Report Overview

Section 2.0 provides the observed Localizer Performance with Vertical Guidance (LPV) and NPA performance for the evaluated receiver locations (see PA Evaluation Sites and NPA Evaluation Site). This section also shows tabulated data for the 95% accuracy and the maximum inaccuracy. In addition, the daily 95% accuracy for each receiver and the histograms of vertical and horizontal error are shown.

Section 3.0 provides the summary of the WAAS instantaneous availability performance at each receiver for three operational service levels. In addition, the daily availability, number of outages, and outage rate for each evaluated receiver are also reported.

Section 4.0 provides geographic plots of the WAAS service availability. Also shown in this section are plots of the percentage of the Continental United States (CONUS) and Alaska service areas covered by various levels of service availability.

Section 5.0 provides the summary of the Hazardous Misleading Information (HMI) analysis as well as a safety margin index for each receiver. This section also shows update rates of WAAS messages transmitted from SM9, S15, and G30.

Section 6.0 provides the UDRE and GIVE bounding percentages and the 95% index of the range and ionospheric accuracy for each satellite tracked by the WAAS receiver at 12 locations.

Section 7.0 provides the GEO ranging performance for SM9, S15, and G30.

Section 8.0 provides the WAAS LPV availability and outages at selected airports.

Section 9.0 provides the assessment of WAAS CNMP bounding for 114 WAAS receivers.

Section 10.0 provides surveyed positions of all Wide-Area Reference Equipment (WRE) and the difference between the WRE survey positions and the survey positions using both the National Geodetic Survey (NGS) Online Positioning Use Server (OPUS) and the Canadian Spatial Reference System (CSRS) Precise Point Positioning (PPP) service.

Section 11.0 provides the daily and quarterly average of SQM PRN type biases and PRN biases.

2.0 WAAS POSITION ACCURACY

Navigation error data, collected from WAAS and NTSB reference stations, was processed to determine position accuracy at each location. This was accomplished by using the GPS/WAAS position solution tool to compute a RTCA DO-229F-weighted least squares user navigation solution and WAAS horizontal protection level (HPL) and vertical protection level (VPL) once every second. The user position calculated for each receiver was compared to the surveyed position of the antenna to assess position error associated with the WAAS signal in space (SIS) over time. The position errors were analyzed, and statistics were generated for the operational service levels shown in Table 1-1.

Table 2-1 shows PA horizontal and vertical position accuracy maintained for 95% of the time at LP, LPV and lateral navigation (LNAV)/vertical navigation (VNAV) operational service levels as well as 95% SPS accuracy for certain locations. Note that WAAS accuracy statistics presented are compiled only when all WAAS corrections (i.e., fast, long term, and ionospheric corrections) for at least four satellites are available; this is referred to as PA navigation mode. Asterisks denote that SPS accuracy is not computed for those receivers. Table 2-1 also shows the percentage of time PA navigation mode was supported by WAAS at each receiver. The maximum and minimum LPV errors for this reporting period are:

- The maximum 95% CONUS horizontal LPV error was 1.310 meters observed at Arcata.
- The maximum 95% CONUS vertical LPV error was 1.704 meters observed at Bangor.
- The minimum 95% CONUS horizontal LPV error was 0.587 meters observed at Memphis.
- The minimum 95% CONUS vertical LPV error was 0.840 meters observed at Salt Lake City.

Table 2-1 PA 95% Horizontal and Vertical Accuracy

Location	Horizontal (HAL=40m) (m)	Horizontal (HAL=556m) (m)	Vertical (VAL=50m) (m)	Percentage in PA Mode (%)	SPS Accuracy	
					95% Horizontal (m)	95% Vertical (m)
NSTB:						
Arcata	1.31	1.311	1.35	100	*	*
Atlantic City	1.101	1.101	1.677	100	*	*
Bangor	1.014	1.02	1.704	100	*	*
Elko	1.007	1.009	1.235	100	*	*
Grand Forks	1.192	1.202	1.581	100	*	*
Oklahoma City	0.859	0.859	1.358	100	*	*
WAAS:						
Albuquerque	0.753	0.753	1.01	100	2.23	7.4
Anchorage	0.779	0.784	1.403	100	2.54	9.43
Atlanta	0.877	0.877	1.26	100	2.05	6.87
Barrow	0.885	0.896	1.958	100	3.13	10.15
Bethel	0.715	0.721	1.352	100	2.39	10.09
Billings	0.781	0.783	1.014	100	2.3	7.06
Boston	0.8	0.8	1.131	100	2.26	6.96
Chicago	0.889	0.89	1.068	100	*	*
Cleveland	0.809	0.809	1.131	100	2.03	6.79
Cold Bay	0.788	0.794	1.27	100	2.25	9.6
Dallas	0.614	0.614	1.316	100	*	*
Denver	0.75	0.75	0.869	100	*	*
Fairbanks	0.795	0.8	1.58	100	2.85	9.49
Gander	0.988	1.01	1.323	99.999	2.44	6.88
Goose Bay	1.138	1.194	1.483	100	*	*
Houston	0.704	0.704	1.467	100	2.44	7.01

Location	Horizontal (HAL=40m) (m)	Horizontal (HAL=556m) (m)	Vertical (VAL=50m) (m)	Percentage in PA Mode (%)	SPS Accuracy	
					95% Horizontal (m)	95% Vertical (m)
Iqaluit	1.369	1.455	2.322	100	3.53	7.7
Jacksonville	0.72	0.72	1.455	100	*	*
Juneau	0.856	0.863	1.215	100	2.44	8.43
Kansas City	0.744	0.744	1.035	100	2.09	7.07
Kotzebue	0.749	0.755	1.592	100	2.95	10.26
Los Angeles	0.846	0.846	1.261	100	2.58	8.37
Memphis	0.587	0.587	1.138	100	*	*
Merida	1.001	1.009	2.015	100	4.43	7.09
Mexico City	1.258	1.283	1.875	100	*	*
Miami	0.976	0.978	1.691	100	2.69	6.52
Minneapolis	0.804	0.807	0.986	100	2.14	7.03
New York	0.835	0.835	1.181	100	*	*
Oakland	0.838	0.838	1.224	100	2.79	8.86
Puerto Vallarta	1.252	1.271	1.821	100	*	*
Salt Lake City	0.676	0.676	0.84	100	2.36	7.54
San Jose Del Cabo	1.046	1.053	1.965	100	5.16	7.46
Seattle	0.859	0.861	1.014	100	2.18	7.83
Washington, DC	0.801	0.801	1.09	100	2.14	6.96
Winnipeg	0.825	0.833	1.202	100	*	*

NPA navigation mode is when only WAAS fast and long-term corrections are available to a user (i.e., no ionospheric corrections). Table 2-2 shows the 95%, 99.999%, and maximum NPA horizontal position accuracy. The maximum and minimum NPA errors for this reporting period are as below:

- The maximum 95% horizontal error was 8.783 meters observed at Honolulu.
- The maximum 99.999% horizontal error was 34.561 meters observed at Honolulu.
- The minimum 95% horizontal error was 1.708 meters observed at Kansas City.
- The minimum 99.999% horizontal error was 4.276 meters observed at Albuquerque.

Table 2-2 NPA 95% and 99.999% Horizontal Accuracy

Location	95% Horizontal (m)	99.999% Horizontal (m)	Percentage in NPA Mode (%)	Maximum Horizontal Error (m)
Albuquerque	1.741	4.276	100	4.470
Anchorage	2.446	6.445	100	6.546
Atlanta	1.752	5.958	100	6.104
Barrow	2.979	6.172	100	6.291
Bethel	2.225	5.382	100	5.566
Billings	1.893	7.711	100	7.864
Boston	1.887	6.033	100	6.239
Cleveland	1.785	5.302	100	5.577
Cold Bay	1.935	4.808	100	4.960
Fairbanks	2.738	6.411	100	6.500
Gander	2.074	7.868	99.999	8.076
Honolulu	8.783	34.561	100	34.914
Houston	1.83	5.907	100	6.198
Iqaluit	3.531	7.620	100	7.724
Juneau	2.211	6.496	100	6.668
Kansas City	1.708	4.590	100	4.717
Kotzebue	2.755	7.807	100	8.012
Los Angeles	1.835	5.246	100	5.427
Merida	2.42	5.949	100	6.11
Miami	1.880	6.188	100	6.413
Minneapolis	1.939	7.124	100	7.468
Oakland	2.048	5.402	100	5.611
Salt Lake City	1.815	5.490	100	5.700
San Jose Del Cabo	2.815	10.736	100	11.100
San Juan	5.629	19.222	100	19.625
Seattle	1.753	6.991	100	7.284
Tapachula	5.403	21.553	99.996	21.737
Washington, DC	1.823	4.802	100	4.927

Table 2-3 shows the quarterly maximum LPV error statistics: (1) the Horizontal Error column shows the maximum position errors while the calculated HPL meets the LPV service level defined in Table 1-1, (2) the Vertical Error

column shows the maximum position errors while the calculated VPL meets the LPV service level, (3) the Horizontal Error/HPL column and the Vertical Error/VPL column show the ratio of position error to protection level at the time the maximum error occurred, (4) the Horizontal Maximum Ratio column and the Vertical Maximum Ratio column show the maximum position error to protection level ratio for the quarter. During this reporting period, the maximum LPV horizontal error was 5.631 meters occurred at Goose Bay, and maximum vertical LPV error was 11.130 meters occurred at Iqaluit.

The maximum vertical LPV error at Iqaluit occurred on December 3, 2025, during times of high ionospheric activity, which caused higher vertical delays and scintillation at the receiver and resulted in a high vertical error.

Table 2-3 Maximum LPV Error Statistics

Location	Horizontal Error (m)	Horizontal Error/HPL	Horizontal Maximum Ratio	Vertical Error (m)	Vertical Error/VPL	Vertical Maximum Ratio
NSTB:						
Arcata	2.791	0.171	0.217	4.787	0.098	0.174
Atlantic City	2.334	0.169	0.223	3.643	0.196	0.219
Bangor	4.278	0.139	0.203	7.082	0.159	0.228
Elko	2.555	0.151	0.216	3.155	0.103	0.183
Grand Forks	4.986	0.177	0.289	6.757	0.147	0.293
Oklahoma City	2.358	0.133	0.219	3.024	0.167	0.191
WAAS:						
Albuquerque	2.053	0.140	0.186	3.839	0.130	0.167
Anchorage	4.025	0.303	0.303	7.497	0.200	0.257
Atlanta	2.206	0.151	0.195	3.491	0.221	0.221
Barrow	3.910	0.166	0.196	9.507	0.235	0.310
Bethel	3.203	0.215	0.215	4.536	0.110	0.170
Billings	4.492	0.124	0.270	5.066	0.215	0.236
Boston	2.759	0.108	0.187	5.171	0.115	0.232
Chicago	4.461	0.168	0.256	5.466	0.321	0.321
Cleveland	4.396	0.208	0.212	5.292	0.150	0.239
Cold Bay	4.067	0.126	0.143	5.152	0.133	0.164
Dallas	2.104	0.139	0.171	3.838	0.174	0.189
Denver	2.106	0.211	0.211	3.592	0.123	0.160
Fairbanks	4.546	0.176	0.208	6.273	0.181	0.269
Gander	3.535	0.094	0.165	4.554	0.100	0.154
Goose Bay	5.631	0.172	0.241	6.728	0.147	0.186
Houston	1.975	0.142	0.171	3.780	0.112	0.220
Iqaluit	5.506	0.170	0.177	11.130	0.248	0.311
Jacksonville	2.418	0.178	0.216	3.273	0.209	0.209
Juneau	3.688	0.229	0.263	5.372	0.153	0.192
Kansas City	2.184	0.221	0.221	3.520	0.105	0.188
Kotzebue	2.975	0.208	0.210	8.290	0.268	0.285
Los Angeles	2.401	0.177	0.177	3.938	0.134	0.166

Location	Horizontal Error (m)	Horizontal Error/HPL	Horizontal Maximum Ratio	Vertical Error (m)	Vertical Error/VPL	Vertical Maximum Ratio
Memphis	1.743	0.166	0.178	3.757	0.146	0.184
Merida	5.547	0.162	0.259	6.813	0.141	0.184
Mexico City	4.867	0.325	0.325	4.504	0.131	0.140
Miami	3.174	0.223	0.223	3.769	0.121	0.188
Minneapolis	2.972	0.113	0.225	5.510	0.142	0.220
New York	2.763	0.188	0.200	5.974	0.145	0.204
Oakland	2.569	0.193	0.208	4.138	0.093	0.164
Puerto Vallarta	5.212	0.337	0.376	7.155	0.228	0.256
Salt Lake City	2.546	0.106	0.227	2.954	0.076	0.135
San Jose Del Cabo	5.058	0.162	0.226	5.955	0.120	0.195
Seattle	3.606	0.096	0.230	6.752	0.185	0.185
Washington, DC	3.046	0.282	0.283	3.996	0.089	0.170
Winnipeg	4.108	0.106	0.237	6.163	0.124	0.234

Figure 2-1 through Figure 2-3 show the daily LPV 95% horizontal accuracy at the PA evaluation sites, and Figure 2-4 through Figure 2-6 show the daily LPV 95% vertical accuracy. Noteworthy increases in the 95% PA position errors over multiple evaluation sites due to geomagnetic activity in Figure 2-1 through Figure 2-6 are listed below.

- 2025/10/02—Position errors in Mexico were elevated. The maximum 95% horizontal and vertical LPV errors were 3.021 meters and 2.659 meters at Puerto Vallarta. The Kp index was 6.7.
- 2025/10/18—Position errors in Alaska and Mexico were elevated. The maximum 95% horizontal and vertical LPV errors were 2.218 meters and 2.543 meters at Mexico City and Barrow, respectively. The Kp index was 6.0.
- 2025/11/12 to 2025/11/13—Position errors in CONUS, Alaska, Canada, and Mexico were elevated. The maximum 95% horizontal and vertical LPV errors were 2.227 meters and 4.246 meters at Grand Forks and Bangor respectively. The Kp index was 8.7 and 7.3, respectively.
- 2025/12/03 to 2025/12/04—Position errors in CONUS, Alaska, and Canada. The maximum 95% horizontal and vertical LPV errors were 1.991 meters and 5.076 meters at Bangor and Iqaluit, respectively. The Kp index was 6.7 and 5.0, respectively.
- 2025/12/11 to 2025/12/12—Position errors in CONUS, Alaska, and Canada were elevated. The maximum 95% horizontal and vertical LPV errors were 2.496 meters and 2.971 meters at Winnipeg and Chicago respectively. The Kp index was 6.3 and 5.0, respectively.

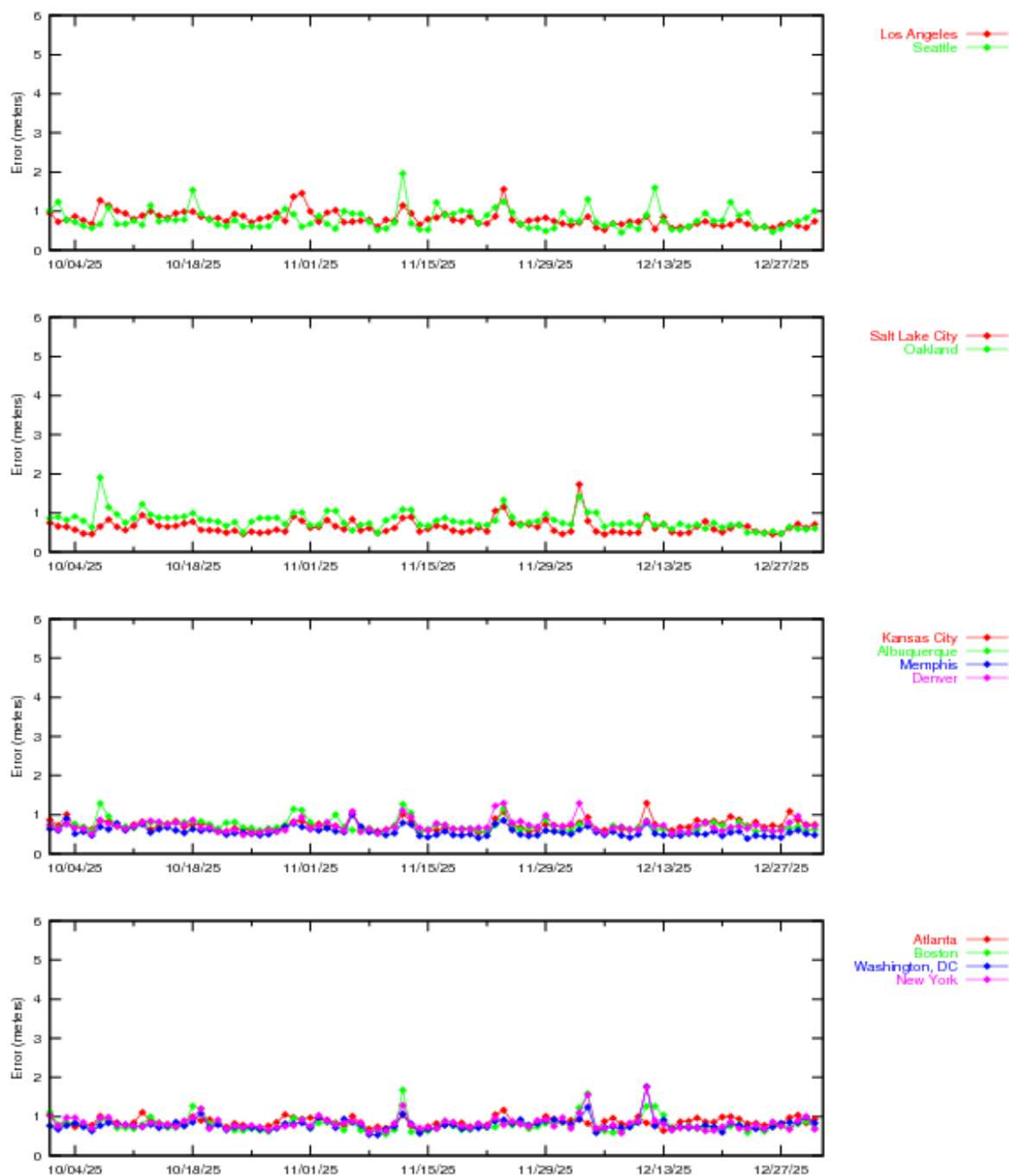


Figure 2-1 LPV 95% Horizontal Accuracy

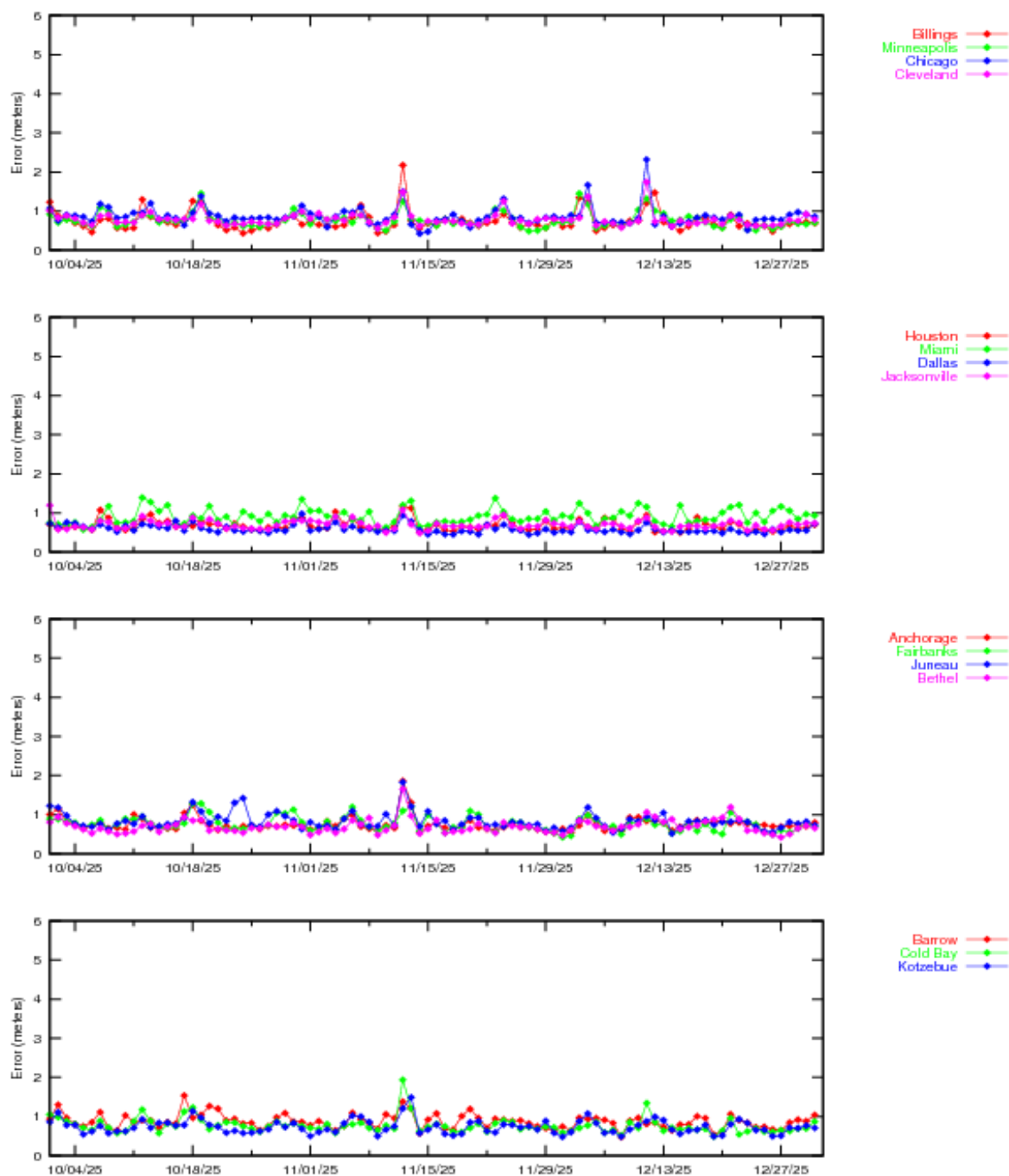


Figure 2-2 LPV 95% Horizontal Accuracy

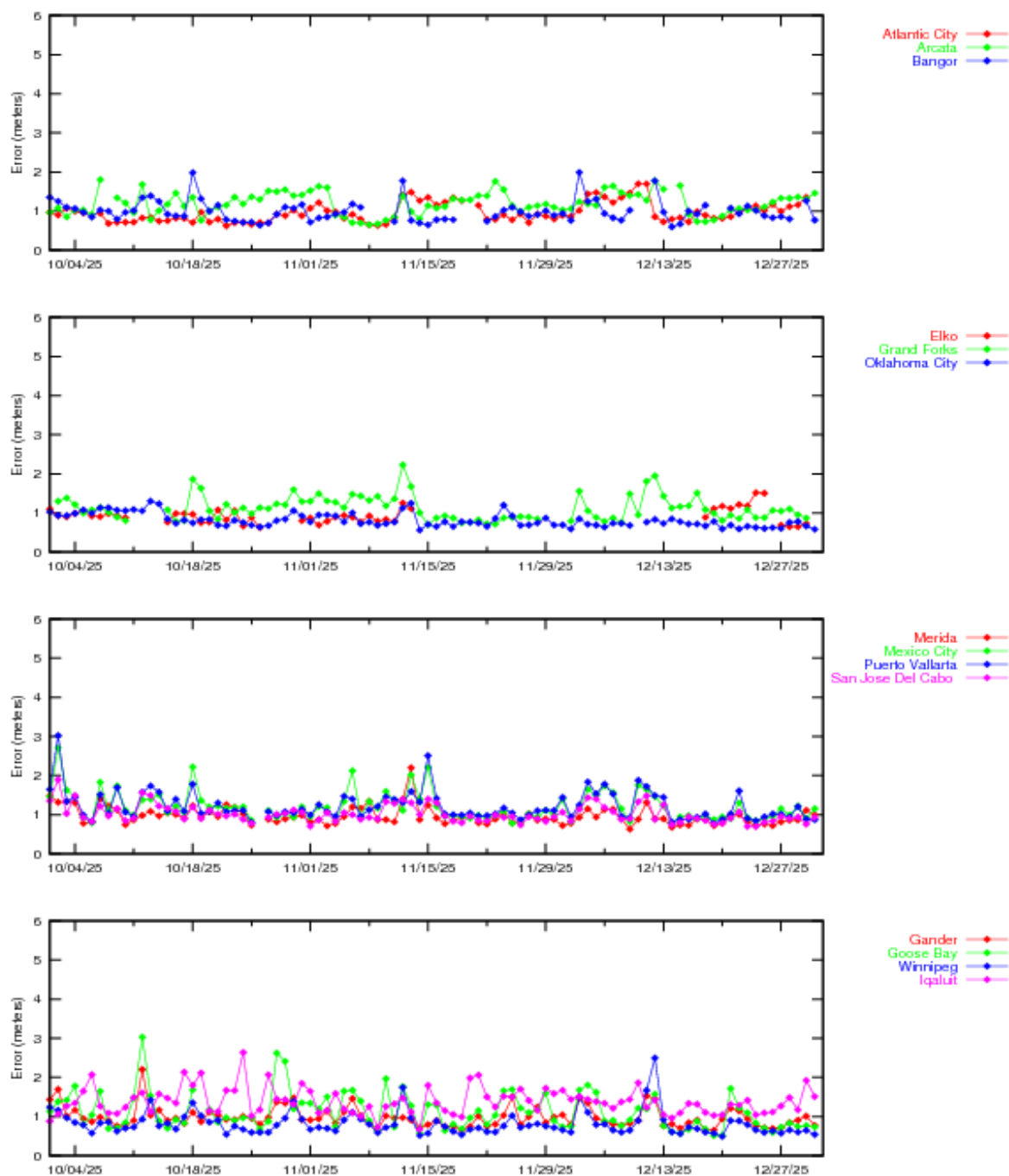


Figure 2-3 LPV 95% Horizontal Accuracy

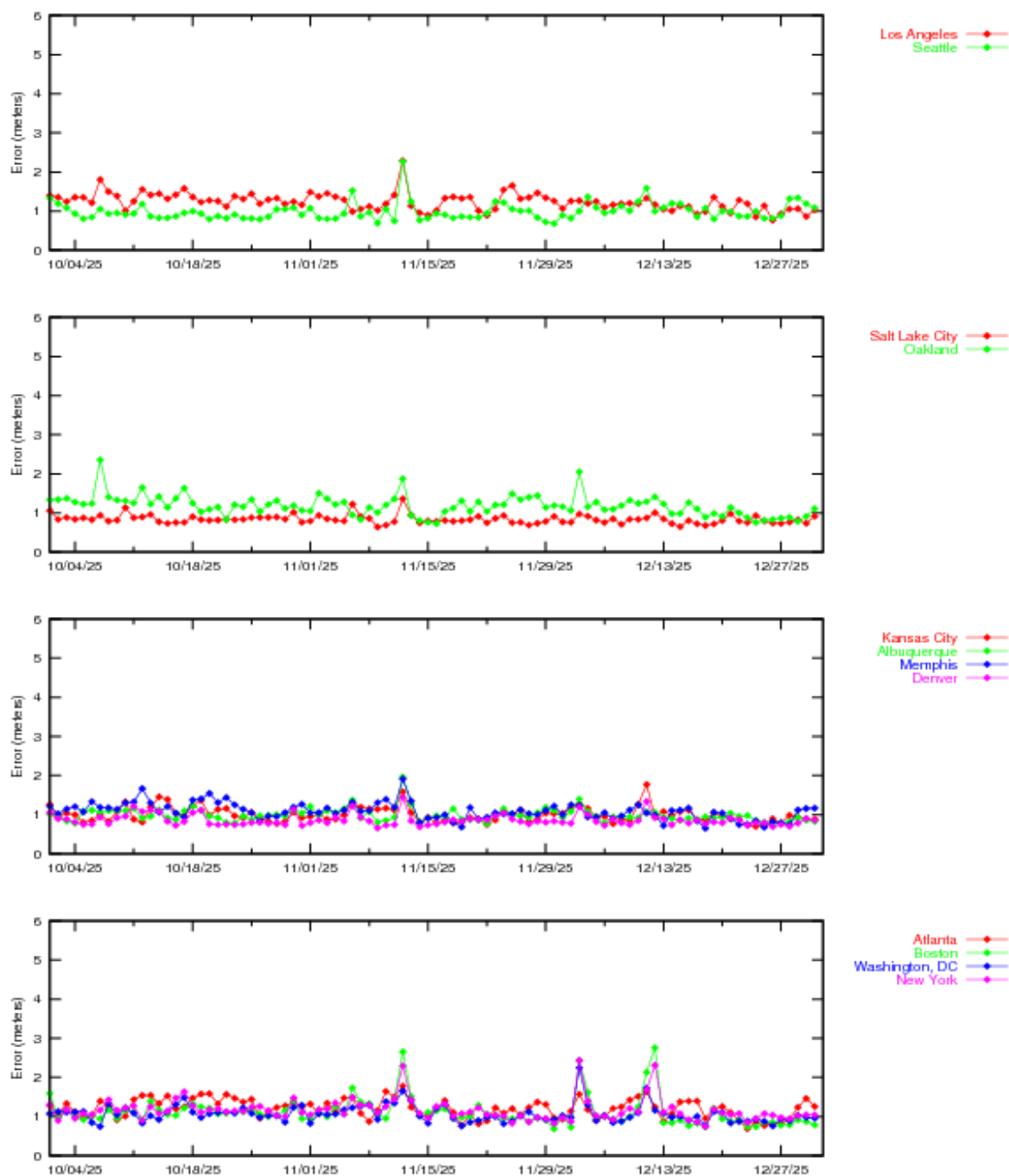


Figure 2-4 LPV 95% Vertical Accuracy

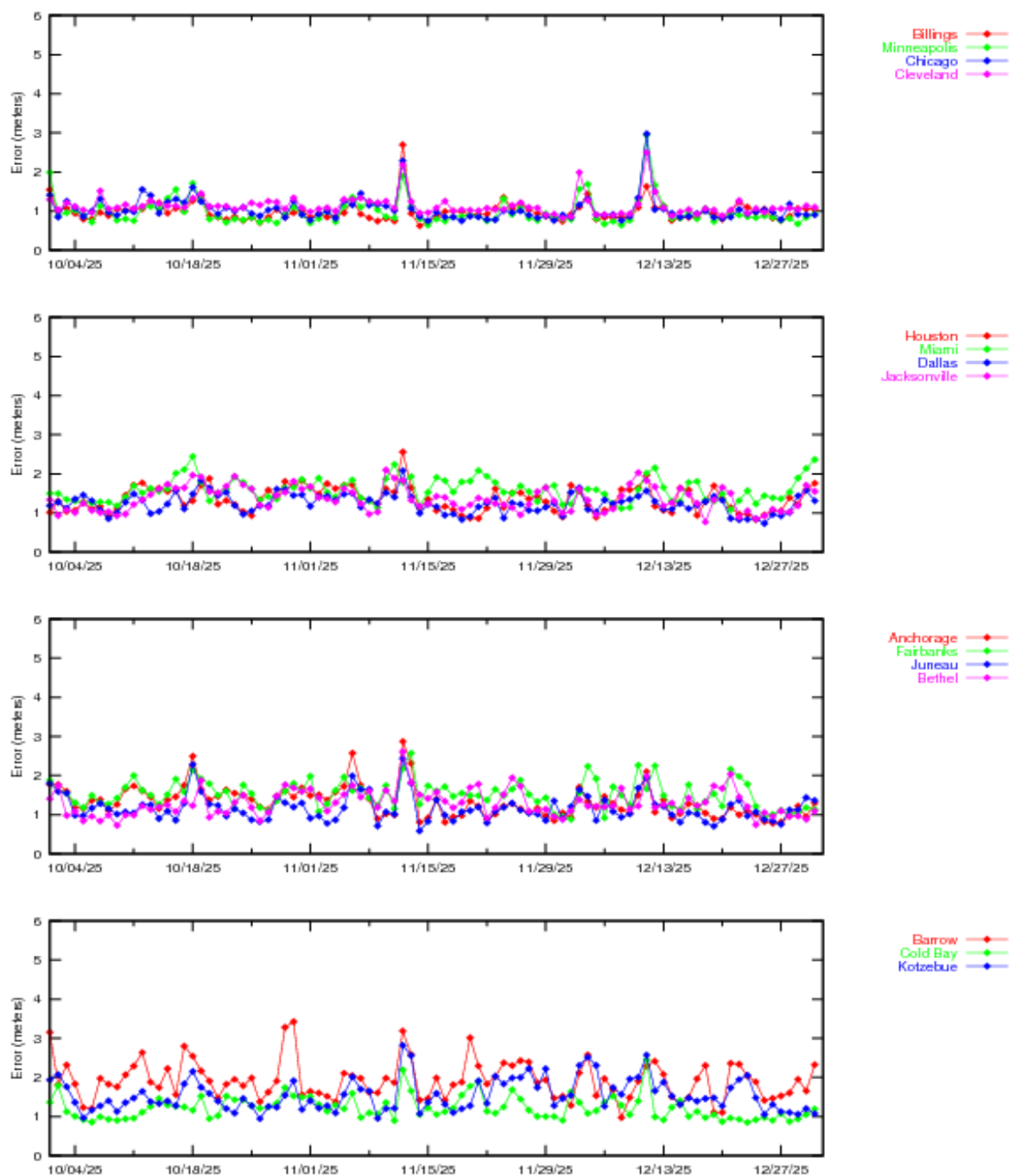


Figure 2-5 LPV 95% Vertical Accuracy

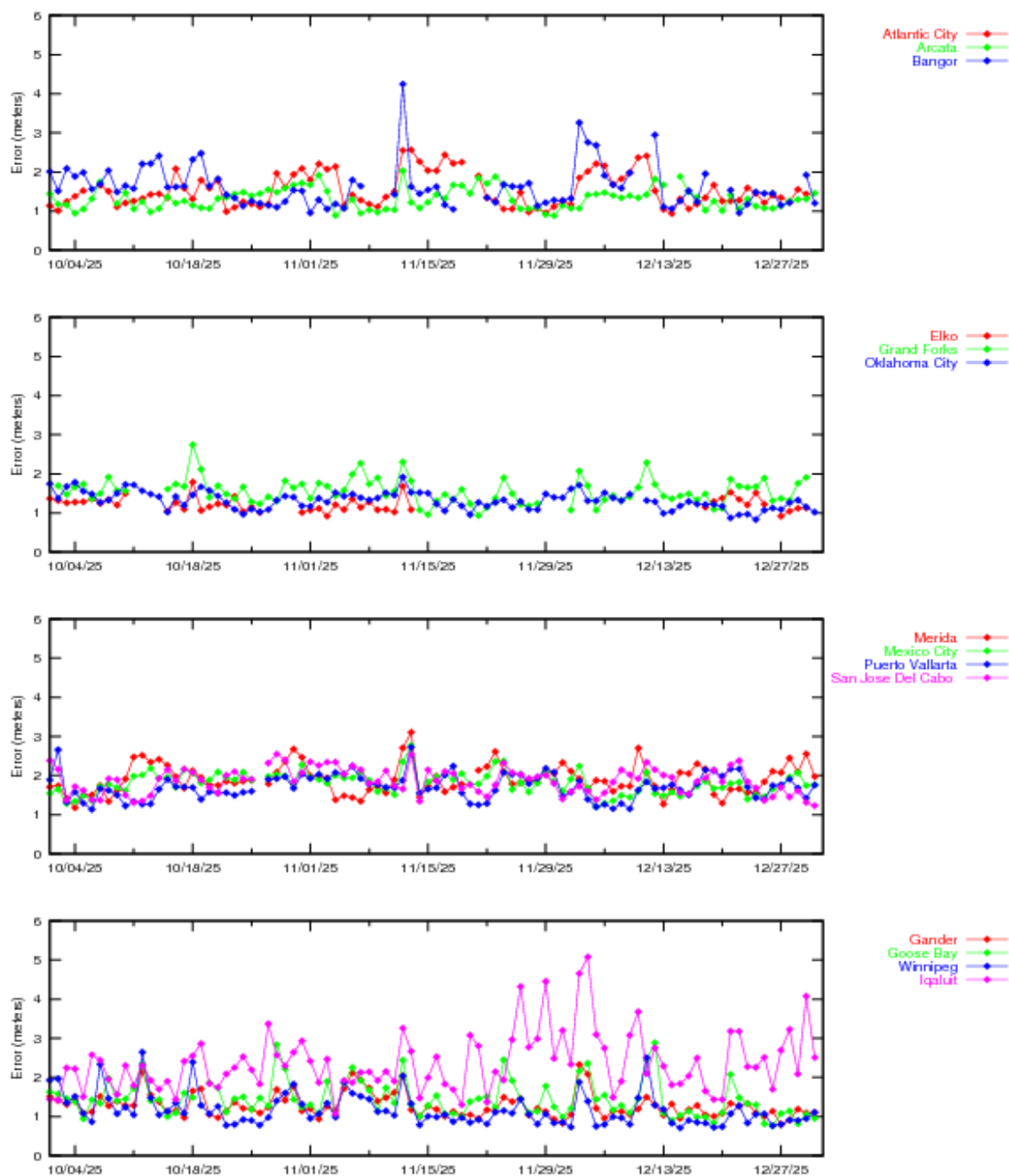


Figure 2-6 LPV 95% Vertical Accuracy

Figure 2-7 and Figure 2-8 show the daily NPA 95% horizontal accuracy at the NPA evaluation sites for the reporting period. The increases in 95% NPA position errors were due to geomagnetic activity occurred on 2025/10/02, 2025/10/18, 2025/11/12, 2025/12/03, and 2025/12/11 to 2025/12/12.

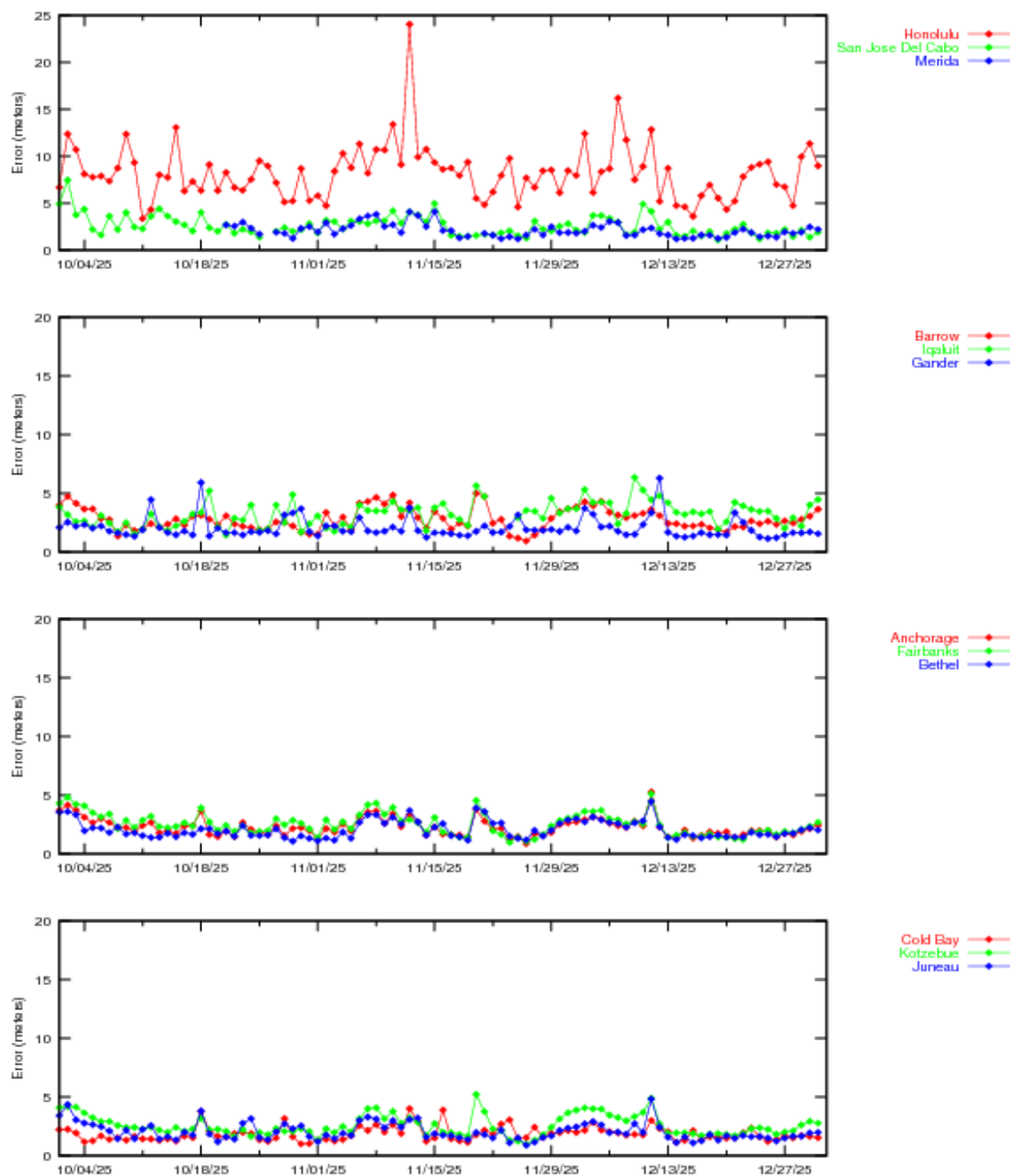


Figure 2-7 NPA 95% Horizontal Accuracy

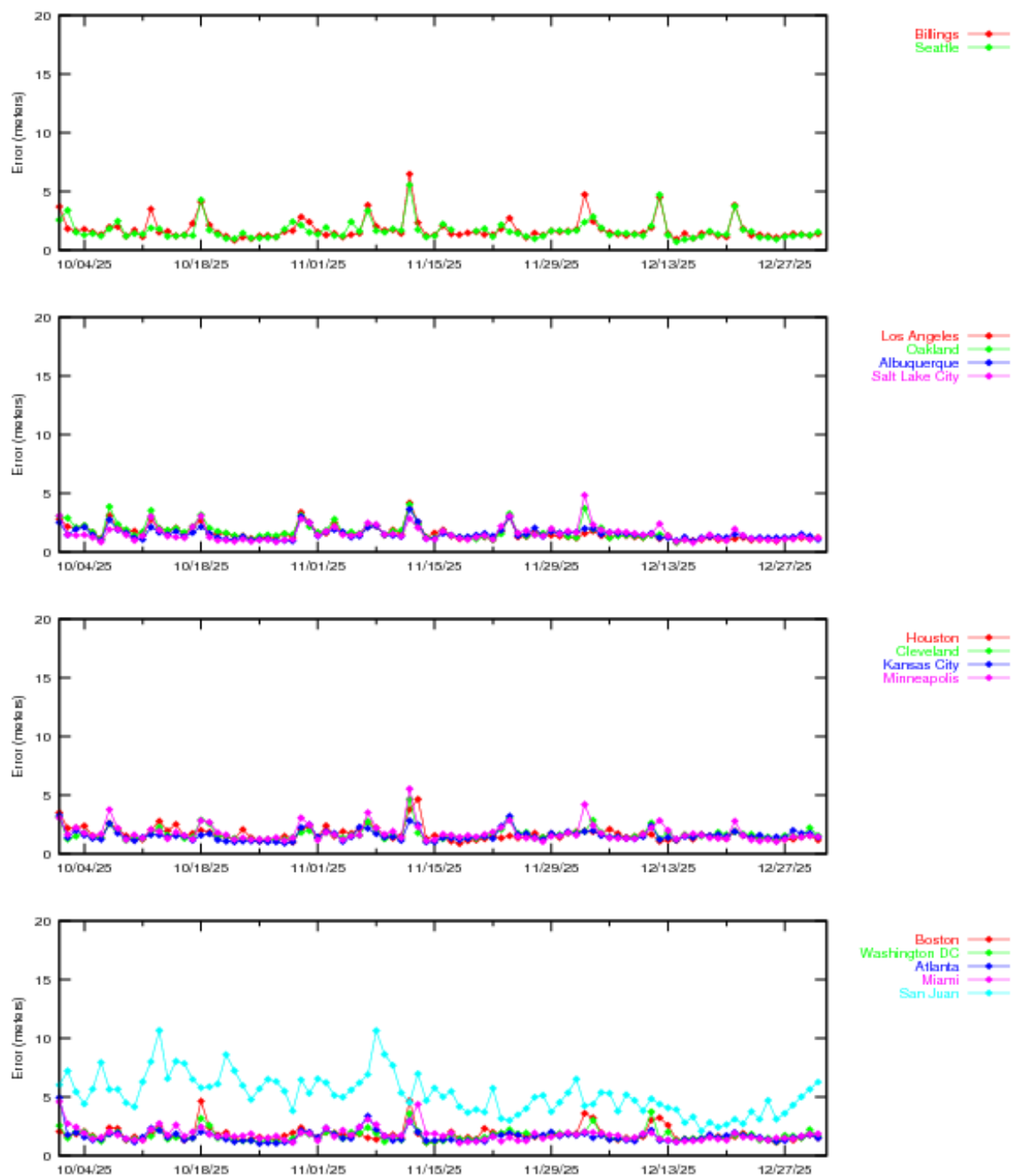


Figure 2-8 NPA 95% Horizontal Accuracy

Figure 2-9 through Figure 2-12 show the distributions of the vertical and horizontal errors at all 38 WAAS receiver for the quarter. Figure 2-9 and Figure 2-10 show the triangular distributions of vertical position error (VPE) versus VPL and horizontal position error (HPE) versus HPL: (1) the horizontal axis is the position error, (2) the vertical axis is the WAAS protection level where lower protection levels equate to better availability, (3) the diagonal line shows

the point where error equals protection level, (4) above and to the left of the diagonal line show where errors are bounded (WAAS is providing integrity in the position domain), and (5) below and to the right show where errors are not bounded (HMI could be present). Figure 2-11 and Figure 2-12 show the 2-D histograms of HPE, VPE, and normalized position errors: (1) the blue trace shows the distributions of the actual HPE and VPE; (2) the horizontal axis is the position errors and the vertical axis is the total count of data samples (log scale) in each 0.1-meter bin; (3) the magenta trace shows the distributions of the actual horizontal and vertical errors normalized by 1-sigma value of the protection level: horizontal protection level (HPL/6.0) and vertical protection level (VPL/5.33); (4) the horizontal axis is the standard units and vertical axis is the observed distribution of normalized errors data samples in each 0.1-sigma bin. The narrowness of the normalized error distributions indicates good safety performance.

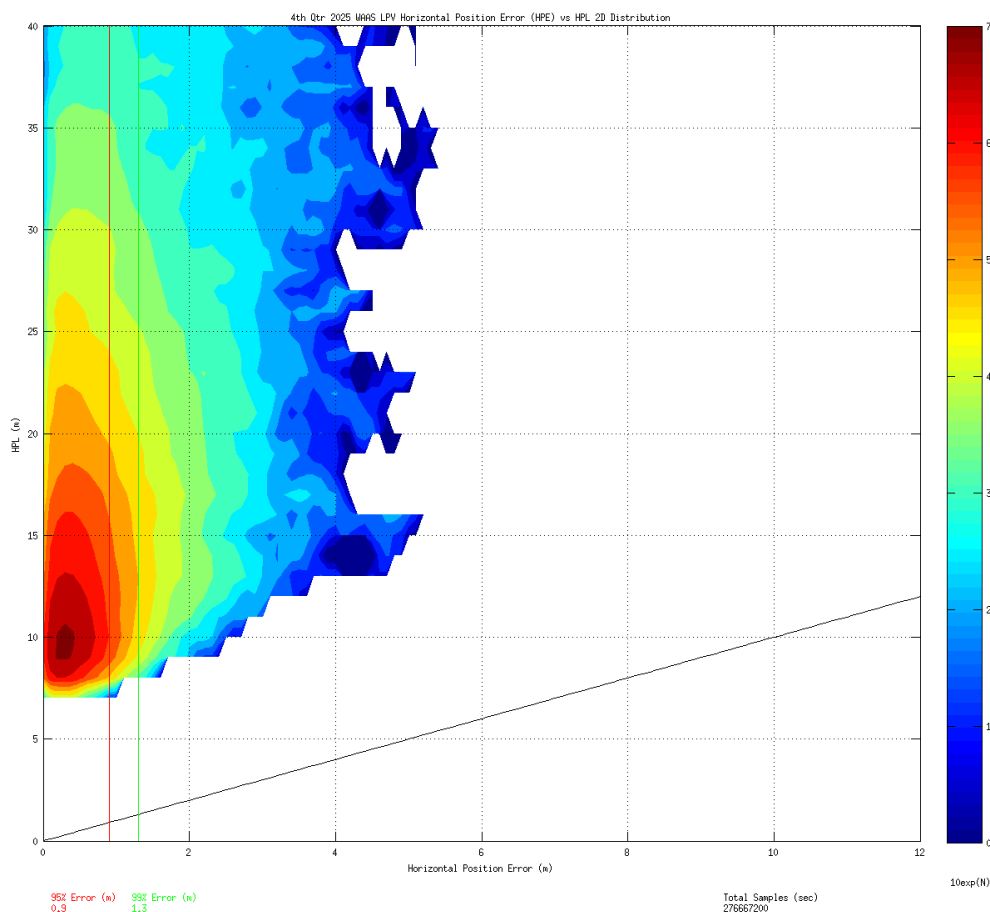


Figure 2-9 LPV 2-D Horizontal Error Distribution Histogram

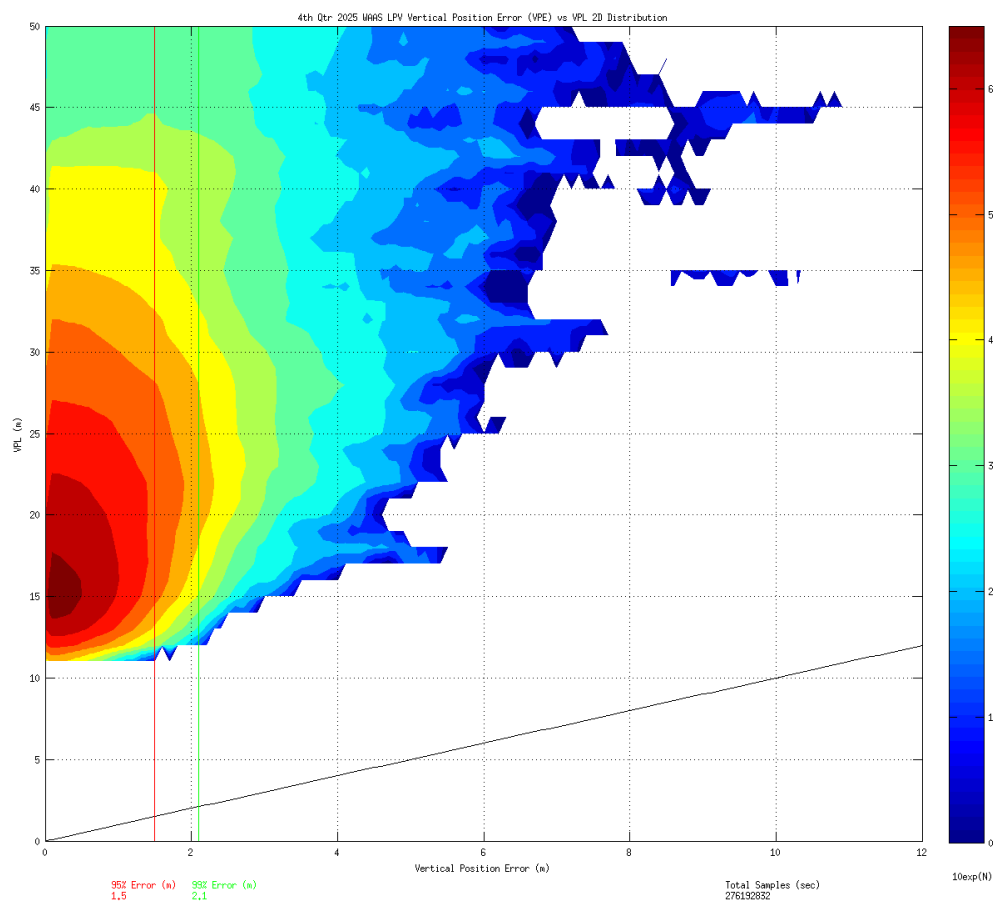


Figure 2-10 LPV 2-D Vertical Error Distribution Histogram

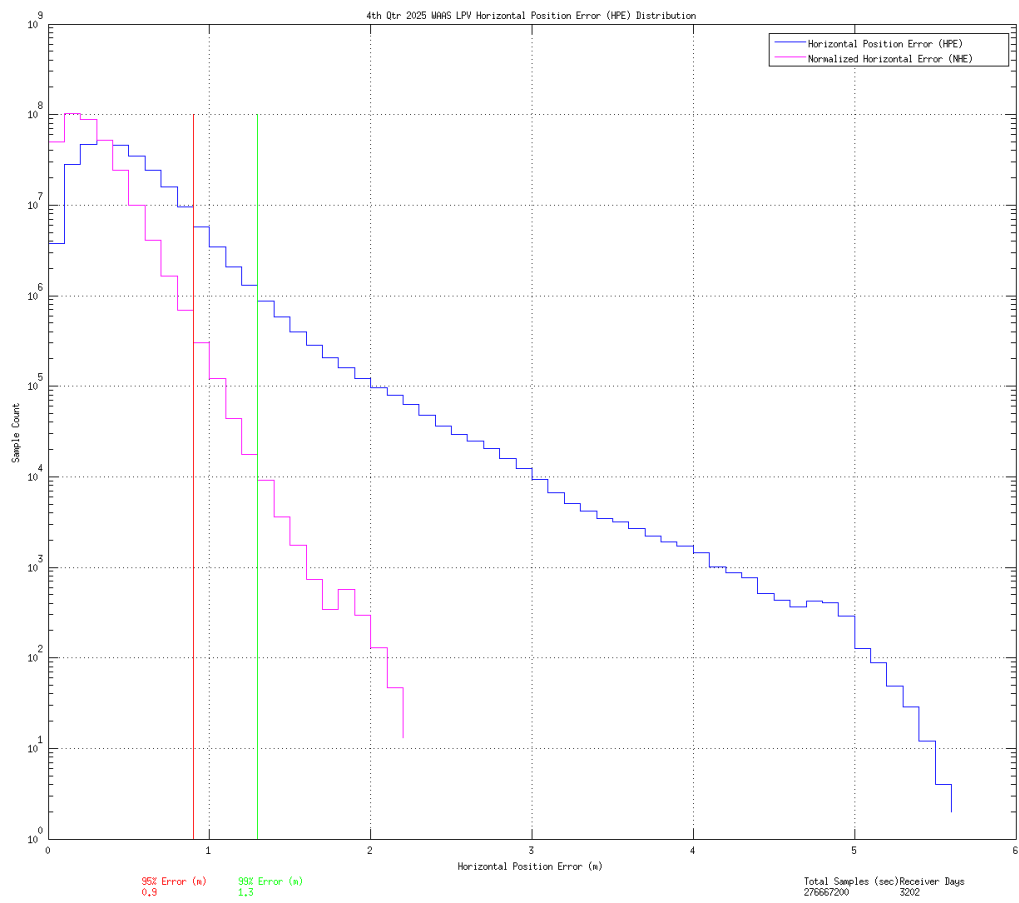


Figure 2-11 LPV Horizontal Error Bounding Triangle Chart

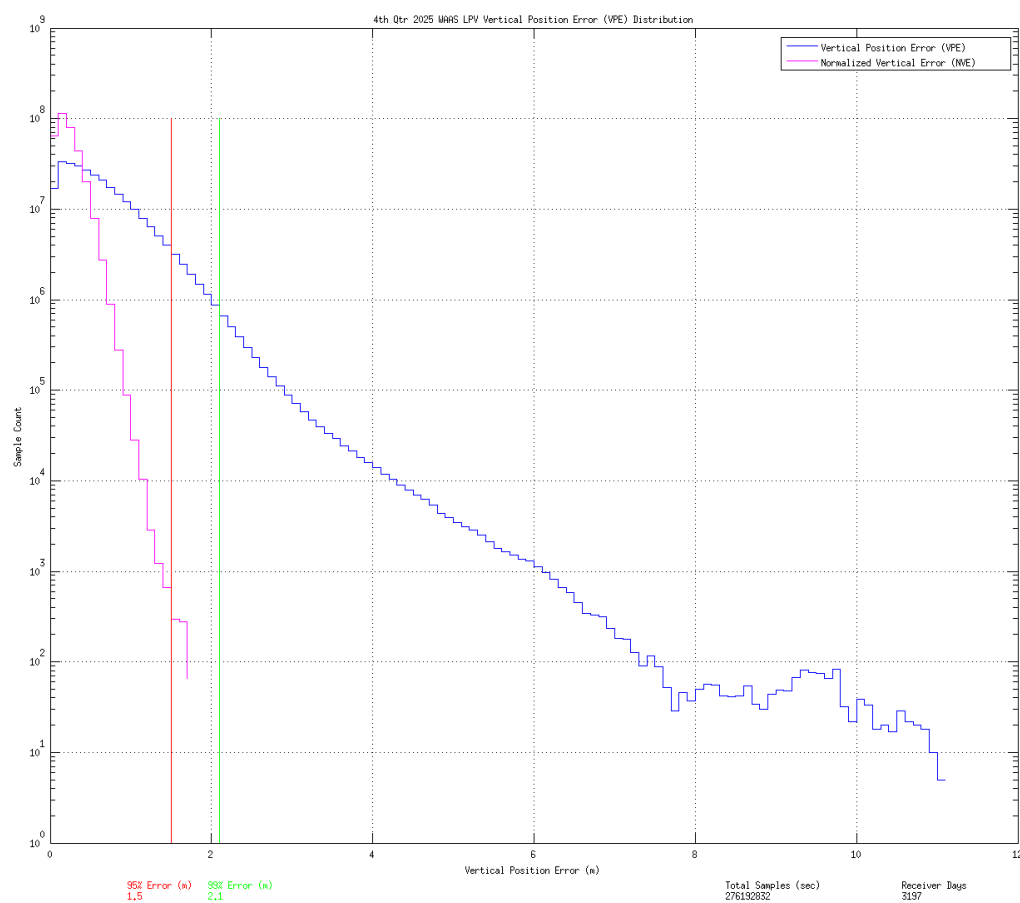


Figure 2-12 LPV Vertical Error Bounding Triangle Chart

3.0 AVAILABILITY

The WAAS availability evaluation documents the percentage of time the WAAS provided service for the operational service levels defined in Table 1-1. The RTCA DO-229F VPL and HPL were computed for each evaluated receiver. Table 3-1 shows the evaluated receivers, the 99% maintained protection levels, and the percentage in PA mode (described in Section 2.0). The maximum and minimum VPL and HPL for this reporting period are listed as:

- The maximum 99% CONUS HPL was 19.085 meters observed at Miami
- The maximum 99% CONUS VPL was 31.108 meters observed at Los Angeles
- The minimum 99% CONUS HPL was 10.738 meters observed at Salt Lake City
- The minimum 99% CONUS VPL was 20.350 meters observed at Kansas City
- The maximum 99% Alaska HPL was 21.838 meters observed at Cold Bay
- The maximum 99% Alaska VPL was 33.693 meters observed at Barrow
- The minimum 99% Alaska HPL was 15.623 meters observed at Anchorage
- The minimum 99% Alaska VPL was 24.077 meters observed at Anchorage

Table 3-1 99% Protection Level

Location	99% HPL (m)	99% VPL (m)	PA Mode (%)
NSTB:			
Arcata	16.546	27.669	100
Atlantic City	14.652	23.611	100
Bangor	17.883	25.488	100
Elko	13.493	22.78	100
Grand Forks	15.94	23.36	100
Oklahoma City	12.661	21.271	100
WAAS:			
Albuquerque	12.101	27.878	100
Anchorage	15.623	24.077	100
Atlanta	12.283	22.357	100
Barrow	21.376	33.693	100
Bethel	16.538	26.749	100
Billings	11.913	20.484	100
Boston	15.592	22.464	100
Chicago	12.313	20.671	100
Cleveland	14.618	23.21	100
Cold Bay	21.838	31.271	100
Dallas	11.778	21.519	100
Denver	10.957	22.182	100
Fairbanks	17.019	25.945	100
Gander	36.059	46.096	99.999
Goose Bay	44.443	55.744	100
Houston	13.196	25.162	100
Iqaluit	68.844	98.972	100
Jacksonville	14.296	24.43	100
Juneau	16.551	25.014	100
Kansas City	11.646	20.35	100
Kotzebue	18.41	29.119	100
Los Angeles	12.9	31.108	100
Memphis	11.563	23.512	100
Merida	23.054	45.332	100
Mexico City	31.992	54.047	100
Miami	19.085	29.526	100
Minneapolis	12.995	20.42	100
New York	15.256	23.078	100
Oakland	12.98	28.121	100
Puerto Vallarta	33.759	58.259	100

Location	99% HPL (m)	99% VPL (m)	PA Mode (%)
Salt Lake City	10.738	21.387	100
San Jose Del Cabo	28.582	58.458	100
Seattle	13.881	23.622	100
Washington, DC	13.742	22.628	100
Winnipeg	17.305	24.566	100

Availability of LP, LPV, and LPV200 services are evaluated by monitoring the WAAS protection levels at receiver locations. Service is available when the VPL is less than the vertical alert limit (VAL) and the HPL is less than the horizontal alert limit (HAL). When the protection level exceeds the alert limit, the service is unavailable and an outage in service is recorded along with its duration. The operational service is not available again until both protection levels are within the alert limits for at least 15 minutes. Although this will cause minimal reduction in operational service availability, it will substantially reduce the number of service outages and prevent excessive switching in/out of service availability.

Table 3-2 shows the percentage of time LP, LPV, and LPV200 service is available using the 15-minute window criteria. Table 3-3 shows LP, LPV, and LPV200 service outages and associated outage rates. The outage rate is the percentage of theoretically interrupted approaches through a loss of operational service once the approach had started. Figure 3-1 through Figure 3-6 show the daily availability of LPV and LPV200 service levels. Figure 3-7 through Figure 3-12 show the daily interruptions of LPV and LPV200 service levels.

Table 3-2 PA Availability (15-minute window)

Location	LP WAAS With 15-Minute Window (%)	LPV WAAS With 15-Minute Window (%)	LPV200 WAAS With 15-Minute Window (%)
NSTB:			
Arcata	99.97	99.95	99.88
Atlantic City	100	100	99.98
Bangor	99.79	99.75	99.58
Elko	99.95	99.95	99.88
Grand Forks	99.73	99.65	99.46
Oklahoma City	100	100	99.98
WAAS:			
Albuquerque	100	100	99.99
Anchorage	99.79	99.69	99.5
Atlanta	100	100	100
Barrow	99.57	99.46	98.93
Bethel	99.73	99.67	99.48
Billings	99.93	99.9	99.87
Boston	99.93	99.9	99.76
Chicago	99.96	99.95	99.9
Cleveland	100	99.99	99.98
Cold Bay	99.7	99.63	99.37
Dallas	100	100	99.97

Location	LP WAAS With 15-Minute Window (%)	LPV WAAS With 15-Minute Window (%)	LPV200 WAAS With 15-Minute Window (%)
Denver	100	99.97	99.92
Fairbanks	99.67	99.58	99.46
Gander	99.09	99.02	97.68
Goose Bay	98.8	98.76	97.78
Houston	99.97	99.97	99.9
Iqaluit	97.51	96.66	92.64
Jacksonville	99.97	99.97	99.97
Juneau	99.71	99.64	99.45
Kansas City	100	100	99.92
Kotzebue	99.77	99.67	99.36
Los Angeles	100	100	99.97
Memphis	100	100	100
Merida	99.66	99.43	96.22
Mexico City	99.55	97.73	87.47
Miami	99.97	99.96	99.89
Minneapolis	99.89	99.86	99.79
New York	100	99.99	99.91
Oakland	100	100	99.95
Puerto Vallarta	99.51	97.82	87.15
Salt Lake City	99.97	99.97	99.94
San Jose Del Cabo	99.71	97.92	90.21
Seattle	99.92	99.89	99.8
Washington, DC	100	100	99.99
Winnipeg	99.65	99.55	99.4

Table 3-3 LPV and LPV200 Outage Rate (Per 150 sec approach)

Location	LP Outages (Number)	LP Outage Rates	LPV Outages (Number)	LPV Outage Rates	LPV200 Outages (Number)	LPV200 Outage Rates
NSTB:						
Arcata	1	0.000020	3	0.000059	2	0.000039
Atlantic City	0	0.000000	1	0.000020	2	0.000039
Bangor	5	0.000109	5	0.000109	6	0.000131
Elko	1	0.000037	1	0.000037	3	0.000110
Grand Forks	6	0.000127	7	0.000149	12	0.000255
Oklahoma City	0	0.000000	0	0.000000	1	0.000019
WAAS:						
Albuquerque	0	0.000000	0	0.000000	3	0.000057
Anchorage	5	0.000095	9	0.000170	14	0.000266

Location	LP Outages (Number)	LP Outage Rates	LPV Outages (Number)	LPV Outage Rates	LPV200 Outages (Number)	LPV200 Outage Rates
Atlanta	1	0.000019	1	0.000019	1	0.000019
Barrow	13	0.000246	23	0.000437	65	0.001240
Bethel	8	0.000151	7	0.000133	16	0.000304
Billings	2	0.000038	3	0.000057	3	0.000057
Boston	4	0.000076	4	0.000076	8	0.000151
Chicago	4	0.000076	4	0.000076	4	0.000076
Cleveland	0	0.000000	1	0.000019	1	0.000019
Cold Bay	7	0.000133	7	0.000133	22	0.000419
Dallas	0	0.000000	0	0.000000	2	0.000038
Denver	0	0.000000	2	0.000038	3	0.000057
Fairbanks	11	0.000208	16	0.000303	25	0.000474
Gander	22	0.000419	28	0.000534	95	0.001836
Goose Bay	27	0.000520	31	0.000598	51	0.000993
Houston	1	0.000019	1	0.000019	5	0.000094
Iqaluit	64	0.001243	88	0.001724	285	0.005825
Jacksonville	1	0.000019	1	0.000019	1	0.000019
Juneau	7	0.000133	8	0.000152	16	0.000304
Kansas City	0	0.000000	0	0.000000	2	0.000038
Kotzebue	9	0.000170	16	0.000303	33	0.000627
Los Angeles	0	0.000000	0	0.000000	7	0.000132
Memphis	0	0.000000	0	0.000000	0	0.000000
Merida	7	0.000137	48	0.000941	253	0.005127
Mexico City	8	0.000154	206	0.004044	823	0.018053
Miami	1	0.000019	1	0.000019	31	0.000586
Minneapolis	2	0.000038	6	0.000113	5	0.000095
New York	0	0.000000	2	0.000038	6	0.000113
Oakland	0	0.000000	1	0.000019	4	0.000076
Puerto Vallarta	8	0.000155	191	0.003759	657	0.014513
Salt Lake City	1	0.000019	1	0.000019	3	0.000057
San Jose Del Cabo	5	0.000096	108	0.002116	519	0.011038
Seattle	3	0.000057	5	0.000095	12	0.000227
Washington, DC	0	0.000000	0	0.000000	2	0.000038
Winnipeg	8	0.000152	8	0.000152	10	0.000190

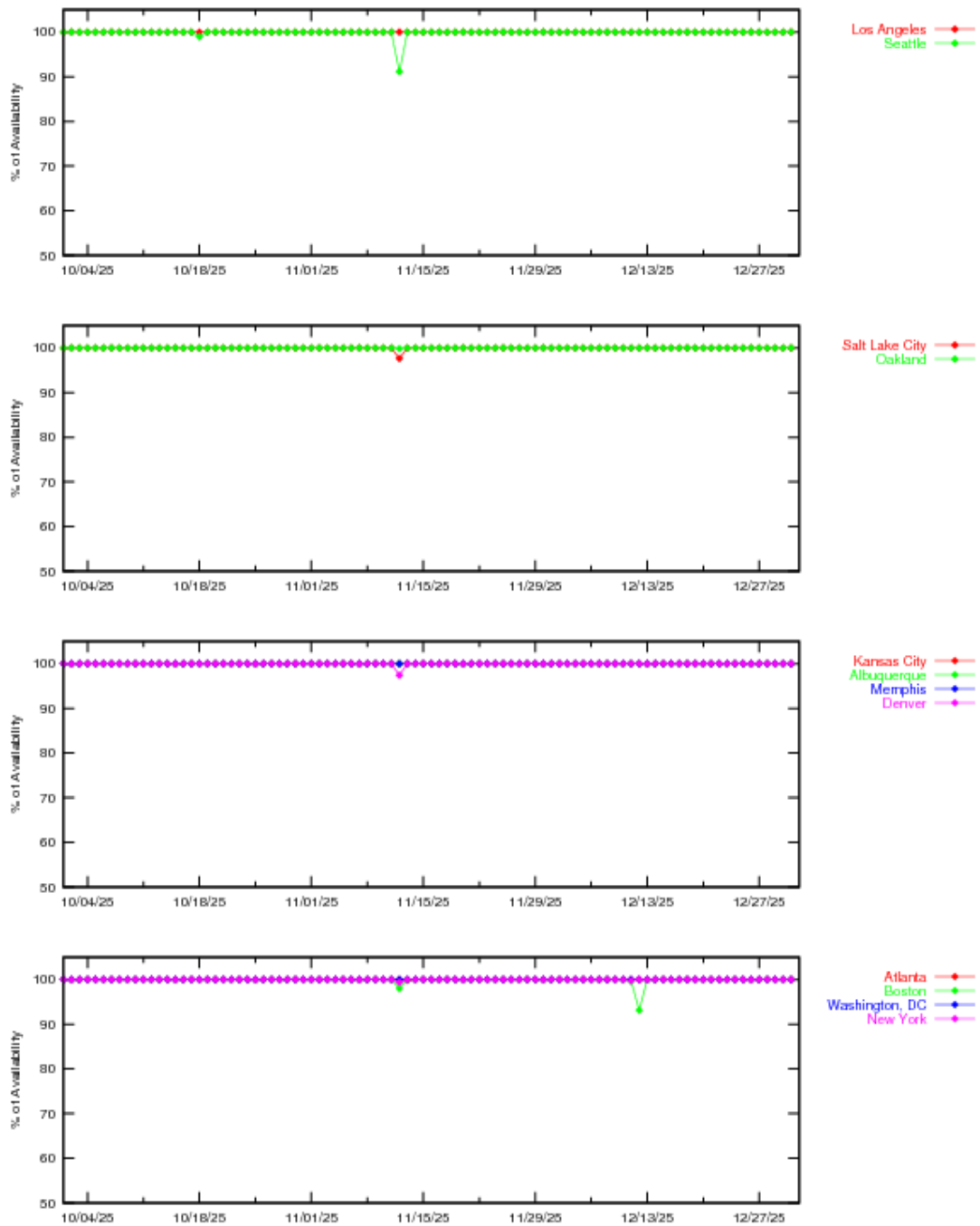


Figure 3-1 LPV Instantaneous Availability

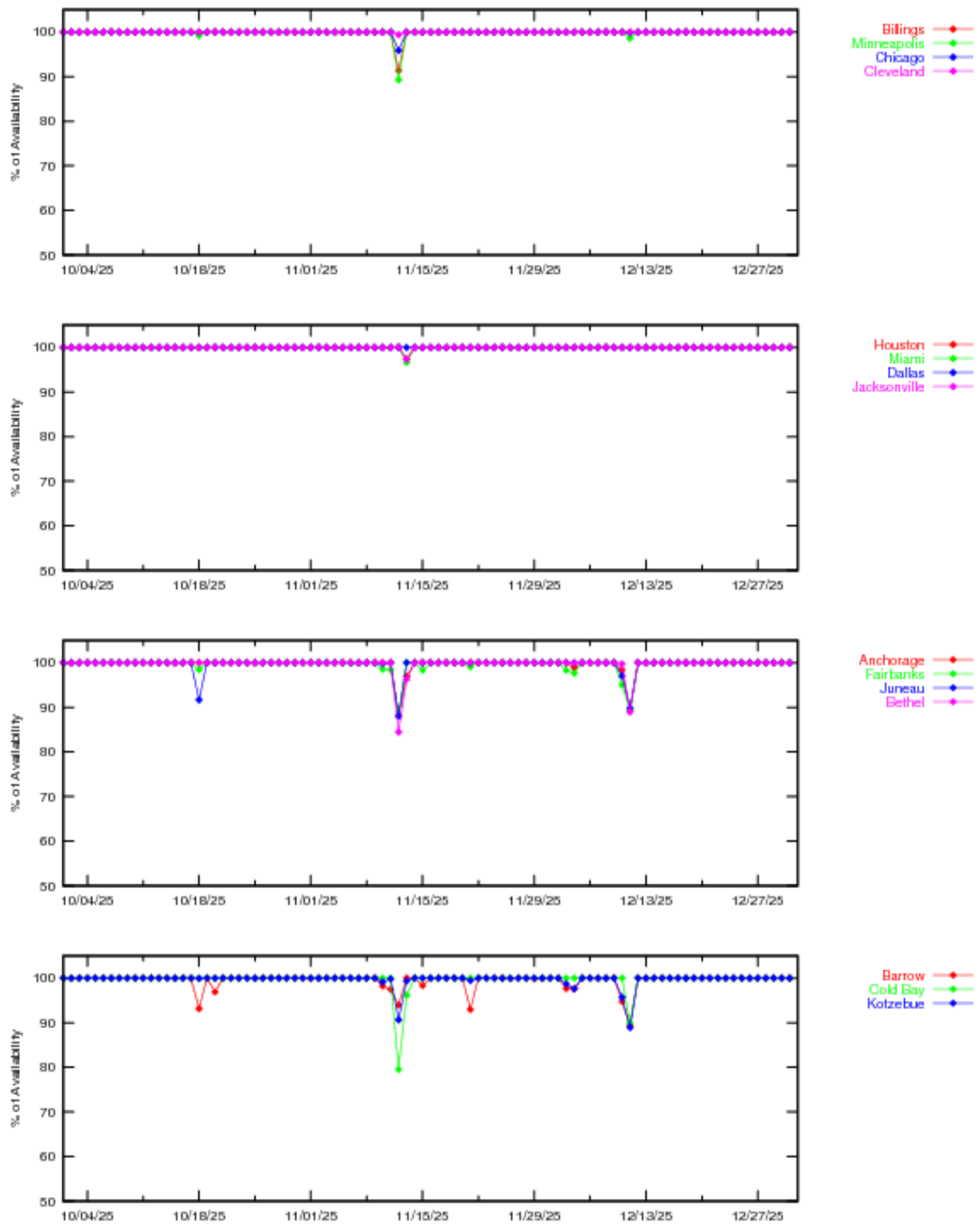


Figure 3-2 LPV Instantaneous Availability

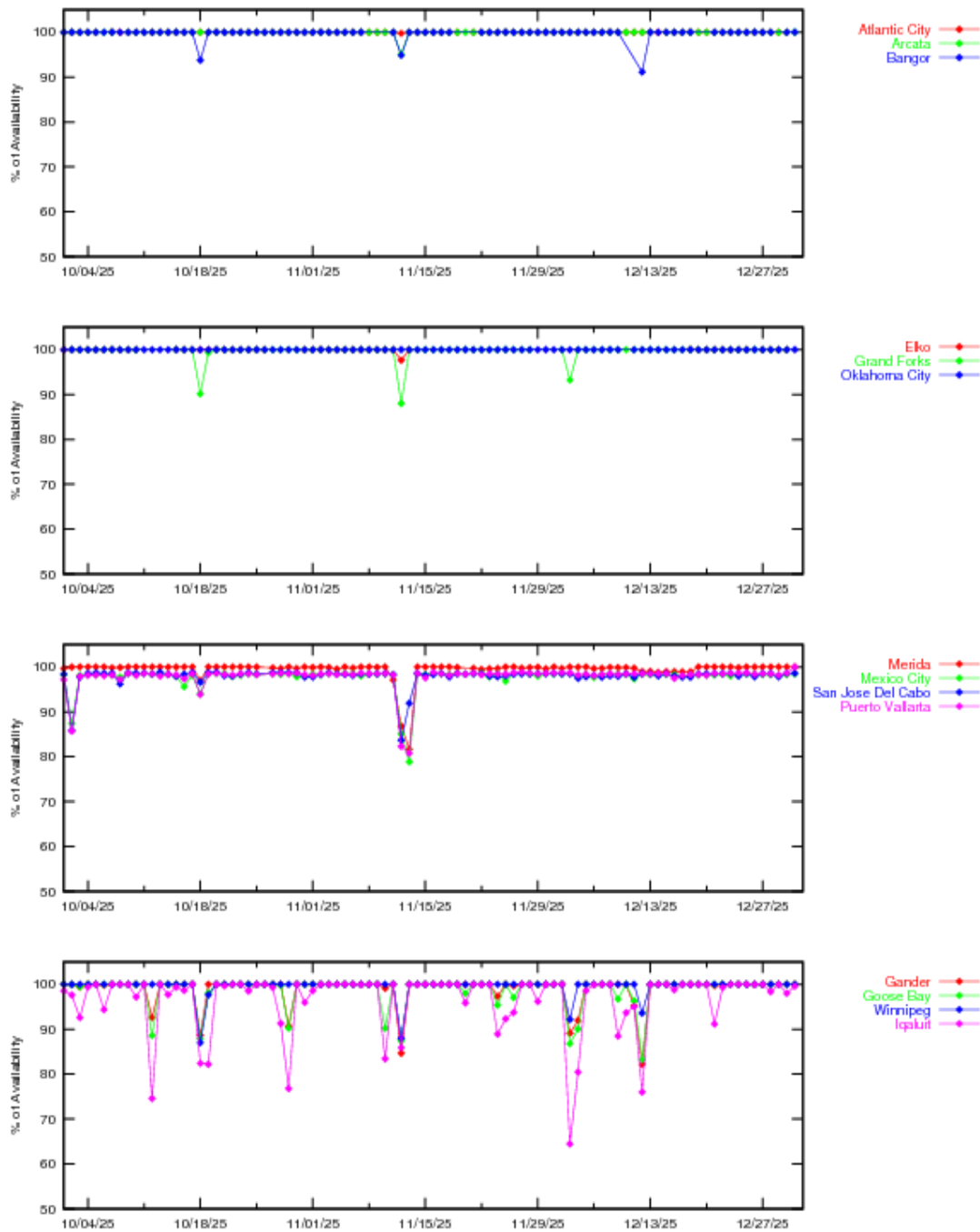


Figure 3-3 LPV Instantaneous Availability

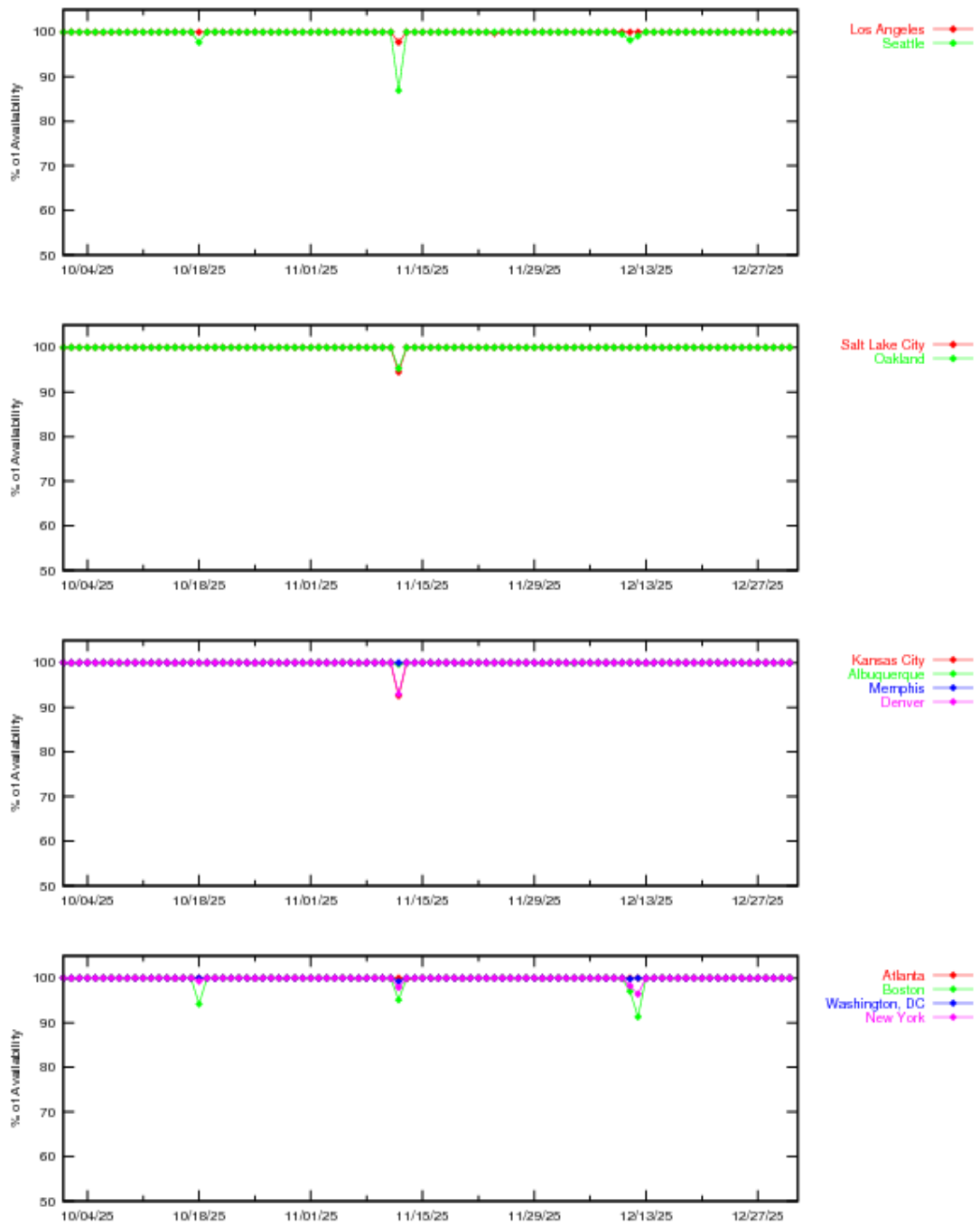


Figure 3-4 LPV200 Instantaneous Availability

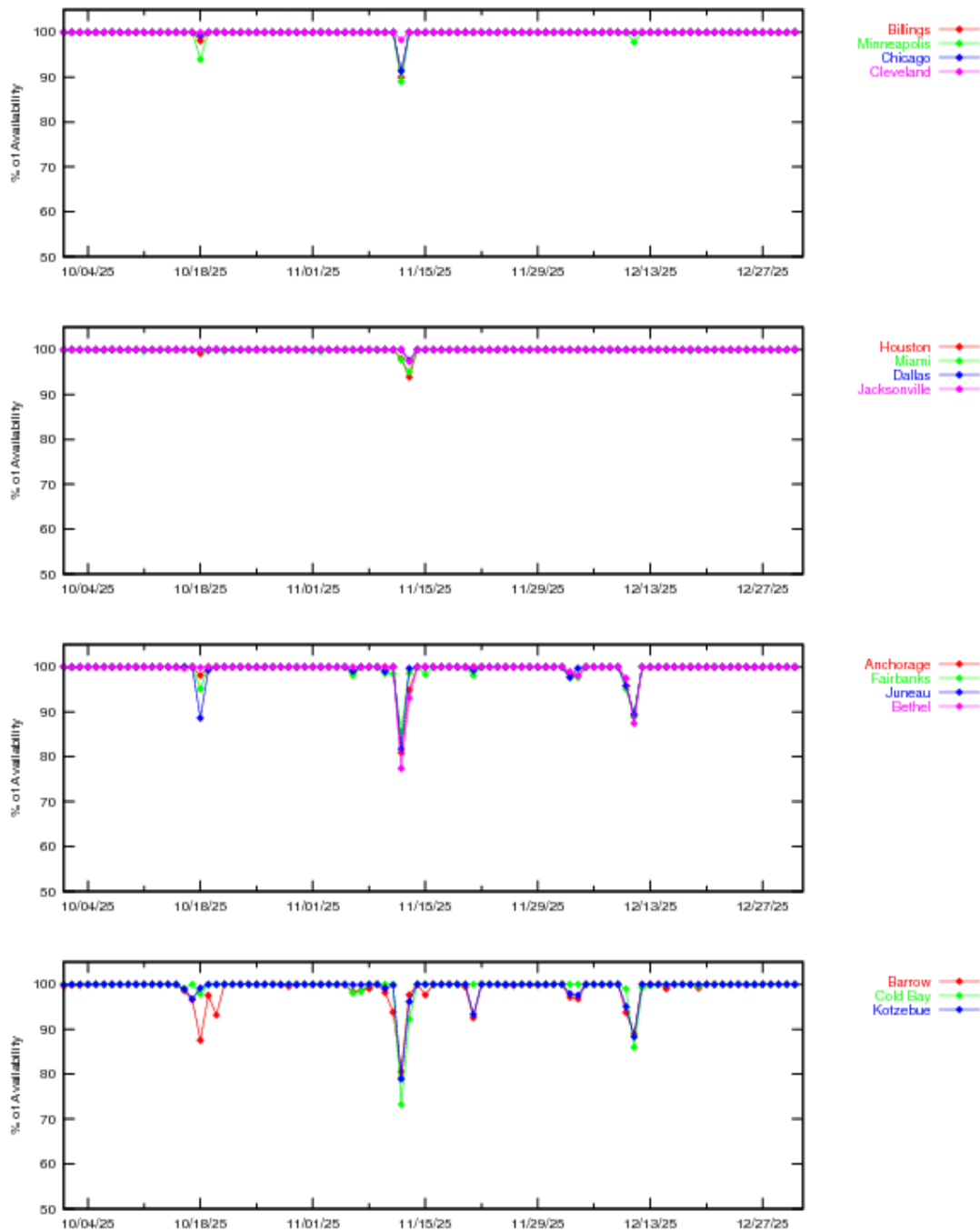


Figure 3-5 LPV200 Instantaneous Availability

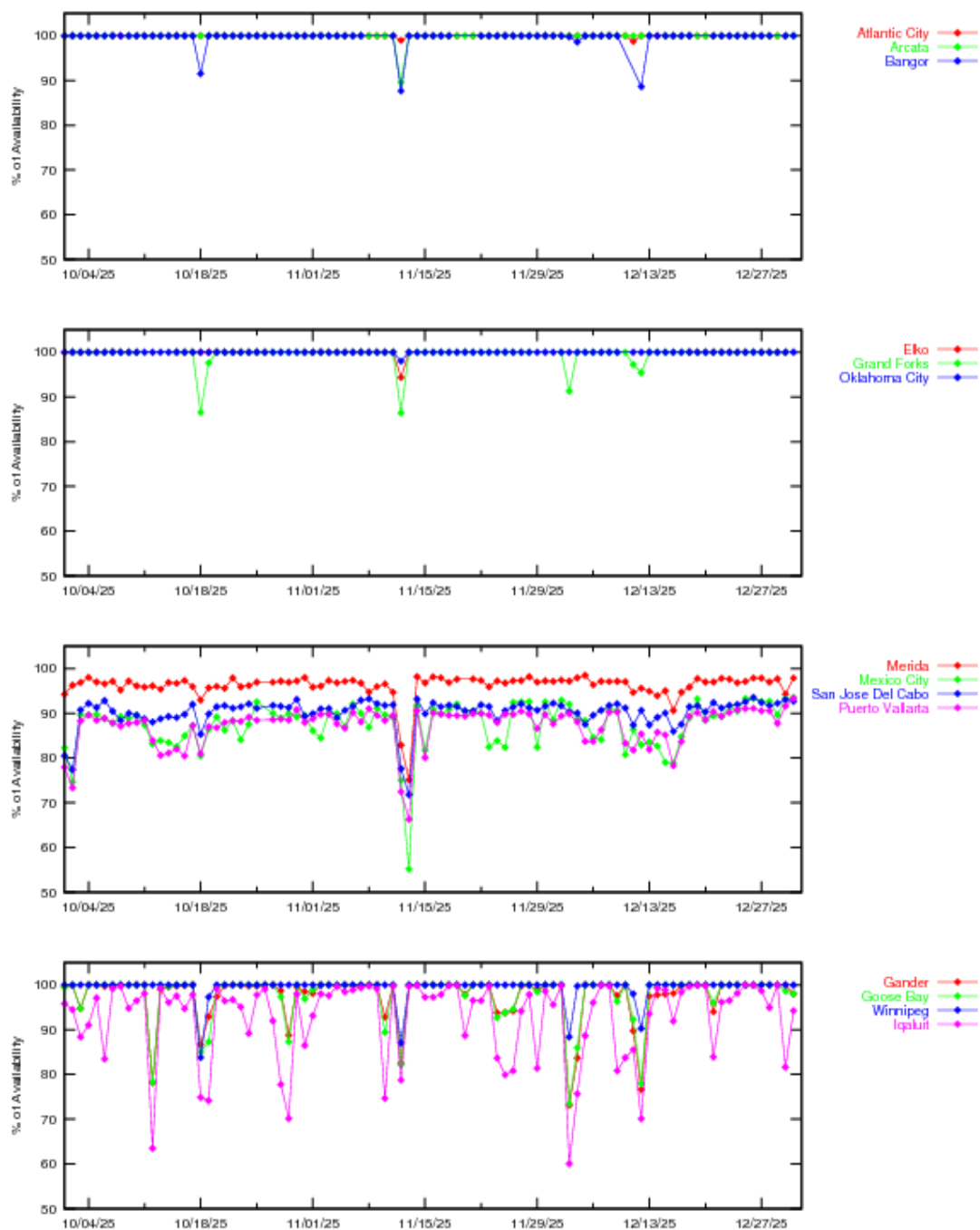


Figure 3-6 LPV200 Instantaneous Availability

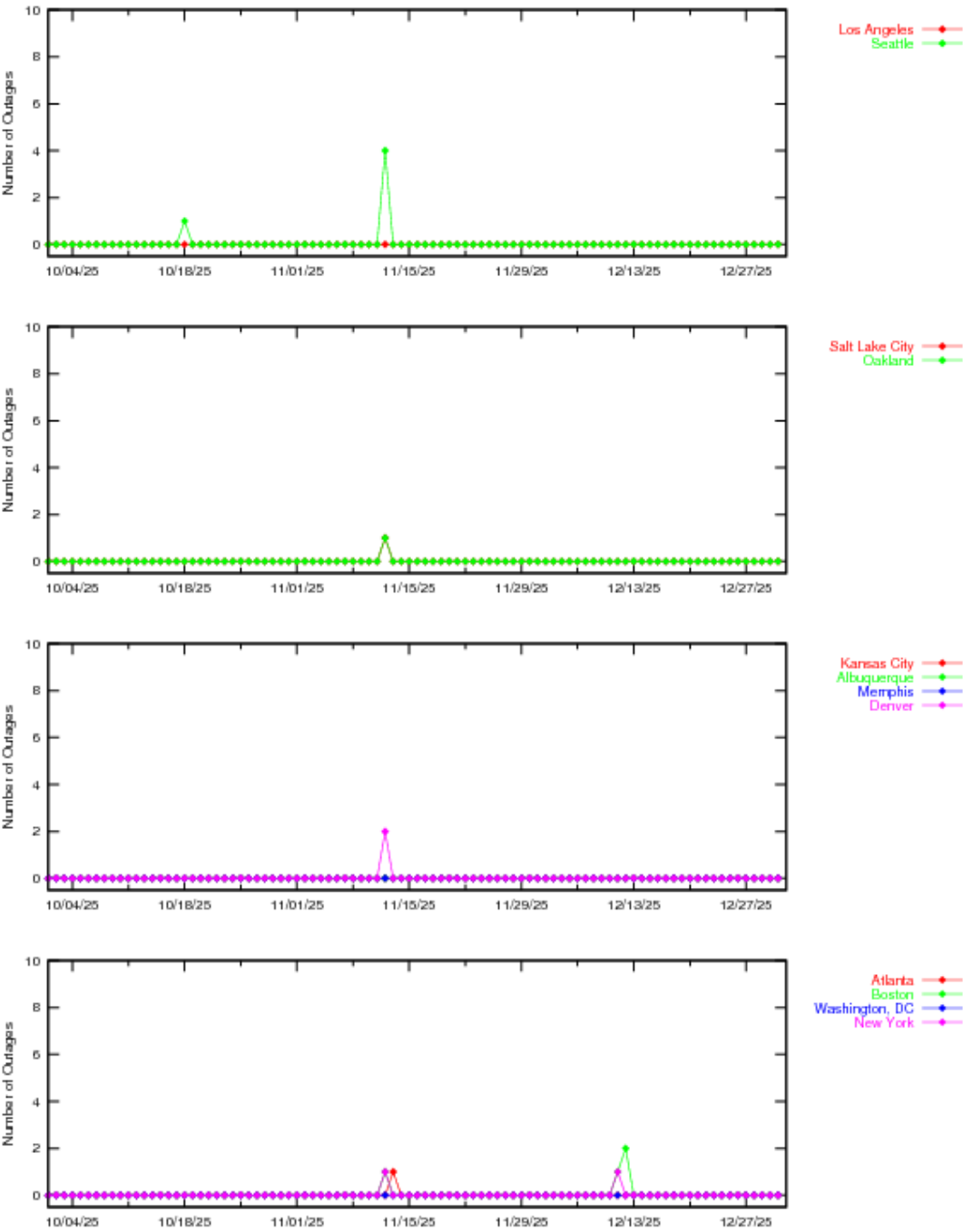


Figure 3-7 LPV Outages

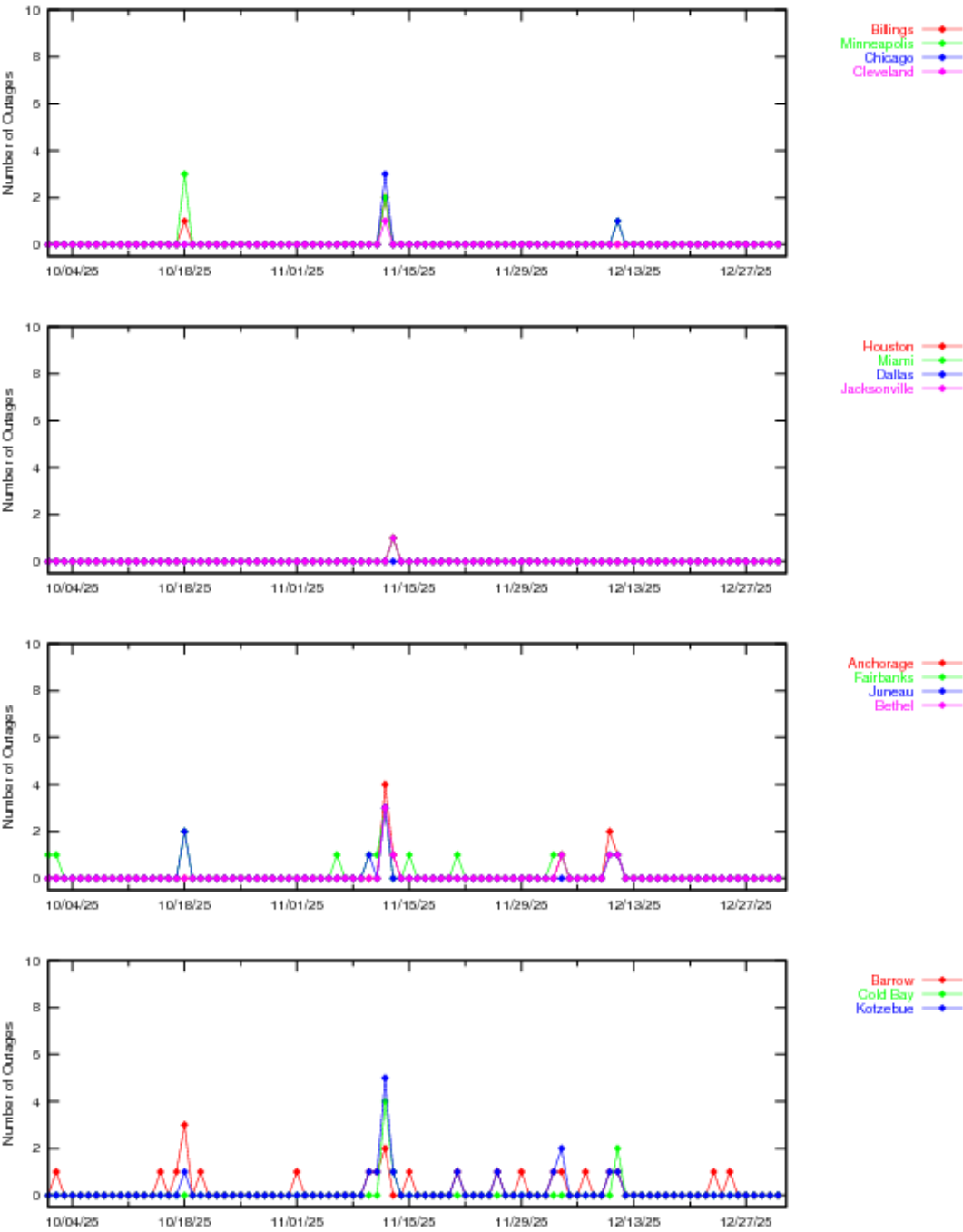


Figure 3-8 LPV Outages

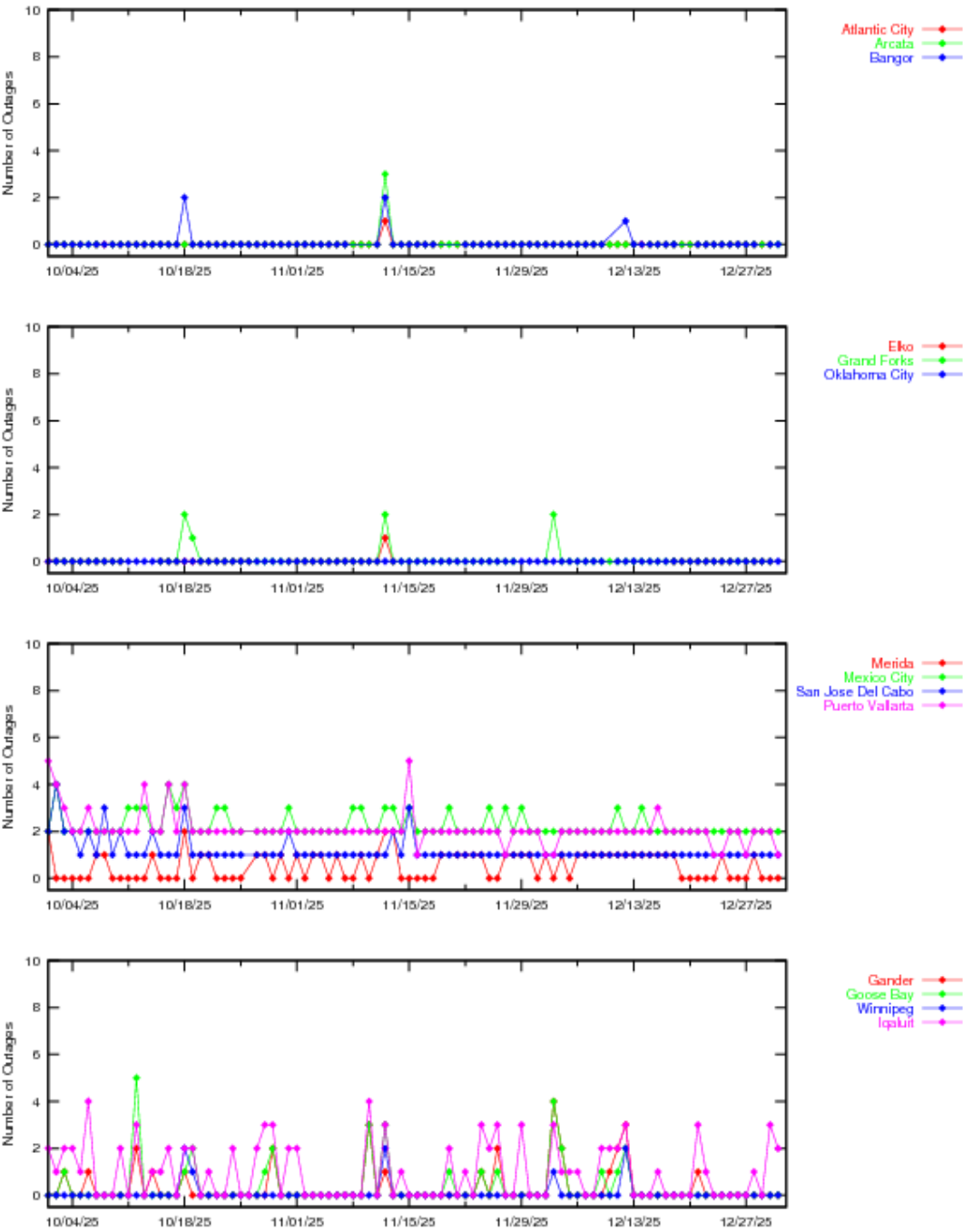


Figure 3-9 LPV Outages

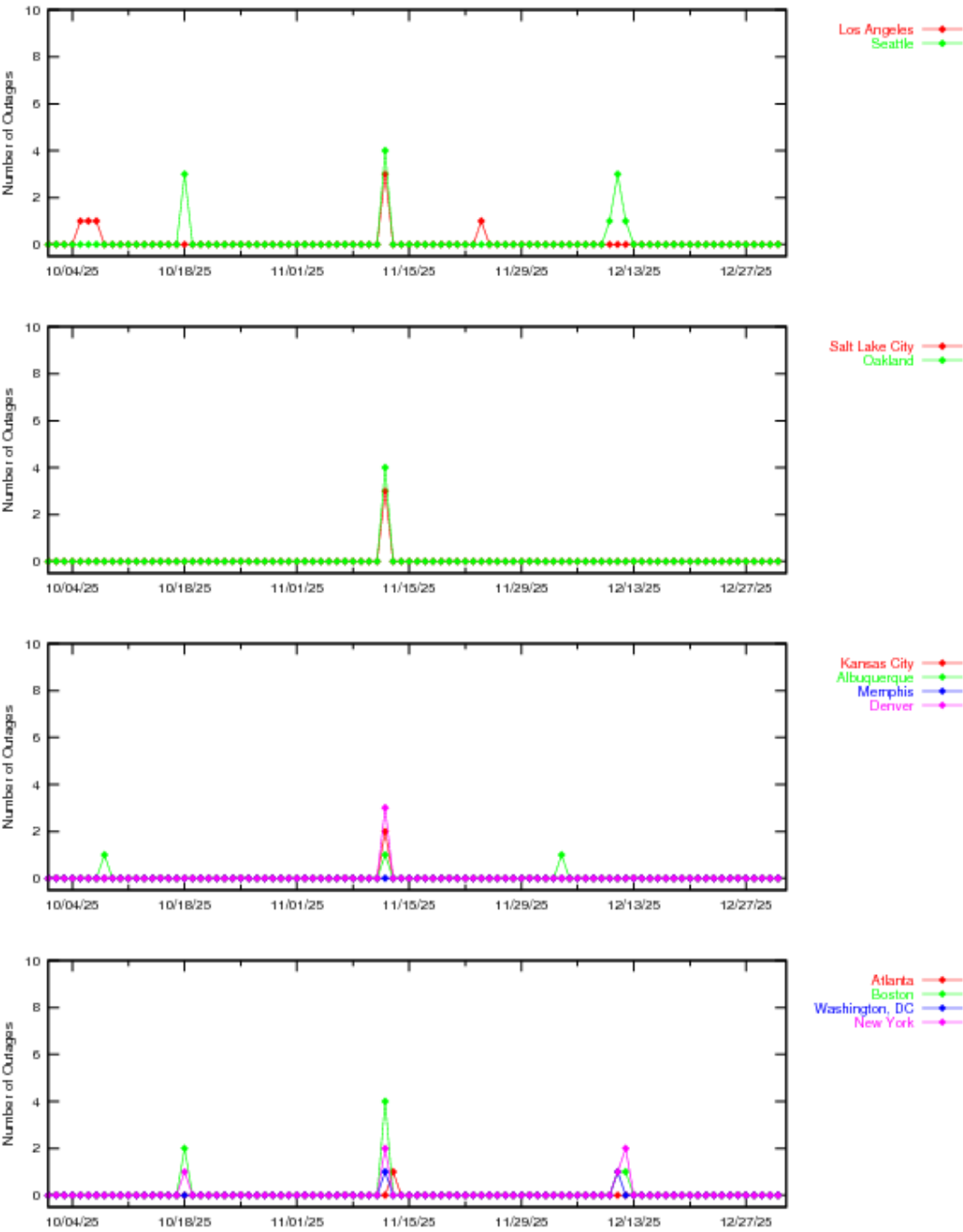


Figure 3-10 LPV200 Outages

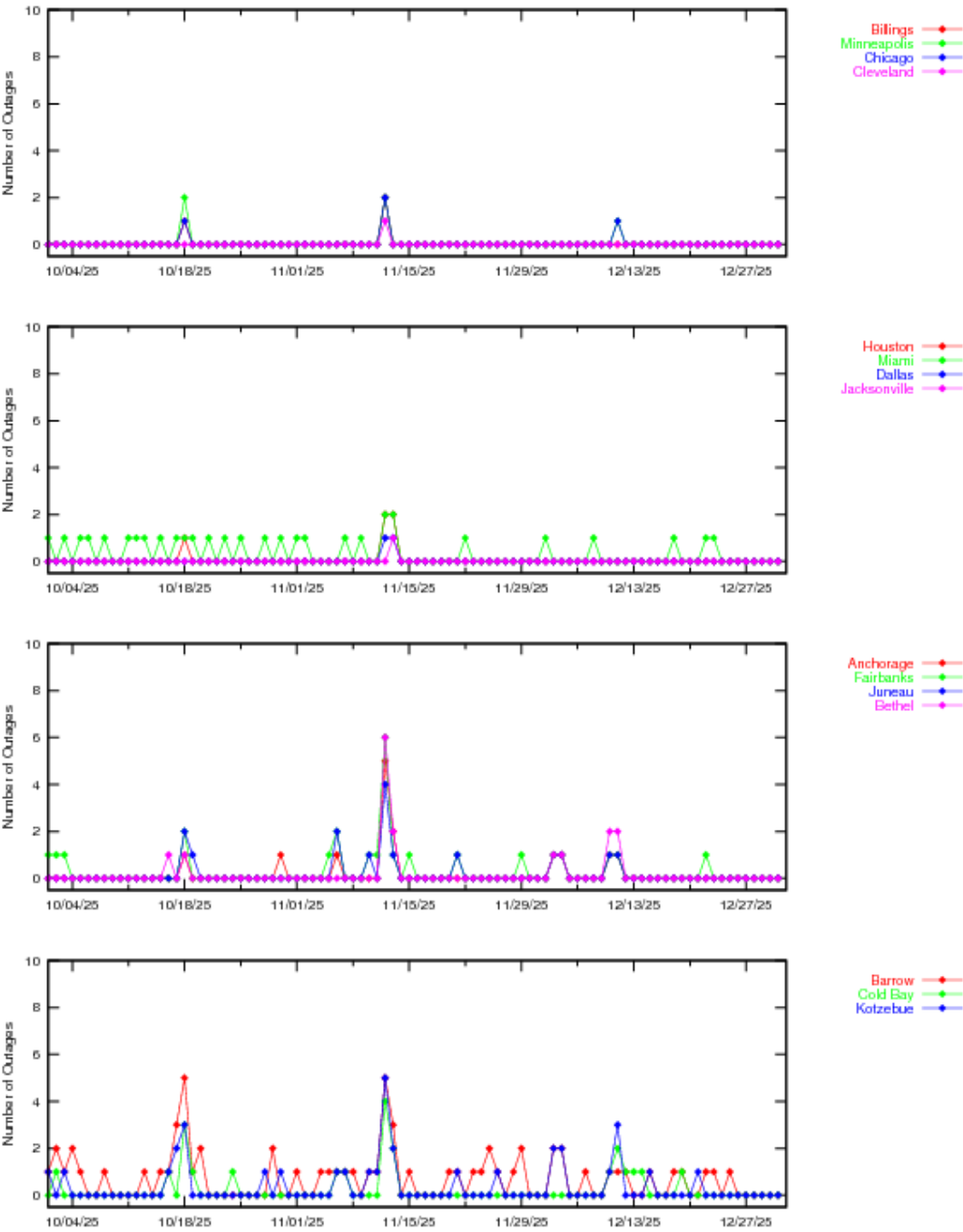


Figure 3-11 LPV200 Outages

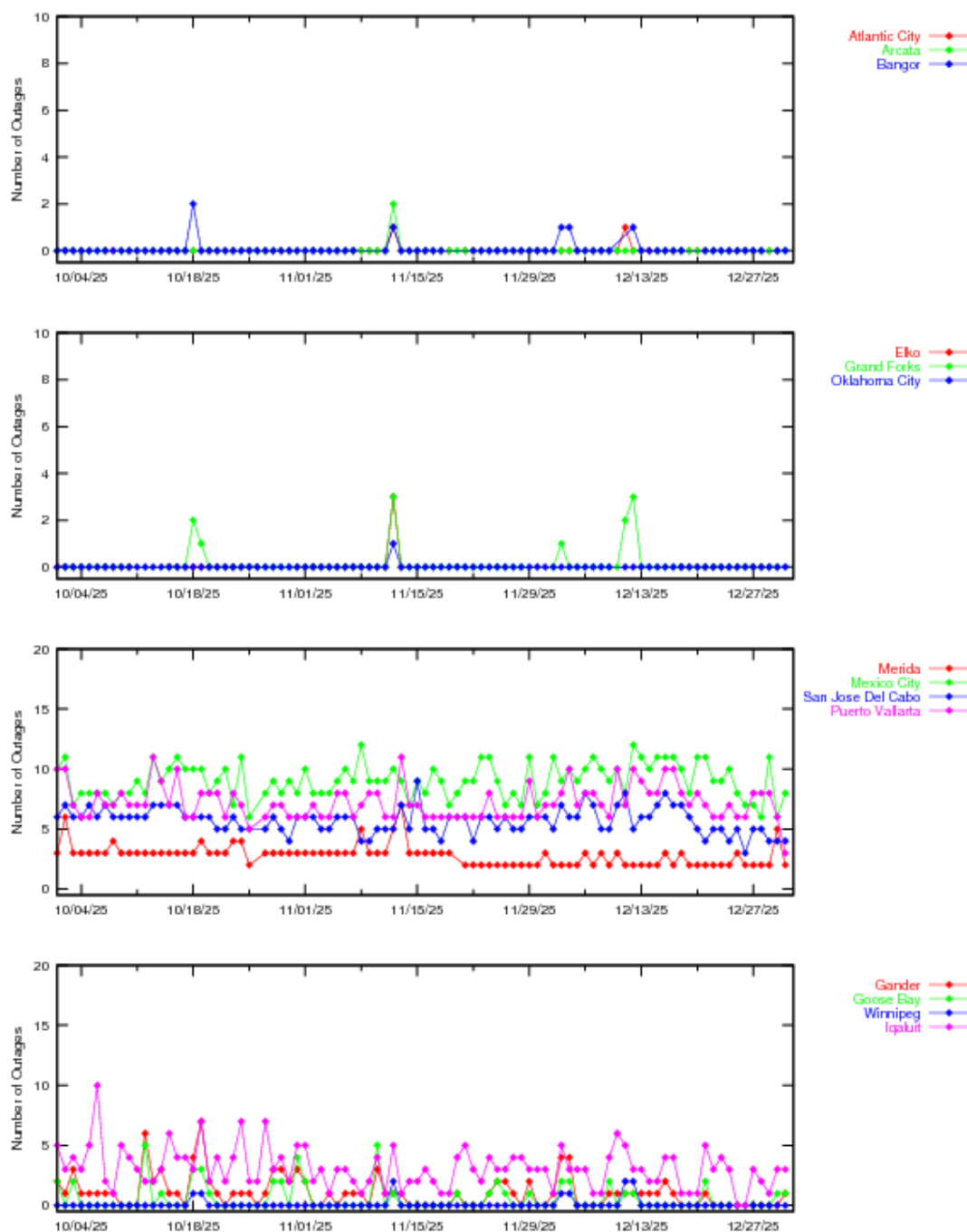


Figure 3-12 LPV200 Outages

Availability of NPA service is evaluated by monitoring the WAAS HPL at receiver locations. Service is available when the HPL is less than a HAL of 556 meters. The service is unavailable when HPL exceeds the HAL, or when a WAAS navigation message is not received, and the service outage and its duration are recorded. NPA service is not available again until the HPL is within the HAL for at least 15 minutes. Table 3-4 shows the percentage of time that NPA service is available using the 15-minute window criteria. Table 3-5 shows the NPA service outages and associated outage rates. The outage rate is the percentage of theoretically interrupted NPA approaches through a loss of operational service once the approach had started.

Table 3-4 NPA Availability (15-minute window)

Location	NPA Availability (Excluding RAIM/FDE) (%)
Albuquerque	100
Anchorage	100
Atlanta	100
Barrow	100
Bethel	100
Billings	100
Boston	100
Cleveland	100
Cold Bay	100
Fairbanks	100
Gander	99.9997
Honolulu	100
Houston	100
Iqaluit	100
Juneau	100
Kansas City	100
Kotzebue	100
Los Angeles	100
Merida	100
Miami	100
Minneapolis	100
Oakland	100
Salt Lake City	100
San Jose Del Cabo	100
San Juan	100
Seattle	100
Washington, DC	100

Table 3-5 NPA Outage Rates (Excluding FD/FDE)

Location	NPA Outages (Number)	NPA Outage Rates
Albuquerque	0	0
Anchorage	0	0
Atlanta	0	0
Barrow	0	0
Bethel	0	0
Billings	0	0

Location	NPA Outages (Number)	NPA Outage Rates
Boston	0	0
Cleveland	0	0
Cold Bay	0	0
Fairbanks	0	0
Gander	2	0.000038
Honolulu	0	0
Houston	0	0
Iqaluit	0	0
Juneau	0	0
Kansas City	0	0
Kotzebue	0	0
Los Angeles	0	0
Merida	0	0
Miami	0	0
Minneapolis	0	0
Oakland	0	0
Salt Lake City	0	0
San Jose Del Cabo	0	0
San Juan	0	0
Seattle	0	0
Washington, DC	0	0

The availability decreases for this quarter were due to satellite outages, geomagnetic activity, communication outages, radio frequency interference (RFI), and elevated UDRE and GIVE values. Noteworthy events that affected availability are:

- Oct 01—Geomagnetic activity increased GIVEs and reduced LPV availability in Canada and LPV200 availability in CONUS and Canada.
- Oct 02—Geomagnetic activity increased GIVEs and reduced LPV availability in CONUS and LPV200 availability in CONUS, Alaska, and Canada.
- Oct 03—Geomagnetic activity increased GIVEs and reduced LPV availability in Canada and LPV200 availability in CONUS and Canada.
- Oct 04—Geomagnetic activity increased GIVEs and reduced LPV200 availability in Canada.
- Oct 05—Geomagnetic activity increased GIVEs and reduced LPV200 availability in CONUS and Canada.
- Oct 06–Oct 07—Geomagnetic activity increased GIVEs and reduced LPV availability in Canada and LPV200 availability in CONUS and Canada.
- Oct 07—Geomagnetic activity increased GIVEs and reduced LPV200 availability in CONUS and Canada.
- Oct 08—Geomagnetic activity increased GIVEs and reduced LPV200 availability in CONUS and Canada.
- Oct 09—Geomagnetic activity increased GIVEs and reduced LPV200 availability in Canada.
- Oct 10—Geomagnetic activity increased GIVEs and reduced LPV and LPV200 availability in Canada.
- Oct 11—Geomagnetic activity increased GIVEs and reduced LPV200 availability in CONUS and Canada.
- Oct 12–Oct 13—Geomagnetic activity increased GIVEs and reduced LPV and LPV200 availability in Canada.
- Oct 13—Geomagnetic activity increased GIVEs and reduced LPV200 availability in CONUS.

- Oct 14—Geomagnetic activity increased GIVEs and reduced LPV and LPV200 availability in Canada.
- Oct 15—Geomagnetic activity increased GIVEs and reduced LPV200 availability in CONUS and Canada.
- Oct 16—Oct 17—Satellite maintenance elevated UDREs on PRN4 and reduced LPV availability in Canada and LPV200 availability in CONUS, Alaska, and Canada.
- Oct 17—Geomagnetic activity increased GIVEs and reduced LPV and LPV200 availability in Canada.
- Oct 18—Geomagnetic activity increased GIVEs and reduced LPV availability in Canada, Mexico, and All and LPV200 availability in CONUS, Alaska, and Canada.
- Oct 19—Oct 20—Geomagnetic activity increased GIVEs and reduced LPV200 availability in CONUS, Alaska, and Canada.
- Oct 20—Geomagnetic activity increased GIVEs and reduced LPV availability in Alaska and Canada and LPV200 availability in Alaska.
- Oct 21—Geomagnetic activity increased GIVEs and reduced LPV200 availability in CONUS and Canada.
- Oct 22—Geomagnetic activity increased GIVEs and reduced LPV200 availability in Canada.
- Oct 23—Geomagnetic activity increased GIVEs and reduced LPV200 availability in CONUS and Canada.
- Oct 24—Geomagnetic activity increased GIVEs and reduced LPV and LPV200 availability in Canada.
- Oct 25—Geomagnetic activity increased GIVEs and reduced LPV200 availability in Canada.
- Oct 26—Geomagnetic activity increased GIVEs and reduced LPV200 availability in CONUS.
- Oct 27—Geomagnetic activity increased GIVEs and reduced LPV and LPV200 availability in Canada.
- Oct 28—Geomagnetic activity increased GIVEs and reduced LPV and LPV200 availability in Canada.
- Oct 29—Oct 30—Geomagnetic activity increased GIVEs and reduced LPV and LPV200 availability in Canada.
- Oct 30—Oct 31—Geomagnetic activity increased GIVEs and reduced LPV200 availability in Canada.
- Oct 31—Geomagnetic activity increased GIVEs and reduced LPV and LPV200 availability in Canada.
- Nov 01—Geomagnetic activity increased GIVEs and reduced LPV200 availability in CONUS and Canada.
- Nov 02—Geomagnetic activity increased GIVEs and reduced LPV200 availability in CONUS.
- Nov 04—Geomagnetic activity increased GIVEs and reduced LPV200 availability in CONUS.
- Nov 05—Nov 06—Geomagnetic activity increased GIVEs and reduced LPV and LPV200 availability in Canada.
- Nov 06—Nov 07—Geomagnetic activity increased GIVEs and reduced LPV availability in Canada and LPV200 availability in Alaska and Canada.
- Nov 07—Geomagnetic activity increased GIVEs and reduced LPV availability in Canada and LPV200 availability in CONUS, Alaska, and Canada.
- Nov 08—Geomagnetic activity increased GIVEs and reduced LPV200 availability in Canada.
- Nov 10—Nov 11—Geomagnetic activity increased GIVEs and reduced LPV and LPV200 availability in Alaska and Canada.
- Nov 11—Geomagnetic activity increased GIVEs and reduced LPV and LPV200 availability in Alaska and Canada.
- Nov 12—Geomagnetic activity increased GIVEs and reduced LPV and LPV200 availability in CONUS, Alaska, and Canada.
- Nov 13—Geomagnetic activity increased GIVEs and reduced LPV availability in CONUS and Alaska and LPV200 availability in CONUS, Alaska, and Canada.
- Nov 15—Nov 16—Geomagnetic activity increased GIVEs and reduced LPV200 availability in Alaska and Canada.
- Nov 16—Geomagnetic activity increased GIVEs and reduced LPV and LPV200 availability in Canada.
- Nov 17—Geomagnetic activity increased GIVEs and reduced LPV200 availability in Canada.
- Nov 18—Geomagnetic activity increased GIVEs and reduced LPV200 availability in Canada.
- Nov 20—Nov 21—Geomagnetic activity increased GIVEs and reduced LPV and LPV200 availability in Alaska and Canada.
- Nov 21—Geomagnetic activity increased GIVEs and reduced LPV200 availability in Canada.
- Nov 22—Geomagnetic activity increased GIVEs and reduced LPV and LPV200 availability in Canada.
- Nov 24—Geomagnetic activity increased GIVEs and reduced LPV availability in Canada and LPV200 availability in CONUS and Canada.
- Nov 25—Geomagnetic activity increased GIVEs and reduced LPV and LPV200 availability in Canada.

- Nov 26—Geomagnetic activity increased GIVEs and reduced LPV and LPV200 availability in Canada.
- Nov 27—Geomagnetic activity increased GIVEs and reduced LPV and LPV200 availability in Canada.
- Nov 28—Geomagnetic activity increased GIVEs and reduced LPV200 availability in Canada.
- Nov 29—Geomagnetic activity increased GIVEs and reduced LPV and LPV200 availability in Canada.
- Nov 30—Geomagnetic activity increased GIVEs and reduced LPV200 availability in Canada.
- Dec 01—Geomagnetic activity increased GIVEs and reduced LPV200 availability in Canada.
- Dec 02—Geomagnetic activity increased GIVEs and reduced LPV200 availability in Canada.
- Dec 03—Geomagnetic activity increased GIVEs and reduced LPV and LPV200 availability in CONUS, Alaska, and Canada.
- Dec 04–Dec 05—Geomagnetic activity increased GIVEs and reduced LPV availability in Canada and LPV200 availability in CONUS and Canada.
- Dec 05—Geomagnetic activity increased GIVEs and reduced LPV and LPV200 availability in Canada.
- Dec 05—Geomagnetic activity increased GIVEs and reduced LPV and LPV200 availability in Canada.
- Dec 06—Geomagnetic activity increased GIVEs and reduced LPV and LPV200 availability in Canada.
- Dec 09—Geomagnetic activity increased GIVEs and reduced LPV and LPV200 availability in Canada.
- Dec 11—Geomagnetic activity increased GIVEs and reduced LPV availability in CONUS and Canada and LPV200 availability in CONUS, Alaska, and Canada.
- Dec 12—Geomagnetic activity increased GIVEs and reduced LPV and LPV200 availability in CONUS and Canada.
- Dec 13—Geomagnetic activity increased GIVEs and reduced LPV availability in Canada.
- Dec 14–Dec 16—Satellite maintenance elevated UDREs on PRN1 and reduced LPV200 availability in CONUS and Canada.
- Dec 15—Geomagnetic activity increased GIVEs and reduced LPV availability in Canada and LPV200 availability in CONUS, Alaska, and Canada.
- Dec 16—Geomagnetic activity increased GIVEs and reduced LPV and LPV200 availability in Canada.
- Dec 17—Geomagnetic activity increased GIVEs and reduced LPV200 availability in CONUS and Canada.
- Dec 18—Geomagnetic activity increased GIVEs and reduced LPV200 availability in CONUS and Canada.
- Dec 19—Geomagnetic activity increased GIVEs and reduced LPV200 availability in Alaska.
- Dec 21—Geomagnetic activity increased GIVEs and reduced LPV and LPV200 availability in Canada.
- Dec 22—Geomagnetic activity increased GIVEs and reduced LPV200 availability in Canada.
- Dec 23—Geomagnetic activity increased GIVEs and reduced LPV200 availability in Canada.
- Dec 24—Geomagnetic activity increased GIVEs and reduced LPV200 availability in Canada.
- Dec 26—Geomagnetic activity increased GIVEs and reduced LPV200 availability in Canada.
- Dec 27–Dec 28—Geomagnetic activity increased GIVEs and reduced LPV200 availability in Canada.
- Dec 28—Geomagnetic activity increased GIVEs and reduced LPV and LPV200 availability in Canada.
- Dec 30—Geomagnetic activity increased GIVEs and reduced LPV and LPV200 availability in Canada.
- Dec 31—Geomagnetic activity increased GIVEs and reduced LPV and LPV200 availability in Canada.

4.0 COVERAGE

The WAAS coverage area evaluation estimates the percentage of service volume where WAAS provided service for the operational service levels defined in Table 1-1. The WAAS message and GPS/GEO satellite status are used to determine WAAS availability across North America. For PA coverage, protection levels were calculated at 30-second intervals at 1-degree spacing over the PA service volume, whereas for NPA coverage, the protection levels were calculated at 30-second intervals at 5-degree spacing over the NPA service volume.

Daily PA analysis was conducted for LP, LPV, and LPV200 service levels. The PA coverage plots provide 100%, 99.9%, 99%, 98%, and 95% availability contours. Figure 4-1 shows the rollup LP North America coverage, Figure 4-2 shows the rollup LPV North America coverage, Figure 4-3 shows the rollup LPV200 North America coverage, Figure 4-4 shows the daily LPV and LPV200 CONUS coverage, Figure 4-5 shows the daily LPV Alaska coverage at 99% availability and ionosphere Kp index values, and Figure 4-6 shows the daily LPV and LPV200 Canada coverage at 99% availability and ionosphere Kp index values. See APPENDIX B: ADDITIONAL COVERAGE PLOTS for coverage plots of 98% LP and LPV availability contour and 99% LPV200 availability contour. Kp quantifies the

disturbance in the Earth's magnetic field and is an indicator of solar storms causing geomagnetic disturbances, which can cause an unpredictable ionosphere. When the WAAS detects a disturbed ionosphere, it increases GIVE values that may result in unavailable PA service.

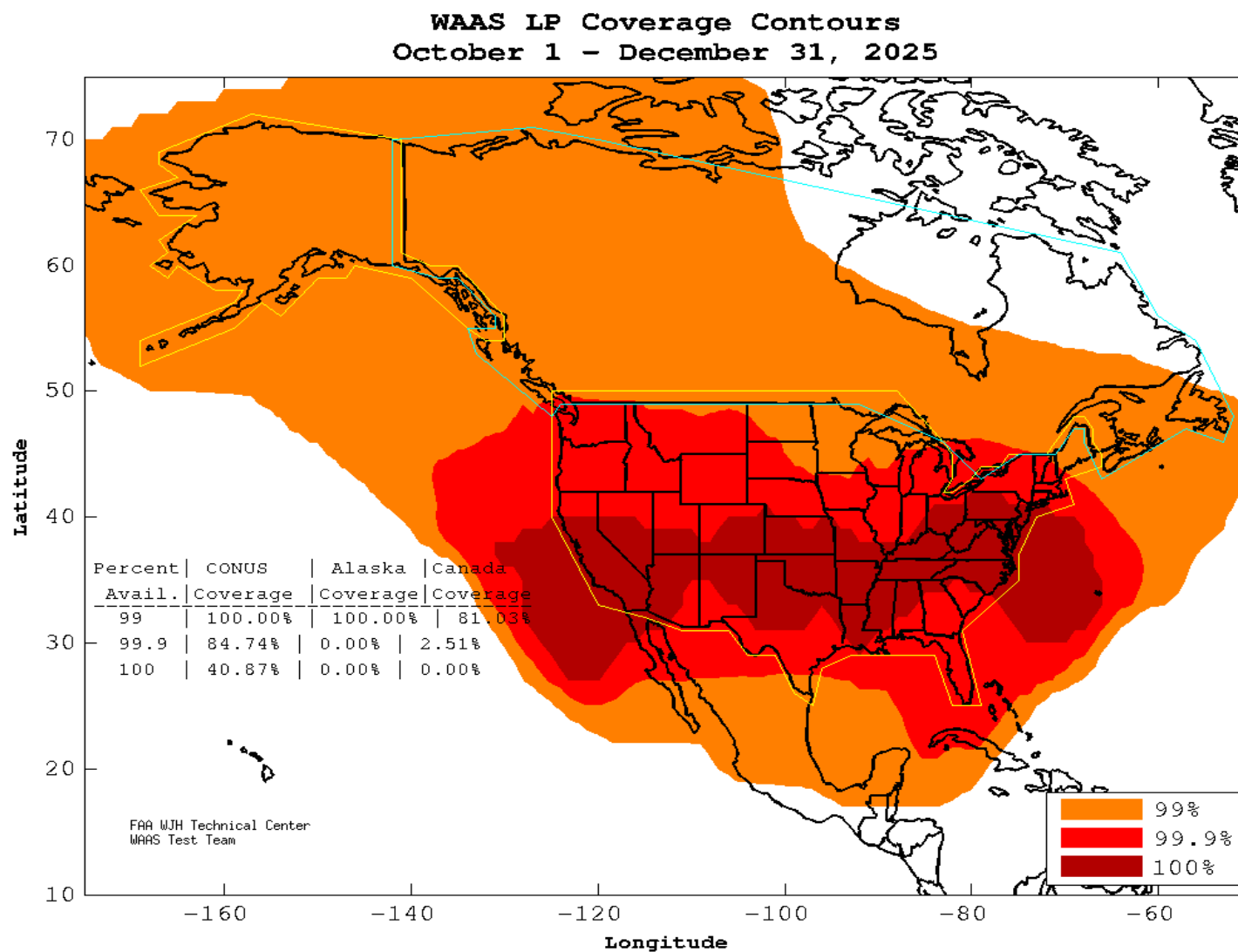


Figure 4-1 LP North America Coverage for the Quarter

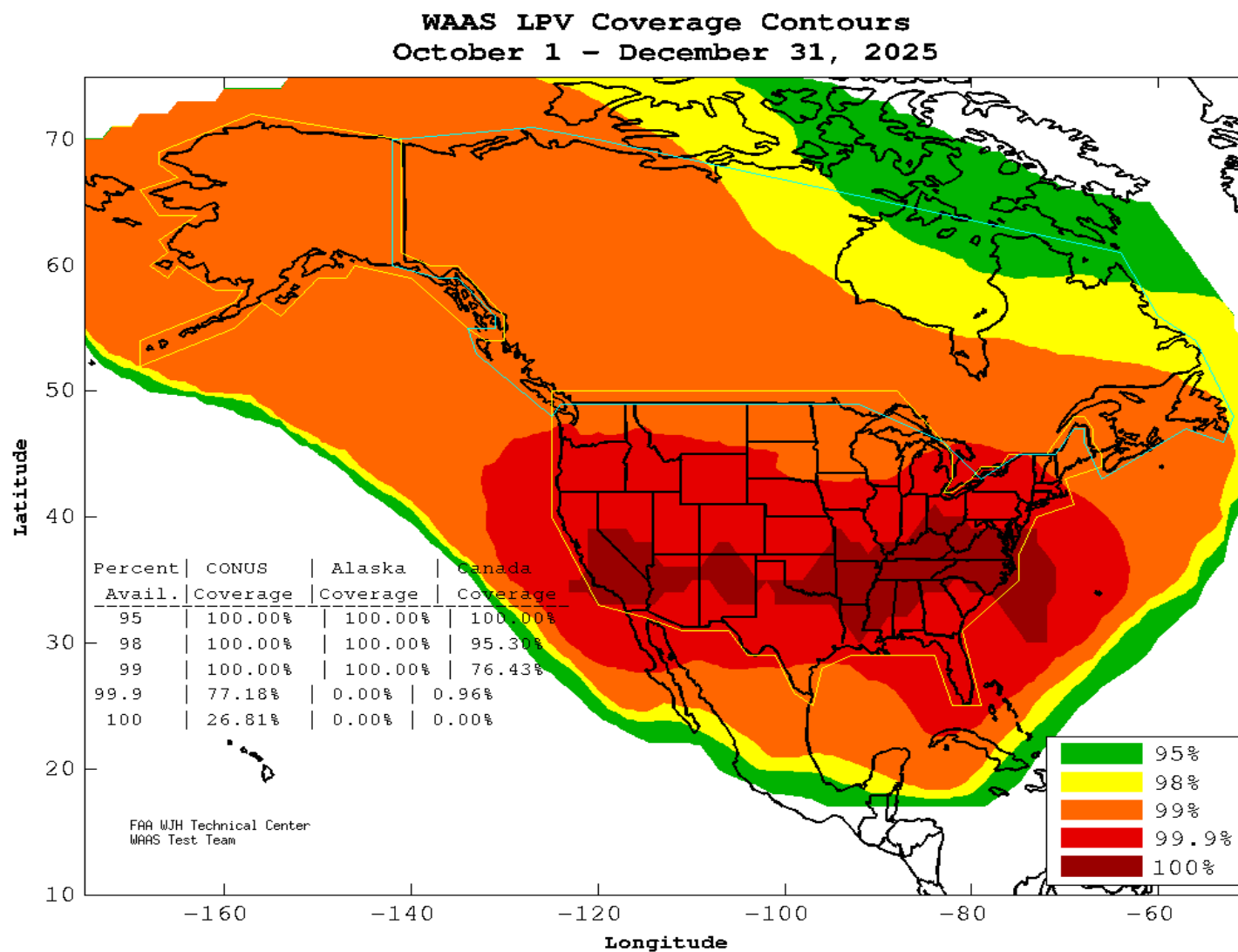


Figure 4-2 LPV North America Coverage for the Quarter

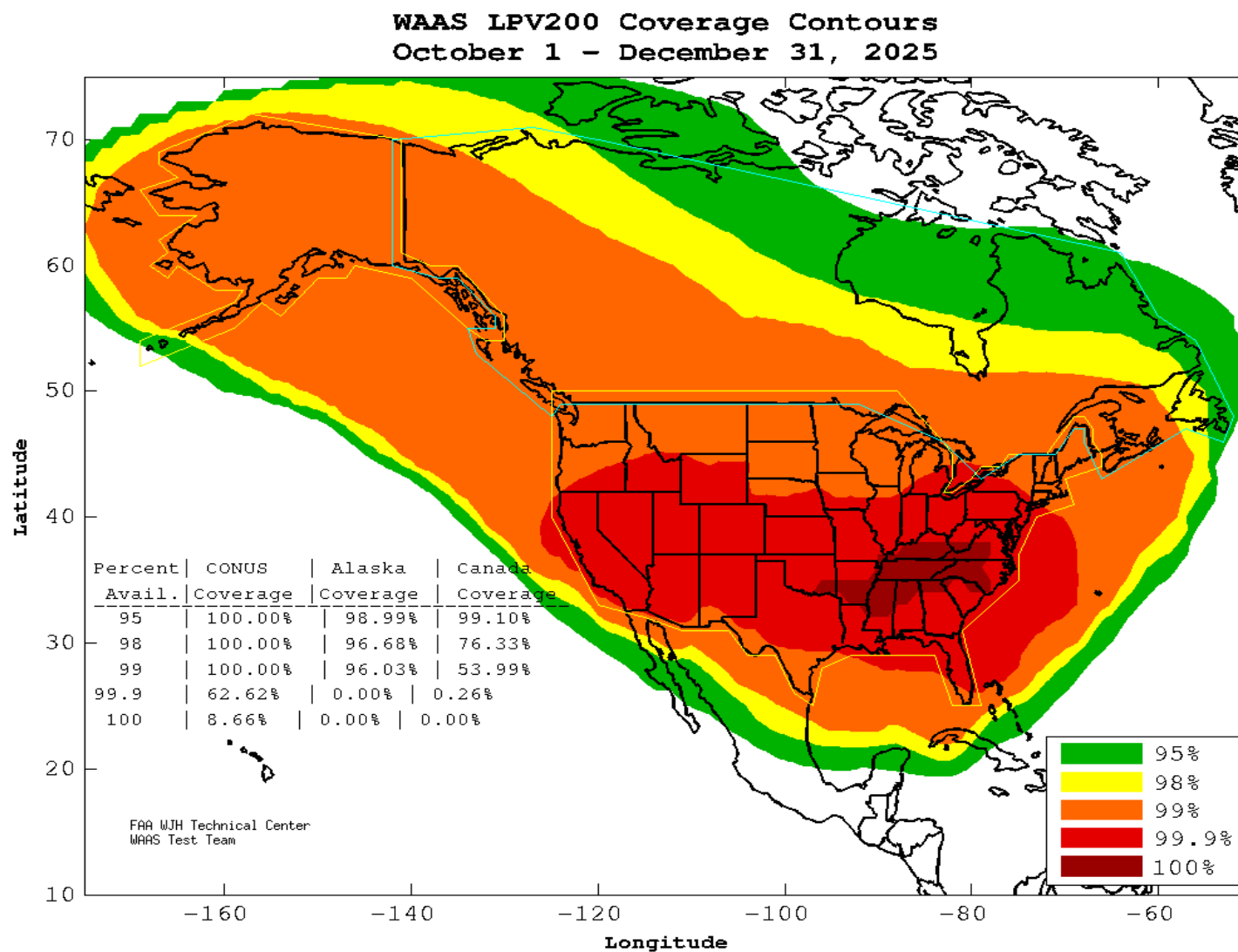


Figure 4-3 LPV200 North America Coverage for the Quarter

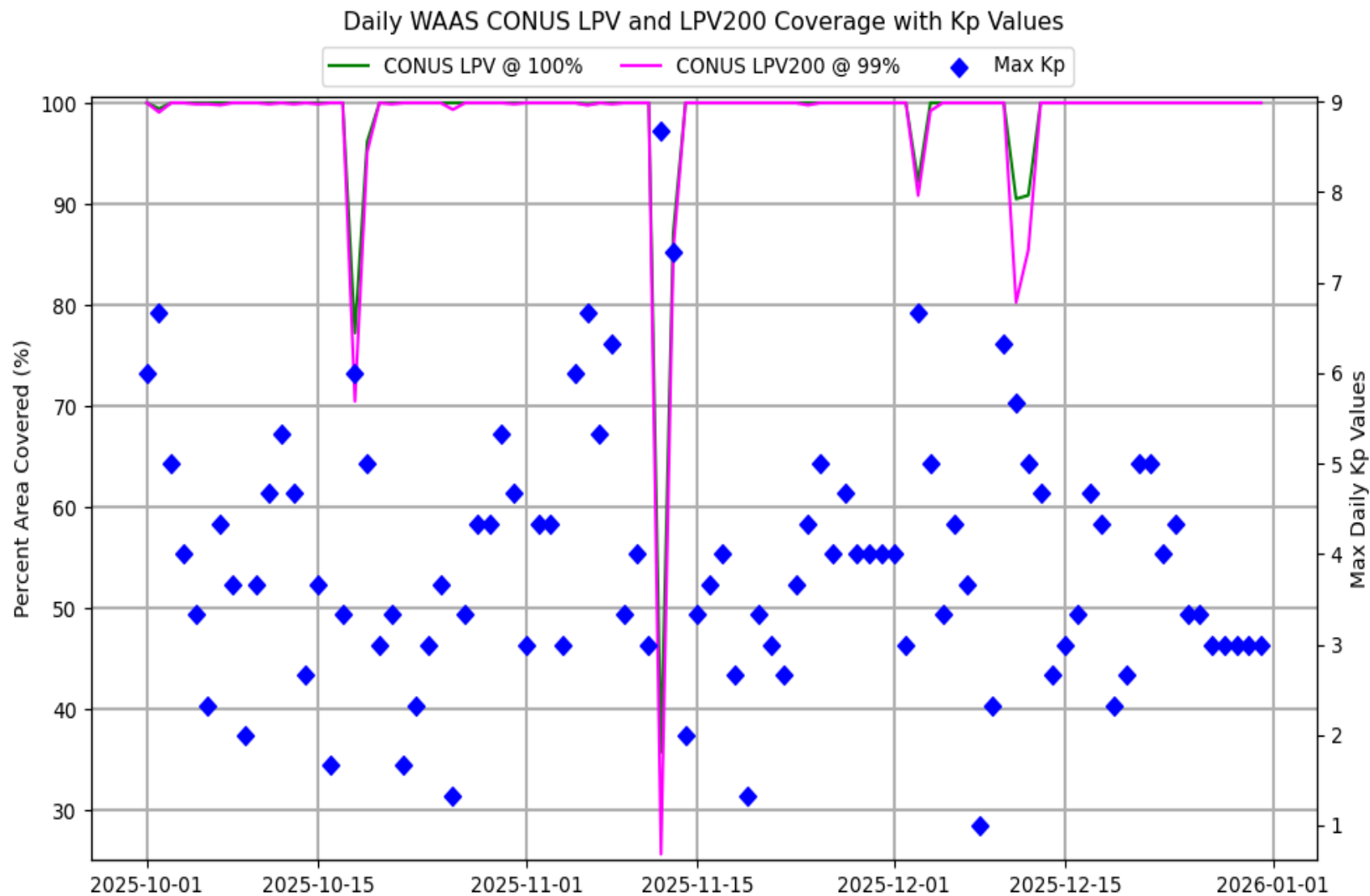


Figure 4-4 Daily LPV and LPV200 CONUS Coverage

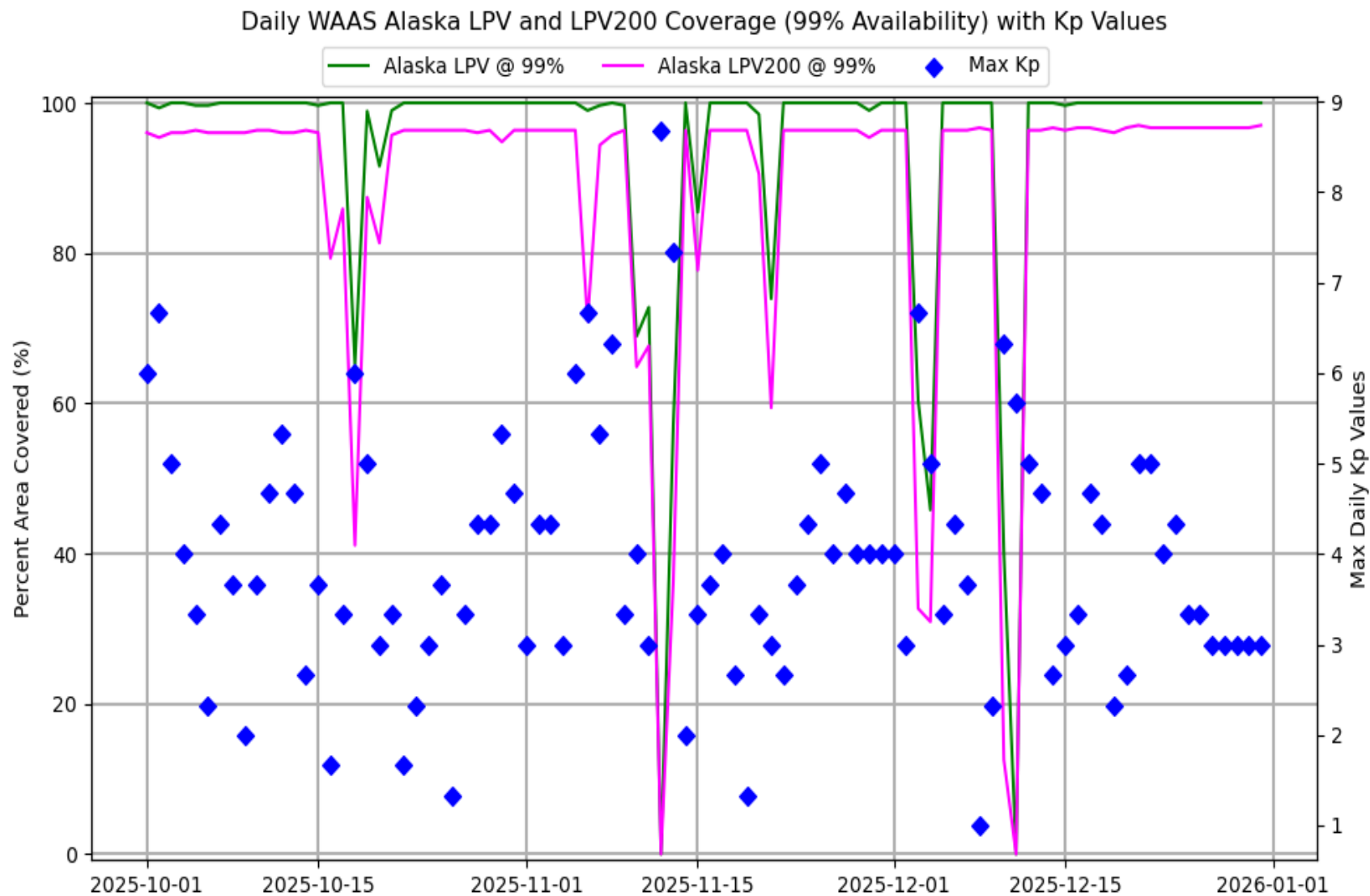


Figure 4-5 Daily LPV and LPV200 Alaska Coverage

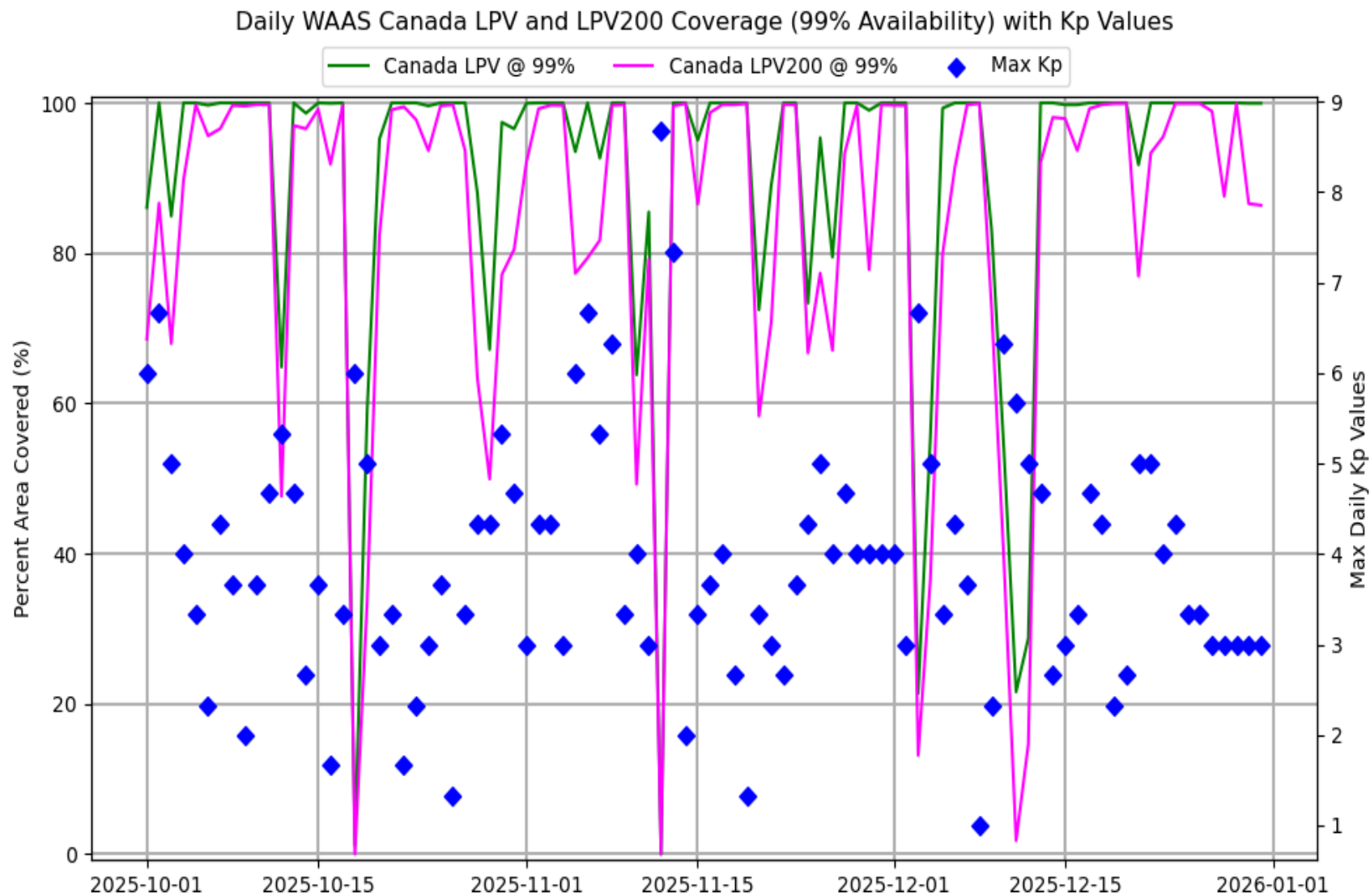


Figure 4-6 Daily LPV and LPV200 Canada Coverage

Daily analysis for NPA was conducted for the Required Navigation Performance (RNP) 0.1 and RNP 0.3 service levels based on a 100% availability requirement. The NPA coverage plots provide 100%, 99.9%, and 99% availability contours. Figure 4-7 shows the rollup RNP 0.1 coverage and Figure 4-8 shows the rollup RNP 0.3 coverage for the quarter. Figure 4-9 shows the daily RNP coverage at 100% availability and ionosphere Kp index values for this quarter.

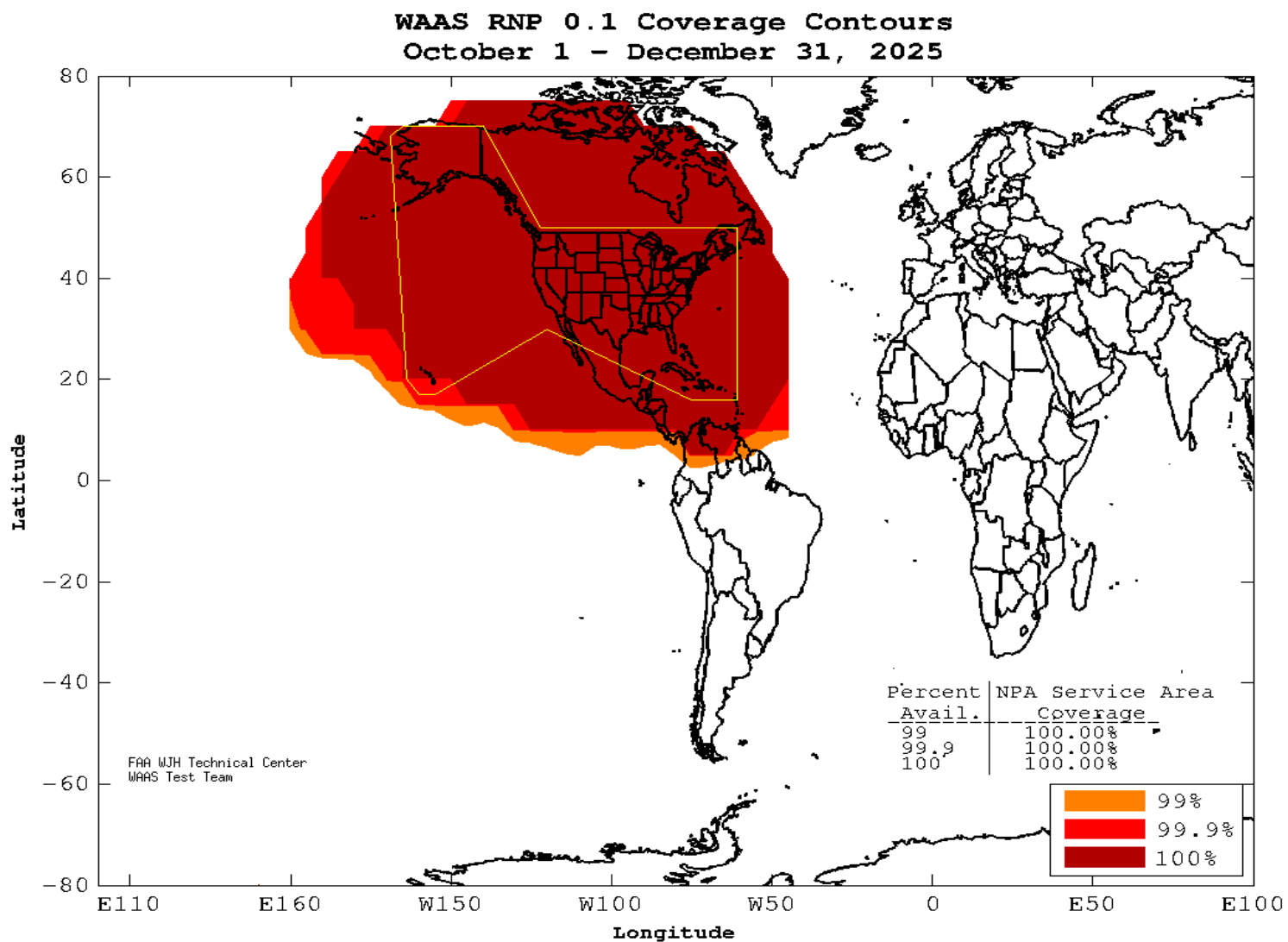


Figure 4-7 RNP 0.1 Coverage for the Quarter

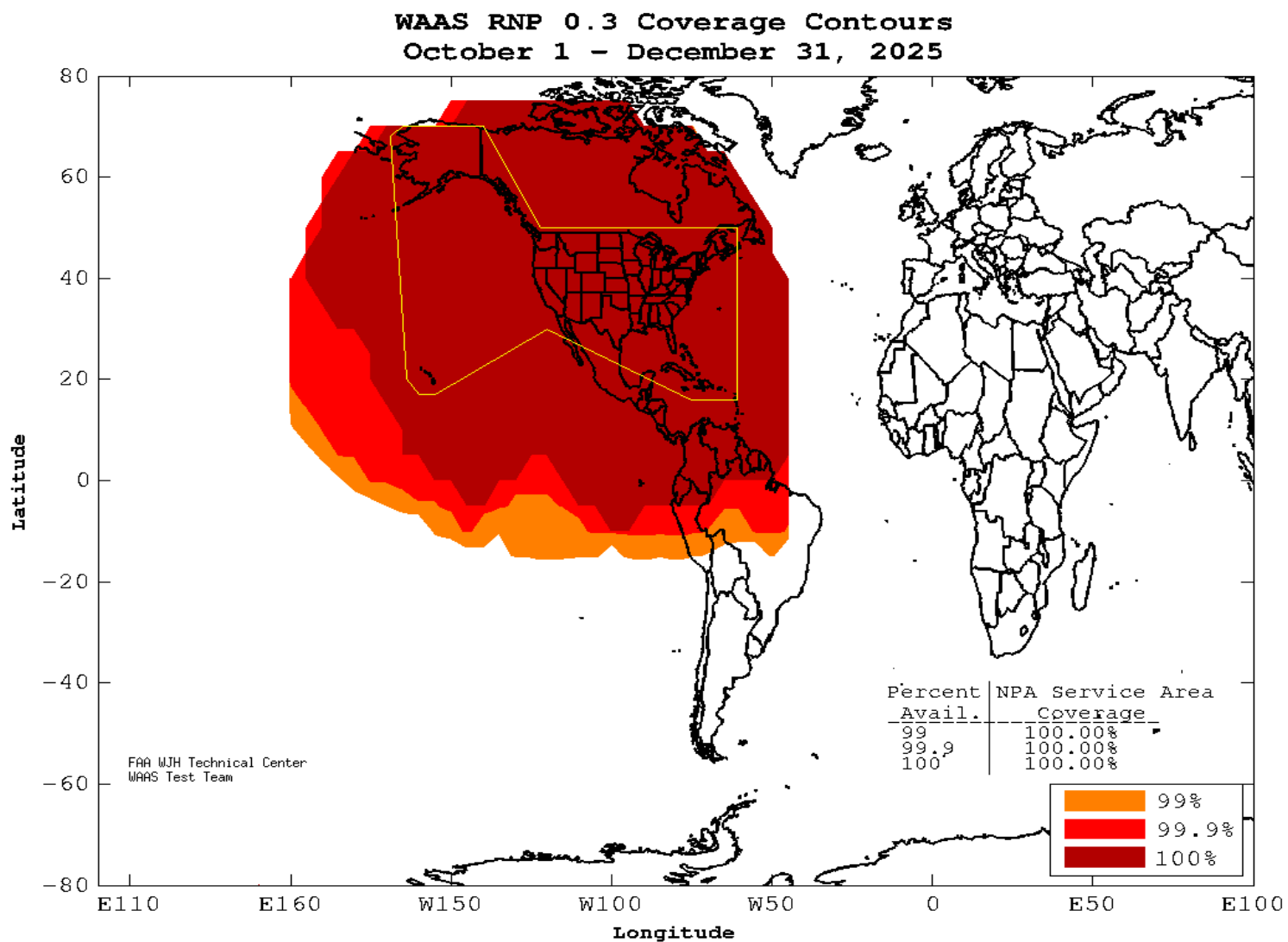


Figure 4-8 RNP 0.3 Coverage for the Quarter

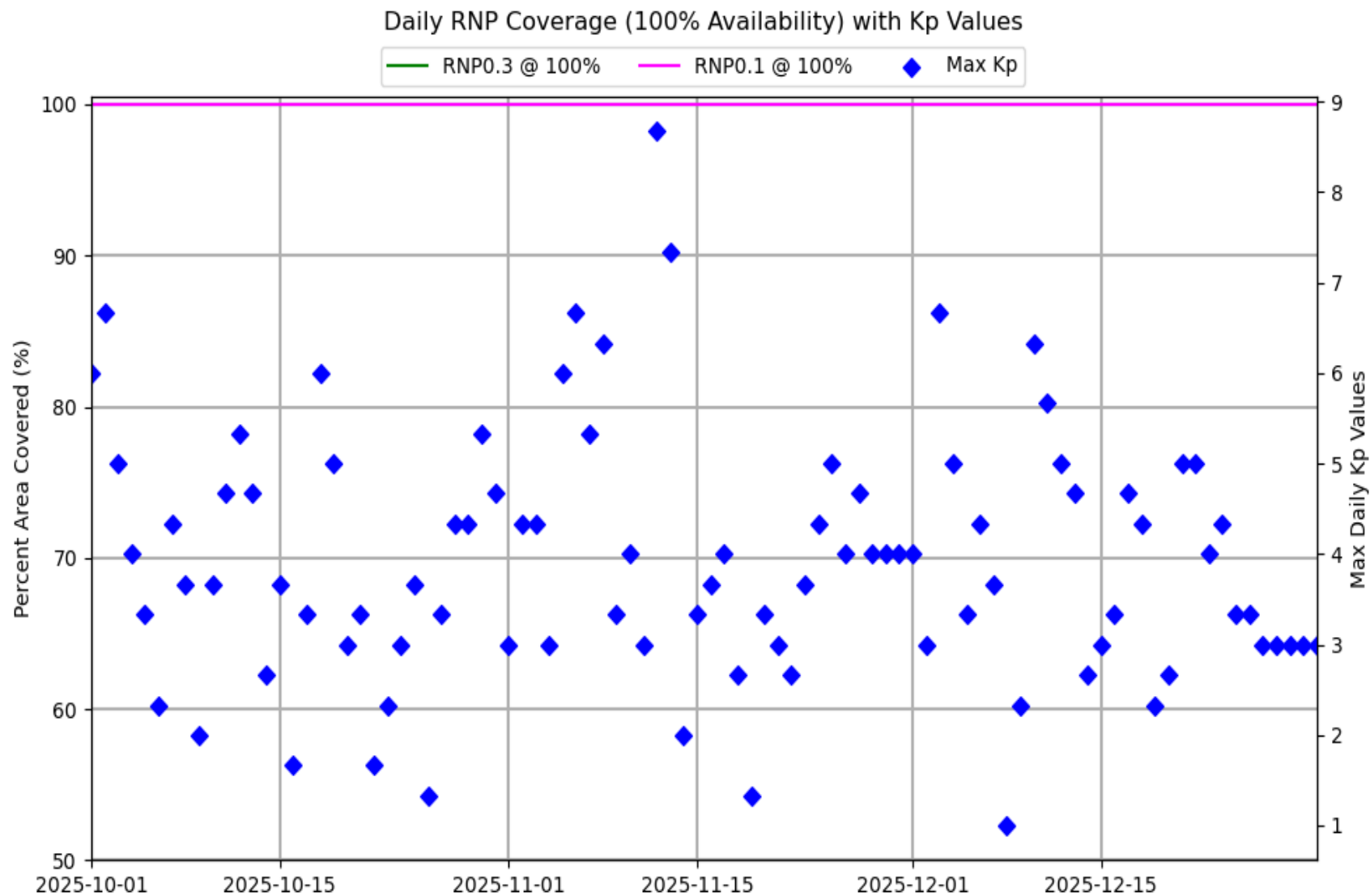


Figure 4-9 Daily RNP Coverage

5.0 **INTEGRITY**

5.1 **HMI Analysis**

Integrity analysis includes the identification and evaluation of HMI as well as the generation of the safety index to illustrate the safety margin provided by WAAS protection levels. The safety index is a metric that shows how well the protection levels are bounding the maximum observed error when LPV service is available. The horizontal and vertical safety margin index is the ratio of HPL/HPE and VPL/VPE, respectively, at the time the maximum position error occurred. Section 2.0 provides a detailed description of the methodology for computing HPL, VPL, and position errors.

A computed safety margin index of greater than one indicates safe bounding of the greatest observed error, less than one indicates that the maximum error was not bounded, and a result equal to one means that the maximum position error was equal to the protection level. An HMI event occurs if the position error exceeds the protection level in the vertical or horizontal dimensions at any time and coupled with the passage of 6.2 seconds before this event is corrected by WAAS.

Table 5-1 lists the safety margin index and the number of HMI events. For this reporting period, the lowest safety margin index is 2.968 at Puerto Vallarta and there were no HMI events. There has not been an HMI event since WAAS was made available to the public in August 2000. In July 2003, WAAS was commissioned by the FAA for safety of life services.

Table 5-1 Minimum Safety Margin Index and HMI Statistics

Location	Horizontal Safety Index (m)	Vertical Safety Index (m)	Number of HMIs
NSTB:			
Arcata	5.853	10.206	0
Atlantic City	5.913	5.1	0
Bangor	7.189	6.284	0
Elko	6.623	9.671	0
Grand Forks	5.655	6.802	0
Oklahoma City	7.494	5.993	0
WAAS:			
Albuquerque	7.129	7.689	0
Anchorage	3.304	5	0
Atlanta	6.624	4.519	0
Barrow	6.01	4.261	0
Bethel	4.658	9.103	0
Billings	8.04	4.649	0
Boston	9.227	8.715	0
Chicago	5.949	7.015	0
Cleveland	4.814	6.687	0
Cold Bay	7.936	7.511	0
Dallas	7.172	5.754	0
Denver	4.742	8.159	0
Fairbanks	5.683	5.516	0

Location	Horizontal Safety Index (m)	Vertical Safety Index (m)	Number of HMIs
Gander	10.666	10.02	0
Goose Bay	5.823	6.822	0
Houston	7.024	8.952	0
Iqaluit	5.897	4.035	0
Jacksonville	5.603	4.792	0
Juneau	4.368	6.532	0
Kansas City	4.522	9.504	0
Kotzebue	4.81	3.736	0
Los Angeles	5.645	7.444	0
Memphis	6.033	6.829	0
Merida	6.156	7.072	0
Mexico City	3.08	7.605	0
Miami	4.487	8.292	0
Minneapolis	8.819	7.021	0
New York	5.328	6.885	0
Oakland	5.189	10.725	0
Puerto Vallarta	2.968	4.378	0
Salt Lake City	9.408	13.1	0
San Jose Del Cabo	6.167	8.301	0
Seattle	10.414	5.404	0
Washington, DC	3.548	11.214	0
Winnipeg	9.395	8.055	0

5.2 Broadcast Alerts

The WAAS transmits alert messages for user protection when the active WAAS corrections are no longer bound by the UDREs. Alerts increase the UDRE for one or more PRNs, which can reduce the weighting of the satellite or exclude the satellite from the navigation solution. An increase in UDREs after an alert effectively increases the user protection levels (HPL and VPL), which affects the availability. Additionally, if an alert message sequence lasts for more than 12 seconds, the WAAS fast corrections can time out and cause a loss of continuity. Table 5-2 shows the total number of alerts and the average number of alerts per day.

Table 5-2 WAAS SV Alert

Message Type	Number of Alerts			Average Alerts Per Day		
	SM9	S15	G30	SM9	S15	G30
T2	79	78	79	0.8587	0.8478	0.8587
T3	23	23	23	0.25	0.25	0.25
T4	54	52	53	0.587	0.5652	0.5761
T5	0	0	0	0	0	0
T6	0	0	0	0	0	0
T24	0	0	0	0	0	0
T26	0	0	0	0	0	0
Total SV Alerts:	156	153	155	1.6957	1.663	1.6848
Days in Service	92	92	92			

Figure 5-1 provides the daily SV alerts. The number of alerts on one GEO is often the same as the number of alerts on the other GEO; therefore, lines tend to overlap in most points on this plot.

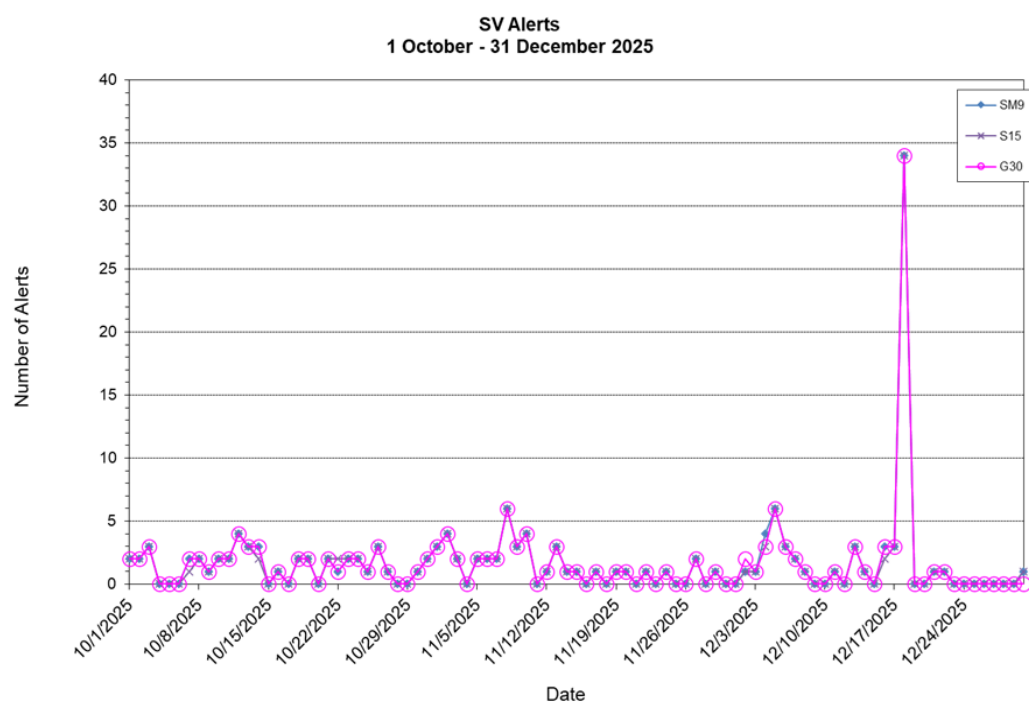


Figure 5-1 SV Daily Alert Trend

5.3 Availability of WAAS Messages (SM9, S15, and G30)

Accurate and current calculations of user position are dependent on the broadcast and receipt of the WAAS message within precise time specifications. This aspect of the WAAS is critical to maintaining continuity requirements. Each message type in the WAAS SIS has a specific timeout interval and expected worst-case broadcast interval. Table 5-3 lists the maximum intervals at which each message must broadcast to meet system requirements.

Table 5-3 Update Rates for WAAS Messages

Data	Associated Message Types	Maximum Update Interval (seconds)	En Route, Terminal, NPA Timeout (seconds)	Precision Approach Timeout (seconds)
WAAS in Test Mode	0	6	N/A	N/A
PRN Mask	1	60	None	None
UDREI	2-6, 24	6	18	12
Fast Corrections	2-5, 24	See APPENDIX C: RTCA TABLE DO-229F	See APPENDIX C: RTCA TABLE DO-229F	See APPENDIX C: RTCA TABLE DO-229F
Long Term Corrections	24, 25	120	360	240
GEO Nav. Data	9	120	360	240
Fast Correction Degradation	7	120	360	240
Weighting Factors	8	120	240	240
Degradation Parameters	10	120	360	240
Ionospheric Grid Mask	18	300	None	None
Ionospheric Corrections	26	300	600	600
UTC Timing Data	12	300	None	None
Almanac Data	17	300	None	None

GUS switchovers and broadcast WAAS alerts can interrupt the normal broadcast message stream. If these events occur when the maximum interval of a specific message is approaching, that message may be delayed, resulting in its late transmittal.

For this quarter, statistics reported for late messages were mainly caused by GEO SIS outages, GUS switchovers, and SV alerts, excluding message type 7 and 10. Furthermore, the delay of message types 7 and 10 had little or no impact on user performance and safety, and they were not caused by GEO SIS outages, GUS switchovers, or SV alerts. Table 5-4 through Table 5-8 show statistics for fast correction, long correction, ephemeris covariance, ionosphere correction, and ionospheric mask message rates broadcasted on SM9 GEO. Table 5-9 through Table 5-13 show statistics for message rates broadcasted on S15 GEO. Table 5-14 through Table 5-18 show statistics for message rates broadcasted on G30 GEO.

The high Max Late Length reported by SM9 GEO for SM9 GEO Type 28 messages occurred after PRN131 switched from Southbury (faulted) to Santa Paula on 2025/10/14, causing a 15-second message outage. The high Max Late Length reported by SM9 GEO for S15 GEO Type 28 messages occurred after PRN133 switched from South Mountain (manual) to Brewster on 2025/12/03, causing a 3-second message outage.

The high Max Late Length reported by S15 GEO for SM9 GEO Type 28 messages occurred after PRN131 switched from Southbury (faulted) to Santa Paula on 2025/10/14, causing a 15-second message outage. The high Max Late Length reported by S15 GEO for G30 GEO Type 28 messages occurred after PRN135 switched from Brewster (faulted) to Napa on 2025/12/30, causing an 18-second message outage.

The high Max Late Length reported by G30 GEO for SM9 GEO Type 28 messages occurred after PRN131 switched from Southbury (faulted) to Santa Paula on 2025/10/14, causing a 15-second message outage. The high Max Late Length reported by G30 GEO for S15 GEO Type 28 messages occurred after PRN133 switched from South Mountain (faulted) to Brewster on 2025/10/14, causing an 11-second message outage.

Table 5-4 WAAS Fast Correction and Degradation Message Rates–SM9

Message Type	On Time (number received)	Late (number received)	Max Late Length (seconds)
1	102144	0	0
2	1325035	62	18
3	1324808	101	18
4	1324938	75	24
7	95142	13	132
9	93295	0	0
10	95166	12	133
17	31342	0	0

Table 5-5 WAAS Long Correction Message Rates (Type 24 and 25)–SM9

PRN	On Time (number received)	Late (number received)	Max Late Length (seconds)
1	47831	0	0
2	50228	0	0
3	47528	0	0
4	46819	0	0
5	47476	0	0
6	47858	0	0
7	47861	0	0
8	48535	0	0
9	47152	0	0
10	47620	0	0
11	47523	0	0
12	47260	0	0
13	49105	0	0
14	47040	0	0
15	47632	0	0
16	47174	0	0
17	47937	0	0
18	47034	0	0
19	46843	0	0
20	44233	0	0
21	48397	0	0
22	47865	0	0
23	47198	0	0
24	48764	0	0
25	48721	0	0
26	47859	0	0
27	45349	0	0
28	47670	0	0
29	46893	0	0
30	47309	0	0
31	47089	0	0
32	47105	0	0

Table 5-6 WAAS Ephemeris Covariance Message Rates (Type 28)–SM9

PRN	On Time (number received)	Late (number received)	Max Late Length (seconds)
1	39351	3	211
2	41275	2	158
3	39065	0	0
4	38555	0	0
5	39064	1	204
6	39344	0	0
7	39271	3	208
8	39890	0	0
9	38776	0	0
10	39125	3	210
11	39102	0	0
12	38858	0	0
13	40375	3	209
14	38628	4	203
15	39069	0	0
16	38842	0	0
17	39329	0	0
18	38706	1	168
19	38504	0	0
20	36359	0	0
21	39897	0	0
22	39384	7	204
23	38875	0	0
24	40190	0	0
25	40151	1	134
26	39421	0	0
27	37367	4	182
28	39282	0	0
29	38653	0	0
30	38853	0	0
31	38764	0	0
32	38836	1	209
131	76247	1	5436
133	75987	2	5465
135	76410	0	0

Table 5-7 WAAS Ionospheric Correction Message Rates (Type 26)–SM9

Band	Block	On Time (number received)	Late (number received)	Max Late Length (seconds)
0	0	27678	4	306
0	1	27684	0	0
0	2	27677	5	306
1	0	27683	3	306
1	1	27682	2	301
1	2	27683	3	304
1	3	27684	1	301
1	4	27685	2	305
2	0	27682	5	305
2	1	27679	5	306
2	2	27678	4	306
2	3	27683	3	305
2	4	27682	1	576
3	0	27671	8	576
3	1	27675	7	576
3	2	27679	4	305
9	0	27677	6	304
9	1	27679	5	577
9	2	27678	6	582
9	3	27678	4	579
9	4	27677	4	306
9	5	27676	5	305
9	6	27677	4	305

Table 5-8 WAAS Ionospheric Mask Message Rates (Type 18)–SM9

Band	On Time (number received)	Late (number received)	Max Late Length (seconds)
0	35449	0	0
1	35468	0	0
2	35477	0	0
3	35458	0	0
9	35465	0	0

Table 5-9 WAAS Fast Correction and Degradation Message Rates–S15

Message Type	On Time (number received)	Late (number received)	Max Late Length (seconds)
1	103041	4	161
2	1325024	65	25
3	1324803	103	24
4	1324923	82	25
7	95632	19	139
9	93292	1	167
10	95647	18	132
17	31366	0	0

Table 5-10 WAAS Long Correction Message Rates (Type 24 and 25)–S15

PRN	On Time (number received)	Late (number received)	Max Late Length (seconds)
1	47805	0	0
2	50207	0	0
3	47529	0	0
4	46816	0	0
5	47473	0	0
6	47855	0	0
7	47840	0	0
8	48532	0	0
9	47154	0	0
10	47604	0	0
11	47526	0	0
12	47260	0	0
13	49049	0	0
14	46974	0	0
15	47642	0	0
16	47167	0	0
17	47933	0	0
18	47024	0	0
19	46819	0	0
20	44235	0	0
21	48395	0	0
22	47829	0	0
23	47195	0	0
24	48753	0	0
25	48724	0	0
26	47847	0	0

PRN	On Time (number received)	Late (number received)	Max Late Length (seconds)
27	45337	0	0
28	47665	0	0
29	46897	0	0
30	47296	0	0
31	47096	0	0
32	47104	0	0

Table 5-11 WAAS Ephemeris Covariance Message Rates (Type 28)–S15

PRN	On Time (number received)	Late (number received)	Max Late Length (seconds)
1	39264	5	288
2	41158	6	192
3	39022	0	0
4	38520	0	0
5	39011	0	0
6	39288	0	0
7	39156	0	0
8	39813	1	222
9	38740	0	0
10	39066	0	0
11	39065	0	0
12	38817	1	208
13	40257	1	152
14	38492	4	210
15	38986	2	210
16	38803	1	129
17	39222	1	144
18	38678	2	210
19	38428	1	178
20	36342	0	0
21	39842	0	0
22	39277	5	161
23	38791	1	129
24	40086	2	208
25	40147	2	138
26	39414	0	0
27	37303	5	192
28	39295	1	208
29	38663	1	179
30	38769	3	168

PRN	On Time (number received)	Late (number received)	Max Late Length (seconds)
31	38760	0	0
32	38798	0	0
131	76142	3	5303
133	75975	1	160
135	76184	2	5425

Table 5-12 WAAS Ionospheric Correction Message Rates (Type 26)–S15

Band	Block	On Time (number received)	Late (number received)	Max Late Length (seconds)
0	0	27679	2	306
0	1	27679	3	304
0	2	27683	3	305
1	0	27682	3	576
1	1	27675	5	576
1	2	27678	4	305
1	3	27680	3	302
1	4	27679	3	306
2	0	27683	3	305
2	1	27682	3	455
2	2	27675	3	454
2	3	27674	8	464
2	4	27684	2	448
3	0	27678	4	443
3	1	27677	3	448
3	2	27679	3	576
9	0	27675	6	576
9	1	27672	8	576
9	2	27679	6	442
9	3	27671	7	431
9	4	27670	8	546
9	5	27679	3	552
9	6	27680	4	302

Table 5-13 WAAS Ionospheric Mask Message Rates (Type 18)–S15

Band	On Time (number received)	Late (number received)	Max Late Length (seconds)
0	35560	0	0
1	35558	1	306
2	35546	1	381
3	35548	1	382
9	35534	0	0

Table 5-14 WAAS Fast Correction and Degradation Message Rates–G30

Message Type	On Time (number received)	Late (number received)	Max Late Length (seconds)
1	102578	4	125
2	1325032	63	28
3	1324809	100	22
4	1324937	76	25
7	95437	10	132
9	93295	1	178
10	95502	11	131
17	31357	1	301

Table 5-15 WAAS Long Correction Message Rates (Type 24 and 25)–G30

PRN	On Time (number received)	Late (number received)	Max Late Length (seconds)
1	47835	0	0
2	50225	0	0
3	47524	0	0
4	46818	0	0
5	47472	0	0
6	47858	0	0
7	47862	0	0
8	48532	0	0
9	47147	0	0
10	47614	0	0
11	47523	0	0
12	47258	0	0
13	49106	0	0
14	47036	0	0
15	47634	0	0
16	47172	0	0
17	47939	0	0

PRN	On Time (number received)	Late (number received)	Max Late Length (seconds)
18	47029	0	0
19	46835	0	0
20	44231	0	0
21	48389	0	0
22	47883	0	0
23	47190	0	0
24	48770	0	0
25	48722	0	0
26	47858	0	0
27	45342	0	0
28	47661	0	0
29	46895	0	0
30	47316	0	0
31	47093	0	0
32	47113	0	0

Table 5-16 WAAS Ephemeris Covariance Message Rates (Type 28)–G30

PRN	On Time (number received)	Late (number received)	Max Late Length (seconds)
1	39265	4	186
2	41170	3	206
3	39013	1	212
4	38513	1	209
5	39019	0	0
6	39287	0	0
7	39192	0	0
8	39825	0	0
9	38732	0	0
10	39064	1	209
11	39070	0	0
12	38822	1	209
13	40279	0	0
14	38512	4	228
15	38986	0	0
16	38803	0	0
17	39250	1	211
18	38686	3	150
19	38439	1	211
20	36325	0	0
21	39853	0	0

PRN	On Time (number received)	Late (number received)	Max Late Length (seconds)
22	39327	1	155
23	38787	0	0
24	40094	0	0
25	40131	2	208
26	39386	1	206
27	37324	5	209
28	39295	0	0
29	38661	1	145
30	38783	1	160
31	38757	1	212
32	38778	1	208
131	76217	1	5285
133	75875	3	6600S
135	76214	0	0

Table 5-17 WAAS Ionospheric Correction Message Rates (Type 26)–G30

Band	Block	On Time (number received)	Late (number received)	Max Late Length (seconds)
0	0	27680	5	306
0	1	27678	6	306
0	2	27676	5	304
1	0	27683	2	309
1	1	27674	10	305
1	2	27679	5	576
1	3	27675	4	576
1	4	27679	2	301
2	0	27677	4	303
2	1	27676	4	307
2	2	27681	3	304
2	3	27678	4	311
2	4	27677	5	306
3	0	27674	8	578
3	1	27676	2	579
3	2	27674	8	306
9	0	27683	5	304
9	1	27678	5	308
9	2	27675	5	305
9	3	27683	1	305
9	4	27678	4	304
9	5	27675	4	305

Band	Block	On Time (number received)	Late (number received)	Max Late Length (seconds)
9	6	27679	3	306

Table 5-18 WAAS Ionospheric Mask Message Rates (Type 18)–G30

Band	On Time (number received)	Late (number received)	Max Late Length (seconds)
0	35528	0	0
1	35521	0	0
2	35509	0	0
3	35497	0	0
9	35501	1	436

5.4 Satellite Glitches

The GPS satellites will occasionally experience periods of signal carrier stability glitches of varying magnitude. These glitches are short degradations in the signal, which in severe cases may cause WAAS to lose track or cycle slip for some or all the WAAS receivers. The more severe glitches will cause the WAAS-reported UDRE to increase to “Not Monitor” and result in an alert. Figure 5-2 shows the SV glitch trend for this quarter. Severity 0, displayed by blue dots, indicates fewer than 10 receivers lost track of the satellite. Severity 1, displayed by green dots, indicates a significant number of receivers, but not all receivers, lost track of the satellite. Severity 2, displayed by yellow dots, indicates only Signal Quality Monitoring (SQM) was affected, and all receivers lost track. Severity 3, displayed by red dots, indicates more than just SQM was affected, and all receivers lost track.

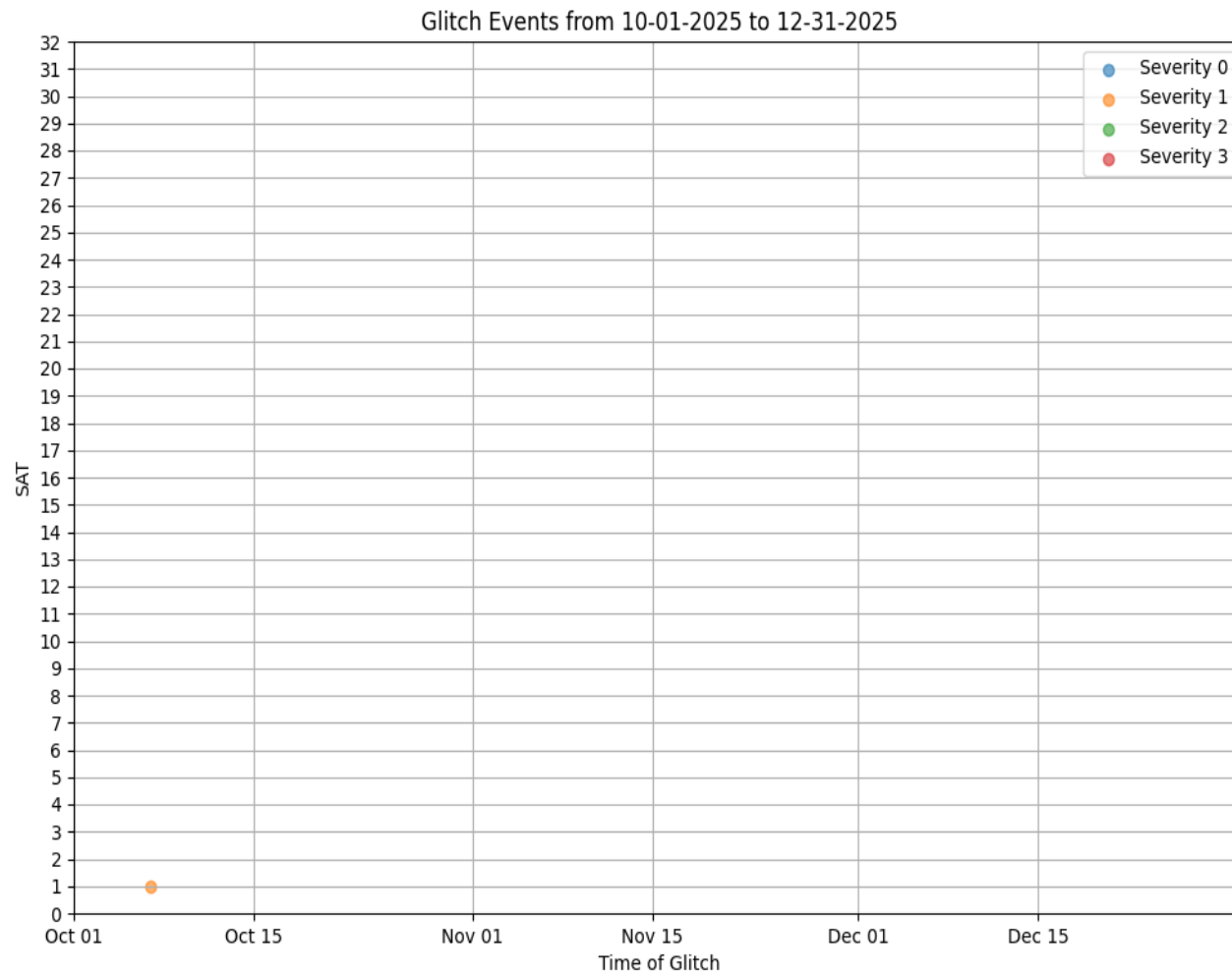


Figure 5-2 SV Glitch Trend

6.0 SV RANGE ACCURACY

WAAS transmits UDRE and GIVE values to support protection levels such that the position error is bounded 99.9999%. The position domain analysis in this report provides the information regarding how well the transmitted WAAS UDRE and GIVE values bound the position errors. A UDRE is broadcasted by the WAAS for each monitored satellite, and the 95% error bound and the maximum normalized value (divided by σ_{UDRE}) of the pseudorange residual error after application of fast and long-term corrections is checked. The pseudorange residual error is determined by taking the difference between the raw pseudorange and a calculated reference range. The reference range is equal to the true range between the corrected satellite position and surveyed user antenna plus all corrections (i.e., WAAS fast clock, WAAS long-term clock, WAAS ionospheric delay, tropospheric delay, receiver clock bias, and multipath). Because the true ionospheric delay and multipath error are not precisely known, the estimated variance in these error sources are added to the UDRE before comparing it to the normalized residual error.

The GPS satellite range residual errors were calculated for 12 WAAS receivers during the quarter. Table 6-1 and Table 6-2 show the range error 95% index, maximum range error, and maximum normalized value (divided by σ_{UDRE}) at the time of the maximum range error. Figure 6-1 through Figure 6-3 show the 95% range error for each SV measured by the WAAS receivers at the Washington, DC reference station.

Table 6-1 Range Error 95% Index and 3.29 Sigma Bounding

Site	Minneapolis			Chicago			Boston			Juneau			Honolulu			Salt Lake City		
PRN ↓	0.95 Range Error (m)	Max Range Error (m)	Max Range Error Sigma	0.95 Range Error (m)	Max Range Error (m)	Max Range Error Sigma	0.95 Range Error (m)	Max Range Error (m)	Max Range Error Sigma	0.95 Range Error (m)	Max Range Error (m)	Max Range Error Sigma	0.95 Range Error (m)	Max Range Error (m)	Max Range Error Sigma	0.95 Range Error (m)	Max Range Error (m)	Max Range Error Sigma
1	1.174	3.447	1.052	1.300	3.519	1.600	1.422	2.640	2.097	1.502	4.008	1.510	1.811	3.849	1.229	1.643	4.833	1.402
2	1.174	4.761	1.465	1.451	3.111	1.663	1.362	2.914	1.765	1.390	3.698	1.550	1.670	4.342	1.768	1.276	3.395	0.997
3	1.186	3.198	1.931	1.879	4.860	1.957	1.491	3.329	1.289	1.366	2.683	0.984	1.696	3.046	1.238	1.589	3.963	1.181
4	1.013	5.348	1.785	1.479	5.078	1.535	1.178	2.813	1.170	1.223	2.447	0.802	1.338	2.213	1.853	0.980	2.223	1.242
5	1.143	3.134	1.937	1.300	3.013	1.470	1.119	2.581	0.826	1.108	4.436	1.513	1.140	3.910	1.392	0.978	2.608	1.767
6	1.047	3.219	1.979	1.496	3.717	1.978	1.285	3.028	1.991	0.988	3.029	1.295	1.460	3.142	0.624	1.037	3.546	1.120
7	1.009	2.428	0.803	1.299	2.940	1.565	1.199	2.588	0.819	1.070	3.148	1.379	1.775	2.696	1.680	1.050	2.588	1.089
8	1.587	3.565	1.355	1.476	2.971	1.931	1.713	2.752	2.031	1.485	5.056	0.921	1.439	2.641	0.822	1.294	4.199	1.168
9	1.257	2.479	0.852	1.430	3.845	1.140	1.460	2.848	1.857	1.289	2.855	1.197	1.673	3.595	1.189	1.139	2.596	0.888
10	0.888	2.154	0.927	1.048	2.572	1.254	1.011	2.704	0.871	1.142	3.888	1.686	1.096	2.098	1.366	0.861	2.236	0.996
11	0.986	3.127	2.398	1.045	3.384	1.747	1.106	3.124	1.830	1.165	2.920	0.867	1.770	8.704	2.785	0.959	2.698	1.121
12	1.121	3.522	1.562	1.165	4.432	1.578	1.403	3.355	1.789	1.196	3.467	2.529	1.536	3.306	1.491	1.234	2.622	1.756
13	1.014	3.323	1.408	1.290	3.382	1.194	1.388	3.599	1.220	1.183	3.923	1.227	1.433	3.161	0.962	1.093	3.542	0.957
14	1.158	3.073	1.820	1.186	4.031	2.325	1.310	2.865	1.425	1.488	3.868	2.049	1.643	2.931	1.273	1.107	3.321	1.727
15	1.415	3.914	1.441	1.147	3.308	1.048	1.123	2.456	0.747	1.125	3.048	2.280	1.629	2.717	1.859	0.974	2.621	0.971
16	1.493	4.265	1.261	1.354	2.707	1.942	1.202	2.365	1.447	1.319	3.467	1.272	1.374	2.822	0.552	0.926	2.674	0.875
17	1.067	3.058	2.027	1.312	3.546	2.138	1.245	3.115	2.465	1.215	3.822	1.898	1.544	8.909	2.831	1.145	3.644	1.078
18	0.959	2.378	0.753	1.581	4.690	0.722	1.111	4.346	1.270	1.066	3.387	1.162	1.484	2.579	1.649	0.840	3.095	1.066
19	1.342	3.358	1.144	1.561	3.546	2.036	1.327	3.292	2.470	1.207	3.319	1.727	1.717	4.160	0.706	1.647	3.673	1.164
20	1.632	4.275	1.367	1.149	3.477	1.847	1.104	3.519	1.082	1.273	3.015	1.279	1.294	3.523	1.601	0.930	2.648	0.865
21	1.257	3.582	1.059	1.132	2.986	1.331	1.228	3.500	1.891	1.126	2.973	0.913	1.340	3.382	1.169	1.293	3.121	2.084
22	1.140	3.131	2.715	1.099	3.549	1.974	1.357	3.141	2.076	1.197	3.778	2.183	1.517	2.946	2.130	1.144	3.513	0.999
23	1.119	2.555	1.483	0.984	2.078	0.685	0.999	2.157	1.479	1.267	3.631	1.317	1.842	4.997	1.812	1.179	2.719	1.109
24	1.199	5.056	1.494	1.186	3.766	1.724	1.050	2.424	1.362	1.632	3.546	2.555	1.902	3.657	1.237	1.100	3.654	1.069
25	0.970	3.125	2.008	1.262	5.005	1.519	1.223	3.051	1.017	1.144	3.660	1.905	1.360	4.855	1.603	1.459	5.486	1.748
26	1.400	2.973	0.955	1.006	2.342	0.702	0.996	2.559	0.786	1.260	3.227	1.183	1.002	2.075	0.388	1.185	3.621	0.999
27	1.055	2.703	0.868	1.450	2.904	1.971	1.479	2.651	0.773	1.325	3.302	1.758	1.484	4.000	0.696	0.916	3.598	1.048
28	1.062	2.961	1.184	1.334	2.369	1.432	1.061	2.221	0.687	1.381	3.963	1.938	1.063	2.877	0.558	1.073	2.237	0.989
29	1.155	3.154	1.791	1.213	3.072	0.908	1.113	2.571	1.223	1.334	3.548	1.803	1.587	3.038	1.856	1.049	2.805	0.861
30	1.338	3.089	1.959	1.701	4.449	1.373	1.487	3.691	1.150	1.220	3.309	1.174	1.958	3.032	2.102	1.090	2.428	1.182
31	1.106	2.786	0.930	1.036	2.206	1.692	1.142	2.161	1.397	1.388	4.315	1.730	1.450	8.060	2.092	0.985	2.825	0.862
32	0.881	1.720	0.753	1.197	3.109	0.861	0.821	2.061	0.993	1.218	3.303	1.658	1.180	3.871	1.131	0.850	1.947	1.234
131	1.871	4.265	0.320	1.329	3.509	0.553	1.996	6.307	0.645	1.572	6.344	1.157	1.518	5.796	0.482	1.380	3.226	0.283
133	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
135	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Table 6-2 Range Error 95% Index and 99.9% Bounding

Site	Billings			Miami			Albuquerque			Kansas City			Los Angeles			Atlanta		
PRN ↓	0.95 Range Error (m)	Max Range Error (m)	Max Range Error Sigma	0.95 Range Error (m)	Max Range Error (m)	Max Range Error Sigma	0.95 Range Error (m)	Max Range Error (m)	Max Range Error Sigma	0.95 Range Error (m)	Max Range Error (m)	Max Range Error Sigma	0.95 Range Error (m)	Max Range Error (m)	Max Range Error Sigma	0.95 Range Error (m)	Max Range Error (m)	Max Range Error Sigma
1	1.139	3.290	0.995	2.428	4.954	2.642	1.241	3.355	0.982	1.502	4.270	1.280	1.582	4.552	1.390	1.344	2.479	1.780
2	1.193	3.237	1.119	2.193	4.942	2.754	1.528	5.947	2.045	1.458	8.727	2.652	1.072	2.888	0.837	1.326	2.420	1.490
3	1.050	4.418	2.093	2.227	4.497	2.818	1.128	2.770	0.970	1.515	3.581	1.222	1.161	2.963	1.037	1.132	3.151	0.884
4	0.935	2.384	0.748	1.990	4.434	2.668	0.885	2.732	0.815	1.189	2.615	0.801	0.873	3.296	0.814	1.020	1.838	1.473
5	0.935	2.405	0.753	1.803	6.875	1.238	1.166	2.467	1.838	2.005	5.111	1.896	1.165	3.966	1.152	0.945	2.549	0.770
6	1.060	3.707	2.800	3.126	6.124	1.117	0.961	2.278	1.611	1.045	2.937	2.331	1.162	2.483	0.695	1.415	4.175	1.402
7	0.963	2.388	0.745	2.865	5.480	2.104	1.162	1.965	0.881	1.376	2.750	0.884	1.201	2.114	1.102	1.334	2.341	1.534
8	0.981	2.631	1.179	2.359	4.916	2.792	1.540	2.676	1.424	1.267	3.155	1.251	1.223	3.789	1.032	1.373	2.391	1.726
9	1.057	2.654	0.836	2.277	5.138	3.181	1.290	3.780	1.110	1.447	4.285	1.391	1.347	2.956	0.829	1.521	2.614	0.764
10	1.137	2.240	0.660	1.650	3.983	1.728	0.894	1.970	1.059	0.865	1.824	0.794	1.061	4.385	1.390	0.945	2.134	1.295
11	1.272	5.414	2.373	1.914	4.157	1.587	1.112	2.259	0.928	1.161	5.581	1.857	1.113	2.384	1.425	1.046	2.318	0.730
12	1.084	4.156	2.822	1.635	4.045	1.815	1.141	3.298	1.317	1.327	4.491	1.623	1.141	2.591	0.785	1.359	2.607	1.376
13	0.871	3.161	1.399	1.867	5.519	0.744	1.139	2.371	0.686	1.096	3.098	1.020	1.785	5.749	1.722	1.208	3.436	1.072
14	1.128	4.683	2.344	2.616	5.199	2.674	1.352	3.487	0.616	1.538	3.096	1.011	1.506	2.471	1.206	1.269	2.384	2.074
15	0.897	3.078	1.435	1.617	3.615	1.213	1.459	3.259	1.280	2.209	5.706	1.710	1.179	2.569	1.035	0.945	2.006	1.442
16	1.333	2.661	1.594	2.004	3.967	2.347	1.068	6.935	2.706	1.563	4.876	1.492	1.263	2.388	1.053	0.909	1.845	0.587
17	1.295	4.059	2.799	2.483	5.017	1.968	1.105	2.267	1.422	1.543	3.960	1.680	1.215	2.493	1.289	1.171	2.390	1.442
18	1.092	3.323	1.051	2.185	4.960	1.723	1.019	2.348	0.850	1.327	3.210	1.525	1.230	2.312	1.211	0.976	2.638	2.110
19	1.140	4.298	3.164	2.070	5.462	3.277	1.290	2.677	1.647	1.171	3.390	2.541	1.434	3.022	1.587	1.134	2.332	1.774
20	0.798	3.404	1.175	1.746	4.554	1.198	1.361	2.756	0.985	2.507	6.723	2.030	1.317	3.341	1.014	0.981	2.792	0.836
21	1.176	3.471	1.109	2.298	4.381	2.250	1.784	3.686	1.161	1.378	5.014	1.594	1.490	3.061	1.783	1.040	2.069	1.523
22	1.392	3.960	2.279	2.180	5.050	2.902	1.155	2.471	1.623	1.135	2.940	0.880	1.274	3.176	1.585	1.218	2.335	1.848
23	1.072	3.226	0.953	1.705	3.947	3.379	1.291	2.351	1.488	1.161	2.805	0.873	1.321	3.302	0.872	0.996	2.344	1.590
24	1.056	4.089	2.866	2.072	5.439	2.880	1.387	2.753	0.995	1.336	3.996	1.213	1.885	3.513	1.089	0.946	2.385	0.446
25	1.372	4.087	1.311	1.653	3.674	2.513	1.265	2.875	0.855	1.034	3.848	1.256	1.324	3.042	0.869	1.000	2.739	0.844
26	2.037	3.618	1.695	2.205	4.749	1.882	1.178	4.335	1.334	2.445	5.999	1.967	1.642	2.579	1.346	0.858	1.858	1.407
27	1.088	2.517	0.897	2.090	4.635	2.601	1.424	2.398	0.723	2.507	4.289	1.434	1.071	3.015	1.057	1.232	2.302	1.374
28	0.918	3.707	1.623	3.409	9.182	1.682	1.254	2.601	0.930	2.652	5.877	1.785	1.392	2.884	0.934	1.030	3.676	1.043
29	1.140	2.746	0.892	1.747	3.857	1.208	1.233	2.802	0.882	1.237	2.953	1.295	1.216	3.197	1.051	1.141	2.673	1.001
30	1.522	3.288	1.048	1.978	4.355	2.519	1.180	3.361	1.003	1.256	3.612	1.420	1.273	2.855	0.726	1.483	2.454	1.347
31	1.472	3.721	1.147	1.820	4.395	0.671	0.934	2.686	0.811	1.608	6.449	2.583	1.000	2.490	0.847	0.851	1.978	0.563
32	0.965	2.973	0.907	1.914	4.197	1.112	1.037	2.089	0.381	1.066	4.271	1.527	1.071	2.107	1.470	0.883	2.190	1.371
131	1.648	6.643	0.875	1.736	5.906	0.697	1.901	4.328	0.316	1.308	4.107	1.106	1.783	3.515	1.065	1.710	4.480	0.573
133	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
135	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

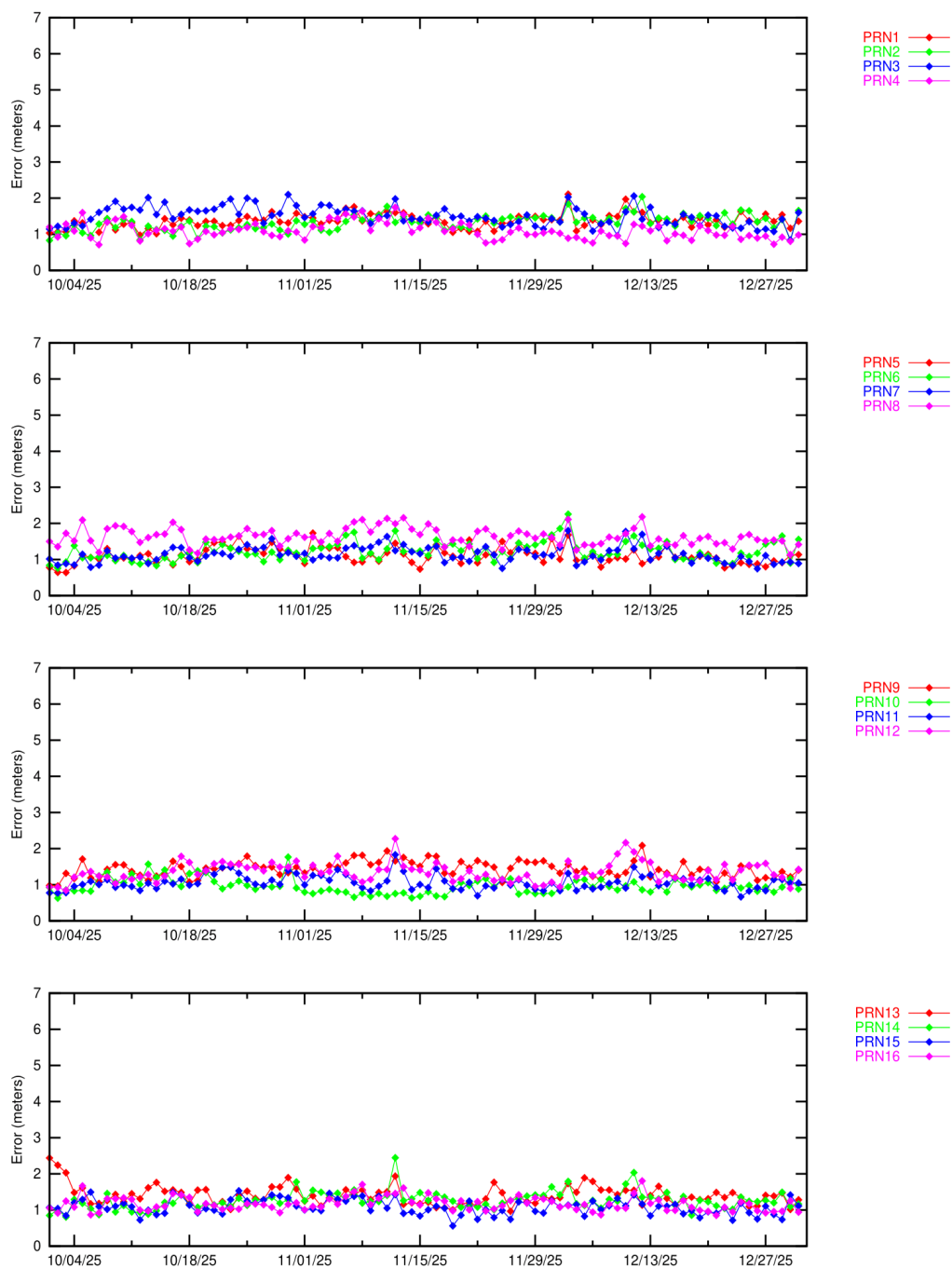


Figure 6-1 Range Error (PRN1–PRN16)—Washington, DC

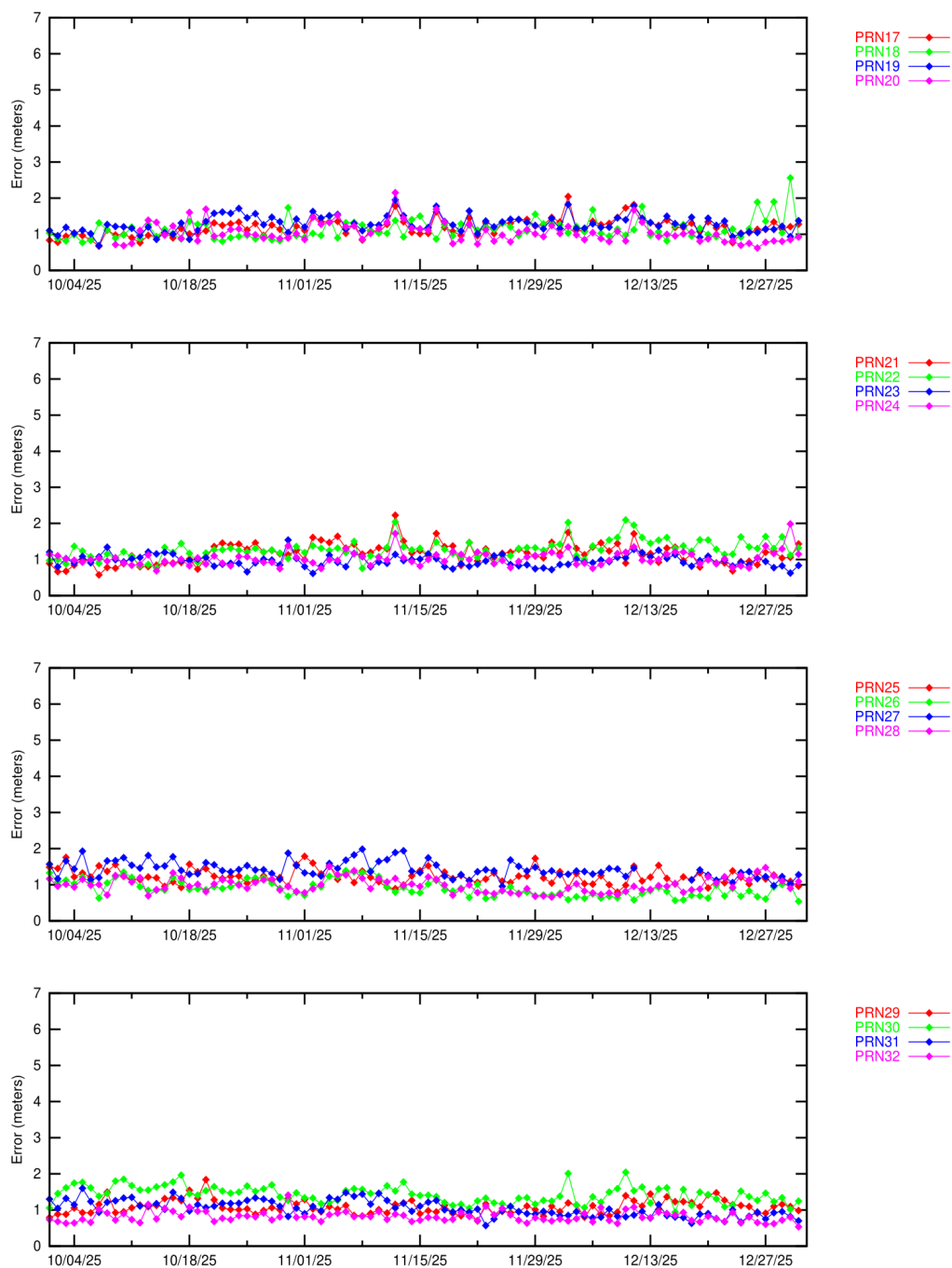


Figure 6-2 Range Error (PRN17–PRN32)—Washington, DC

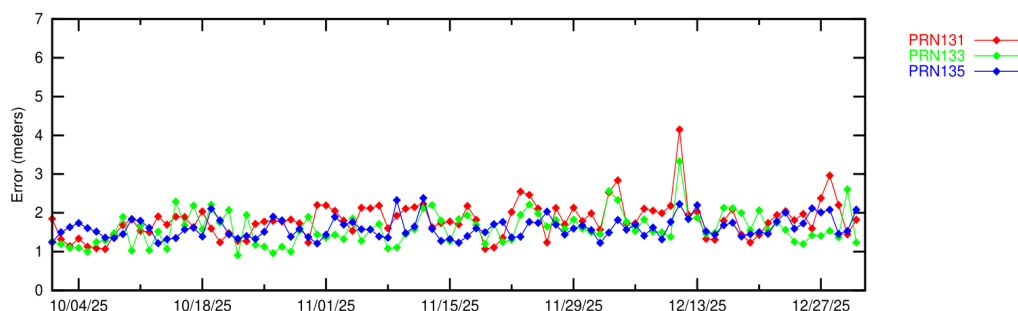


Figure 6-3 Range Error (PRN131, PRN133, and PRN138)—Washington, DC

A GIVE is broadcasted by the WAAS for each monitored IGP and the maximum normalized value (divided by sigma_UISE [User Ionospheric Slant Error]) of the ionospheric error after application of ionospheric corrections is checked. The WAAS broadcasts the ionospheric model using IGPs at predefined geographic locations. Each IGP contains the vertical ionospheric delay and the delay error in the form of the GIVE. The ionospheric error is determined by taking the difference between the WAAS vertical ionospheric delay interpolated from the IGP and GPS dual frequency measurement at that GPS satellite.

The GPS satellite ionospheric errors were calculated for 12 WAAS receivers during the quarter. Table 6-3 and Table 6-4 show the ionospheric error 95% index, maximum ionospheric error, and maximum normalized value (divided by sigma_UISE) for each SV at the selected locations. Figure 6-4 and Figure 6-5 show the 95% ionospheric error for each SV measured by the WAAS receiver at the Washington, DC reference station.

Table 6-3 Ionospheric Error 95% Index and 99.9% Sigma Bounding

Site	Minneapolis			Chicago			Boston			Juneau			Honolulu			Salt Lake City		
PRN ↓	0.95 Iono Error (m)	Max Iono Error (m)	Max Iono Error Sigma	0.95 Iono Error (m)	Max Iono Error (m)	Max Iono Error Sigma	0.95 Iono Error (m)	Max Iono Error (m)	Max Iono Error Sigma	0.95 Iono Error (m)	Max Iono Error (m)	Max Iono Error Sigma	0.95 Iono Error (m)	Max Iono Error (m)	Max Iono Error Sigma	0.95 Iono Error (m)	Max Iono Error (m)	Max Iono Error Sigma
1	0.501	2.103	0.107	0.570	2.731	0.665	0.435	1.630	0.511	0.681	3.224	0.380	0.570	2.946	0.414	0.424	1.872	0.075
2	0.456	2.432	0.624	0.597	1.969	0.500	0.413	1.829	0.264	0.783	3.821	0.813	0.608	3.319	0.132	0.670	2.113	0.588
3	0.574	2.833	0.904	0.888	3.631	1.074	0.458	2.381	0.101	0.598	2.711	0.526	0.732	3.021	0.425	0.576	2.546	0.068
4	0.454	2.901	0.873	0.847	3.407	0.669	0.634	2.010	0.127	0.607	3.521	0.951	0.557	2.709	0.305	0.446	1.598	0.421
5	0.542	4.292	0.320	0.389	1.658	0.473	0.312	2.204	1.211	0.610	2.722	0.849	0.832	3.790	0.309	0.400	2.880	0.146
6	0.575	4.396	0.762	0.442	2.448	0.766	0.354	1.778	0.493	0.430	3.978	0.234	0.637	4.770	0.869	0.506	3.205	0.553
7	0.509	1.961	0.756	0.768	2.545	0.591	0.445	1.859	0.587	0.674	3.067	0.688	0.951	4.897	1.210	0.596	1.971	0.569
8	0.545	4.422	0.423	0.595	2.488	0.922	0.508	2.033	0.406	0.691	4.765	0.263	0.697	6.051	1.080	0.754	2.417	0.757
9	0.544	3.668	0.886	0.653	2.056	0.168	0.564	1.811	0.569	0.501	2.819	0.630	0.611	2.453	0.544	0.469	1.412	0.415
10	0.417	2.103	0.914	0.461	1.940	0.617	0.480	2.121	0.532	0.706	3.643	0.809	0.566	2.116	0.466	0.430	1.464	0.496
11	0.467	1.487	0.517	0.724	2.884	0.274	0.361	1.842	0.570	0.564	2.953	0.143	1.120	6.389	1.639	0.621	1.899	0.484
12	0.569	2.283	0.604	0.560	3.204	0.252	0.531	2.841	0.845	0.495	3.023	0.892	0.674	2.489	0.933	0.515	2.703	0.377
13	0.484	3.643	0.711	0.597	5.801	0.176	0.579	8.235	0.570	0.547	2.490	0.962	0.517	4.495	0.167	0.408	1.561	0.684
14	0.469	2.658	0.787	0.421	2.086	0.166	0.513	2.214	0.479	0.580	3.689	0.862	0.721	5.069	0.175	0.386	1.359	0.606
15	0.680	6.143	0.150	0.522	2.890	0.800	0.483	2.424	0.651	0.570	3.262	1.037	0.867	3.426	0.286	0.641	2.439	0.544
16	0.580	2.853	1.037	0.486	1.747	0.720	0.476	1.552	0.670	0.599	3.564	0.191	0.727	3.328	0.673	0.574	1.772	0.534
17	0.431	6.366	0.316	0.481	2.310	0.451	0.438	1.625	0.260	0.620	2.139	0.443	0.992	7.924	1.281	0.562	2.207	0.968
18	0.524	2.463	0.685	0.704	3.687	0.100	0.570	4.072	0.113	0.739	5.194	0.129	0.528	1.519	0.409	0.380	2.068	0.774
19	0.576	3.838	0.217	0.546	1.756	0.581	0.360	1.459	0.617	0.607	2.632	0.079	0.941	5.965	1.189	0.931	3.948	1.141
20	0.678	7.136	0.180	0.598	2.357	1.100	0.392	3.383	2.280	0.527	5.694	0.218	1.078	7.679	0.536	0.480	3.133	0.132
21	0.628	4.977	0.134	0.390	1.546	0.999	0.419	2.464	0.688	0.507	2.677	0.722	0.753	4.374	0.283	0.415	2.096	0.125
22	0.563	2.259	0.185	0.511	2.050	0.740	0.488	2.833	0.428	0.572	3.120	0.839	0.557	3.962	0.107	0.501	1.839	0.070
23	0.491	1.536	0.651	0.451	1.996	0.613	0.411	2.682	0.623	0.711	4.106	1.079	0.747	2.025	0.726	0.550	1.802	0.678
24	0.550	5.504	0.210	0.596	3.038	0.965	0.558	1.969	1.131	0.570	2.251	0.804	0.575	1.802	0.622	0.430	1.540	0.434
25	0.413	2.148	0.226	0.457	2.489	0.717	0.389	2.535	0.119	0.438	2.481	0.145	0.490	2.317	0.988	0.788	4.166	1.137
26	0.538	4.312	0.114	0.647	2.377	0.827	0.476	1.394	0.686	0.588	4.496	1.308	0.695	5.749	1.291	0.511	1.804	0.488
27	0.443	3.258	0.153	0.589	1.941	0.450	0.470	2.533	0.868	0.627	4.996	0.457	0.542	2.052	0.532	0.419	1.890	0.748
28	0.389	1.586	0.143	0.499	1.324	0.578	0.375	3.047	0.708	0.461	3.523	0.728	0.618	3.002	0.706	0.381	2.386	0.665
29	0.692	5.945	0.226	0.567	2.814	0.096	0.656	1.815	0.428	0.605	4.589	1.281	0.557	2.554	0.303	0.424	2.993	0.182
30	0.768	3.449	0.160	0.888	3.916	0.821	0.785	2.352	0.683	0.656	2.488	0.532	0.991	3.307	1.593	0.485	2.047	0.490
31	0.401	1.616	0.524	0.558	2.323	0.558	0.476	1.785	0.394	0.690	4.813	0.406	0.767	7.116	1.484	0.468	2.112	0.510
32	0.471	1.438	0.508	0.669	2.314	0.706	0.432	1.423	0.497	0.606	4.101	0.110	0.550	2.490	0.545	0.411	1.931	0.529

Table 6-4 Ionospheric Error 95% Index and 99.9% Sigma Bounding

Site	Billings			Miami			Albuquerque			Kansas City			Atlanta			Los Angeles		
PRN ↓	0.95 Iono Error (m)	Max Iono Error (m)	Max Iono Error Sigma	0.95 Iono Error (m)	Max Iono Error (m)	Max Iono Error Sigma	0.95 Iono Error (m)	Max Iono Error (m)	Max Iono Error Sigma	0.95 Iono Error (m)	Max Iono Error (m)	Max Iono Error Sigma	0.95 Iono Error (m)	Max Iono Error (m)	Max Iono Error Sigma	0.95 Iono Error (m)	Max Iono Error (m)	Max Iono Error Sigma
1	0.474	2.731	0.800	0.800	2.197	0.112	0.529	2.642	0.952	0.571	2.467	0.128	0.519	1.559	0.157	0.665	3.141	0.910
2	0.540	2.301	0.549	0.619	3.476	0.139	0.555	2.791	1.230	0.682	5.680	1.872	0.520	1.909	0.222	0.407	1.761	0.542
3	0.526	2.629	0.291	0.681	2.645	0.514	0.696	3.114	0.114	0.703	2.567	0.990	0.487	2.190	0.648	0.382	3.210	0.618
4	0.536	2.084	0.696	0.599	2.548	0.423	0.484	2.261	0.534	0.563	1.487	0.495	0.477	2.730	0.652	0.389	2.609	0.550
5	0.549	3.310	0.656	0.917	5.766	0.461	0.511	2.665	0.185	0.840	4.269	1.335	0.489	2.103	0.192	0.529	3.576	0.820
6	0.568	2.179	0.553	0.854	4.024	0.770	0.515	3.022	0.314	0.508	2.371	0.653	0.482	3.370	0.792	0.500	2.589	0.591
7	0.626	1.845	0.667	1.319	3.832	1.155	0.789	2.237	0.483	0.883	2.557	0.620	0.578	2.480	0.082	0.491	2.663	0.739
8	0.487	2.184	0.656	0.649	4.401	0.491	0.712	1.942	0.523	0.608	2.324	0.618	0.458	1.740	0.425	0.556	2.536	0.596
9	0.681	1.773	0.696	0.788	2.526	0.672	0.594	3.138	0.613	0.847	4.346	0.903	0.697	1.843	0.447	0.428	3.465	0.249
10	0.665	1.472	0.644	0.530	1.859	0.562	0.430	1.445	0.527	0.399	1.141	0.368	0.393	1.745	0.437	0.407	2.626	0.767
11	0.900	5.662	0.485	0.416	6.796	0.310	0.473	3.375	1.702	0.508	4.138	1.359	0.393	3.988	0.235	0.520	3.052	0.398
12	0.584	2.384	0.575	0.600	2.063	0.743	0.593	2.309	0.617	0.533	2.248	0.861	0.584	3.154	0.562	0.392	1.709	0.320
13	0.513	2.112	0.702	0.688	4.159	0.518	0.382	1.462	0.599	0.482	3.768	0.817	0.590	2.504	0.592	0.480	2.960	0.800
14	0.656	2.217	0.662	1.267	3.161	0.880	0.502	3.230	0.089	0.774	2.521	0.937	0.515	2.015	0.460	0.425	3.065	0.101
15	0.545	2.896	0.154	0.499	3.949	0.953	0.707	2.641	0.679	1.075	4.044	1.393	0.486	3.023	0.740	0.504	2.005	0.449
16	0.657	1.899	0.892	0.748	3.943	0.815	0.463	4.482	1.736	0.925	4.374	1.387	0.472	2.326	0.473	0.599	2.080	0.475
17	0.753	7.673	0.205	0.882	5.996	1.279	0.534	2.231	0.483	0.820	3.414	1.260	0.371	2.119	0.400	0.422	2.618	0.526
18	0.575	2.789	0.775	1.027	2.996	0.897	0.458	2.112	0.478	0.624	2.037	0.564	0.486	1.213	0.402	0.343	1.434	0.124
19	0.750	3.223	0.278	0.662	3.758	0.691	0.546	2.492	0.619	0.430	3.805	1.713	0.377	1.684	0.492	0.513	4.177	0.733
20	0.537	2.869	0.119	0.610	2.189	0.307	0.591	1.942	0.585	1.220	3.824	1.275	0.496	2.731	0.356	0.441	2.701	0.510
21	0.698	3.560	0.834	0.619	2.294	0.574	0.594	1.994	0.640	0.627	3.781	0.503	0.395	2.086	0.478	0.752	2.510	0.621
22	0.557	2.254	0.636	0.858	2.315	0.677	0.566	3.066	0.202	0.504	2.356	0.677	0.468	2.674	0.239	0.422	4.698	0.125
23	0.573	3.251	0.911	0.427	2.323	0.506	0.514	1.878	0.458	0.504	3.062	0.804	0.393	1.394	0.393	0.411	2.006	0.507
24	0.487	2.412	0.725	0.971	2.861	0.721	0.620	1.949	0.138	0.637	1.903	0.714	0.509	2.150	0.619	0.782	2.575	0.798
25	0.744	3.349	1.003	0.509	2.174	0.709	0.545	2.449	0.637	0.455	2.036	0.758	0.494	2.495	0.612	0.501	1.971	0.702
26	0.704	2.457	0.144	0.587	2.974	0.607	0.415	2.079	0.573	0.905	4.007	1.307	0.500	1.505	0.397	0.519	2.226	0.493
27	0.612	2.827	0.661	0.799	3.322	0.134	0.481	1.185	0.724	0.803	2.577	0.746	0.463	1.549	0.584	0.440	2.289	0.615
28	0.456	2.561	0.068	1.199	7.079	0.590	0.596	2.309	0.604	1.184	4.361	1.297	0.415	2.111	0.469	0.528	3.883	0.099
29	0.508	3.377	0.625	0.650	2.460	0.712	0.558	2.408	0.508	0.506	2.526	0.793	0.527	1.621	0.451	0.470	1.832	0.183
30	0.705	2.335	0.609	0.767	3.303	1.369	0.828	2.819	0.222	0.556	2.620	1.020	0.599	10.743	0.324	0.571	2.844	0.262
31	0.757	3.612	0.693	0.660	2.706	0.614	0.446	2.378	0.539	0.880	3.759	1.384	0.423	1.832	0.457	0.636	2.071	0.263
32	0.643	3.114	0.868	0.678	4.326	0.759	0.619	2.825	0.611	0.543	1.542	0.689	0.397	1.861	0.538	0.443	1.694	0.881

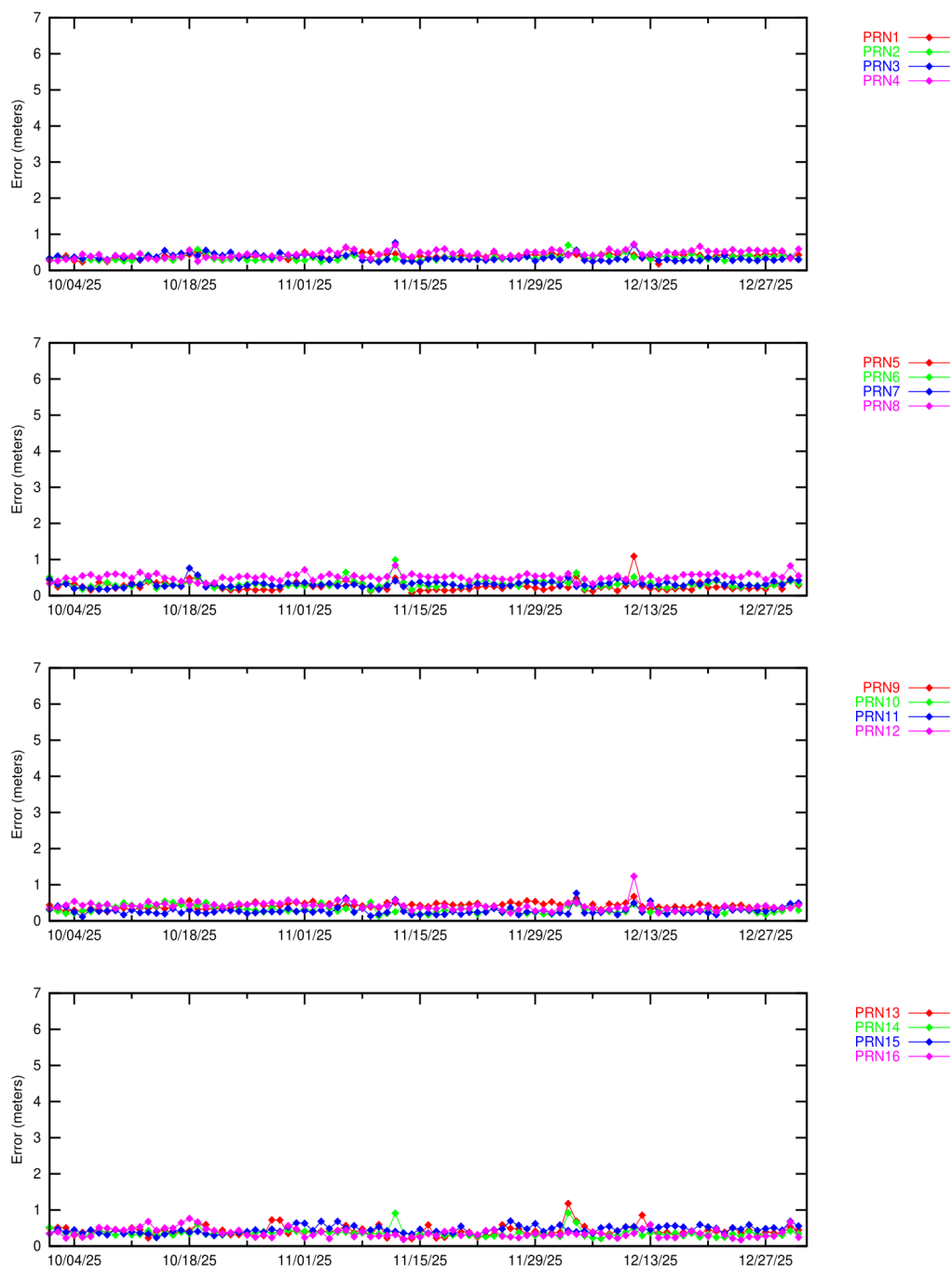


Figure 6-4 Ionospheric Error (PRN1–PRN16)—Washington, DC

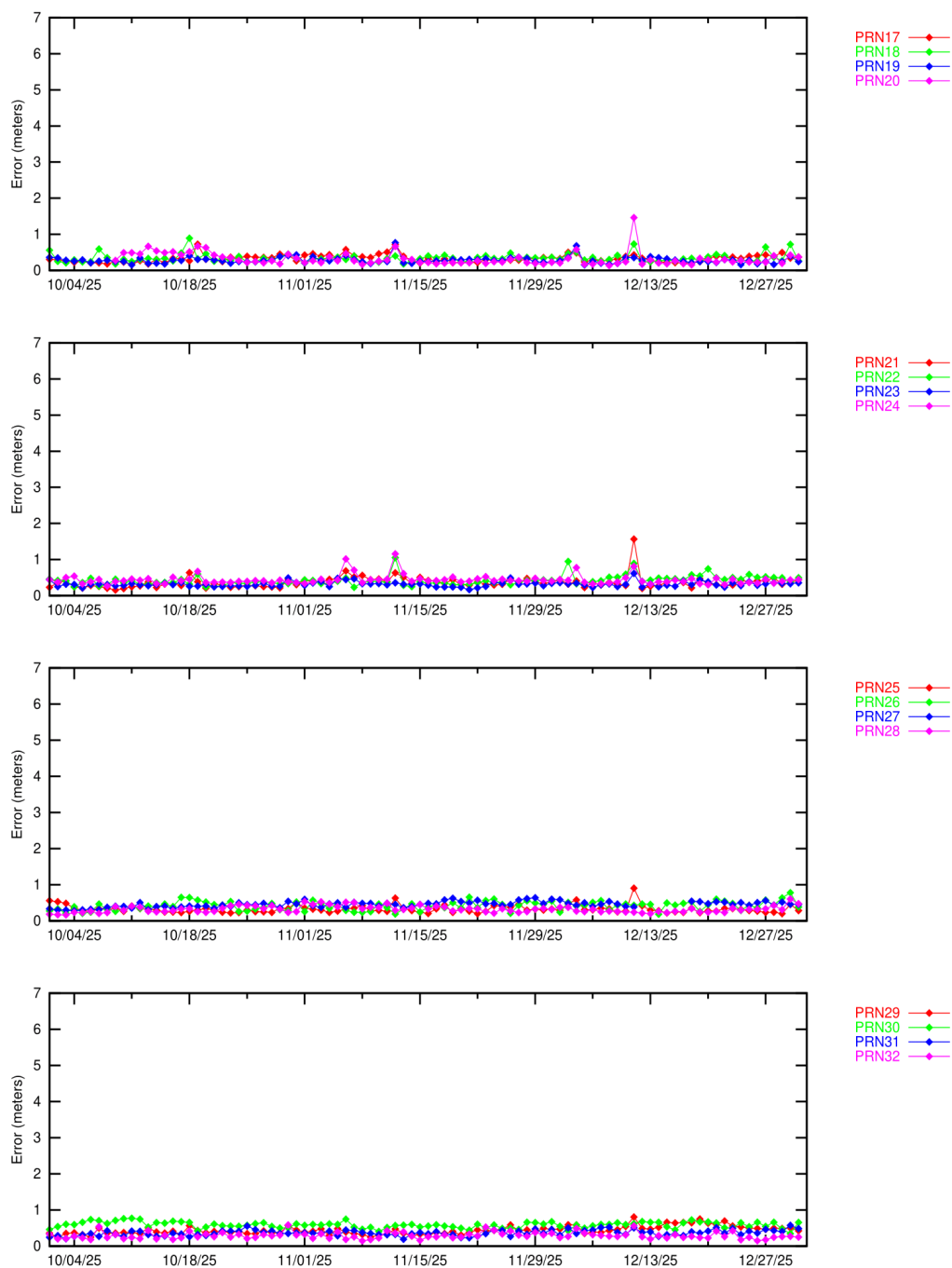


Figure 6-5 Ionospheric Error (PRN17–PRN32)—Washington, DC

For this reporting period, most satellite range errors were bounded at least 99.9% of the time by UDRE. Other unbounded errors (i.e., errors bounded less than 100% of the time) were due to geomagnetic activity, noise, and/or multipath.

7.0 GEO RANGING PERFORMANCE

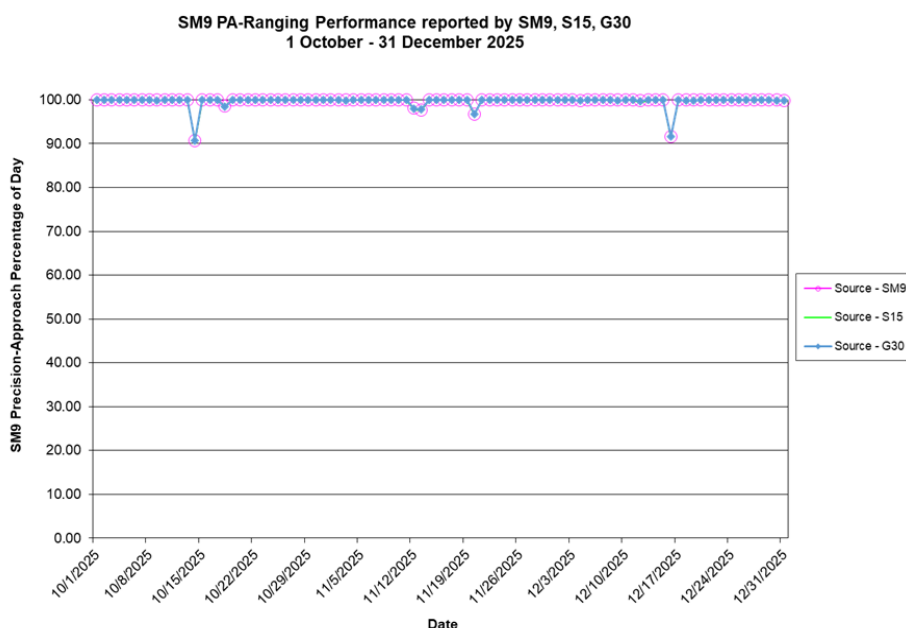
The WAAS GEO navigation messages provide corrections and UDRE values for each satellite. The GEO ranging availability from each GEO navigation message source was evaluated separately to determine the quality of service provided.

Table 7-1 shows the GEO PA and NPA ranging availability as well as the percentage of time the GEO UDRE was set to “Not Monitored” and “Do Not Use.” Figure 7-1 to Figure 7-3 show the trend of SM9, S15, and G30 GEO PA ranging availability, respectively.

The reductions in SM9 GEO PA, S15 GEO PA, and G30 GEO PA ranging availability were due to GUS switchovers (see Figure 7-1 to Figure 7-3). Refer to Table 1-7 for detailed information on the GUS switchovers for this reporting period.

Table 7-1 GEO Ranging Availability

GEO Source	GEO	PA (%)	NPA (%)	Not Monitored (%)	Do Not Use (%)
SM9 131	SM9	99.70	0.03	0.15	0.12
SM9 131	S15	99.32	0.07	0.61	0.00
SM9 131	G30	99.74	0.02	0.21	0.03
S15 133	SM9	99.65	0.03	0.20	0.12
S15 133	S15	99.29	0.07	0.65	0.00
S15 133	G30	99.69	0.02	0.25	0.04
G30 135	SM9	99.66	0.03	0.19	0.12
G30 135	S15	99.29	0.07	0.65	0.00
G30 135	G30	99.70	0.02	0.25	0.03



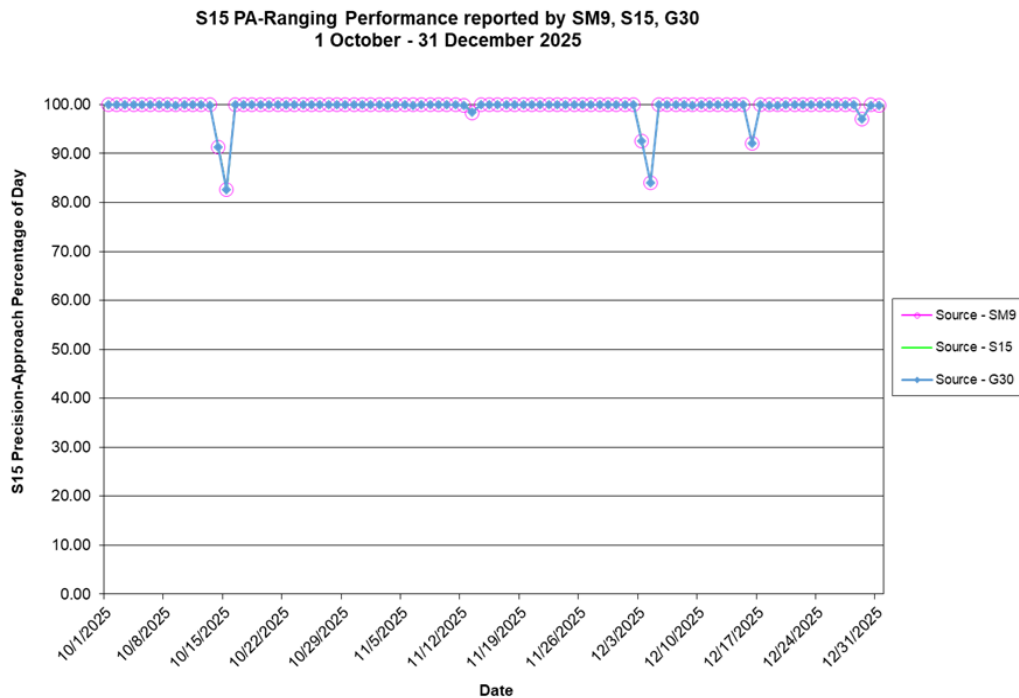


Figure 7-2 Daily PA S15 GEO Ranging Availability Trend

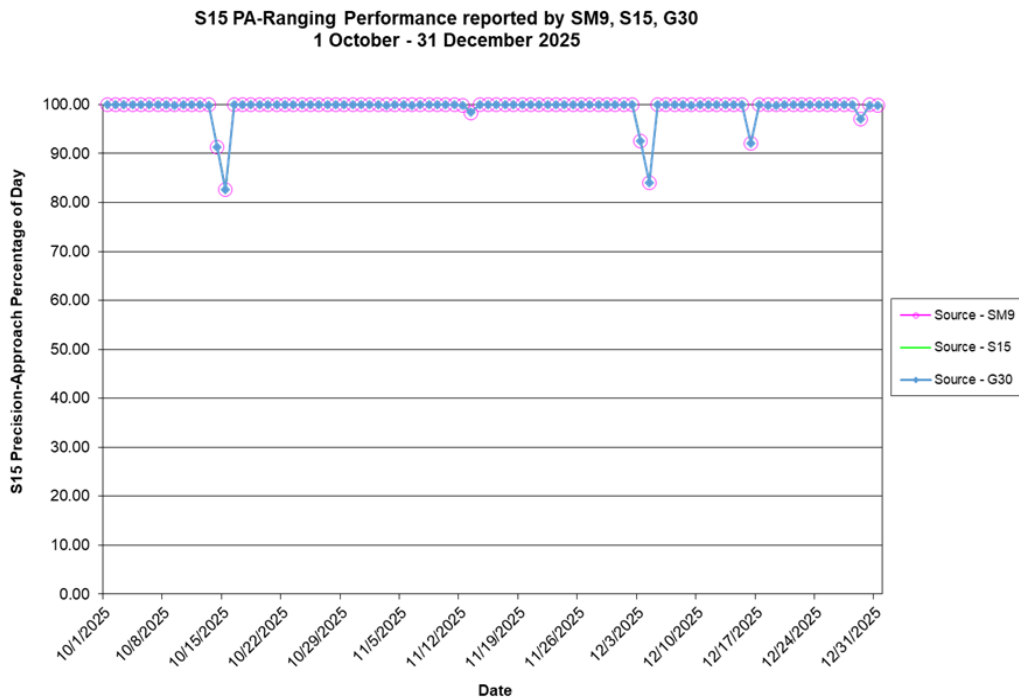


Figure 7-3 Daily PA G30 GEO Ranging Availability Trend

8.0 WAAS AIRPORT AVAILABILITY

The WAAS airport availability evaluation determines the number and length of LPV service outages at selected airports using the transmitted WAAS navigation message. The navigation messages transmitted from all GEO satellites are processed simultaneously, and WAAS protection levels (VPL and HPL) are computed at each airport once every 30 seconds in accordance with the RTCA DO-229F. The WAAS LPV service is available for a user when the VPL is less than or equal to the VAL of 50 meters and the HPL is less than or equal to the HAL of 40 meters. If both conditions are met, WAAS LPV service is available at that airport. Consequently, if either one of the conditions are not met, the WAAS LPV service outage and its duration is recorded.

When the LPV service becomes unavailable, it is not considered available again until protection levels are below or equal to alert limits for at least 15 minutes. Although this will minimally reduce LPV service availability, it substantially reduces the number of service outages and prevents excessive switching in and out of service availability. Similar service analyses are computed for the LP and LPV200 services in accordance with HAL and VAL shown in Table 1-1. Table 8-1 shows the WAAS LPV service availability and outages at selected airports in the U.S. and Canada. Figure 8-1 through Figure 8-6 provide graphical representation of the LP, LPV, and LPV200 availability and outage counts at airports in the U.S. and Canada that have published GPS area navigation (RNAV) Instrument Approach Procedures (IAPs). These results are geographically depicted on an interactive web page and are accessible at <http://www.nstb.tc.faa.gov/AirportOutages/>.

To use the interactive web page, select the current quarter from the dropdown menu in the upper left corner, and click “Submit Request.” The WAAS LPV airport layer will appear providing color-coded availability results, as shown in Figure 8-1 and Figure 8-2. Rolling the cursor over any airport will display the LPV availability and outages for the reporting period. The “WAAS Layer” menu in the upper right of the display allows the user to select WAAS LP or LPV200 availability and outage results, as shown in Figure 8-3 through Figure 8-6. Selecting “Show All Airports” displays WAAS availability for U.S. airports with GPS RNAV IAPs; not selecting “Show All Airports” displays only airports with approved LPV approaches, as shown in Table 8-1.

Table 8-1 WAAS LP, LPV, and LPV200 Outages and Availability

Airport	Airport Name	State/ Province	Service	LP Outages	LP Avail (%)	LPV Outages	LPV Avail (%)	LPV200 Outages	LPV200 Avail (%)
CAL4	ALBIAN	AB	LPV	9	99.598	8	99.457	14	99.158
CEA3	OLDS-DIDSBURY	AB	LPV	4	99.783	5	99.767	9	99.610
CEB5	FAIRVIEW	AB	LPV	5	99.740	7	99.650	11	99.454
CEC4	JASPER-HINTON	AB	LP	5	99.758	7	99.732	8	99.537
CEH3	PONOKA (LABRIE FIELD)	AB	LPV	5	99.752	8	99.740	10	99.552
CEH5	RED EARTH CREEK	AB	LP	8	99.682	7	99.586	12	99.366
CEH6	PROVOST	AB	LPV	4	99.768	7	99.710	11	99.447
CEN3	THREE HILLS	AB	LPV	4	99.784	6	99.773	10	99.590
CEN5	COLD LAKE REGIONAL	AB	LPV	6	99.672	11	99.591	11	99.293
CEQ3	CAMROSE	AB	LPV	5	99.738	8	99.715	13	99.481
CET2	CONKLIN (LEISMER)	AB	LPV	7	99.640	9	99.535	13	99.238
CEV3	VEGREVILLE	AB	LPV	6	99.735	9	99.686	9	99.403
CEW3	ST. PAUL	AB	LPV	6	99.696	9	99.623	11	99.359
CEX3	WETASKIWIN REGIONAL	AB	LPV	5	99.738	8	99.724	12	99.521
CEZ3	COOKING LAKE	AB	LPV	5	99.729	8	99.706	11	99.487
CFB6	JOSEPHBURG	AB	LPV	5	99.729	8	99.696	10	99.469
CFM4	DONNELLY	AB	LPV	6	99.734	9	99.667	13	99.462
CYBF	BONNYVILLE	AB	LPV	5	99.681	11	99.593	11	99.327
CYBW	SPRINGBANK	AB	LPV	5	99.823	5	99.792	9	99.624
CYEG	EDMONTON INTL	AB	LPV200	5	99.739	8	99.719	12	99.513
CYFI	FIREBAG	AB	LPV	9	99.595	9	99.427	14	99.146
CYLB	LAC LA BICHE	AB	LPV	5	99.667	9	99.622	11	99.344
CYLL	LLOYDMINSTER	AB	LPV	5	99.719	11	99.667	12	99.384
CYMM	FORT MCMURRAY	AB	LPV200	9	99.619	9	99.480	13	99.194
CYNR	HORIZON	AB	LPV	9	99.596	8	99.449	14	99.153
CYOD	GROUP CAPTAIN R.W. MCNAIR	AB	LP	5	99.673	12	99.598	11	99.295
CYOJ	HIGH LEVEL	AB	LPV	8	99.626	8	99.585	21	99.296
CYOP	RAINBOW LAKE	AB	LPV	7	99.678	9	99.599	17	99.313
CYPE	PEACE RIVER	AB	LPV	5	99.733	8	99.639	13	99.418
CYPY	FORT CHIPEWYAN	AB	LPV	12	99.504	9	99.358	19	99.000
CYQF	RED DEER REGIONAL	AB	LPV	5	99.765	7	99.757	9	99.581
CYQL	LETHBRIDGE	AB	LPV200	3	99.867	4	99.847	10	99.741
CYQU	GRANDE PRAIRIE	AB	LPV200	5	99.740	8	99.667	10	99.483
CYWM	ATHABASCA	AB	LPV	5	99.720	8	99.668	11	99.409
CYXH	MEDICINE HAT	AB	LPV	3	99.849	4	99.843	10	99.720

Airport	Airport Name	State/ Province	Service	LP Outages	LP Avail (%)	LPV Outages	LPV Avail (%)	LPV200 Outages	LPV200 Avail (%)
CYYC	YYC CALGARY INTL	AB	LPV200	3	99.806	5	99.799	9	99.624
CYZU	WHITECOURT	AB	LPV	6	99.754	9	99.711	10	99.497
CZPC	PINCHER CREEK	AB	LPV	4	99.883	4	99.842	9	99.741
CZVL	VILLENEUVE	AB	LPV	5	99.746	8	99.715	11	99.494
2C7	SHAKTOOLIK	AK	LPV	6	99.774	7	99.672	12	99.474
6A8	ALLAKAKET	AK	LP	5	99.722	8	99.633	15	99.456
7KA	TATITLEK	AK	LP	4	99.792	7	99.724	10	99.529
9A3	CHUATHBALUK	AK	LPV	7	99.739	6	99.657	12	99.527
ADQ	KODIAK	AK	LPV	5	99.728	5	99.659	11	99.564
AFM	AMBLER	AK	LPV	7	99.747	7	99.640	18	99.413
AKN	KING SALMON	AK	LPV	5	99.740	6	99.683	10	99.567
ANC	TED STEVENS ANCHORAGE INTL	AK	LPV200	4	99.786	8	99.703	11	99.553
ANI	ANIAK	AK	LPV	7	99.738	6	99.657	12	99.525
AQH	QUINHAGAK	AK	LPV	6	99.715	5	99.644	14	99.498
AQT	NUIQSUT	AK	LPV	10	99.564	11	99.457	25	99.131
ATK	ATQASUK EDWARD BURNELL SR MEML	AK	LPV	8	99.598	10	99.541	27	99.116
AWI	WAINWRIGHT	AK	LPV	8	99.619	9	99.559	29	99.115
BET	BETHEL	AK	LPV200	7	99.736	6	99.670	13	99.471
BRW	WILEY POST-WILL ROGERS MEML	AK	LPV	8	99.582	11	99.481	28	99.034
BVK	BUCKLAND	AK	LPV	5	99.796	7	99.690	14	99.456
CDB	COLD BAY	AK	LPV200	7	99.702	7	99.627	18	99.396
CDV	MERLE K (MUDHOLE) SMITH	AK	LPV	3	99.795	6	99.761	13	99.548
CEM	CENTRAL	AK	LP	7	99.681	10	99.590	14	99.427
CLP	CLARKS POINT	AK	LPV	5	99.726	6	99.657	9	99.541
CXF	COLDFOOT	AK	LP	8	99.732	12	99.563	16	99.372
D76	ROBERT/BOB/CURTIS MEML	AK	LPV	6	99.766	10	99.690	15	99.415
DEE	DEERING	AK	LPV	5	99.796	9	99.702	13	99.445
DLG	DILLINGHAM	AK	LPV	5	99.728	6	99.659	10	99.539
ELI	ELIM	AK	LPV	5	99.781	8	99.675	11	99.472
ENA	KENAI MUNICIPAL	AK	LPV200	6	99.764	7	99.699	11	99.547
ENM	EMMONAK	AK	LPV	7	99.769	6	99.644	13	99.416
FAI	FAIRBANKS INTL	AK	LPV200	7	99.674	10	99.589	14	99.483
FYU	FORT YUKON	AK	LPV	7	99.678	10	99.578	14	99.349
GAL	EDWARD G PITKA SR	AK	LPV	4	99.763	7	99.694	12	99.520
GAM	GAMBELL	AK	LPV	6	99.780	8	99.636	23	99.218
GKN	GULKANA	AK	LPV	6	99.759	7	99.684	14	99.490
GST	GUSTAVUS	AK	LP	6	99.726	6	99.646	11	99.518

Airport	Airport Name	State/ Province	Service	LP Outages	LP Avail (%)	LPV Outages	LPV Avail (%)	LPV200 Outages	LPV200 Avail (%)
HLA	HUSLIA	AK	LPV	4	99.773	7	99.692	14	99.519
HOM	HOMER	AK	LPV	5	99.729	6	99.693	10	99.601
HPB	HOOPER BAY	AK	LP	6	99.757	7	99.651	15	99.383
HRR	HEALY RIVER	AK	LP	6	99.745	8	99.633	15	99.483
IAN	BOB BAKER MEML	AK	LPV	6	99.760	8	99.675	16	99.409
IHK	KIPNUK	AK	LPV	7	99.736	6	99.622	16	99.458
ILI	ILIAMNA	AK	LPV	6	99.719	6	99.697	10	99.623
IWK	WALES	AK	LP	5	99.810	11	99.708	18	99.423
IYS	WASILLA	AK	LPV	4	99.781	9	99.681	10	99.550
KAL	KALTAG	AK	LPV	6	99.774	8	99.688	13	99.520
KGX	GRAYLING	AK	LP	7	99.763	6	99.652	12	99.494
KKA	KOYUK ALFRED ADAMS	AK	LP	5	99.789	8	99.708	11	99.478
KSM	ST MARY'S	AK	LPV200	8	99.746	6	99.658	13	99.464
KTN	KETCHIKAN INTL	AK	LPV	6	99.742	6	99.644	10	99.554
KTS	BREVIK MISSION	AK	LPV	5	99.812	11	99.688	12	99.441
KWT	KWETHLUK	AK	LPV	7	99.727	6	99.661	13	99.487
KYU	KOYUKUK	AK	LPV	5	99.772	8	99.714	13	99.517
MCG	MC GRATH	AK	LP	5	99.803	7	99.659	11	99.540
MDM	MARSHALL DON HUNTER SR	AK	LP	8	99.746	6	99.656	13	99.489
MDO	MIDDLETON ISLAND	AK	LP	3	99.798	8	99.752	10	99.566
MLY	MANLEY HOT SPRINGS	AK	LP	5	99.715	7	99.642	14	99.545
MOU	MOUNTAIN VILLAGE	AK	LPV200	8	99.745	6	99.658	13	99.444
MYU	MEKORYUK	AK	LPV	7	99.748	7	99.646	18	99.432
OME	NOME	AK	LPV	5	99.804	7	99.653	12	99.446
OOK	TOKSOOK BAY	AK	LP	7	99.738	6	99.645	18	99.444
ORT	NORTHWAY	AK	LP	8	99.705	8	99.625	12	99.447
OTZ	RALPH WIEN MEML	AK	LPV	6	99.769	10	99.674	15	99.396
PAQ	WARREN 'BUD' WOODS PALMER MUNICIPAL	AK	LP	4	99.781	8	99.676	12	99.549
PBV	ST GEORGE	AK	LPV	7	99.671	9	99.610	53	98.992
PHO	POINT HOPE	AK	LPV	6	99.755	11	99.598	22	99.228
PTU	PLATINUM	AK	LPV	6	99.712	5	99.646	13	99.492
RBY	RUBY	AK	LPV	4	99.761	6	99.680	11	99.531
RSH	RUSSIAN MISSION	AK	LP	7	99.732	6	99.657	14	99.515
SCC	DEADHORSE	AK	LPV200	10	99.542	10	99.433	27	99.124
SCM	SCAMMON BAY	AK	LP	6	99.763	6	99.655	14	99.388
SDP	SAND POINT	AK	LPV	6	99.688	5	99.643	14	99.442
SHG	SHUNGNAL	AK	LP	6	99.752	7	99.652	18	99.427

Airport	Airport Name	State/ Province	Service	LP Outages	LP Avail (%)	LPV Outages	LPV Avail (%)	LPV200 Outages	LPV200 Avail (%)
SHX	SHAGELUK	AK	LPV	7	99.769	6	99.647	13	99.510
SIT	SITKA ROCKY GUTIERREZ	AK	LP	4	99.696	7	99.644	12	99.539
SLQ	SLEETMUTE	AK	LP	7	99.755	7	99.671	12	99.532
SMK	ST MICHAEL	AK	LPV	7	99.767	6	99.648	12	99.459
SXQ	SOLDOTNA	AK	LP	6	99.767	7	99.714	11	99.545
TER	TELLER	AK	LPV200	4	99.812	11	99.693	12	99.443
TKA	TALKEETNA	AK	LPV	5	99.779	8	99.667	11	99.523
TOG	TOGIAC	AK	LP	6	99.716	5	99.646	13	99.510
WLK	SELAWIK	AK	LPV	6	99.771	8	99.682	15	99.424
WMO	WHITE MOUNTAIN	AK	LPV	5	99.787	8	99.673	11	99.464
WNA	NAPAKIAK	AK	LPV	7	99.735	6	99.667	14	99.463
WSN	SOUTH NAKNEK NR 2	AK	LPV	5	99.739	6	99.682	10	99.568
WTK	NOATAK	AK	LPV	5	99.761	10	99.655	17	99.372
YAK	YAKUTAT	AK	LPV200	5	99.733	6	99.663	11	99.524
02A	CHILTON COUNTY	AL	LP	0	100	0	100	1	99.994
06A	MOTON FLD MUNICIPAL	AL	LPV	1	99.998	1	99.998	1	99.971
09A	BUTLER/CHOCTAW COUNTY	AL	LPV	0	100	0	100	1	99.991
0J6	HEADLAND MUNICIPAL	AL	LPV	1	99.971	1	99.971	1	99.971
0R1	ATMORE MUNICIPAL	AL	LPV	1	99.980	1	99.980	1	99.971
11A	CLAYTON MUNICIPAL	AL	LPV	1	99.979	1	99.971	1	99.971
12J	BREWTON MUNICIPAL	AL	LPV	1	99.979	1	99.979	1	99.971
1A9	PRATTVILLE - GROUBY FLD	AL	LPV	0	100	0	100	1	99.971
1M4	POSEY FLD	AL	LPV	0	100	0	100	0	100
1R8	BAY MINETTE MUNICIPAL	AL	LPV	1	99.981	1	99.981	1	99.971
2R5	ST ELMO	AL	LPV	1	99.981	1	99.981	1	99.971
33J	GENEVA MUNICIPAL	AL	LP	1	99.971	1	99.971	1	99.971
3M8	NORTH PICKENS	AL	LP	0	100	0	100	0	100
4A9	ISBELL FLD	AL	LPV	0	100	0	100	0	100
5R1	ROY WILCOX	AL	LP	1	99.999	1	99.996	1	99.971
5R4	FOLEY MUNICIPAL	AL	LPV	1	99.979	1	99.979	1	99.971
71J	OZARK/BLACKWELL FLD	AL	LPV	1	99.971	1	99.971	1	99.971
79J	SOUTH ALABAMA RGNL AT BILL BEN	AL	LPV	1	99.979	1	99.971	1	99.971
8A0	ALBERTVILLE RGNL/THOMAS J BRUM	AL	LPV	0	100	0	100	0	100
8A1	GUNTERSVILLE MUNICIPAL/JOE STARNES	AL	LPV	0	100	0	100	0	100
9A4	COURTLAND	AL	LPV200	0	100	0	100	0	100
A08	VAIDEN FLD	AL	LPV	0	100	0	100	1	99.993
ALX	THOMAS C RUSSELL FLD	AL	LPV	0	100	0	100	1	99.995

Airport	Airport Name	State/ Province	Service	LP Outages	LP Avail (%)	LPV Outages	LPV Avail (%)	LPV200 Outages	LPV200 Avail (%)
ANB	ANNISTON RGNL	AL	LPV	0	100	0	100	0	100
ASN	TALLADEGA MUNICIPAL	AL	LPV200	0	100	0	100	0	100
AUO	AUBURN UNIVERSITY RGNL	AL	LPV200	1	99.998	1	99.998	1	99.971
BFM	MOBILE DOWNTOWN	AL	LPV200	1	99.981	1	99.981	1	99.971
BHM	BIRMINGHAM-SHUTTLESWORTH INTL	AL	LPV200	0	100	0	100	0	100
CMD	CULLMAN RGNL-FOLSOM FLD	AL	LPV	0	100	0	100	0	100
CQF	H L SONNY CALLAHAN	AL	LPV200	1	99.979	1	99.979	1	99.971
DCU	PRYOR FLD RGNL	AL	LPV200	0	100	0	100	0	100
DHN	DOTHAN RGNL	AL	LPV200	1	99.971	1	99.971	1	99.971
DYA	DEMOPOLIS RGNL	AL	LPV	0	100	0	100	1	99.992
EDN	ENTERPRISE MUNICIPAL	AL	LPV	1	99.971	1	99.971	1	99.971
EET	SHELBY COUNTY	AL	LPV	0	100	0	100	0	100
EKY	BESSEMER	AL	LPV200	0	100	0	100	0	100
EUF	WEEDON FLD	AL	LPV	1	99.979	1	99.971	1	99.971
GAD	NORTHEAST ALABAMA RGNL	AL	LPV200	0	100	0	100	0	100
GZH	EVERGREEN RGNL/MIDDLETON FLD	AL	LP	1	99.981	1	99.981	1	99.971
HAB	MARION COUNTY-RANKIN FITE	AL	LPV	0	100	0	100	0	100
HSV	HUNTSVILLE INTL-CARL T JONES F	AL	LPV200	0	100	0	100	0	100
JFX	WALKER COUNTY-BEVILL FLD	AL	LPV	0	100	0	100	0	100
JKA	GULF SHORES INTL/JACK EDWARDS	AL	LPV200	1	99.977	1	99.977	2	99.970
M95	RICHARD ARTHUR FLD	AL	LPV	0	100	0	100	0	100
MDQ	HUNTSVILLE EXEC TOM SHARP JR F	AL	LPV200	0	100	0	100	0	100
MGM	MONTGOMERY RGNL (DANNELLY FLD)	AL	LPV200	0	100	0	100	1	99.971
MOB	MOBILE RGNL	AL	LPV200	1	99.989	1	99.989	1	99.971
MSL	NORTHWEST ALABAMA RGNL	AL	LPV200	0	100	0	100	0	100
PLR	ST CLAIR COUNTY	AL	LPV	0	100	0	100	0	100
PYP	CENTRE-PIEDMONT-CHEROKEE COUNT	AL	LPV	0	100	0	100	0	100
SCD	MERKEL FLD SYLACAUGA MUNICIPAL	AL	LPV	0	100	0	100	0	100
SEM	CRAIG FLD	AL	LPV200	0	100	0	100	1	99.971
TCL	TUSCALOOSA NTL	AL	LPV	0	100	0	100	0	100
TOI	TROY MUNICIPAL AT N KENNETH CAMPBEL	AL	LPV	1	99.981	1	99.981	1	99.971
0M0	BILLY FREE MUNICIPAL	AR	LPV	0	100	0	100	0	100
42A	MELBOURNE MUNICIPAL - JOHN E MILLER	AR	LP	0	100	0	100	1	99.999
4A5	SEARCY COUNTY	AR	LPV	0	100	0	100	1	99.999
4M1	CARROLL COUNTY	AR	LP	0	100	0	100	2	99.996
4M3	CARLISLE MUNICIPAL	AR	LPV	0	100	0	100	0	100
6M7	MARIANNA/LEE COUNTY-STEVE EDWA	AR	LPV	0	100	0	100	0	100

Airport	Airport Name	State/ Province	Service	LP Outages	LP Avail (%)	LPV Outages	LPV Avail (%)	LPV200 Outages	LPV200 Avail (%)
7M1	MC GEHEE MUNICIPAL	AR	LP	0	100	0	100	0	100
9M8	SHERIDAN-GRANT COUNTY RGNL	AR	LPV	0	100	0	100	0	100
ADF	DEXTER B FLORENCE MEML FLD	AR	LPV	0	100	0	100	0	100
ARG	WALNUT RIDGE RGNL	AR	LPV200	0	100	0	100	1	99.999
ASG	SPRINGDALE MUNICIPAL	AR	LPV	0	100	0	100	1	99.997
AWM	WEST MEMPHIS MUNICIPAL	AR	LPV	0	100	0	100	0	100
BPK	BAXTER COUNTY	AR	LPV	0	100	0	100	1	99.999
BVX	BATESVILLE RGNL	AR	LPV	0	100	0	100	0	100
BYH	ARKANSAS INTL	AR	LPV200	0	100	0	100	0	100
CDH	HARRELL FLD	AR	LPV	0	100	0	100	0	100
CXW	CONWAY RGNL	AR	LPV	0	100	0	100	0	100
DRP	DELTA RGNL	AR	LPV	0	100	0	100	0	100
ELD	SOUTH ARKANSAS RGNL AT GOODWIN	AR	LPV	0	100	0	100	0	100
FLP	MARION COUNTY RGNL	AR	LPV	0	100	0	100	1	99.999
FSM	FORT SMITH RGNL	AR	LPV200	0	100	0	100	0	100
FYV	DRAKE FLD	AR	LPV	0	100	0	100	1	99.997
H34	HUNTSVILLE MUNICIPAL	AR	LPV	0	100	0	100	1	99.999
HEE	THOMPSON-ROBBINS	AR	LPV	0	100	0	100	0	100
HRO	BOONE COUNTY	AR	LPV	0	100	0	100	1	99.998
JBR	JONESBORO MUNICIPAL	AR	LPV200	0	100	0	100	0	100
LIT	BILL AND HILLARY CLINTON NTL/A	AR	LPV200	0	100	0	100	0	100
LLQ	MONTICELLO MUNICIPAL/ELLIS FLD	AR	LPV	0	100	0	100	0	100
M18	HOPE MUNICIPAL	AR	LP	0	100	0	100	0	100
M19	NEWPORT RGNL	AR	LPV	0	100	0	100	0	100
M32	LAKE VILLAGE MUNICIPAL	AR	LP	0	100	0	100	0	100
M70	POCAHONTAS MUNICIPAL	AR	LPV	0	100	0	100	1	99.999
M77	HOWARD COUNTY	AR	LP	0	100	0	100	0	100
MXA	MANILA MUNICIPAL	AR	LPV	0	100	0	100	0	100
ORK	NORTH LITTLE ROCK MUNICIPAL	AR	LPV	0	100	0	100	0	100
PBF	PINEBLUFF RGNL/GRIDER FLD	AR	LPV	0	100	0	100	0	100
ROG	ROGERS EXEC - CARTER FLD	AR	LPV	0	100	0	100	2	99.995
RUE	RUSSELLVILLE RGNL	AR	LPV	0	100	0	100	0	100
SGT	STUTTGART MUNICIPAL CARL HUMPHREY F	AR	LPV	0	100	0	100	0	100
SLG	SMITH FLD	AR	LPV	0	100	0	100	2	99.996
SRC	SEARCY MUNICIPAL	AR	LPV	0	100	0	100	0	100
SUZ	SALINE COUNTY RGNL	AR	LPV	0	100	0	100	0	100
TXK	TEXARKANA RGNL-WEBB FLD	AR	LPV	0	100	0	100	0	100

Airport	Airport Name	State/ Province	Service	LP Outages	LP Avail (%)	LPV Outages	LPV Avail (%)	LPV200 Outages	LPV200 Avail (%)
VBT	BENTONVILLE MUNICIPAL/LOUISE M THAD	AR	LPV	0	100	0	100	2	99.996
XNA	NORTHWEST ARKANSAS NTL	AR	LPV200	0	100	0	100	2	99.996
AVQ	MARANA RGNL	AZ	LP	0	100	1	99.988	2	99.930
AZC	COLORADO CITY MUNICIPAL	AZ	LPV	0	100	1	99.999	1	99.978
CGZ	CASA GRANDE MUNICIPAL	AZ	LPV	0	100	1	99.993	2	99.944
CHD	CHANDLER MUNICIPAL	AZ	LPV	0	100	0	100	2	99.950
DVT	PHOENIX DEER VALLEY	AZ	LPV	0	100	0	100	3	99.954
FFZ	FALCON FLD	AZ	LP	0	100	0	100	2	99.955
FHU	SIERRA VISTA MUNICIPAL-LIBBY AAF	AZ	LPV200	1	99.993	2	99.988	8	99.895
FLG	FLAGSTAFF PULLIAM	AZ	LPV	0	100	0	100	2	99.986
GCN	GRAND CANYON NTL PARK	AZ	LPV	0	100	0	100	1	99.983
GEU	GLENDALE MUNICIPAL	AZ	LPV	0	100	0	100	3	99.954
GYR	PHOENIX GOODYEAR	AZ	LP	0	100	0	100	3	99.947
HII	LAKE HAVASU CITY	AZ	LPV	0	100	0	100	3	99.986
IFP	LAUGHLIN/BULLHEAD INTL	AZ	LPV	0	100	0	100	2	99.986
IGM	KINGMAN	AZ	LPV	0	100	0	100	2	99.983
IWA	PHOENIX-MESA GATEWAY	AZ	LPV200	0	100	0	100	2	99.951
JTC	SPRINGERVILLE MUNICIPAL	AZ	LP	1	99.993	1	99.993	4	99.974
P08	COOLIDGE MUNICIPAL	AZ	LPV	0	100	1	99.992	2	99.945
P20	AVI SUQUILLA	AZ	LPV	0	100	0	100	3	99.980
P33	COCHISE COUNTY	AZ	LPV	1	99.996	1	99.992	13	99.924
PGA	PAGE MUNICIPAL	AZ	LPV	0	100	1	99.995	1	99.974
PHX	PHOENIX SKY HARBOR INTL	AZ	LPV	0	100	0	100	2	99.951
PRC	PRESCOTT RGNL - ERNEST A LOVE	AZ	LPV200	0	100	0	100	2	99.994
RQE	WINDOW ROCK	AZ	LP	0	100	0	100	2	99.974
RYN	RYAN FLD	AZ	LPV	1	99.999	1	99.988	2	99.929
SAD	SAFFORD RGNL	AZ	LPV	1	99.993	1	99.993	6	99.935
SJN	ST JOHNS INDUSTRIAL AIR PARK	AZ	LPV	1	99.997	1	99.997	3	99.981
SOW	SHOW LOW RGNL	AZ	LPV200	0	100	0	100	3	99.981
TUS	TUCSON INTL	AZ	LPV	1	99.998	1	99.989	2	99.929
TYL	TAYLOR	AZ	LPV	0	100	0	100	2	99.983
CAJ4	ANAHIM LAKE	BC	LPV	6	99.806	7	99.724	6	99.560
CAJ9	FORT WARE	BC	LP	6	99.735	6	99.618	14	99.524
CAU4	VANDERHOOF	BC	LPV	5	99.793	7	99.688	8	99.570
CBN9	TSAY KEH	BC	LP	5	99.747	5	99.637	11	99.516
CBW4	BOB QUINN LAKE	BC	LP	7	99.715	6	99.660	10	99.547
CYBL	CAMPBELL RIVER	BC	LPV	6	99.883	7	99.817	5	99.643

Airport	Airport Name	State/ Province	Service	LP Outages	LP Avail (%)	LPV Outages	LPV Avail (%)	LPV200 Outages	LPV200 Avail (%)
CYCD	NANAIMO	BC	LPV	3	99.910	5	99.872	6	99.697
CYCZ	FAIRMONT HOT SPRINGS	BC	LPV	4	99.873	4	99.838	9	99.699
CYDL	DEASE LAKE	BC	LP	6	99.705	6	99.643	16	99.480
CYDQ	DAWSON CREEK	BC	LPV	6	99.763	7	99.649	11	99.483
CYKA	KAMLOOPS	BC	LPV	6	99.866	6	99.815	7	99.647
CYLW	KELOWNA	BC	LPV	5	99.889	6	99.837	7	99.718
CYPK	PITT MEADOWS	BC	LPV	3	99.910	5	99.867	8	99.721
CYPR	PRINCE RUPERT	BC	LPV	7	99.770	5	99.637	11	99.569
CYQQ	COMOX	BC	LPV200	5	99.897	6	99.835	5	99.643
CYQZ	QUESNEL	BC	LPV	5	99.792	6	99.710	10	99.569
CYVR	VANCOUVER INTL	BC	LPV200	3	99.910	5	99.869	7	99.705
CYWL	WILLIAMS LAKE	BC	LPV	6	99.823	5	99.765	7	99.569
CYXJ	FORT ST. JOHN	BC	LPV200	7	99.757	8	99.640	11	99.452
CYXS	PRINCE GEORGE	BC	LPV200	4	99.776	6	99.681	9	99.543
CYXT	TERRACE	BC	LPV	5	99.783	5	99.661	9	99.589
CYXX	ABBOTSFORD	BC	LPV	3	99.910	4	99.865	8	99.720
CYYD	SMITHERS	BC	LPV	5	99.797	6	99.686	9	99.586
CYYE	FORT NELSON	BC	LPV200	8	99.698	7	99.632	19	99.357
CYYF	PENTICTON	BC	LPV	4	99.905	5	99.860	7	99.734
CYYJ	VICTORIA INTL	BC	LPV200	3	99.910	5	99.872	7	99.737
CYZP	SANDSPIT	BC	LPV	7	99.747	8	99.638	8	99.542
CYZT	PORT HARDY	BC	LPV	8	99.853	9	99.776	6	99.612
CZBB	BOUNDARY BAY	BC	LPV	3	99.910	5	99.869	7	99.706
AAT	ALTURAS MUNICIPAL	CA	LPV	1	99.975	2	99.964	3	99.920
ACV	CALIFORNIA REDWOOD COAST-HUMBO	CA	LPV	1	99.975	3	99.969	2	99.888
APC	NAPA COUNTY	CA	LPV200	0	100	1	99.998	4	99.951
APV	APPLE VALLEY	CA	LPV	0	100	0	100	5	99.978
AUN	AUBURN MUNICIPAL	CA	LPV	0	100	0	100	4	99.950
BFL	MEADOWS FLD	CA	LPV	0	100	0	100	3	99.987
BLH	BLYTHE	CA	LP	0	100	0	100	4	99.967
BUR	BOB HOPE	CA	LP	0	100	0	100	11	99.969
C83	BYRON	CA	LPV	0	100	1	99.999	4	99.952
CCB	CABLE	CA	LP	0	100	0	100	9	99.969
CCR	BUCHANAN FLD	CA	LPV	0	100	1	99.999	4	99.952
CEC	JACK MC NAMARA FLD	CA	LPV	1	99.972	3	99.952	4	99.900
CIC	CHICO MUNICIPAL	CA	LPV	0	100	1	99.976	4	99.937
CMA	CAMARILLO	CA	LPV	0	100	0	100	14	99.966

Airport	Airport Name	State/ Province	Service	LP Outages	LP Avail (%)	LPV Outages	LPV Avail (%)	LPV200 Outages	LPV200 Avail (%)
CNO	CHINO	CA	LPV	0	100	0	100	9	99.969
CPU	CALAVERAS COUNTY-MAURY RASMUS	CA	LP	0	100	0	100	4	99.962
CRQ	MC CLELLAN-PALOMAR	CA	LPV	0	100	0	100	15	99.910
CVH	HOLLISTER MUNICIPAL	CA	LPV	0	100	0	100	3	99.964
DAG	BARSTOW-DAGGETT	CA	LPV	0	100	0	100	3	99.981
DWA	YOLO COUNTY	CA	LPV	0	100	1	99.999	4	99.950
F70	FRENCH VALLEY	CA	LPV	0	100	0	100	12	99.952
FAT	FRESNO YOSEMITE INTL	CA	LPV200	0	100	0	100	3	99.992
FCH	FRESNO CHANDLER EXEC	CA	LPV	0	100	0	100	3	99.988
GOO	NEVADA COUNTY	CA	LPV	0	100	0	100	4	99.950
HAF	HALF MOON BAY	CA	LPV	0	100	1	99.998	5	99.952
HHR	JACK NORTHROP FLD/HAWTHORNE MU	CA	LPV	0	100	0	100	13	99.964
HJO	HANFORD MUNICIPAL	CA	LPV	0	100	0	100	2	99.992
HWD	HAYWARD EXEC	CA	LPV	0	100	1	99.998	4	99.952
L35	BIG BEAR CITY	CA	LP	0	100	0	100	4	99.977
LAX	LOS ANGELES INTL	CA	LPV200	0	100	0	100	13	99.965
LGB	LONG BEACH (DAUGHERTY FLD)	CA	LPV	0	100	0	100	13	99.961
LHM	LINCOLN RGNL/KARL HARDER FLD	CA	LPV200	0	100	0	100	4	99.950
LLR	LITTLE RIVER	CA	LP	0	100	1	99.977	3	99.905
LSN	LOS BANOS MUNICIPAL	CA	LPV	0	100	0	100	3	99.972
LVK	LIVERMORE MUNICIPAL	CA	LPV200	0	100	1	99.999	4	99.952
MAE	MADERA MUNICIPAL	CA	LPV	0	100	0	100	3	99.981
MCE	MERCED RGNL/MACREADY FLD	CA	LPV200	0	100	0	100	3	99.973
MER	CASTLE	CA	LPV200	0	100	0	100	3	99.973
MHR	SACRAMENTO MATHER	CA	LPV200	0	100	0	100	4	99.951
MHV	MOJAVE AIR AND SPACE PORT	CA	LP	0	100	0	100	3	99.979
MIT	SHAFTER-MINTER FLD	CA	LPV	0	100	0	100	3	99.992
MOD	MODESTO CITY-COUNTY-HARRY SHAM	CA	LPV200	0	100	0	100	4	99.961
MRY	MONTEREY RGNL	CA	LPV	0	100	1	99.998	4	99.961
MYF	MONTGOMERY-GIBBS EXEC	CA	LPV200	0	100	0	100	23	99.884
MYV	YUBA COUNTY	CA	LPV200	0	100	0	100	4	99.949
NUQ	MOFFETT FEDERAL AIRFIELD	CA	LPV200	0	100	1	99.998	4	99.955
O02	NERVINO	CA	LPV	0	100	0	100	4	99.944
O08	COLUSA COUNTY	CA	LPV	0	100	1	99.996	4	99.946
O27	OAKDALE	CA	LPV	0	100	0	100	4	99.966
O32	REEDLEY MUNICIPAL	CA	LPV	0	100	0	100	3	99.992
O69	PETALUMA MUNICIPAL	CA	LPV	0	100	1	99.998	4	99.950

Airport	Airport Name	State/ Province	Service	LP Outages	LP Avail (%)	LPV Outages	LPV Avail (%)	LPV200 Outages	LPV200 Avail (%)
O88	RIO VISTA MUNICIPAL	CA	LP	0	100	1	99.999	4	99.952
OAK	METRO OAKLAND INTL	CA	LPV200	0	100	1	99.998	4	99.952
ONT	ONTARIO INTL	CA	LPV200	0	100	0	100	8	99.969
OVE	OROVILLE MUNICIPAL	CA	LPV	0	100	1	99.997	4	99.945
OXR	OXNARD	CA	LPV	0	100	0	100	14	99.968
PMD	PALMDALE USAF PLANT 42	CA	LPV200	0	100	0	100	7	99.974
POC	BRACKETT FLD	CA	LPV	0	100	0	100	9	99.969
PRB	PASO ROBLES MUNICIPAL	CA	LPV	0	100	0	100	3	99.988
PVF	PLACERVILLE	CA	LPV	0	100	0	100	4	99.961
RAL	RIVERSIDE MUNICIPAL	CA	LPV	0	100	0	100	9	99.969
RBL	RED BLUFF MUNICIPAL	CA	LPV	0	100	1	99.974	3	99.917
RDD	REDDING MUNICIPAL	CA	LPV	1	99.989	1	99.972	3	99.917
RHV	REID-HILLVIEW OF SANTA CLARA C	CA	LPV	0	100	1	99.999	4	99.956
RIV	MARCH ARB	CA	LPV200	0	100	0	100	12	99.968
SAC	SACRAMENTO EXEC	CA	LPV	0	100	0	100	4	99.951
SAN	SAN DIEGO INTL	CA	LPV	0	100	0	100	29	99.856
SBA	SANTA BARBARA MUNICIPAL	CA	LPV	0	100	0	100	10	99.971
SBD	SAN BERNARDINO INTL	CA	LPV	0	100	0	100	7	99.976
SBP	SAN LUIS COUNTY RGNL	CA	LPV200	0	100	0	100	8	99.979
SCK	STOCKTON METRO	CA	LPV200	0	100	0	100	4	99.957
SDM	BROWN FLD MUNICIPAL	CA	LPV200	0	100	0	100	34	99.823
SEE	GILLESPIE FLD	CA	LP	0	100	0	100	20	99.893
SFO	SAN FRANCISCO INTL	CA	LPV200	0	100	1	99.998	4	99.952
SJC	NORMAN Y MINETA SAN JOSE INTL	CA	LPV200	0	100	1	99.999	4	99.956
SMF	SACRAMENTO INTL	CA	LPV200	0	100	0	100	4	99.950
SMO	SANTA MONICA MUNICIPAL	CA	LPV	0	100	0	100	13	99.967
SMX	SANTA MARIA PUB/CAPT G ALLAN H	CA	LPV200	0	100	0	100	10	99.975
SNA	JOHN WAYNE/ORANGE COUNTY	CA	LPV200	0	100	0	100	13	99.961
SNS	SALINAS MUNICIPAL	CA	LPV200	0	100	1	99.999	3	99.963
STS	CHARLES M SCHULZ - SONOMA COUN	CA	LPV200	0	100	1	99.998	3	99.934
TCY	TRACY MUNICIPAL	CA	LPV	0	100	0	100	4	99.955
TNP	TWENTYNINE PALMS	CA	LP	0	100	0	100	3	99.980
TOA	ZAMPERINI FLD	CA	LPV	0	100	0	100	15	99.955
TRK	TRUCKEE-TAHOE	CA	LP	0	100	0	100	4	99.956
TRM	JACQUELINE COCHRAN RGNL	CA	LPV	0	100	0	100	8	99.963
TVL	LAKE TAHOE	CA	LP	0	100	0	100	4	99.964
VCB	NUT TREE	CA	LPV	0	100	1	99.999	4	99.951

Airport	Airport Name	State/ Province	Service	LP Outages	LP Avail (%)	LPV Outages	LPV Avail (%)	LPV200 Outages	LPV200 Avail (%)
VCV	SOUTHERN CALIFORNIA LOGISTICS	CA	LPV	0	100	0	100	5	99.978
VIS	VISALIA MUNICIPAL	CA	LPV	0	100	0	100	2	99.992
WJF	GENERAL WM J FOX AIRFIELD	CA	LPV	0	100	0	100	6	99.975
WLW	WILLOWS/GLENN COUNTY	CA	LPV	0	100	1	99.996	4	99.945
WVI	WATSONVILLE MUNICIPAL	CA	LPV	0	100	1	99.999	3	99.960
1V6	FREMONT COUNTY	CO	LPV	0	100	1	99.999	4	99.961
20V	MC ELROY AIRFIELD	CO	LPV	1	99.999	2	99.975	4	99.952
2V5	WRAY MUNICIPAL	CO	LPV200	0	100	2	99.965	4	99.931
2V6	YUMA MUNICIPAL	CO	LPV200	0	100	2	99.964	4	99.932
33V	WALDEN-JACKSON COUNTY	CO	LPV	1	99.980	2	99.970	3	99.930
4V0	RANGELY	CO	LPV	1	99.975	2	99.974	3	99.941
4V1	SPANISH PEAKS AIRFIELD	CO	LPV	0	100	1	99.997	2	99.977
AEJ	CENTRAL COLORADO RGNL	CO	LP	0	100	1	99.987	3	99.966
AJZ	BLAKE FLD	CO	LPV	0	100	1	99.975	3	99.968
AKO	COLORADO PLAINS RGNL	CO	LPV	0	100	2	99.964	4	99.924
ALS	SAN LUIS VALLEY RGNL/BERGMAN F	CO	LPV200	0	100	0	100	3	99.982
APA	CENTENNIAL	CO	LPV200	0	100	2	99.985	5	99.941
BJC	ROCKY MOUNTAIN METRO	CO	LPV200	0	100	2	99.975	5	99.938
CAG	CRAIG-MOFFAT	CO	LP	1	99.980	2	99.966	3	99.932
CEZ	CORTEZ MUNICIPAL	CO	LPV	0	100	1	99.994	2	99.971
CFO	COLORADO AIR AND SPACE PORT	CO	LPV200	0	100	2	99.978	4	99.926
COS	CITY OF COLORADO SPRINGS MUNICIPAL	CO	LPV200	0	100	1	99.992	4	99.950
DEN	DENVER INTL	CO	LPV200	0	100	2	99.975	5	99.936
DRO	DURANGO-LA PLATA COUNTY	CO	LPV200	0	100	0	100	2	99.971
FMM	FORT MORGAN MUNICIPAL	CO	LPV	0	100	2	99.972	4	99.921
FNL	NORTHERN COLORADO RGNL	CO	LPV200	1	99.990	2	99.969	4	99.925
FTG	FRONT RANGE	CO	LPV200	0	100	2	99.978	4	99.926
GJT	GRAND JUNCTION RGNL	CO	LPV200	1	99.995	1	99.975	3	99.964
GXY	GREELEY-WELD COUNTY	CO	LPV200	1	99.999	2	99.970	4	99.923
HDN	YAMPA VALLEY	CO	LPV200	1	99.980	2	99.967	4	99.944
ITR	KIT CARSON COUNTY	CO	LPV	0	100	1	99.978	4	99.935
LAA	SOUTHEAST COLORADO RGNL	CO	LPV	0	100	1	99.981	3	99.956
LHX	LA JUNTA MUNICIPAL	CO	LPV	0	100	1	99.984	3	99.966
LMO	VANCE BRAND	CO	LPV	0	100	2	99.974	3	99.927
MTJ	MONTROSE RGNL	CO	LPV200	0	100	1	99.982	3	99.968
MVI	MONTE VISTA MUNICIPAL	CO	LPV	0	100	0	100	2	99.982
PSO	STEVENS FLD	CO	LP	0	100	0	100	2	99.972

Airport	Airport Name	State/ Province	Service	LP Outages	LP Avail (%)	LPV Outages	LPV Avail (%)	LPV200 Outages	LPV200 Avail (%)
PUB	PUEBLO MEML	CO	LPV200	0	100	1	99.992	4	99.964
RCV	ASTRONAUT KENT ROMINGER	CO	LPV	0	100	0	100	2	99.978
RIL	RIFLE GARFIELD COUNTY	CO	LPV	1	99.993	2	99.973	3	99.960
STK	STERLING MUNICIPAL	CO	LPV	0	100	2	99.962	4	99.917
TEX	TELLURIDE RGNL	CO	LP	0	100	1	99.994	2	99.971
4B8	ROBERTSON FLD	CT	LP	0	100	3	99.969	6	99.847
BDL	BRADLEY INTL	CT	LPV200	1	99.998	4	99.967	8	99.832
BDR	IGOR I SIKORSKY MEML	CT	LPV	0	100	2	99.991	5	99.878
DXR	DANBURY MUNICIPAL	CT	LP	0	100	3	99.992	7	99.893
GON	GROTON-NEW LONDON	CT	LPV	0	100	5	99.977	6	99.850
HVN	TWEED/NEW HAVEN	CT	LPV	0	100	2	99.989	5	99.864
IJD	WINDHAM	CT	LP	1	99.999	5	99.965	8	99.824
MMK	MERIDEN MARKHAM MUNICIPAL	CT	LP	0	100	3	99.969	6	99.855
OXF	WATERBURY-OXFORD	CT	LPV	0	100	3	99.969	6	99.863
DCA	RONALD REAGAN WASHINGTON NTL	DC	LPV	0	100	0	100	2	99.986
HEF	MANASSAS RGNL/HARRY P DAVIS FL	DC	LPV	0	100	0	100	1	99.997
IAD	WASHINGTON DULLES INTL	DC	LPV200	0	100	0	100	1	99.992
33N	DELAWARE AIRPARK	DE	LP	0	100	0	100	2	99.982
DOV	DOVER AFB	DE	LPV200	0	100	0	100	2	99.981
EVY	SUMMIT	DE	LPV	0	100	1	99.999	2	99.982
GED	DELAWARE COASTAL	DE	LPV	0	100	0	100	2	99.983
ILG	NEW CASTLE	DE	LPV	0	100	1	99.998	2	99.981
1J0	TRI-COUNTY	FL	LP	1	99.971	1	99.971	1	99.971
24J	SUWANNEE COUNTY	FL	LPV	1	99.971	1	99.971	1	99.971
28J	PALATKA MUNICIPAL - LT KAY LARKIN F	FL	LPV	1	99.971	1	99.971	1	99.971
40J	PERRY-FOLEY	FL	LPV	1	99.971	1	99.971	1	99.971
54J	DEFUNIAK SPRINGS	FL	LP	1	99.971	1	99.971	1	99.971
AAF	APALACHICOLA RGNL-CLEVE RANDOL	FL	LPV	1	99.971	1	99.971	2	99.970
APF	NAPLES MUNICIPAL	FL	LPV	1	99.967	1	99.964	38	99.821
AVO	AVON PARK EXEC	FL	LPV	1	99.967	1	99.967	13	99.955
BCR	TRI-COUNTY	FL	LPV	1	99.971	1	99.971	1	99.971
BCT	BOCA RATON	FL	LPV	1	99.967	1	99.967	19	99.925
BKV	BROOKSVILLE-TAMPA BAY RGNL	FL	LPV	1	99.971	1	99.971	7	99.963
BOW	BARTOW EXEC	FL	LPV	1	99.967	1	99.967	10	99.962
CEW	BOB SIKES	FL	LPV	1	99.971	1	99.971	1	99.971
CGC	CRYSTAL RIVER-CAPT TOM DAVIS F	FL	LP	1	99.971	1	99.971	4	99.969
CHN	WAUCHULA MUNICIPAL	FL	LP	1	99.967	1	99.967	15	99.946

Airport	Airport Name	State/ Province	Service	LP Outages	LP Avail (%)	LPV Outages	LPV Avail (%)	LPV200 Outages	LPV200 Avail (%)
COI	MERRITT ISLAND	FL	LPV	1	99.971	1	99.971	2	99.968
CRG	JACKSONVILLE EXEC AT CRAIG	FL	LPV200	1	99.971	1	99.971	1	99.971
CTY	CROSS CITY	FL	LPV	1	99.971	1	99.971	1	99.971
DAB	DAYTONA BEACH INTL	FL	LPV200	1	99.971	1	99.971	2	99.968
DED	DELAND MUNICIPAL-SIDNEY H TAYLOR FL	FL	LPV	1	99.971	1	99.971	2	99.969
DTS	DESTIN EXEC	FL	LPV	1	99.971	1	99.971	2	99.970
ECP	NORTHWEST FLORIDA BEACHES INTL	FL	LPV200	1	99.971	1	99.971	1	99.971
EVV	NEW SMYRNA BEACH MUNICIPAL	FL	LPV	1	99.971	1	99.971	2	99.968
EYW	KEY WEST INTL	FL	LPV	1	99.964	3	99.952	45	99.632
F45	NORTH PALM BEACH COUNTY GENERA	FL	LPV	1	99.967	1	99.967	13	99.944
FHB	FERNANDINA BEACH MUNICIPAL	FL	LPV	1	99.971	1	99.971	1	99.971
FIN	FLAGLER EXEC	FL	LPV	1	99.971	1	99.971	2	99.969
FLL	FORT LAUDERDALE/HOLLYWOOD INTL	FL	LPV200	1	99.967	1	99.967	23	99.900
FMY	PAGE FLD	FL	LPV	1	99.967	1	99.965	37	99.869
FPR	TREASURE COAST INTL	FL	LPV	1	99.967	1	99.967	5	99.959
FPY	PERRY-FOLEY	FL	LPV	1	99.971	1	99.971	1	99.971
FXE	FORT LAUDERDALE EXEC	FL	LPV200	1	99.967	1	99.967	23	99.913
GIF	WINTER HAVEN RGNL	FL	LPV	1	99.967	1	99.967	8	99.963
GNV	GAINESVILLE RGNL	FL	LPV	1	99.971	1	99.971	1	99.971
HEG	HERLONG RECREATIONAL	FL	LPV	1	99.971	1	99.971	1	99.971
IMM	IMMOKALEE RGNL	FL	LPV	1	99.967	1	99.965	30	99.887
ISM	KISSIMMEE GATEWAY	FL	LPV200	1	99.971	1	99.971	3	99.970
JAX	JACKSONVILLE INTL	FL	LPV200	1	99.971	1	99.971	1	99.971
LAL	LAKELAND LINDER INTL	FL	LPV200	1	99.967	1	99.967	8	99.962
LCQ	LAKE CITY GATEWAY	FL	LPV	1	99.971	1	99.971	1	99.971
LEE	LEESBURG INTL	FL	LPV	1	99.971	1	99.971	1	99.971
LNA	PALM BEACH COUNTY PARK	FL	LP	1	99.967	1	99.967	16	99.934
MAI	MARIANNA MUNICIPAL	FL	LPV	1	99.971	1	99.971	1	99.971
MCO	ORLANDO INTL	FL	LPV200	1	99.971	1	99.971	2	99.970
MIA	MIAMI INTL	FL	LPV200	1	99.967	1	99.965	25	99.877
MKY	MARCO ISLAND EXEC	FL	LPV	1	99.967	1	99.964	38	99.805
MLB	MELBOURNE ORLANDO INTL	FL	LPV200	1	99.971	1	99.971	2	99.968
MTH	THE FLORIDA KEYS MARATHON INTL	FL	LPV	1	99.965	1	99.965	44	99.714
OBE	OKEECHOBEE COUNTY	FL	LPV	1	99.967	1	99.967	10	99.956
OCF	OCALA INTL-JIM TAYLOR FLD	FL	LPV200	1	99.971	1	99.971	1	99.971
OMN	ORMOND BEACH MUNICIPAL	FL	LPV	1	99.971	1	99.971	2	99.969
OPF	MIAMI-OPA LOCKA EXEC	FL	LPV200	1	99.967	1	99.965	24	99.886

Airport	Airport Name	State/ Province	Service	LP Outages	LP Avail (%)	LPV Outages	LPV Avail (%)	LPV200 Outages	LPV200 Avail (%)
ORL	EXEC	FL	LPV200	1	99.971	1	99.971	2	99.970
PBI	PALM BEACH INTL	FL	LPV200	1	99.967	1	99.967	13	99.938
PCM	PLANT CITY	FL	LPV	1	99.967	1	99.967	7	99.961
PGD	PUNTA GORDA	FL	LPV200	1	99.967	1	99.967	30	99.900
PHK	PALM BEACH COUNTY GLADES	FL	LPV	1	99.967	1	99.967	18	99.935
PIE	ST PETE-CLEARWATER INTL	FL	LPV200	1	99.967	1	99.967	14	99.952
PMP	POMPANO BEACH AIRPARK	FL	LPV	1	99.967	1	99.967	23	99.917
PNS	PENSACOLA INTL	FL	LPV200	1	99.971	1	99.971	1	99.971
RSW	SOUTHWEST FLORIDA INTL	FL	LPV	1	99.967	1	99.965	33	99.874
SEF	SEBRING RGNL	FL	LPV	1	99.967	1	99.967	14	99.951
SFB	ORLANDO SANFORD INTL	FL	LPV200	1	99.971	1	99.971	2	99.969
SGJ	NORTHEAST FLORIDA RGNL	FL	LPV	1	99.971	1	99.971	1	99.971
SRQ	SARASOTA/BRADENTON INTL	FL	LPV200	1	99.967	1	99.967	29	99.916
SUA	WITHAM FLD	FL	LPV	1	99.967	1	99.967	9	99.951
TIX	SPACE COAST RGNL	FL	LPV200	1	99.971	1	99.971	2	99.968
TLH	TALLAHASSEE INTL	FL	LPV200	1	99.971	1	99.971	1	99.971
TMB	MIAMI EXEC	FL	LPV200	1	99.967	1	99.965	27	99.854
TNT	DADE-COLLIER TRAINING AND TRAN	FL	LPV200	1	99.967	1	99.965	30	99.844
TPA	TAMPA INTL	FL	LPV200	1	99.967	1	99.967	8	99.958
TPF	PETER O KNIGHT	FL	LP	1	99.967	1	99.967	8	99.958
TTS	NASA SHUTTLE LANDING FACILITY	FL	LPV200	1	99.971	1	99.971	2	99.968
VDF	TAMPA EXEC	FL	LPV	1	99.967	1	99.967	8	99.960
VNC	VENICE MUNICIPAL	FL	LP	1	99.966	1	99.966	32	99.890
VQQ	CECIL	FL	LPV200	1	99.971	1	99.971	1	99.971
VRB	VERO BEACH RGNL	FL	LPV200	1	99.967	1	99.967	5	99.960
X07	LAKE WALES MUNICIPAL	FL	LP	1	99.967	1	99.967	10	99.960
X14	LA BELLE MUNICIPAL	FL	LPV	1	99.967	1	99.967	27	99.913
X35	MARION COUNTY	FL	LP	1	99.971	1	99.971	2	99.970
X51	MIAMI HOMESTEAD GENERAL AVIATI	FL	LPV	1	99.967	1	99.965	31	99.832
ZPH	ZEPHYRHILLS MUNICIPAL	FL	LPV	1	99.967	1	99.967	6	99.963
09J	JEKYLL ISLAND	GA	LPV200	1	99.971	1	99.971	1	99.971
15J	COOK COUNTY	GA	LPV	1	99.971	1	99.971	1	99.971
17J	DONALSONVILLE MUNICIPAL	GA	LPV	1	99.971	1	99.971	1	99.971
18A	FRANKLIN-HART	GA	LPV	0	100	0	100	0	100
19A	JACKSON COUNTY	GA	LPV	0	100	0	100	0	100
2J3	LOUISVILLE MUNICIPAL	GA	LPV	1	99.971	1	99.971	1	99.971
2J5	MILLEN	GA	LPV	1	99.971	1	99.971	1	99.971

Airport	Airport Name	State/ Province	Service	LP Outages	LP Avail (%)	LPV Outages	LPV Avail (%)	LPV200 Outages	LPV200 Avail (%)
3J7	GREENE COUNTY RGNL	GA	LPV	1	99.998	1	99.998	1	99.998
48A	COCHRAN	GA	LPV	1	99.971	1	99.971	1	99.971
49A	GILMER COUNTY	GA	LPV	0	100	0	100	0	100
4A4	POLK COUNTY/CORNELIUS MOORE FL	GA	LPV	0	100	0	100	0	100
4J1	BRANTLEY COUNTY	GA	LPV	1	99.971	1	99.971	1	99.971
4J2	BERRIEN COUNTY	GA	LPV	1	99.971	1	99.971	1	99.971
4J5	QUITMAN BROOKS COUNTY	GA	LP	1	99.971	1	99.971	1	99.971
52A	MADISON MUNICIPAL	GA	LP	1	99.999	1	99.999	1	99.999
6A1	BUTLER MUNICIPAL	GA	LPV	1	99.979	1	99.979	1	99.971
6A2	GRIFFIN-SPALDING COUNTY	GA	LPV	1	99.992	1	99.992	1	99.992
70J	CAIRO-GRADY COUNTY	GA	LPV	1	99.971	1	99.971	1	99.971
75J	TURNER COUNTY	GA	LP	1	99.971	1	99.971	1	99.971
9A5	BARWICK LAFAYETTE	GA	LP	0	100	0	100	0	100
ABY	SOUTHWEST GEORGIA RGNL	GA	LPV200	1	99.971	1	99.971	1	99.971
ACJ	JIMMY CARTER RGNL	GA	LPV	1	99.971	1	99.971	1	99.971
AGS	AUGUSTA RGNL AT BUSH FLD	GA	LPV200	1	99.990	1	99.990	1	99.990
AHN	ATHENS/BEN EPPS	GA	LPV200	0	100	0	100	0	100
AJR	HABERSHAM COUNTY	GA	LPV	0	100	0	100	0	100
AMG	BACON COUNTY	GA	LPV	1	99.971	1	99.971	1	99.971
ATL	HARTSFIELD - JACKSON ATLANTA I	GA	LPV200	0	100	0	100	0	100
AYS	WAYCROSS-WARE COUNTY	GA	LPV200	1	99.971	1	99.971	1	99.971
BGE	DECATUR COUNTY INDUSTRIAL AIR	GA	LPV200	1	99.971	1	99.971	1	99.971
BHC	BAXLEY MUNICIPAL	GA	LPV	1	99.971	1	99.971	1	99.971
BIJ	EARLY COUNTY	GA	LPV	1	99.971	1	99.971	1	99.971
BQK	BRUNSWICK GOLDEN ISLES	GA	LPV200	1	99.971	1	99.971	1	99.971
CCO	NEWNAN COWETA COUNTY	GA	LPV	0	100	0	100	0	100
CKF	CRISP COUNTY-CORDELE	GA	LPV	1	99.971	1	99.971	1	99.971
CNI	CHEROKEE COUNTY RGNL	GA	LPV	0	100	0	100	0	100
CSG	COLUMBUS	GA	LPV	1	99.991	1	99.991	1	99.971
CTJ	WEST GEORGIA RGNL - O V GRAY F	GA	LPV	0	100	0	100	0	100
CVC	COVINGTON MUNICIPAL	GA	LPV	0	100	0	100	0	100
CWV	CLAXTON-EVANS COUNTY	GA	LPV	1	99.971	1	99.971	1	99.971
CXU	CAMILLA-MITCHELL COUNTY	GA	LPV	1	99.971	1	99.971	1	99.971
CZL	TOM B DAVID FLD	GA	LPV	0	100	0	100	0	100
D73	CY NUNNALLY MEML	GA	LP	0	100	0	100	0	100
DBN	W H 'BUD' BARRON	GA	LPV200	1	99.971	1	99.971	1	99.971
DNL	DANIEL FLD	GA	LPV	1	99.991	1	99.991	1	99.991

Airport	Airport Name	State/ Province	Service	LP Outages	LP Avail (%)	LPV Outages	LPV Avail (%)	LPV200 Outages	LPV200 Avail (%)
DNN	DALTON MUNICIPAL	GA	LPV	0	100	0	100	0	100
DQH	DOUGLAS MUNICIPAL	GA	LPV200	1	99.971	1	99.971	1	99.971
EBA	ELBERT COUNTY-PATZ FLD	GA	LP	0	100	0	100	0	100
EZM	HEART OF GEORGIA RGNL	GA	LPV200	1	99.971	1	99.971	1	99.971
FFC	ATLANTA RGNL FALCON FLD	GA	LPV	1	99.999	1	99.999	1	99.999
FTY	FULTON COUNTY EXEC/CHARLIE BRO	GA	LPV	0	100	0	100	0	100
FZG	FITZGERALD MUNICIPAL	GA	LPV	1	99.971	1	99.971	1	99.971
GVL	LEE GILMER MEML	GA	LPV	0	100	0	100	0	100
HMP	ATLANTA SPEEDWAY	GA	LPV200	1	99.999	1	99.999	1	99.999
HOE	HOMERVILLE	GA	LPV	1	99.971	1	99.971	1	99.971
HQU	THOMSON-MCDUFFIE COUNTY	GA	LPV	1	99.998	1	99.998	1	99.998
IYI	WASHINGTON/WILKES COUNTY	GA	LPV	1	99.998	1	99.998	1	99.998
JCA	JACKSON COUNTY	GA	LPV	0	100	0	100	0	100
JES	JESUP-WAYNE COUNTY	GA	LPV	1	99.971	1	99.971	1	99.971
JYL	PLANTATION AIRPARK	GA	LPV	1	99.971	1	99.971	1	99.971
JZP	PICKENS COUNTY	GA	LPV	0	100	0	100	0	100
LGC	LAGRANGE/CALLAWAY	GA	LPV200	1	99.998	1	99.998	1	99.997
LHW	WRIGHT AAF (FORT STEWART)/MIDC	GA	LPV	1	99.971	1	99.971	1	99.971
LZU	GWINNETT COUNTY/BRISCOE FLD	GA	LPV200	0	100	0	100	0	100
MAC	MACON DOWNTOWN	GA	LPV	1	99.979	1	99.979	1	99.971
MCN	MIDDLE GEORGIA RGNL	GA	LPV200	1	99.971	1	99.971	1	99.971
MGR	MOULTRIE MUNICIPAL	GA	LPV200	1	99.971	1	99.971	1	99.971
MHP	JOHN EDWIN JONES SR FLD/METTER	GA	LPV	1	99.971	1	99.971	1	99.971
MLJ	BALDWIN COUNTY RGNL	GA	LPV	1	99.989	1	99.989	2	99.988
MQW	TELFAR-WHEELER	GA	LPV	1	99.971	1	99.971	1	99.971
OKZ	KAOLIN FLD	GA	LPV	1	99.971	1	99.971	1	99.971
OPN	THOMASTON-UPSON COUNTY	GA	LPV200	1	99.991	1	99.991	1	99.971
PIM	HARRIS COUNTY	GA	LPV	1	99.991	1	99.991	1	99.971
PUJ	PAULDING NORTHWEST ATLANTA	GA	LPV200	0	100	0	100	0	100
PXE	PERRY-HOUSTON COUNTY	GA	LPV	1	99.971	1	99.971	1	99.971
RMG	RICHARD B RUSSELL RGNL - J H T	GA	LPV	0	100	0	100	0	100
RVJ	SWINTON SMITH FLD AT REIDSVILL	GA	LP	1	99.971	1	99.971	1	99.971
RYY	COBB COUNTY INTL/MCCOLLUM FLD	GA	LPV200	0	100	0	100	0	100
SAV	SAVANNAH/HILTON HEAD INTL	GA	LPV200	1	99.971	1	99.971	1	99.971
SBO	EAST GEORGIA RGNL	GA	LPV	1	99.971	1	99.971	1	99.971
TBR	STATESBORO-BULLOCH COUNTY	GA	LPV	1	99.971	1	99.971	1	99.971
TMA	HENRY TIFT MYERS	GA	LPV	1	99.971	1	99.971	1	99.971

Airport	Airport Name	State/ Province	Service	LP Outages	LP Avail (%)	LPV Outages	LPV Avail (%)	LPV200 Outages	LPV200 Avail (%)
TOC	TOCCOA RG LETOURNEAU FLD	GA	LPV	0	100	0	100	0	100
TVI	THOMASVILLE RGNL	GA	LPV	1	99.971	1	99.971	1	99.971
VDI	VIDALIA RGNL	GA	LPV200	1	99.971	1	99.971	1	99.971
VLD	VALDOSTA RGNL	GA	LPV	1	99.971	1	99.971	1	99.971
VPC	CARTERSVILLE	GA	LPV	0	100	0	100	0	100
WDR	BARROW COUNTY	GA	LPV	0	100	0	100	0	100
3Y2	GEORGE L SCOTT MUNICIPAL	IA	LPV	2	99.906	3	99.905	5	99.823
4C8	ALBIA MUNICIPAL	IA	LPV	3	99.952	2	99.928	2	99.910
AIO	ATLANTIC MUNICIPAL	IA	LPV	2	99.910	2	99.910	2	99.898
ALO	WATERLOO RGNL	IA	LPV200	2	99.913	2	99.913	5	99.848
AMW	AMES MUNICIPAL	IA	LPV	2	99.907	2	99.907	3	99.893
AWG	WASHINGTON MUNICIPAL	IA	LPV200	3	99.954	3	99.929	2	99.910
BNW	BOONE MUNICIPAL	IA	LPV	2	99.906	2	99.906	3	99.892
BRL	SOUTHEAST IOWA RGNL	IA	LPV200	2	99.973	2	99.973	2	99.917
C25	WAVERLY MUNICIPAL	IA	LPV	2	99.913	2	99.913	5	99.845
CAV	CLARION MUNICIPAL	IA	LPV	2	99.902	2	99.902	4	99.861
CBF	COUNCIL BLUFFS MUNICIPAL	IA	LPV200	2	99.926	2	99.926	2	99.912
CCY	NORTHEAST IOWA RGNL	IA	LPV	2	99.895	2	99.891	4	99.821
CID	THE EASTERN IOWA	IA	LPV200	2	99.917	2	99.917	3	99.884
CIN	ARTHUR N NEU	IA	LPV	2	99.906	2	99.906	2	99.895
CKP	CHEROKEE COUNTY RGNL	IA	LPV	2	99.902	2	99.902	3	99.883
CSQ	CRESTON MUNICIPAL	IA	LPV	2	99.920	2	99.917	2	99.907
CWI	CLINTON MUNICIPAL	IA	LPV200	3	99.959	2	99.928	6	99.866
DBQ	DUBUQUE RGNL	IA	LPV200	2	99.917	2	99.917	5	99.825
DEH	DECORAH MUNICIPAL	IA	LPV	2	99.906	4	99.893	5	99.820
DNS	DENISON MUNICIPAL	IA	LPV	2	99.909	2	99.909	2	99.895
DSM	DES MOINES INTL	IA	LPV200	2	99.917	2	99.917	2	99.907
DVN	DAVENPORT MUNICIPAL	IA	LPV200	3	99.958	3	99.944	4	99.888
EAG	EAGLE GROVE MUNICIPAL	IA	LPV	2	99.902	2	99.902	3	99.873
EBS	WEBSTER CITY MUNICIPAL	IA	LPV	2	99.903	2	99.903	3	99.877
EFW	JEFFERSON MUNICIPAL	IA	LPV	2	99.906	2	99.906	2	99.895
EOK	KEOKUK MUNICIPAL	IA	LPV	2	99.972	2	99.972	2	99.921
EST	ESTHERVILLE MUNICIPAL	IA	LPV	2	99.895	2	99.886	4	99.849
FFL	FAIRFIELD MUNICIPAL	IA	LPV	3	99.965	3	99.940	2	99.910
FOD	FORT DODGE RGNL	IA	LPV200	2	99.902	2	99.902	3	99.877
FSW	FORT MADISON MUNICIPAL	IA	LPV	2	99.972	2	99.972	2	99.917
FXY	FOREST CITY MUNICIPAL	IA	LPV	2	99.895	2	99.888	4	99.840

Airport	Airport Name	State/ Province	Service	LP Outages	LP Avail (%)	LPV Outages	LPV Avail (%)	LPV200 Outages	LPV200 Avail (%)
GCT	GUTHRIE COUNTY RGNL	IA	LPV	2	99.907	2	99.907	2	99.897
GFZ	GREENFIELD MUNICIPAL	IA	LPV	2	99.920	2	99.917	2	99.907
GGI	GRINNELL RGNL	IA	LPV	2	99.917	2	99.917	3	99.906
HPT	HAMPTON MUNICIPAL	IA	LPV	2	99.902	2	99.902	4	99.846
I75	OSCEOLA MUNICIPAL	IA	LPV	2	99.917	2	99.917	2	99.910
ICL	SCHENCK FLD	IA	LPV	2	99.947	2	99.946	2	99.907
IFA	IOWA FALLS MUNICIPAL	IA	LPV	2	99.903	2	99.903	3	99.864
IIB	JAMES H CONNELL FLD AT INDEPEN	IA	LPV	2	99.917	2	99.917	6	99.847
IKV	ANKENY RGNL	IA	LPV200	2	99.917	2	99.917	2	99.907
IOW	IOWA CITY MUNICIPAL	IA	LPV	3	99.937	2	99.917	3	99.889
LRJ	LE MARS MUNICIPAL	IA	LPV	2	99.902	2	99.902	3	99.881
LWD	LAMONI MUNICIPAL	IA	LPV	3	99.969	2	99.944	2	99.910
MCW	MASON CITY MUNICIPAL	IA	LPV200	2	99.895	2	99.891	4	99.839
MIW	MARSHALLTOWN MUNICIPAL	IA	LPV	2	99.917	2	99.917	3	99.887
MPZ	MOUNT PLEASANT MUNICIPAL	IA	LPV	3	99.969	3	99.962	2	99.913
MUT	MUSCATINE MUNICIPAL	IA	LPV200	3	99.957	3	99.932	2	99.910
MXO	MONTICELLO RGNL	IA	LP	3	99.930	2	99.917	6	99.857
OOA	OSKALOOSA MUNICIPAL	IA	LPV	3	99.938	2	99.917	2	99.909
OQW	MAQUOKETA MUNICIPAL	IA	LPV	4	99.955	2	99.917	6	99.861
ORC	ORANGE CITY MUNICIPAL	IA	LPV	2	99.899	2	99.899	3	99.881
OTM	OTTUMWA RGNL	IA	LPV	3	99.952	2	99.928	2	99.910
OXV	KNOXVILLE MUNICIPAL	IA	LPV	3	99.929	2	99.917	2	99.909
PEA	PELLA MUNICIPAL	IA	LPV	3	99.929	2	99.917	2	99.909
POH	POCAHONTAS MUNICIPAL	IA	LPV	2	99.902	2	99.902	3	99.881
PRO	PERRY MUNICIPAL	IA	LPV200	2	99.907	2	99.907	2	99.896
RDK	RED OAK MUNICIPAL	IA	LPV	2	99.935	2	99.935	2	99.910
RRQ	ROCK RAPIDS MUNICIPAL	IA	LP	2	99.899	2	99.893	4	99.860
SDA	SHENANDOAH MUNICIPAL	IA	LPV	2	99.968	2	99.968	2	99.919
SHL	SHELDON RGNL	IA	LPV	2	99.899	2	99.895	4	99.866
SKI	SAC CITY MUNICIPAL	IA	LPV	2	99.902	2	99.902	2	99.884
SLB	STORM LAKE MUNICIPAL	IA	LPV	2	99.902	2	99.902	3	99.884
SPW	SPENCER MUNICIPAL	IA	LPV200	2	99.899	2	99.895	4	99.858
SUX	SIOUX GATEWAY/BRIG GENERAL BUD	IA	LPV200	2	99.913	2	99.913	3	99.882
SXK	SIOUX COUNTY RGNL	IA	LPV200	2	99.899	2	99.899	3	99.881
TNU	NEWTON MUNICIPAL-EARL JOHNSON FLD	IA	LPV200	2	99.917	2	99.917	3	99.906
TVK	CENTERVILLE MUNICIPAL	IA	LPV	2	99.971	2	99.946	2	99.910
TZT	BELLE PLAINE MUNICIPAL	IA	LPV	2	99.917	2	99.917	3	99.892

Airport	Airport Name	State/ Province	Service	LP Outages	LP Avail (%)	LPV Outages	LPV Avail (%)	LPV200 Outages	LPV200 Avail (%)
VTI	VINTON VETERANS MEML AIRPARK	IA	LPV	2	99.917	2	99.917	4	99.880
1U7	BEAR LAKE COUNTY	ID	LPV	1	99.974	2	99.955	3	99.929
BOI	BOISE AIR TRML/GOWEN FLD	ID	LPV200	1	99.974	3	99.949	2	99.904
COE	COEUR D'ALENE/PAPPY BOYINGTON	ID	LPV200	3	99.910	4	99.884	6	99.817
DIJ	DRIGGS-REED MEML	ID	LP	2	99.953	2	99.942	2	99.906
EUL	TREASURE VALLEY EXEC AT CALDWE	ID	LPV	2	99.969	3	99.949	2	99.903
GNG	GOODING MUNICIPAL	ID	LPV	1	99.974	3	99.949	3	99.929
IDA	IDAHO FALLS RGNL	ID	LPV200	2	99.960	2	99.942	2	99.906
JER	JEROME COUNTY	ID	LPV	1	99.974	2	99.953	3	99.931
LWS	LEWISTON/NEZ PERCE COUNTY	ID	LPV200	3	99.923	3	99.906	5	99.867
MAN	NAMPA MUNICIPAL	ID	LPV	2	99.970	3	99.949	2	99.903
MYL	MC CALL MUNICIPAL	ID	LPV	2	99.953	3	99.936	3	99.888
PIH	POCATELLO RGNL	ID	LPV200	1	99.974	2	99.949	3	99.926
SUN	FRIEDMAN MEML	ID	LP	2	99.966	3	99.946	2	99.909
SZT	SANDPOINT	ID	LP	3	99.906	3	99.870	6	99.807
TWF	JOSLIN FLD/MAGIC VALLEY RGNL	ID	LPV200	1	99.974	2	99.953	3	99.935
U76	MOUNTAIN HOME MUNICIPAL	ID	LPV	1	99.974	3	99.949	2	99.909
1H2	EFFINGHAM COUNTY MEML	IL	LPV	1	99.988	1	99.988	1	99.971
3LF	LITCHFIELD MUNICIPAL	IL	LPV	1	99.988	1	99.978	2	99.971
3MY	MOUNT HAWLEY AUXILIARY	IL	LPV	2	99.974	2	99.974	3	99.938
AJG	MOUNT CARMEL MUNICIPAL	IL	LPV	0	100	1	99.997	1	99.978
ALN	ST LOUIS RGNL	IL	LPV200	1	99.991	1	99.978	2	99.978
ARR	AURORA MUNICIPAL	IL	LPV200	4	99.965	4	99.956	4	99.898
BLV	SCOTT AFB/MIDAMERICA ST LOUIS	IL	LPV200	0	100	1	99.995	1	99.978
BMI	CENTRAL IL RGNL/BLOOMINGTON-NO	IL	LPV	1	99.978	1	99.978	4	99.955
C15	PEKIN MUNICIPAL	IL	LPV	2	99.975	2	99.975	3	99.938
C73	DIXON MUNICIPAL-CHARLES R WALGREEN	IL	LPV	3	99.961	2	99.933	6	99.866
C75	MARSHALL COUNTY	IL	LP	2	99.975	2	99.975	3	99.939
CIR	CAIRO RGNL	IL	LP	0	100	0	100	0	100
CMI	UNIVERSITY OF ILLINOIS/WILLARD	IL	LPV200	1	99.979	1	99.978	2	99.967
CPS	ST LOUIS DOWNTOWN	IL	LPV200	0	100	1	99.990	1	99.978
CTK	INGERSOLL	IL	LPV	2	99.974	2	99.974	3	99.937
CUL	CARMI MUNICIPAL	IL	LPV	0	100	0	100	1	99.997
DEC	DECATUR	IL	LPV200	1	99.980	1	99.980	2	99.966
DKB	DE KALB TAYLOR MUNICIPAL	IL	LPV	4	99.960	3	99.934	4	99.872
DNV	VERMILION RGNL	IL	LPV	1	99.978	1	99.978	2	99.968
DPA	DUPAGE	IL	LPV200	4	99.961	4	99.950	4	99.886

Airport	Airport Name	State/ Province	Service	LP Outages	LP Avail (%)	LPV Outages	LPV Avail (%)	LPV200 Outages	LPV200 Avail (%)
ENL	CENTRALIA MUNICIPAL	IL	LPV	1	99.999	1	99.996	1	99.978
EZI	KEWANEE MUNICIPAL	IL	LPV	3	99.974	3	99.974	2	99.914
FEP	ALBERTUS	IL	LPV	4	99.956	3	99.928	6	99.855
FOA	FLORA MUNICIPAL	IL	LPV	1	99.996	1	99.994	1	99.978
GBG	GALESBURG MUNICIPAL	IL	LPV200	3	99.974	3	99.973	3	99.932
GRE	GREENVILLE	IL	LPV	1	99.993	1	99.990	1	99.978
HSB	HARRISBURG-RALEIGH	IL	LPV	0	100	0	100	1	99.998
I63	MOUNT STERLING MUNICIPAL	IL	LPV	1	99.980	1	99.978	4	99.949
IGQ	LANSING MUNICIPAL	IL	LPV	2	99.978	2	99.977	3	99.916
IKK	GREATER KANKAKEE	IL	LPV200	1	99.978	2	99.977	3	99.955
LOT	LEWIS UNIVERSITY	IL	LPV200	2	99.977	2	99.975	3	99.916
LWV	LAWRENCEVILLE-VINCENNES INTL	IL	LPV200	1	99.999	1	99.997	1	99.978
MDW	CHICAGO MIDWAY INTL	IL	LPV	4	99.975	4	99.971	4	99.899
MLI	QUAD CITIES INTL	IL	LPV200	3	99.960	3	99.946	2	99.906
MQB	MACOMB MUNICIPAL	IL	LPV200	2	99.973	2	99.973	3	99.935
MTO	COLES COUNTY MEML	IL	LPV200	1	99.984	1	99.984	1	99.971
MVN	MOUNT VERNON	IL	LPV	0	100	1	99.999	1	99.978
MWA	VETERANS AIRPORT OF SOUTHERN I	IL	LPV200	0	100	0	100	1	99.997
OLY	OLNEY-NOBLE	IL	LPV	1	99.996	1	99.994	1	99.978
ORD	CHICAGO O'HARE INTL	IL	LPV200	4	99.961	4	99.949	4	99.886
PIA	GENERAL DOWNING - PEORIA INTL	IL	LPV	2	99.974	2	99.974	3	99.938
PJY	PINCKNEYVILLE/DU QUOIN	IL	LPV	0	100	0	100	2	99.996
PNT	PONTIAC MUNICIPAL	IL	LPV	2	99.975	2	99.975	3	99.941
PPQ	PITTSFIELD PENSTONE MUNICIPAL	IL	LPV	1	99.983	1	99.978	4	99.952
PRG	EDGAR COUNTY	IL	LPV	1	99.983	1	99.983	2	99.970
PWK	CHICAGO EXEC	IL	LPV	4	99.959	3	99.931	4	99.886
RFD	CHICAGO/ROCKFORD INTL	IL	LPV200	4	99.956	3	99.929	6	99.857
RPJ	ROCHELLE MUNICIPAL/KORITZ FLD	IL	LPV	3	99.961	2	99.933	6	99.869
RSV	CRAWFORD COUNTY	IL	LPV	1	99.990	1	99.990	1	99.978
SAR	SPARTA COMMUNICIPALTY-HUNTER FLD	IL	LPV	0	100	0	100	1	99.978
SFY	TRI-TOWNSHIP	IL	LP	3	99.958	2	99.928	6	99.856
SLO	SALEM-LECKRONE	IL	LPV200	1	99.996	1	99.994	1	99.978
SPI	ABRAHAM LINCOLN CAPITAL	IL	LPV	1	99.980	1	99.978	3	99.962
SQI	WHITESIDE COUNTY/JOS H BITTORF	IL	LPV200	3	99.961	3	99.952	5	99.868
TIP	RANTOUL NTL AVN CNTR-FRANK ELL	IL	LPV	1	99.978	1	99.978	2	99.968
UGN	WAUKEGAN NTL	IL	LPV	4	99.949	3	99.927	5	99.875
UIN	QUINCY RGNL-BALDWIN FLD	IL	LPV200	1	99.980	1	99.978	3	99.935

Airport	Airport Name	State/ Province	Service	LP Outages	LP Avail (%)	LPV Outages	LPV Avail (%)	LPV200 Outages	LPV200 Avail (%)
VYS	ILLINOIS VALLEY RGNL-WALTER A	IL	LPV	2	99.975	2	99.975	3	99.917
2R2	HENDRICKS COUNTY-GORDON GRAHAM	IN	LPV	1	99.984	1	99.984	1	99.971
50I	KENTLAND MUNICIPAL	IN	LPV	1	99.978	1	99.978	2	99.962
AID	ANDERSON MUNICIPAL-DARLINGTON FLD	IN	LPV	1	99.984	1	99.984	1	99.972
ASW	WARSAW MUNICIPAL	IN	LPV200	1	99.978	1	99.978	2	99.969
BAK	COLUMBUS MUNICIPAL	IN	LPV	1	99.997	1	99.997	1	99.978
BFR	VIRGIL I GRISSOM MUNICIPAL	IN	LP	0	100	0	100	1	99.978
BMG	MONROE COUNTY	IN	LPV200	1	99.993	1	99.993	1	99.978
C62	KENDALLVILLE MUNICIPAL	IN	LPV	1	99.978	1	99.972	3	99.956
C65	PLYMOUTH MUNICIPAL	IN	LPV	1	99.978	1	99.978	3	99.955
CEV	METTEL FLD	IN	LPV	0	100	0	100	1	99.995
CFJ	CRAWFORDSVILLE RGNL	IN	LPV	1	99.981	1	99.981	1	99.971
DCY	DAVISS COUNTY	IN	LPV	0	100	0	100	1	99.978
EKM	ELKHART MUNICIPAL	IN	LPV	1	99.978	1	99.978	3	99.932
EVV	EVANSVILLE RGNL	IN	LPV200	0	100	0	100	1	99.999
EYE	EAGLE CREEK AIRPARK	IN	LPV	1	99.983	1	99.983	1	99.971
FKR	FRANKFORT CLINTON COUNTY RGNL	IN	LPV	1	99.978	1	99.978	1	99.971
FRH	FRENCH LICK MUNICIPAL	IN	LPV	0	100	0	100	2	99.995
FWA	FORT WAYNE INTL	IN	LPV200	1	99.994	1	99.994	1	99.971
GEZ	SHELBYVILLE MUNICIPAL	IN	LPV	1	99.994	1	99.994	1	99.978
GGP	LOGANSPOUT/CASS COUNTY	IN	LPV200	1	99.978	1	99.978	1	99.971
GPC	PUTNAM COUNTY RGNL	IN	LPV	1	99.984	1	99.984	1	99.971
GSH	GOSHEN MUNICIPAL	IN	LPV	1	99.978	1	99.972	3	99.951
GWB	DE KALB COUNTY	IN	LPV	1	99.981	1	99.971	2	99.970
GYV	GARY/CHICAGO INTL	IN	LPV200	3	99.977	3	99.974	4	99.906
HFY	INDY SOUTH GREENWOOD	IN	LPV	1	99.987	1	99.987	1	99.978
HNB	HUNTINGBURG	IN	LPV	0	100	0	100	1	99.998
HUF	TERRE HAUTE RGNL	IN	LPV200	1	99.986	1	99.986	1	99.971
I22	RANDOLPH COUNTY	IN	LPV	0	100	0	100	1	99.985
I76	PERU MUNICIPAL	IN	LPV	1	99.978	1	99.978	1	99.971
IMS	MADISON MUNICIPAL	IN	LPV	0	100	0	100	2	99.997
IND	INDIANAPOLIS INTL	IN	LPV200	1	99.984	1	99.984	1	99.972
JVY	CLARK RGNL	IN	LPV200	0	100	0	100	2	99.999
LAF	PURDUE UNIVERSITY	IN	LPV	1	99.978	1	99.978	2	99.970
MCX	WHITE COUNTY	IN	LP	1	99.978	1	99.978	2	99.970
MIE	DELAWARE COUNTY RGNL	IN	LPV	1	99.993	1	99.993	1	99.971
MQJ	INDIANAPOLIS RGNL	IN	LPV200	1	99.985	1	99.985	1	99.972

Airport	Airport Name	State/ Province	Service	LP Outages	LP Avail (%)	LPV Outages	LPV Avail (%)	LPV200 Outages	LPV200 Avail (%)
MZZ	MARION MUNICIPAL - MCKINNEY FLD	IN	LPV200	1	99.978	1	99.978	1	99.971
OKK	KOKOMO MUNICIPAL	IN	LPV200	1	99.978	1	99.978	1	99.971
OVO	NORTH VERNON	IN	LPV	0	100	0	100	2	99.992
OXI	STARKE COUNTY	IN	LPV	1	99.978	1	99.978	3	99.955
PLD	PORTLAND MUNICIPAL	IN	LPV	0	100	0	100	1	99.983
PPO	LA PORTE MUNICIPAL	IN	LPV	1	99.978	1	99.978	3	99.932
RCR	FULTON COUNTY	IN	LPV	1	99.978	1	99.978	1	99.971
RID	RICHMOND MUNICIPAL	IN	LPV200	0	100	0	100	1	99.994
RWN	ARENS FLD	IN	LPV	1	99.978	1	99.978	2	99.960
RZL	JASPER COUNTY	IN	LPV	1	99.978	1	99.978	2	99.960
SBN	SOUTH BEND INTL	IN	LPV200	1	99.978	1	99.978	3	99.930
SER	FREEMAN MUNICIPAL	IN	LPV	0	100	0	100	2	99.992
SIV	SULLIVAN COUNTY	IN	LPV	1	99.989	1	99.989	1	99.978
SMD	SMITH FLD	IN	LPV	1	99.994	1	99.994	1	99.971
TEL	PERRY COUNTY MUNICIPAL	IN	LP	0	100	0	100	0	100
TYQ	INDIANAPOLIS EXEC	IN	LPV	1	99.981	1	99.981	1	99.971
UWL	NEW CASTLE HENRY COUNTY MARLAT	IN	LPV	0	100	0	100	1	99.974
VPZ	PORTER COUNTY RGNL	IN	LPV	1	99.978	1	99.978	3	99.942
1QK	GOVE COUNTY	KS	LPV	0	100	2	99.974	4	99.922
3AU	AUGUSTA MUNICIPAL	KS	LP	0	100	1	99.980	3	99.969
3K3	SYRACUSE-HAMILTON COUNTY MUNICIPAL	KS	LPV	0	100	1	99.978	3	99.948
3K7	MARK HOARD MEML	KS	LPV	0	100	1	99.978	4	99.943
3K8	COMANCHE COUNTY	KS	LPV	0	100	1	99.978	4	99.969
5K2	TRIBUNE MUNICIPAL	KS	LPV	0	100	1	99.978	4	99.943
9K8	KINGMAN/CLYDE CESSNA FLD	KS	LP	0	100	1	99.978	4	99.966
AAO	COLONEL JAMES JABARA	KS	LPV	0	100	1	99.980	3	99.968
ADT	ATWOOD-RAWLINS COUNTY CITY-COU	KS	LPV	0	100	2	99.971	4	99.919
ANY	ANTHONY MUNICIPAL	KS	LPV	0	100	1	99.978	3	99.971
BEC	BEECH FACTORY	KS	LPV	0	100	1	99.980	3	99.968
CBK	SHALZ FLD	KS	LPV	0	100	2	99.972	4	99.919
CFV	COFFEYVILLE MUNICIPAL	KS	LPV	0	100	0	100	2	99.971
CNK	BLOSSER MUNICIPAL	KS	LP	0	100	2	99.978	3	99.936
DDC	DODGE CITY RGNL	KS	LPV200	0	100	1	99.978	4	99.950
EGT	WELLINGTON MUNICIPAL	KS	LPV200	0	100	1	99.978	3	99.971
EHA	ELKHART-MORTON COUNTY	KS	LPV	0	100	1	99.990	4	99.968
EMP	EMPORIA MUNICIPAL	KS	LPV	0	100	1	99.989	3	99.969
EQA	EL DORADO/CAPT JACK THOMAS MEM	KS	LPV200	0	100	1	99.984	3	99.969

Airport	Airport Name	State/ Province	Service	LP Outages	LP Avail (%)	LPV Outages	LPV Avail (%)	LPV200 Outages	LPV200 Avail (%)
EWK	NEWTON-CITY-COUNTY	KS	LPV	0	100	1	99.978	3	99.968
FOE	TOPEKA RGNL	KS	LPV	0	100	1	99.985	3	99.945
FSK	FORT SCOTT MUNICIPAL	KS	LPV	0	100	0	100	2	99.989
GBD	GREAT BEND MUNICIPAL	KS	LPV200	0	100	1	99.978	5	99.952
GCK	GARDEN CITY RGNL	KS	LPV	0	100	1	99.978	3	99.949
GLD	RENNER FLD /GOODLAND MUNICIPAL/	KS	LPV200	0	100	2	99.976	4	99.931
HLC	HILL CITY MUNICIPAL	KS	LPV	0	100	2	99.974	4	99.923
HQG	HUGOTON MUNICIPAL	KS	LPV	0	100	1	99.984	4	99.966
HRU	HERINGTON RGNL	KS	LPV	0	100	1	99.984	3	99.937
HUT	HUTCHINSON RGNL	KS	LPV200	0	100	1	99.978	4	99.967
HYS	HAYS RGNL	KS	LPV200	0	100	1	99.978	4	99.929
ICT	WICHITA DWIGHT D EISENHOWER NT	KS	LPV200	0	100	1	99.978	4	99.968
IDP	INDEPENDENCE MUNICIPAL	KS	LPV200	0	100	0	100	2	99.971
IXD	NEW CENTURY AIRCENTER	KS	LPV	0	100	0	100	3	99.947
K38	WASHINGTON COUNTY VETERAN'S ME	KS	LPV	0	100	1	99.978	3	99.937
K78	ABILENE MUNICIPAL	KS	LPV	0	100	1	99.978	3	99.936
K79	JETMORE MUNICIPAL	KS	LPV	0	100	1	99.978	4	99.948
K81	MIAMI COUNTY	KS	LPV	0	100	0	100	3	99.966
K82	SMITH CENTER MUNICIPAL	KS	LPV200	0	100	2	99.977	4	99.929
K88	ALLEN COUNTY	KS	LPV	0	100	0	100	2	99.971
LBL	LIBERAL MID-AMERICA RGNL	KS	LPV200	0	100	2	99.989	3	99.972
LQR	LARNED-PAWNEE COUNTY	KS	LPV	0	100	1	99.978	4	99.953
LWC	LAWRENCE RGNL	KS	LPV200	0	100	1	99.999	3	99.944
LYO	LYONS-RICE COUNTY MUNICIPAL	KS	LPV	0	100	1	99.978	5	99.955
MHK	MANHATTAN RGNL	KS	LPV200	0	100	1	99.978	3	99.938
MPR	MC PHERSON	KS	LPV	0	100	1	99.978	4	99.956
MYZ	MARYSVILLE MUNICIPAL	KS	LPV	1	99.999	1	99.978	2	99.923
NRN	NORTON MUNICIPAL	KS	LPV	0	100	2	99.972	4	99.922
OEL	OAKLEY MUNICIPAL	KS	LPV	0	100	2	99.973	4	99.923
OIN	OBERLIN MUNICIPAL	KS	LPV	0	100	2	99.972	4	99.919
OJC	JOHNSON COUNTY EXEC	KS	LPV	0	100	0	100	3	99.935
OWI	OTTAWA MUNICIPAL	KS	LPV	0	100	0	100	3	99.957
PHG	PHILLIPSBURG MUNICIPAL	KS	LPV	0	100	2	99.977	4	99.923
PPF	TRI-CITY	KS	LPV	0	100	0	100	2	99.971
PTS	ATKINSON MUNICIPAL	KS	LPV	0	100	0	100	2	99.989
PTT	PRATT RGNL	KS	LPV	0	100	1	99.978	4	99.965
RCP	ROOKS COUNTY RGNL	KS	LPV	0	100	2	99.977	4	99.927

Airport	Airport Name	State/ Province	Service	LP Outages	LP Avail (%)	LPV Outages	LPV Avail (%)	LPV200 Outages	LPV200 Avail (%)
RPB	BELLEVILLE MUNICIPAL	KS	LPV	1	99.987	2	99.978	3	99.936
RSL	RUSSELL MUNICIPAL	KS	LPV	0	100	1	99.978	4	99.930
SLN	SALINA RGNL	KS	LPV	0	100	1	99.978	3	99.936
SYF	CHEYENNE COUNTY MUNICIPAL	KS	LPV	0	100	2	99.967	4	99.931
TOP	PHILIP BILLARD MUNICIPAL	KS	LPV	0	100	1	99.984	3	99.945
TQK	SCOTT CITY MUNICIPAL	KS	LPV	0	100	1	99.978	4	99.941
UKL	COFFEY COUNTY	KS	LPV	0	100	1	99.997	3	99.969
ULS	ULYSSES	KS	LPV	0	100	1	99.979	3	99.952
WLD	STROTHER FLD	KS	LPV	0	100	1	99.985	2	99.971
0I8	CYNTHIANA-HARRISON COUNTY	KY	LP	0	100	0	100	0	100
18I	MC CREARY COUNTY	KY	LP	0	100	0	100	0	100
1M7	FULTON	KY	LPV	0	100	0	100	0	100
27K	GEORGETOWN-SCOTT COUNTY RGNL	KY	LPV200	0	100	0	100	0	100
2I0	MADISONVILLE RGNL	KY	LPV	0	100	0	100	0	100
2M0	PRINCETON-CALDWELL COUNTY	KY	LPV	0	100	0	100	0	100
4M7	RUSSELLVILLE-LOGAN COUNTY	KY	LPV	0	100	0	100	0	100
5M9	MARION-CRITTENDEN COUNTY JAMES	KY	LPV	0	100	0	100	0	100
6I2	LEBANON SPRINGFIELD-GEORGE HOE	KY	LPV	0	100	0	100	0	100
AAS	TAYLOR COUNTY	KY	LPV	0	100	0	100	0	100
BRY	SAMUELS FLD	KY	LPV	0	100	0	100	0	100
BWG	BOWLING GREEN-WARREN COUNTY RG	KY	LPV200	0	100	0	100	0	100
BYL	WILLIAMSBURG-WHITLEY COUNTY	KY	LPV	0	100	0	100	0	100
CEY	KYLE-OAKLEY FLD	KY	LPV	0	100	0	100	0	100
CPF	WENDELL H FORD	KY	LPV200	0	100	0	100	0	100
CVG	CINCINNATI/NORTHERN KENTUCKY I	KY	LPV200	0	100	0	100	1	99.995
DVK	STUART POWELL FLD	KY	LPV	0	100	0	100	0	100
DWU	ASHLAND RGNL	KY	LP	0	100	0	100	0	100
EHR	HENDERSON CITY-COUNTY	KY	LPV	0	100	0	100	0	100
EKQ	WAYNE COUNTY	KY	LPV	0	100	0	100	0	100
EKX	ADDINGTON FLD	KY	LPV	0	100	0	100	0	100
FFT	CAPITAL CITY	KY	LPV	0	100	0	100	0	100
FGX	FLEMING-MASON	KY	LPV	0	100	0	100	0	100
GLW	GLASGOW MUNICIPAL	KY	LPV	0	100	0	100	0	100
HVC	HOPKINSVILLE-CHRISTIAN COUNTY	KY	LPV	0	100	0	100	0	100
I93	BRECKINRIDGE COUNTY	KY	LPV	0	100	0	100	0	100
IOB	MOUNT STERLING/MONTGOMERY COUN	KY	LPV	0	100	0	100	0	100
JQD	OHIO COUNTY	KY	LPV	0	100	0	100	0	100

Airport	Airport Name	State/ Province	Service	LP Outages	LP Avail (%)	LPV Outages	LPV Avail (%)	LPV200 Outages	LPV200 Avail (%)
K24	RUSSELL COUNTY	KY	LPV	0	100	0	100	0	100
K62	GENE SNYDER	KY	LP	0	100	0	100	0	100
KY8	HANCOCK COUNTY/RON LEWIS FLD	KY	LPV	0	100	0	100	0	100
LEX	BLUE GRASS	KY	LPV	0	100	0	100	0	100
LOU	BOWMAN FLD	KY	LPV	0	100	0	100	1	99.999
LOZ	LONDON/CORBIN/MAGEE	KY	LPV	0	100	0	100	0	100
M20	LEITCHFIELD-GRAYSON COUNTY	KY	LPV	0	100	0	100	0	100
M21	MUHLENBERG COUNTY	KY	LP	0	100	0	100	0	100
M25	MAYFIELD GRAVES COUNTY	KY	LPV	0	100	0	100	0	100
OWB	OWENSBORO/DAVIESS COUNTY RGNL	KY	LPV200	0	100	0	100	0	100
PAH	BARKLEY RGNL	KY	LPV200	0	100	0	100	0	100
PBX	PIKE COUNTY/HATCHER FLD	KY	LPV200	0	100	0	100	0	100
RGA	CENTRAL KENTUCKY RGNL	KY	LPV	0	100	0	100	0	100
SDF	LOUISVILLE MUHAMMAD ALI INTL	KY	LPV200	0	100	0	100	1	99.999
SJS	BIG SANDY RGNL	KY	LPV	0	100	0	100	0	100
SME	LAKE CUMBERLAND RGNL	KY	LPV	0	100	0	100	0	100
SYM	MOREHEAD-ROWAN COUNTY CLYDE A	KY	LPV200	0	100	0	100	0	100
TWT	STURGIS MUNICIPAL	KY	LPV	0	100	0	100	0	100
TZV	TOMPKINSVILLE/MONROE COUNTY	KY	LPV	0	100	0	100	0	100
0R4	CONCORDIA PARISH	LA	LPV	0	100	0	100	1	99.999
0R7	THE RED RIVER	LA	LPV	0	100	0	100	1	99.975
3R4	HART	LA	LPV	0	100	0	100	1	99.975
3R7	JENNINGS	LA	LPV	0	100	0	100	3	99.956
5R8	DE QUINCY INDUSTRIAL AIRPARK	LA	LPV	0	100	1	99.975	3	99.954
ACP	ALLEN PARISH	LA	LPV	0	100	0	100	3	99.967
AEX	ALEXANDRIA INTL	LA	LPV200	0	100	0	100	1	99.978
APS	PORT OF SOUTH LOUISIANA EXEC R	LA	LPV	0	100	1	99.989	1	99.985
ARA	ACADIANA RGNL	LA	LPV200	0	100	0	100	3	99.952
BQP	MOREHOUSE MEML	LA	LPV	0	100	0	100	0	100
BTR	BATON ROUGE METRO' RYAN FLD	LA	LPV200	0	100	0	100	2	99.990
BXA	GEORGE R CARR MEML AIR FLD	LA	LPV	0	100	0	100	1	99.992
CWF	CHENNAULT INTL	LA	LPV200	0	100	2	99.992	3	99.954
DTN	SHREVEPORT DOWNTOWN	LA	LPV	0	100	0	100	1	99.975
ESF	ESLER RGNL	LA	LPV200	0	100	0	100	1	99.979
F88	JONESBORO	LA	LP	0	100	0	100	1	99.978
GAO	SOUTH LAFOURCHE LEONARD MILLER	LA	LPV200	1	99.985	1	99.985	4	99.968
HDC	HAMMOND NORTHSHORE RGNL	LA	LPV200	0	100	1	99.996	1	99.991

Airport	Airport Name	State/ Province	Service	LP Outages	LP Avail (%)	LPV Outages	LPV Avail (%)	LPV200 Outages	LPV200 Avail (%)
HUM	HOUMA-TERREBONNE	LA	LPV200	0	100	1	99.988	4	99.966
HZR	FALSE RIVER RGNL	LA	LPV	0	100	0	100	2	99.980
IER	NATCHITOCHEs RGNL	LA	LPV	0	100	0	100	1	99.975
IYA	ABBEVILLE CHRIS CRUSTA MEML	LA	LPV	0	100	0	100	3	99.941
L39	LEESVILLE	LA	LPV	0	100	0	100	1	99.975
LCH	LAKE CHARLES RGNL	LA	LPV200	0	100	1	99.978	3	99.940
LFT	LAFAYETTE RGNL/PAUL FOURNET FL	LA	LPV200	0	100	0	100	3	99.962
M79	JOHN H HOOKS JR MEML	LA	LPV	0	100	0	100	0	100
MLU	MONROE RGNL	LA	LPV200	0	100	0	100	0	100
MSY	LOUIS ARMSTRONG NEW ORLEANS IN	LA	LPV200	0	100	1	99.989	2	99.984
NEW	LAKEFRONT	LA	LPV	1	99.997	1	99.989	1	99.986
OPL	ST LANDRY PARISH-AHART FLD	LA	LPV	0	100	0	100	3	99.965
PTN	HARRY P WILLIAMS MEML	LA	LPV200	0	100	1	99.990	3	99.935
REG	LOUISIANA RGNL	LA	LPV	0	100	1	99.990	1	99.986
RSN	RUSTON RGNL	LA	LPV	0	100	0	100	1	99.981
SHV	SHREVEPORT RGNL	LA	LPV200	0	100	0	100	1	99.975
SPH	SPRINGHILL	LA	LPV	0	100	0	100	1	99.998
TVR	VICKSBURG TALLULAH RGNL	LA	LPV200	0	100	0	100	0	100
UXL	SOUTHLAND FLD	LA	LPV	0	100	1	99.975	3	99.940
3B0	SOUTHBRIDGE MUNICIPAL	MA	LPV	3	99.993	4	99.931	7	99.781
ACK	NANTUCKET MEML	MA	LPV200	2	99.995	5	99.946	7	99.752
BAF	WESTFIELD-BARNES RGNL	MA	LPV	1	99.995	4	99.946	7	99.804
BED	LAURENCE G HANSCOM FLD	MA	LPV200	4	99.967	4	99.910	8	99.764
BOS	GENERAL EDWARD LAWRENCE LOGAN	MA	LPV200	5	99.966	3	99.898	9	99.760
BVY	BEVERLY RGNL	MA	LPV	4	99.929	3	99.892	8	99.733
EWB	NEW BEDFORD RGNL	MA	LPV200	1	99.997	4	99.926	8	99.781
GBR	WALTER J KOLADZA	MA	LP	1	99.995	4	99.954	7	99.829
GHG	MARSHFIELD MUNICIPAL - GEORGE HARLO	MA	LPV	5	99.974	3	99.894	9	99.753
HYA	CAPE COD GATEWAY	MA	LPV200	3	99.989	3	99.895	8	99.747
LWM	LAWRENCE MUNICIPAL	MA	LPV200	4	99.919	3	99.886	8	99.738
MVY	MARTHA'S VINEYARD	MA	LPV200	1	99.996	5	99.949	7	99.756
ORE	ORANGE MUNICIPAL	MA	LPV	3	99.984	4	99.930	7	99.772
ORH	WORCESTER RGNL	MA	LPV200	3	99.991	4	99.930	7	99.775
OWD	NORWOOD MEML	MA	LPV	4	99.983	4	99.911	8	99.767
PSF	PITTSFIELD MUNICIPAL	MA	LPV	1	99.995	4	99.945	7	99.810
PVC	PROVINCETOWN MUNICIPAL	MA	LPV200	5	99.964	3	99.890	7	99.721
PYM	PLYMOUTH MUNICIPAL	MA	LPV200	4	99.989	3	99.895	8	99.767

Airport	Airport Name	State/ Province	Service	LP Outages	LP Avail (%)	LPV Outages	LPV Avail (%)	LPV200 Outages	LPV200 Avail (%)
TAN	TAUNTON MUNICIPAL - KING FLD	MA	LPV	4	99.991	4	99.924	8	99.780
CJA3	MORDEN REGIONAL	MB	LPV	7	99.749	7	99.659	10	99.442
CJJ4	DELORAINÉ	MB	LPV	5	99.776	6	99.735	11	99.534
CJW5	RUSSELL	MB	LPV	8	99.695	7	99.625	15	99.384
CKK7	STEINBACH (SOUTH)	MB	LPV	7	99.720	9	99.573	10	99.406
CKZ7	WINKLER	MB	LPV	6	99.751	7	99.659	10	99.442
CYAV	ST. ANDREWS	MB	LPV	9	99.615	7	99.530	11	99.391
CYBR	BRANDON MUNICIPALCIPALITY	MB	LPV	8	99.726	8	99.658	11	99.442
CYFO	FLIN FLON	MB	LPV	8	99.405	10	99.308	17	99.030
CYGX	GILLAM	MB	LPV	8	99.293	12	99.212	36	98.589
CYIV	ISLAND LAKE	MB	LPV	8	99.358	8	99.303	22	99.024
CYQD	THE PAS	MB	LPV	10	99.454	10	99.319	16	99.090
CYTH	THOMPSON	MB	LPV200	7	99.325	10	99.263	29	98.872
CYVD	R.J. (BOB) ANDREW FIELD REGIONAL	MB	LPV	8	99.739	8	99.692	11	99.445
CYWG	JAMES ARMSTRONG RICHARDSON INTL	MB	LPV200	8	99.651	8	99.546	10	99.399
CYYQ	CHURCHILL	MB	LPV	16	99.095	21	98.879	58	97.612
CZJG	JENPEG	MB	LPV	7	99.352	8	99.278	20	99.031
2G4	GARRETT COUNTY	MD	LPV	0	100	0	100	1	99.992
2W5	MARYLAND	MD	LP	0	100	0	100	2	99.997
2W6	ST MARY'S COUNTY RGNL	MD	LPV	0	100	0	100	1	99.993
BWI	BALTIMORE/WASHINGTON INTL THUR	MD	LPV200	0	100	0	100	2	99.984
CBE	GREATER CUMBERLAND RGNL	MD	LPV	0	100	1	99.999	1	99.992
CGE	CAMBRIDGE-DORCHESTER RGNL	MD	LPV	0	100	0	100	2	99.986
DMW	CARROLL COUNTY RGNL/JACK B POA	MD	LPV200	0	100	1	99.999	2	99.983
ESN	EASTON/NEWNAM FLD	MD	LPV200	0	100	0	100	2	99.984
FDK	FREDERICK MUNICIPAL	MD	LPV	0	100	1	99.999	2	99.990
GAI	MONTGOMERY COUNTY AIRPARK	MD	LPV	0	100	0	100	2	99.990
HGR	HAGERSTOWN RGNL/RICHARD A HENS	MD	LPV200	0	100	1	99.999	2	99.990
MTN	MARTIN STATE	MD	LPV	0	100	0	100	2	99.983
OXB	OCEAN CITY MUNICIPAL	MD	LPV	0	100	0	100	2	99.986
SBY	SALISBURY-OCEAN CITY WICOMICO	MD	LPV200	0	100	0	100	2	99.987
W29	BAY BRIDGE	MD	LPV	0	100	0	100	2	99.983
1B0	DEXTER RGNL	ME	LP	6	99.820	6	99.765	7	99.603
2B7	PITTSFIELD MUNICIPAL	ME	LPV	5	99.837	6	99.782	7	99.614
3B1	GREENVILLE MUNICIPAL	ME	LPV	6	99.822	6	99.769	7	99.603
59B	NEWTON FLD	ME	LP	5	99.850	7	99.802	8	99.600
81B	OXFORD COUNTY RGNL	ME	LP	5	99.886	5	99.844	7	99.670

Airport	Airport Name	State/ Province	Service	LP Outages	LP Avail (%)	LPV Outages	LPV Avail (%)	LPV200 Outages	LPV200 Avail (%)
AUG	AUGUSTA STATE	ME	LPV200	4	99.865	5	99.838	5	99.629
BGR	BANGOR INTL	ME	LPV200	6	99.817	6	99.762	7	99.604
BHB	HANCOCK COUNTY/BAR HARBOR	ME	LPV200	6	99.830	7	99.774	7	99.604
BST	BELFAST MUNICIPAL	ME	LPV	5	99.837	6	99.783	6	99.611
BXM	BRUNSWICK EXEC	ME	LPV200	5	99.886	5	99.846	6	99.654
CAR	CARIBOU MUNICIPAL	ME	LPV	7	99.706	6	99.647	11	99.482
EPM	EASTPORT MUNICIPAL	ME	LPV	6	99.780	5	99.682	7	99.553
FVE	NORTHERN AROOSTOOK RGNL	ME	LPV200	7	99.689	7	99.661	11	99.459
HUL	HOULTON INTL	ME	LP	7	99.740	6	99.667	9	99.521
IZG	EASTERN SLOPES RGNL	ME	LPV	4	99.897	5	99.860	7	99.688
LEW	AUBURN/LEWISTON MUNICIPAL	ME	LPV200	5	99.886	5	99.843	6	99.657
LRG	LINCOLN RGNL	ME	LP	6	99.799	6	99.738	7	99.587
MLT	MILLINOCKET MUNICIPAL	ME	LPV	6	99.775	6	99.733	7	99.586
OWK	CENTRAL MAINE /NORRIDGEWOCK	ME	LPV	5	99.850	5	99.814	5	99.622
PQI	PRESQUE ISLE INTL	ME	LPV200	7	99.720	6	99.659	10	99.489
PWM	PORTLAND INTL JETPORT	ME	LPV200	4	99.892	5	99.854	7	99.685
RKD	KNOX COUNTY RGNL	ME	LPV200	5	99.840	5	99.806	5	99.624
SFM	SANFORD SEACOAST RGNL	ME	LPV200	4	99.902	4	99.862	8	99.710
WVL	WATERVILLE ROBERT LAFLEUR	ME	LPV200	5	99.842	5	99.806	5	99.626
48D	CLARE MUNICIPAL	MI	LP	3	99.936	3	99.935	5	99.886
4D0	ABRAMS MUNICIPAL	MI	LP	3	99.957	3	99.943	5	99.908
6Y1	BOIS BLANC ISLAND	MI	LP	4	99.904	5	99.883	11	99.713
77G	MARLETTE TOWNSHIP	MI	LPV	2	99.958	2	99.938	4	99.894
9D9	HASTINGS	MI	LPV	3	99.958	3	99.944	5	99.907
ACB	ANTRIM COUNTY	MI	LPV	4	99.916	5	99.892	9	99.813
ADG	LENAWEE COUNTY	MI	LPV	1	99.978	1	99.969	3	99.941
AMN	GRATIOT COMMUNICIPALTY	MI	LPV	3	99.949	3	99.937	5	99.905
ANJ	SAULT STE MARIE MUNICIPAL/SANDERSON	MI	LPV	7	99.826	9	99.797	13	99.596
APN	ALPENA COUNTY RGNL	MI	LPV	4	99.929	5	99.917	10	99.813
ARB	ANN ARBOR MUNICIPAL	MI	LPV	2	99.968	2	99.967	4	99.931
AZO	KALAMAZOO/BATTLE CREEK INTL	MI	LPV200	3	99.974	4	99.960	4	99.922
BAX	HURON COUNTY MEML	MI	LPV	2	99.954	2	99.938	4	99.889
BEH	SOUTHWEST MICHIGAN RGNL	MI	LPV200	3	99.974	4	99.967	4	99.917
BIV	WEST MICHIGAN RGNL	MI	LPV200	3	99.956	3	99.944	5	99.900
BTL	BATTLE CREEK EXEC AT KELLOGG F	MI	LPV200	2	99.974	3	99.960	4	99.922
C04	OCEANA COUNTY	MI	LPV	3	99.925	4	99.913	6	99.878
C20	ANDREWS UNIVERSITY AIRPARK	MI	LP	3	99.976	4	99.970	4	99.918

Airport	Airport Name	State/ Province	Service	LP Outages	LP Avail (%)	LPV Outages	LPV Avail (%)	LPV200 Outages	LPV200 Avail (%)
CAD	WEXFORD COUNTY	MI	LPV200	3	99.933	4	99.922	5	99.841
CFS	TUSCOLA AREA	MI	LP	2	99.952	2	99.938	4	99.889
CIU	CHIPPEWA COUNTY INTL	MI	LPV	6	99.837	8	99.807	12	99.643
CMX	HOUGHTON COUNTY MEML	MI	LPV	6	99.752	11	99.674	12	99.491
CVX	CHARLEVOIX MUNICIPAL	MI	LPV	4	99.912	5	99.888	10	99.789
D95	DUPONT-LAPEER	MI	LP	2	99.959	2	99.938	4	99.921
DET	COLEMAN A YOUNG MUNICIPAL	MI	LPV	2	99.969	2	99.967	4	99.928
DTW	DETROIT METRO WAYNE COUNTY	MI	LPV200	2	99.969	2	99.967	4	99.933
ERY	LUCE COUNTY	MI	LPV	6	99.844	10	99.817	13	99.624
ESC	DELTA COUNTY	MI	LPV200	5	99.895	6	99.854	11	99.695
FFX	FREMONT MUNICIPAL	MI	LPV	3	99.941	4	99.936	5	99.895
FNT	BISHOP INTL	MI	LPV200	2	99.960	2	99.938	4	99.910
GDW	GLADWIN ZETTEL MEML	MI	LP	3	99.936	4	99.934	5	99.877
GLR	GAYLORD RGNL	MI	LPV	4	99.924	5	99.908	9	99.818
GRR	GERALD R FORD INTL	MI	LPV200	3	99.954	3	99.939	5	99.905
HTL	ROSCOMMON COUNTY - BLODGETT ME	MI	LP	3	99.933	4	99.929	6	99.854
HYX	SAGINAW COUNTY H W BROWNE	MI	LPV200	2	99.950	2	99.938	4	99.901
IKW	JACK BARSTOW	MI	LPV	3	99.942	3	99.936	5	99.898
IMT	FORD	MI	LPV	5	99.860	6	99.820	12	99.680
IRS	KIRSCH MUNICIPAL	MI	LPV	1	99.978	1	99.971	3	99.934
ISQ	SCHOOLCRAFT COUNTY	MI	LP	5	99.868	8	99.843	11	99.681
IWD	GOGEBIC/IRON COUNTY	MI	LPV200	6	99.780	6	99.729	12	99.564
JXN	JACKSON COUNTY-REYNOLDS FLD	MI	LPV200	2	99.966	3	99.960	4	99.929
JYM	HILLSDALE MUNICIPAL	MI	LPV	2	99.978	2	99.970	3	99.933
LAN	CAPITAL REGION INTL	MI	LPV200	3	99.957	3	99.943	5	99.908
LDM	MASON COUNTY	MI	LPV	3	99.923	4	99.907	8	99.849
MBL	MANISTEE COUNTY/BLACKER	MI	LPV200	3	99.922	4	99.905	6	99.828
MBS	MBS INTL	MI	LPV200	3	99.946	3	99.937	5	99.899
MCD	MACKINAC ISLAND	MI	LPV	5	99.899	7	99.874	11	99.706
MKG	MUSKEGON COUNTY	MI	LPV200	3	99.946	3	99.938	5	99.897
MNM	MENOMINEE RGNL	MI	LPV200	3	99.912	4	99.869	9	99.783
MOP	MOUNT PLEASANT MUNICIPAL	MI	LPV	3	99.940	3	99.936	5	99.897
N98	BOYNE CITY MUNICIPAL	MI	LP	4	99.912	5	99.890	10	99.795
OEB	BRANCH COUNTY MEML	MI	LPV	2	99.978	2	99.970	3	99.932
OGM	ONTONAGON COUNTY - SCHUSTER FL	MI	LPV	6	99.766	9	99.735	11	99.515
OSC	OSCODA-WURTSMITH	MI	LPV200	3	99.938	4	99.934	6	99.843
OZW	LIVINGSTON COUNTY SPENCER J HA	MI	LPV200	2	99.962	2	99.942	4	99.924

Airport	Airport Name	State/ Province	Service	LP Outages	LP Avail (%)	LPV Outages	LPV Avail (%)	LPV200 Outages	LPV200 Avail (%)
PHN	ST CLAIR COUNTY INTL	MI	LPV200	2	99.967	2	99.967	4	99.927
PLN	PELLSTON RGNL/EMMET COUNTY	MI	LPV200	4	99.907	5	99.884	10	99.732
PTK	OAKLAND COUNTY INTL	MI	LPV200	2	99.966	3	99.960	4	99.924
RMV	BROOKS FLD	MI	LP	2	99.975	3	99.961	4	99.922
RNP	OWOSSO COMMUNICIPALTY	MI	LPV	2	99.956	2	99.938	4	99.909
RQB	ROBEN-HOOD	MI	LPV200	3	99.937	4	99.934	5	99.890
SAW	SAWYER INTL	MI	LPV200	7	99.834	8	99.789	13	99.599
SLH	CHEBOYGAN COUNTY	MI	LPV	4	99.906	5	99.884	10	99.722
TEW	MASON JEWETT FLD	MI	LP	2	99.961	2	99.943	4	99.913
TTF	CUSTER	MI	LPV	1	99.978	1	99.967	3	99.943
TVC	CHERRY CAPITAL	MI	LPV200	3	99.921	4	99.898	7	99.824
Y31	WEST BRANCH COMMUNICIPALTY	MI	LP	3	99.935	4	99.932	6	99.869
Y70	IONIA COUNTY	MI	LPV	3	99.953	3	99.939	5	99.906
YIP	WILLOW RUN	MI	LPV200	2	99.969	2	99.967	4	99.930
16D	PERHAM MUNICIPAL	MN	LPV	4	99.812	6	99.791	9	99.666
3N8	MAHNOMEN COUNTY	MN	LPV	5	99.789	7	99.733	10	99.545
ACQ	WASECA MUNICIPAL	MN	LPV	2	99.891	2	99.884	5	99.817
ADC	WADENA MUNICIPAL	MN	LPV	5	99.829	6	99.796	7	99.683
AEL	ALBERT LEA MUNICIPAL	MN	LPV	2	99.895	2	99.884	4	99.832
AIT	AITKIN MUNICIPAL/STEVE KURTZ FLD	MN	LPV	4	99.797	7	99.768	8	99.625
ANE	ANOKA COUNTY-BLAINE (JANES FLD	MN	LPV	3	99.894	6	99.821	6	99.768
AUM	AUSTIN MUNICIPAL	MN	LPV200	2	99.895	2	99.884	4	99.815
AXN	CHANDLER FLD	MN	LPV	3	99.881	4	99.830	7	99.770
BBB	BENSON MUNICIPAL	MN	LPV	2	99.886	4	99.869	6	99.813
BDE	BAUDETTE INTL	MN	LPV	7	99.746	8	99.595	10	99.399
BDH	WILLMAR MUNICIPAL/JOHN L RICE FLD	MN	LPV200	2	99.887	4	99.870	5	99.817
BJI	BEMIDJI RGNL	MN	LPV200	6	99.772	8	99.676	12	99.512
BRD	BRAINERD LAKES RGNL	MN	LPV200	5	99.823	6	99.778	8	99.673
CBG	CAMBRIDGE MUNICIPAL	MN	LPV	3	99.874	5	99.803	6	99.741
CFE	BUFFALO MUNICIPAL	MN	LPV	2	99.895	8	99.864	6	99.776
CKC	GRAND MARAIS/COOK COUNTY	MN	LPV	6	99.757	9	99.596	13	99.449
CKN	CROOKSTON MUNICIPAL/KIRKWOOD FLD	MN	LPV	6	99.778	9	99.693	9	99.479
CNB	MYERS FLD	MN	LPV	2	99.888	2	99.884	5	99.836
COQ	CLOQUET/CARLTON COUNTY	MN	LPV	5	99.778	6	99.722	9	99.555
CQM	COOK MUNICIPAL	MN	LP	5	99.754	8	99.632	12	99.456
D39	SAUK CENTRE MUNICIPAL	MN	LPV	3	99.886	4	99.835	7	99.760
D42	SPRINGFIELD MUNICIPAL	MN	LP	2	99.892	2	99.886	5	99.833

Airport	Airport Name	State/ Province	Service	LP Outages	LP Avail (%)	LPV Outages	LPV Avail (%)	LPV200 Outages	LPV200 Avail (%)
DLH	DULUTH INTL	MN	LPV200	5	99.775	7	99.718	9	99.534
DTL	DETROIT LAKES/WETHING FLD	MN	LPV	4	99.804	6	99.777	9	99.634
DVP	SLAYTON MUNICIPAL	MN	LP	2	99.895	2	99.888	4	99.844
DXX	LAC QUI PARLE COUNTY	MN	LPV200	2	99.888	3	99.878	5	99.833
ELO	ELY MUNICIPAL	MN	LPV200	6	99.753	8	99.625	11	99.466
ETH	WHEATON MUNICIPAL	MN	LP	2	99.887	4	99.859	7	99.801
EVM	EVELETH-VIRGINIA MUNICIPAL	MN	LPV	5	99.761	10	99.678	12	99.483
FBL	FARIBAULT MUNICIPAL-LIZ WALL STROHF	MN	LPV	2	99.891	3	99.881	5	99.794
FCM	FLYING CLOUD	MN	LPV200	2	99.895	6	99.869	5	99.790
FFM	FERGUS FALLS MUNICIPAL/EINAR MICKEL	MN	LPV200	4	99.858	4	99.823	6	99.712
FKA	FILLMORE COUNTY	MN	LPV	2	99.895	5	99.873	4	99.796
FOZ	BIGFORK MUNICIPAL	MN	LP	6	99.764	8	99.646	13	99.477
FRM	FAIRMONT MUNICIPAL	MN	LPV	2	99.895	2	99.884	4	99.847
FSE	FOSSTON MUNICIPAL-ANDERSON FLD	MN	LP	6	99.778	8	99.693	10	99.478
GHW	GLENWOOD MUNICIPAL	MN	LPV	2	99.888	4	99.850	7	99.789
GPZ	GRAND RAPIDS/ITASCA COUNTY-GOR	MN	LPV200	5	99.774	8	99.704	11	99.530
GYL	GLENCOE MUNICIPAL	MN	LPV	2	99.892	4	99.875	5	99.796
HCD	HUTCHINSON MUNICIPAL/BUTLER FLD	MN	LPV	2	99.892	4	99.875	5	99.793
HCO	HALLOCK MUNICIPAL	MN	LPV	6	99.753	9	99.630	10	99.442
HIB	RANGE RGNL	MN	LPV200	5	99.766	10	99.684	12	99.482
INL	FALLS INTL/EINARSON FLD	MN	LPV	6	99.742	7	99.603	11	99.399
JKJ	MOORHEAD MUNICIPAL	MN	LPV	4	99.814	6	99.781	9	99.655
JMR	MORA MUNICIPAL	MN	LPV	3	99.835	5	99.792	7	99.712
JYG	ST JAMES MUNICIPAL	MN	LPV	2	99.891	2	99.884	4	99.835
LJF	LITCHFIELD MUNICIPAL	MN	LPV	2	99.887	4	99.870	5	99.785
LVN	AIRLAKE	MN	LPV200	2	99.895	6	99.862	5	99.791
LXL	LITTLE FALLS/MORRISON COUNTY-L	MN	LPV	4	99.850	5	99.821	6	99.702
LYV	QUENTIN AANENSON FLD	MN	LPV200	2	99.899	2	99.892	4	99.855
MJQ	JACKSON MUNICIPAL	MN	LPV	2	99.895	2	99.884	4	99.848
MKT	MANKATO RGNL	MN	LPV200	2	99.891	2	99.884	5	99.798
MML	SOUTHWEST MINNESOTA RGNL MARSH	MN	LPV200	2	99.888	2	99.881	5	99.837
MOX	MORRIS MUNICIPAL/CHARLIE SCHMIDT FL	MN	LPV	2	99.886	4	99.864	6	99.806
MSP	MINNEAPOLIS-ST PAUL INTL/WOLD-	MN	LPV200	2	99.895	7	99.838	5	99.788
MVE	MONTEVIDEO-CHIPPEWA COUNTY	MN	LPV	2	99.888	4	99.876	5	99.831
MWM	WINDOM MUNICIPAL	MN	LPV	2	99.892	2	99.887	4	99.845
MZH	MOOSE LAKE CARLTON COUNTY	MN	LPV	5	99.791	7	99.741	8	99.641
ONA	WINONA MUNICIPAL-MAX CONRAD FLD	MN	LPV	2	99.895	5	99.838	5	99.793

Airport	Airport Name	State/ Province	Service	LP Outages	LP Avail (%)	LPV Outages	LPV Avail (%)	LPV200 Outages	LPV200 Avail (%)
ORB	ORR RGNL	MN	LP	5	99.748	7	99.626	12	99.450
OTG	WORTHINGTON MUNICIPAL	MN	LPV200	2	99.895	2	99.887	4	99.852
OWA	OWATONNA DEGNER RGNL	MN	LPV200	2	99.895	3	99.881	4	99.795
PEX	PAYNESVILLE MUNICIPAL	MN	LPV200	2	99.889	4	99.852	6	99.781
PKD	PARK RAPIDS MUNICIPAL/KONSHOK FLD	MN	LPV200	4	99.797	6	99.747	8	99.605
PQN	PIPESTONE MUNICIPAL	MN	LPV200	2	99.892	2	99.884	4	99.845
RGK	RED WING RGNL	MN	LPV200	2	99.895	6	99.821	5	99.781
ROS	RUSH CITY RGNL	MN	LPV	3	99.867	5	99.795	7	99.727
ROX	ROSEAU MUNICIPAL/RUDY BILLBERG FLD	MN	LPV	8	99.741	9	99.605	10	99.414
RRT	WARROAD INTL MEML	MN	LPV200	7	99.715	9	99.605	10	99.409
RST	ROCHESTER INTL	MN	LPV200	2	99.895	4	99.871	4	99.785
RWF	REDWOOD FALLS MUNICIPAL	MN	LPV	2	99.892	2	99.886	5	99.825
SAZ	STAPLES MUNICIPAL	MN	LPV	5	99.829	6	99.785	7	99.690
SBU	BLUE EARTH MUNICIPAL	MN	LPV	2	99.895	2	99.884	4	99.837
SGS	SOUTH ST PAUL MUNICIPAL-RICHARD E F	MN	LPV	2	99.895	6	99.823	5	99.788
STC	ST CLOUD RGNL	MN	LPV200	3	99.886	5	99.832	6	99.757
STP	ST PAUL DOWNTOWN HOLMAN FLD	MN	LPV	2	99.895	6	99.822	5	99.788
TOB	DODGE CENTER	MN	LPV	2	99.895	3	99.878	4	99.783
TVF	THIEF RIVER FALLS RGNL	MN	LPV	6	99.776	10	99.665	9	99.440
TWM	RICHARD B HELGESON	MN	LPV	5	99.768	9	99.696	10	99.518
ULM	NEW ULM MUNICIPAL	MN	LPV200	2	99.892	2	99.884	5	99.805
VVV	ORTONVILLE MUNICIPAL-MARTINSON FLD	MN	LP	2	99.888	4	99.871	5	99.827
Y49	WALKER MUNICIPAL	MN	LP	5	99.782	7	99.724	8	99.566
Y63	ELBOW LAKE MUNICIPAL - PRIDE OF THE	MN	LPV	2	99.884	4	99.846	7	99.754
03D	MEMPHIS MEML	MO	LPV	2	99.972	2	99.971	2	99.917
1H0	CREVE COEUR	MO	LPV	1	99.994	1	99.987	2	99.978
1MO	MOUNTAIN GROVE MEML	MO	LP	0	100	0	100	1	99.999
2H2	JERRY SUMNERS SR AURORA MUNICIPAL	MO	LP	0	100	0	100	2	99.994
6M6	LEWIS COUNTY RGNL	MO	LPV	1	99.980	1	99.978	2	99.921
8WC	WASHINGTON COUNTY	MO	LPV	0	100	1	99.999	1	99.978
94K	CASSVILLE MUNICIPAL	MO	LPV	0	100	0	100	2	99.993
AIZ	LEE C FINE MEML	MO	LPV	0	100	0	100	1	99.978
BBG	BRANSON	MO	LPV200	0	100	0	100	1	99.998
BUM	BUTLER MEML	MO	LPV	0	100	0	100	2	99.963
CGI	CAPE GIRARDEAU RGNL	MO	LPV200	0	100	0	100	0	100
CHT	CHILLICOTHE MUNICIPAL	MO	LPV	1	99.990	1	99.979	2	99.917
COU	COLUMBIA RGNL	MO	LPV200	0	100	1	99.985	3	99.967

Airport	Airport Name	State/ Province	Service	LP Outages	LP Avail (%)	LPV Outages	LPV Avail (%)	LPV200 Outages	LPV200 Avail (%)
DMO	SEDALIA RGNL	MO	LPV	0	100	1	99.990	3	99.961
DXE	DEXTER MUNICIPAL	MO	LPV	0	100	0	100	0	100
EIW	COUNTY MEML	MO	LPV	0	100	0	100	0	100
EOS	NEOSHO HUGH ROBINSON	MO	LPV	0	100	0	100	2	99.989
EVU	NORTHWEST MISSOURI RGNL	MO	LPV	2	99.982	2	99.980	2	99.910
EZZ	CAMERON MEML	MO	LPV	0	100	2	99.994	2	99.910
FAM	FARMINGTON RGNL	MO	LPV	0	100	0	100	1	99.978
FTT	ELTON HENSLEY MEML	MO	LPV	0	100	1	99.985	3	99.964
FWB	BRANSON WEST MUNICIPAL - EMERSON FL	MO	LPV200	0	100	0	100	1	99.997
FYG	WASHINGTON RGNL	MO	LPV	0	100	1	99.988	2	99.971
GLY	CLINTON RGNL	MO	LPV	0	100	0	100	3	99.964
GPH	MIDWEST NTL AIR CENTER	MO	LPV	0	100	0	100	2	99.913
H19	BOWLING GREEN MUNICIPAL	MO	LPV	1	99.985	1	99.978	3	99.951
H79	ELDON MODEL AIRPARK	MO	LP	0	100	1	99.997	3	99.975
H88	A PAUL VANCE FREDERICKTOWN RGN	MO	LPV	0	100	0	100	1	99.997
HAE	HANNIBAL RGNL	MO	LPV	1	99.982	1	99.978	3	99.936
HFJ	MONETT RGNL	MO	LPV	0	100	0	100	2	99.989
HIG	HIGGINSVILLE INDUSTRIAL MUNICIPAL	MO	LPV	0	100	1	99.981	3	99.939
IRK	KIRKSVILLE RGNL	MO	LPV200	1	99.981	1	99.978	2	99.921
JEF	JEFFERSON CITY MEML	MO	LPV	0	100	1	99.987	2	99.975
JLN	JOPLIN RGNL	MO	LPV	0	100	0	100	2	99.989
K15	GRAND GLAIZE-OSAGE BEACH	MO	LP	0	100	0	100	2	99.976
K57	GOULD PETERSON MUNICIPAL	MO	LPV	1	99.978	1	99.978	2	99.915
K89	MACON-FOWER MEML	MO	LPV	1	99.982	1	99.978	3	99.933
LLU	LAMAR MUNICIPAL	MO	LPV	0	100	0	100	2	99.989
LRV	LAWRENCE SMITH MEML	MO	LPV	0	100	0	100	3	99.950
LXT	LEE'S SUMMIT MUNICIPAL	MO	LPV	0	100	0	100	3	99.935
M05	CARUTHERSVILLE MEML	MO	LPV	0	100	0	100	0	100
M12	STEELE MUNICIPAL	MO	LPV	0	100	0	100	0	100
M17	BOLIVAR MUNICIPAL	MO	LPV	0	100	0	100	2	99.995
M48	HOUSTON MEML	MO	LPV	0	100	0	100	1	99.999
MAW	MALDEN RGNL	MO	LPV	0	100	0	100	0	100
MBY	OMAR N BRADLEY	MO	LPV	1	99.986	1	99.978	3	99.935
MCI	KANSAS CITY INTL	MO	LPV200	0	100	0	100	2	99.913
MHL	MARSHALL MEML MUNICIPAL	MO	LPV	0	100	1	99.981	3	99.935
MKC	CHARLES B WHEELER DOWNTOWN	MO	LPV	0	100	0	100	2	99.914
MNF	MOUNTAIN VIEW	MO	LP	0	100	0	100	1	99.999

Airport	Airport Name	State/ Province	Service	LP Outages	LP Avail (%)	LPV Outages	LPV Avail (%)	LPV200 Outages	LPV200 Avail (%)
MO3	STOCKTON MUNICIPAL	MO	LP	0	100	0	100	2	99.990
MO8	NORTH CENTRAL MISSOURI RGNL	MO	LPV	1	99.989	1	99.978	2	99.921
MYJ	MEXICO MEML	MO	LPV	1	99.988	1	99.978	3	99.952
NVD	NEVADA MUNICIPAL	MO	LPV200	0	100	0	100	2	99.989
OZS	CAMDENTON MEML-LAKE RGNL	MO	LPV	0	100	0	100	1	99.978
PCD	PERRYVILLE RGNL	MO	LPV	0	100	0	100	1	99.978
PLK	M GRAHAM CLARK DOWNTOWN	MO	LPV200	0	100	0	100	1	99.998
POF	POPLAR BLUFF RGNL BUSINESS	MO	LPV	0	100	0	100	0	100
RAW	WARSAW MUNICIPAL	MO	LPV200	0	100	0	100	3	99.971
RCM	SKYHAVEN	MO	LPV	0	100	0	100	3	99.946
SGF	SPRINGFIELD-BRANSON NTL	MO	LPV	0	100	0	100	2	99.995
SIK	SIKESTON MEML MUNICIPAL	MO	LPV	0	100	0	100	0	100
STJ	ROSECRANS MEML	MO	LPV200	0	100	1	99.999	2	99.913
STL	ST LOUIS LAMBERT INTL	MO	LPV200	1	99.994	1	99.978	2	99.978
SUS	SPIRIT OF ST LOUIS	MO	LPV200	1	99.998	1	99.988	2	99.978
TBN	WAYNESVILLE-ST ROBERT RGNL FOR	MO	LPV	0	100	0	100	2	99.990
TKX	KENNETT MEML	MO	LPV	0	100	0	100	0	100
TRX	TRENTON MUNICIPAL	MO	LPV	1	99.981	2	99.976	2	99.913
UBX	CUBA MUNICIPAL	MO	LPV	0	100	1	99.998	1	99.978
UNO	WEST PLAINS RGNL	MO	LPV	0	100	0	100	1	99.999
UUV	SULLIVAN RGNL	MO	LPV	0	100	1	99.992	1	99.971
VER	JESSE VIERTEL MEML	MO	LPV	0	100	1	99.984	3	99.960
VIH	ROLLA NTL	MO	LPV	0	100	1	99.998	1	99.978
0R0	COLUMBIA/MARION COUNTY	MS	LPV	0	100	0	100	1	99.996
17M	MAGEE MUNICIPAL	MS	LP	0	100	0	100	0	100
5A4	OKOLONA MUNICIPAL/RICHARD STOVALL F	MS	LPV	0	100	0	100	0	100
5A6	WINONA-MONTGOMERY COUNTY	MS	LP	0	100	0	100	0	100
87I	YAZOO COUNTY	MS	LPV	0	100	0	100	0	100
8M1	BOONEVILLE/BALDWYN	MS	LPV	0	100	0	100	0	100
CKM	FLETCHER FLD	MS	LPV	0	100	0	100	0	100
CRX	ROSCOE TURNER	MS	LPV200	0	100	0	100	0	100
GLH	GREENVILLE MID-DELTA	MS	LPV200	0	100	0	100	0	100
GNF	GRENADA MUNICIPAL	MS	LPV	0	100	0	100	0	100
GPT	GULFPORT-BILOXI INTL	MS	LPV200	1	99.987	1	99.987	1	99.987
GTR	GOLDEN TRIANGLE RGNL	MS	LPV200	0	100	0	100	0	100
GWO	GREENWOOD-LEFLORE	MS	LPV	0	100	0	100	0	100
HBG	HATTIESBURG BOBBY L CHAIN MUNICIPAL	MS	LPV200	0	100	0	100	1	99.994

Airport	Airport Name	State/ Province	Service	LP Outages	LP Avail (%)	LPV Outages	LPV Avail (%)	LPV200 Outages	LPV200 Avail (%)
HEZ	HARDY-ANDERS FLD/NATCHEZ-ADAMS	MS	LPV200	0	100	0	100	0	100
HKS	HAWKINS FLD	MS	LPV	0	100	0	100	0	100
HSA	STENNIS INTL	MS	LPV200	1	99.987	1	99.987	1	99.987
IDL	INDIANOLA MUNICIPAL	MS	LPV	0	100	0	100	0	100
JAN	JACKSON-MEDGAR WILEY EVERS INT	MS	LPV200	0	100	0	100	0	100
JVW	JOHN BELL WILLIAMS	MS	LPV200	0	100	0	100	0	100
LMS	LOUISVILLE/WINSTON COUNTY	MS	LPV	0	100	0	100	0	100
LUL	HESLER-NOBLE FLD	MS	LPV	0	100	0	100	1	99.999
M11	COPIAH COUNTY	MS	LPV	0	100	0	100	0	100
M40	MONROE COUNTY	MS	LPV	0	100	0	100	0	100
M41	HOLLY SPRINGS-MARSHALL COUNTY	MS	LPV	0	100	0	100	0	100
M43	PRENTISS-JEFFERSON DAVIS COUNT	MS	LPV	0	100	0	100	0	100
MBO	BRUCE CAMPBELL FLD	MS	LPV	0	100	0	100	0	100
MCB	MC COMB/PIKE COUNTY/JOHN E LEW	MS	LPV200	0	100	0	100	1	99.995
MEI	KEY FLD	MS	LPV200	0	100	0	100	0	100
MJD	PICAYUNE MUNICIPAL	MS	LPV	0	100	1	99.994	1	99.987
MMS	SELS	MS	LPV	0	100	0	100	0	100
MPE	PHILADELPHIA MUNICIPAL	MS	LPV	0	100	0	100	0	100
OLV	OLIVE BRANCH/TAYLOR FLD	MS	LPV200	0	100	0	100	0	100
PIB	HATTIESBURG/LAUREL RGNL	MS	LPV200	0	100	0	100	1	99.997
PMU	PANOLA COUNTY	MS	LPV	0	100	0	100	0	100
PQL	TRENT LOTT INTL	MS	LPV200	1	99.988	1	99.988	1	99.971
RNV	CLEVELAND MUNICIPAL	MS	LPV	0	100	0	100	0	100
STF	GEORGE M BRYAN	MS	LPV200	0	100	0	100	0	100
TUP	TUPELO RGNL	MS	LPV200	0	100	0	100	0	100
UBS	COLUMBUS-LOWNDES COUNTY	MS	LPV	0	100	0	100	0	100
UOX	UNIVERSITY-OXFORD	MS	LPV	0	100	0	100	0	100
UTA	TUNICA MUNICIPAL	MS	LPV200	0	100	0	100	0	100
VKS	VICKSBURG MUNICIPAL	MS	LP	0	100	0	100	0	100
00U	BIG HORN COUNTY	MT	LPV200	2	99.935	2	99.906	3	99.873
1S3	TILLITT FLD	MT	LPV	2	99.921	3	99.887	3	99.852
4U6	CIRCLE TOWN COUNTY	MT	LPV	2	99.918	3	99.858	5	99.797
6S0	BIG TIMBER	MT	LPV	2	99.935	4	99.917	3	99.873
6S8	LAUREL MUNICIPAL	MT	LPV	2	99.935	2	99.906	3	99.874
7S0	RONAN	MT	LPV	3	99.918	3	99.878	5	99.834
7S1	TWIN BRIDGES	MT	LPV	2	99.945	3	99.929	3	99.889
BHK	BAKER MUNICIPAL	MT	LPV	2	99.918	3	99.883	4	99.840

Airport	Airport Name	State/ Province	Service	LP Outages	LP Avail (%)	LPV Outages	LPV Avail (%)	LPV200 Outages	LPV200 Avail (%)
BIL	BILLINGS LOGAN INTL	MT	LPV200	2	99.935	3	99.903	3	99.874
BTM	BERT MOONEY	MT	LPV	2	99.937	4	99.917	3	99.871
BZN	BOZEMAN YELLOWSTONE INTL	MT	LPV	2	99.935	3	99.935	3	99.876
CII	CHOTEAU	MT	LPV200	3	99.913	3	99.863	4	99.839
CTB	CUT BANK INTL	MT	LPV200	4	99.902	3	99.852	6	99.817
DLN	DILLON	MT	LPV	2	99.949	3	99.929	2	99.901
EKS	ENNIS BIG SKY	MT	LPV	2	99.945	3	99.932	2	99.902
GDV	DAWSON COMMUNICIPALTY	MT	LPV	2	99.914	3	99.860	5	99.799
GGW	WOKAL FLD/GLASGOW-VALLEY COUNT	MT	LPV200	2	99.908	3	99.855	5	99.773
GPI	GLACIER PARK INTL	MT	LPV	3	99.906	3	99.858	7	99.822
GTF	GREAT FALLS INTL	MT	LPV200	3	99.921	3	99.868	4	99.844
HLN	HELENA RGNL	MT	LPV	3	99.932	3	99.892	3	99.858
HRF	RAVALLI COUNTY	MT	LPV	3	99.933	2	99.899	4	99.865
HVR	HAVRE CITY-COUNTY	MT	LPV	3	99.881	3	99.856	6	99.819
HWQ	WHEATLAND COUNTY AT HARLOWTON	MT	LPV	3	99.935	3	99.886	3	99.863
LVM	MISSION FLD	MT	LP	2	99.935	3	99.932	3	99.876
LWT	LEWISTOWN MUNICIPAL	MT	LPV200	3	99.928	3	99.867	4	99.849
M75	MALTA	MT	LP	3	99.894	3	99.853	5	99.778
MLS	FRANK WILEY FLD	MT	LPV	2	99.917	3	99.880	4	99.847
MSO	MISSOULA MONTANA	MT	LPV200	3	99.926	3	99.884	5	99.843
OLF	L M CLAYTON	MT	LPV200	2	99.910	4	99.836	5	99.758
PO1	POPLAR MUNICIPAL	MT	LPV200	3	99.912	3	99.817	5	99.758
PWD	SHER-WOOD	MT	LPV200	4	99.884	3	99.800	7	99.720
RPX	ROUNDUP	MT	LPV	3	99.935	3	99.883	3	99.859
RVF	RUBY VALLEY FLD	MT	LPV	2	99.945	3	99.929	3	99.889
S01	CONRAD	MT	LPV	3	99.907	3	99.853	5	99.836
SBX	SHELBY	MT	LPV	4	99.898	3	99.851	6	99.824
SDY	SIDNEY-RICHLAND RGNL	MT	LPV	3	99.912	4	99.831	6	99.757
WYS	YELLOWSTONE	MT	LPV200	2	99.948	3	99.936	2	99.904
CCE3	JUNIPER	NB	LP	7	99.696	6	99.638	10	99.474
CCN2	GRAND MANAN	NB	LPV	6	99.780	5	99.680	7	99.548
CCR3	FLORENCEVILLE	NB	LPV	7	99.728	6	99.662	10	99.513
CDJ4	CLEARWATER	NB	LPV	7	99.656	6	99.616	10	99.454
CYCH	MIRAMICHI	NB	LPV	7	99.637	6	99.607	9	99.429
CYCL	CHARLO	NB	LPV	7	99.632	5	99.592	12	99.424
CYFC	FREDERICTON INTL	NB	LPV	8	99.723	6	99.661	9	99.508
CYQM	GREATER MONCTON ROMEO LEBLANC INTL	NB	LPV200	7	99.652	6	99.601	10	99.438

Airport	Airport Name	State/ Province	Service	LP Outages	LP Avail (%)	LPV Outages	LPV Avail (%)	LPV200 Outages	LPV200 Avail (%)
CYSJ	SAINT JOHN	NB	LPV	6	99.724	5	99.666	8	99.512
CYSL	ST. LEONARD	NB	LPV	7	99.685	6	99.633	11	99.466
CZBF	BATHURST	NB	LPV	7	99.632	5	99.589	10	99.402
43A	MONTGOMERY COUNTY	NC	LP	0	100	0	100	0	100
7W6	HYDE COUNTY	NC	LP	0	100	0	100	1	99.991
ACZ	HENDERSON FLD	NC	LPV	0	100	0	100	0	100
AFP	ANSON COUNTY/JEFF CLOUD FLD	NC	LPV	0	100	0	100	0	100
AKH	GASTONIA MUNICIPAL	NC	LPV	0	100	0	100	0	100
ASJ	TRI-COUNTY AT HENRY JOYNER FIE	NC	LPV	0	100	0	100	1	99.998
AVL	ASHEVILLE RGNL	NC	LPV200	0	100	0	100	0	100
BUY	BURLINGTON/ALAMANCE RGNL	NC	LPV	0	100	0	100	0	100
CLT	CHARLOTTE/DOUGLAS INTL	NC	LPV200	0	100	0	100	0	100
CPC	COLUMBUS COUNTY MUNICIPAL	NC	LPV	0	100	0	100	0	100
CTZ	CLINTON-SAMPSON COUNTY	NC	LPV200	0	100	0	100	0	100
DPL	DUPLIN COUNTY	NC	LPV200	0	100	0	100	0	100
ECG	ELIZABETH CITY CG AIR STATION/	NC	LPV	0	100	0	100	1	99.992
EDE	NORTHEASTERN RGNL	NC	LPV200	0	100	0	100	1	99.993
EHO	SHELBY-CLEVELAND COUNTY RGNL	NC	LPV	0	100	0	100	0	100
EQY	CHARLOTTE/MONROE EXEC	NC	LPV200	0	100	0	100	0	100
EWN	COASTAL CAROLINA RGNL	NC	LPV	0	100	0	100	1	99.998
EXX	DAVIDSON COUNTY	NC	LPV	0	100	0	100	0	100
EYF	CURTIS L BROWN JR FLD	NC	LPV	0	100	0	100	0	100
FAY	FAYETTEVILLE RGNL/GRANNIS FLD	NC	LPV200	0	100	0	100	0	100
FFA	FIRST FLIGHT	NC	LP	0	100	0	100	1	99.990
FQD	RUTHERFORD COUNTY/MARCHMAN FLD	NC	LPV	0	100	0	100	0	100
GEV	ASHE COUNTY	NC	LP	0	100	0	100	0	100
GSO	PIEDMONT TRIAD INTL	NC	LPV200	0	100	0	100	0	100
GWW	WAYNE EXEC JETPORT	NC	LPV200	0	100	0	100	1	99.999
HBI	ASHEBORO RGNL	NC	LPV	0	100	0	100	0	100
HKY	HICKORY RGNL	NC	LPV200	0	100	0	100	0	100
HNZ	HENDERSON/OXFORD	NC	LPV	0	100	0	100	0	100
HRJ	HARNETT RGNL JETPORT	NC	LPV	0	100	0	100	0	100
ILM	WILMINGTON INTL	NC	LPV200	0	100	0	100	0	100
INT	SMITH REYNOLDS	NC	LPV200	0	100	0	100	0	100
IPJ	LINCOLN-TON-LINCOLN COUNTY RGNL	NC	LPV	0	100	0	100	0	100
ISO	KINSTON RGNL JETPORT AT STALLI	NC	LPV200	0	100	0	100	1	99.998
IXA	HALIFAX/NORTHAMPTON RGNL	NC	LPV200	0	100	0	100	1	99.998

Airport	Airport Name	State/ Province	Service	LP Outages	LP Avail (%)	LPV Outages	LPV Avail (%)	LPV200 Outages	LPV200 Avail (%)
JNX	JOHNSTON RGNL	NC	LPV	0	100	0	100	0	100
JQF	CONCORD-PADGETT RGNL	NC	LPV	0	100	0	100	0	100
LBT	LUMBERTON RGNL	NC	LPV	0	100	0	100	0	100
LHZ	TRIANGLE NORTH EXEC	NC	LPV200	0	100	0	100	0	100
MCZ	MARTIN COUNTY	NC	LPV	0	100	0	100	1	99.997
MEB	LAURINBURG/MAXTON	NC	LPV200	0	100	0	100	0	100
MQI	DARE COUNTY RGNL	NC	LPV	0	100	0	100	1	99.990
MRH	MICHAEL J SMITH FLD	NC	LPV	0	100	0	100	1	99.998
MRN	FOOTHILLS RGNL	NC	LPV	0	100	0	100	0	100
MWK	MOUNT AIRY/SURRY COUNTY	NC	LPV	0	100	0	100	0	100
OAJ	ALBERT J ELLIS	NC	LPV200	0	100	0	100	1	99.999
OCW	WASHINGTON-WARREN	NC	LPV	0	100	0	100	1	99.997
ONX	CURRITUCK COUNTY RGNL	NC	LPV	0	100	0	100	1	99.991
PGV	PITT-GREENVILLE	NC	LPV	0	100	0	100	1	99.997
PMZ	PLYMOUTH MUNICIPAL	NC	LP	0	100	0	100	1	99.994
RCZ	RICHMOND COUNTY	NC	LPV	0	100	0	100	0	100
RDU	RALEIGH-DURHAM INTL	NC	LPV200	0	100	0	100	0	100
RHP	WESTERN CAROLINA RGNL	NC	LP	0	100	0	100	0	100
RUQ	MID-CAROLINA RGNL	NC	LPV200	0	100	0	100	0	100
RWI	ROCKY MOUNT/WILSON RGNL	NC	LPV	0	100	0	100	1	99.998
SCR	SILER CITY MUNICIPAL	NC	LPV	0	100	0	100	0	100
SOP	MOORE COUNTY	NC	LPV200	0	100	0	100	0	100
SUT	CAPE FEAR RGNL JETPORT/HOWIE F	NC	LPV	0	100	0	100	0	100
SVH	STATESVILLE RGNL	NC	LPV200	0	100	0	100	0	100
TDF	RALEIGH RGNL AT PERSON COUNTY	NC	LPV200	0	100	0	100	0	100
TTA	RALEIGH EXEC JETPORT AT SANFOR	NC	LPV200	0	100	0	100	0	100
UKF	WILKES COUNTY	NC	LPV200	0	100	0	100	0	100
VUJ	STANLY COUNTY	NC	LPV200	0	100	0	100	0	100
W03	WILSON INDUSTRIAL AIR CENTER	NC	LPV	0	100	0	100	1	99.998
W40	MOUNT OLIVE MUNICIPAL	NC	LPV	0	100	0	100	1	99.999
ZEF	ELKIN MUNICIPAL	NC	LP	0	100	0	100	0	100
06D	ROLLA MUNICIPAL	ND	LPV	5	99.770	6	99.713	10	99.514
20U	BEACH	ND	LPV	2	99.910	3	99.863	5	99.804
2C8	CAVALIER MUNICIPAL	ND	LPV	6	99.755	8	99.673	10	99.461
3H4	HILLSBORO MUNICIPAL	ND	LPV	5	99.795	6	99.757	9	99.554
46D	CARRINGTON MUNICIPAL	ND	LPV	4	99.846	5	99.790	10	99.625
4E7	ELLENDALÉ MUNICIPAL	ND	LPV	2	99.888	3	99.865	8	99.790

Airport	Airport Name	State/ Province	Service	LP Outages	LP Avail (%)	LPV Outages	LPV Avail (%)	LPV200 Outages	LPV200 Avail (%)
51D	EDGELEY MUNICIPAL	ND	LPV	4	99.868	4	99.846	7	99.739
5L0	LAKOTA MUNICIPAL	ND	LPV	5	99.796	6	99.738	10	99.545
5N8	CASSELTON ROBERT MILLER RGNL	ND	LPV	4	99.832	6	99.789	10	99.655
6L3	LISBON MUNICIPAL	ND	LPV	4	99.865	5	99.834	6	99.701
7L2	LINTON MUNICIPAL	ND	LPV	3	99.898	3	99.864	7	99.793
9D7	CANDO MUNICIPAL	ND	LPV	5	99.784	6	99.716	11	99.536
BAC	BARNES COUNTY MUNICIPAL	ND	LPV	4	99.843	6	99.797	10	99.654
BIS	BISMARCK MUNICIPAL	ND	LPV200	4	99.874	4	99.847	6	99.748
BWP	HARRY STERN	ND	LPV	4	99.876	5	99.841	7	99.718
BWW	BOWMAN RGNL	ND	LPV	2	99.915	3	99.884	5	99.842
D05	GARRISON MUNICIPAL	ND	LPV	4	99.871	4	99.811	9	99.703
D09	BOTTINEAU MUNICIPAL	ND	LPV	5	99.789	6	99.738	9	99.559
D55	ROBERTSON FLD	ND	LPV	5	99.759	6	99.669	10	99.462
D57	GLEN ULLIN RGNL	ND	LPV	3	99.892	4	99.858	5	99.763
D60	TIOGA MUNICIPAL	ND	LPV	6	99.863	4	99.796	9	99.709
DIK	DICKINSON/THEODORE ROOSEVELT R	ND	LPV200	3	99.906	3	99.863	5	99.788
DVL	DEVILS LAKE RGNL	ND	LPV200	4	99.800	6	99.736	11	99.559
FAR	HECTOR INTL	ND	LPV200	4	99.802	6	99.779	10	99.650
GAF	HUTSON FLD	ND	LPV	6	99.760	8	99.693	10	99.465
GFK	GRAND FORKS INTL	ND	LPV	6	99.783	8	99.709	9	99.482
GWR	GWINNER-ROGER MELROE FLD	ND	LPV	2	99.888	4	99.847	6	99.716
HEI	HETTINGER/JB LINDQUIST RGNL	ND	LPV	2	99.910	3	99.885	6	99.847
HZE	MERCER COUNTY RGNL	ND	LPV	4	99.878	5	99.836	9	99.739
ISN	SLOULIN FLD INTL	ND	LPV200	4	99.885	3	99.812	6	99.726
JMS	JAMESTOWN RGNL	ND	LPV200	4	99.856	6	99.806	9	99.678
K74	ROBERT ODEGAARD FLD	ND	LP	4	99.846	5	99.813	8	99.676
MOT	MINOT INTL	ND	LPV	4	99.819	5	99.756	10	99.627
RUG	RUGBY MUNICIPAL	ND	LP	5	99.803	6	99.743	10	99.573
S25	WATFORD CITY MUNICIPAL	ND	LPV	3	99.894	5	99.831	7	99.731
XWA	WILLISTON BASIN INTL	ND	LPV200	4	99.883	3	99.812	7	99.729
Y19	MANDAN RGNL/LAWLER FLD	ND	LPV	4	99.875	4	99.847	6	99.748
07K	CENTRAL CITY MUNICIPAL - LARRY REIN	NE	LPV	3	99.943	3	99.941	3	99.907
08K	HARVARD STATE	NE	LPV	2	99.977	3	99.974	4	99.932
0B4	HARTINGTON MUNICIPAL/ BUD BECKER FL	NE	LPV	2	99.912	2	99.912	3	99.880
0C4	PENDER MUNICIPAL	NE	LPV	2	99.919	2	99.918	3	99.904
0F4	LOUP CITY MUNICIPAL	NE	LPV	3	99.942	2	99.924	3	99.901
0G3	TECUMSEH MUNICIPAL	NE	LPV	2	99.978	2	99.978	2	99.924

Airport	Airport Name	State/ Province	Service	LP Outages	LP Avail (%)	LPV Outages	LPV Avail (%)	LPV200 Outages	LPV200 Avail (%)
0V3	PIONEER VILLAGE FLD	NE	LPV	1	99.981	2	99.974	4	99.928
12K	SUPERIOR MUNICIPAL	NE	LPV	1	99.978	2	99.977	3	99.935
47V	CURTIS MUNICIPAL	NE	LPV	0	100	2	99.966	4	99.921
4D9	ALMA MUNICIPAL	NE	LPV	0	100	2	99.974	4	99.927
4V9	ANTELOPE COUNTY	NE	LPV	3	99.929	2	99.917	3	99.897
6K3	CREIGHTON MUNICIPAL	NE	LPV	2	99.915	2	99.912	3	99.881
7V7	RED CLOUD MUNICIPAL	NE	LPV	1	99.990	2	99.977	4	99.930
8V2	STUART-ATKINSON MUNICIPAL	NE	LPV	3	99.938	3	99.910	3	99.879
93Y	DAVID CITY MUNICIPAL	NE	LPV	2	99.943	2	99.926	3	99.911
9V5	MODISSETT	NE	LPV	2	99.940	2	99.904	3	99.885
AFK	NEBRASKA CITY MUNICIPAL	NE	LPV	1	99.978	1	99.978	2	99.921
AHQ	WAHOO MUNICIPAL	NE	LPV	2	99.943	2	99.927	3	99.913
AIA	ALLIANCE MUNICIPAL	NE	LPV200	2	99.958	2	99.912	3	99.886
ANW	AINSWORTH RGNL	NE	LPV200	3	99.944	2	99.910	3	99.883
AUH	AURORA MUNICIPAL - AL POTTER FLD	NE	LPV	2	99.944	3	99.942	3	99.909
BBW	BROKEN BOW MUNICIPAL/KEITH GLAZE FL	NE	LPV	2	99.954	2	99.917	3	99.900
BFF	WESTERN NEBRASKA RGNL/WILLIAM	NE	LPV	2	99.959	2	99.921	3	99.893
BIE	BEATRICE MUNICIPAL	NE	LPV200	1	99.978	2	99.978	2	99.923
BTA	BLAIR MUNICIPAL	NE	LPV	2	99.924	2	99.924	2	99.910
BUB	CRAM FLD	NE	LPV	3	99.949	2	99.917	4	99.899
BVN	ALBION MUNICIPAL	NE	LPV	3	99.932	2	99.917	3	99.904
CDR	CHADRON MUNICIPAL	NE	LPV200	2	99.941	2	99.913	3	99.889
CEK	CRETE MUNICIPAL	NE	LPV	2	99.978	3	99.977	2	99.923
CSB	CAMBRIDGE MUNICIPAL	NE	LPV	0	100	2	99.967	4	99.918
CZD	COZAD MUNICIPAL	NE	LPV	2	99.987	3	99.961	3	99.906
EAR	KEARNEY RGNL	NE	LPV200	2	99.978	3	99.971	4	99.927
FBY	FAIRBURY MUNICIPAL	NE	LPV	1	99.978	2	99.977	2	99.922
FET	FREMONT MUNICIPAL	NE	LPV	2	99.924	2	99.919	3	99.913
FMZ	FAIRMONT STATE AIRFIELD	NE	LPV	2	99.977	3	99.975	3	99.921
FNB	BRENNER FLD	NE	LPV	0	100	1	99.978	2	99.927
GGF	GRANT MUNICIPAL	NE	LPV	0	100	2	99.961	3	99.900
GRI	CENTRAL NEBRASKA RGNL	NE	LPV	3	99.944	3	99.941	3	99.906
GRN	GORDON MUNICIPAL	NE	LPV	2	99.940	2	99.904	3	99.884
HDE	BREWSTER FLD	NE	LPV	0	100	2	99.973	4	99.926
HSI	HASTINGS MUNICIPAL	NE	LPV	2	99.977	3	99.973	4	99.930
IBM	KIMBALL MUNICIPAL/ROBERT E ARRAJ FL	NE	LPV	1	99.985	2	99.964	3	99.892
IML	IMPERIAL MUNICIPAL	NE	LPV	0	100	2	99.963	4	99.920

Airport	Airport Name	State/ Province	Service	LP Outages	LP Avail (%)	LPV Outages	LPV Avail (%)	LPV200 Outages	LPV200 Avail (%)
JYR	YORK MUNICIPAL	NE	LPV	2	99.944	3	99.941	3	99.910
K01	FARINGTON FLD	NE	LPV	2	99.978	2	99.978	2	99.924
LBF	NORTH PLATTE RGNL/LEE BIRD FLD	NE	LPV200	2	99.977	3	99.952	3	99.906
LCG	WAYNE MUNICIPAL/ STAN MORRIS FLD	NE	LPV	2	99.914	2	99.914	3	99.902
LNK	LINCOLN	NE	LPV200	2	99.954	3	99.952	2	99.924
LXN	JIM KELLY FLD	NE	LPV	2	99.992	4	99.963	3	99.907
MCK	MC COOK BEN NELSON RGNL	NE	LPV	0	100	2	99.966	4	99.919
MLE	MILLARD	NE	LPV	1	99.927	1	99.927	2	99.913
ODX	EVELYN SHARP FLD	NE	LPV	3	99.943	2	99.917	4	99.900
OFK	NORFOLK RGNL/KARL STEFAN MEML	NE	LPV200	2	99.918	2	99.917	3	99.900
OGA	SEARLE FLD	NE	LPV	2	99.981	3	99.955	3	99.899
OKS	GARDEN COUNTY/KING RHILEY FLD	NE	LPV	2	99.970	3	99.940	3	99.897
OLU	COLUMBUS MUNICIPAL	NE	LPV	3	99.942	2	99.925	3	99.910
OMA	EPPLEY AIRFIELD	NE	LPV200	2	99.925	2	99.925	2	99.913
ONL	THE O'NEILL MUNICIPAL-JOHN L BAKER	NE	LPV	3	99.935	3	99.911	3	99.881
PMV	PLATTSMOUTH MUNICIPAL/DOUGLAS V DUE	NE	LPV	2	99.954	1	99.938	2	99.924
RBE	ROCK COUNTY	NE	LPV	3	99.944	2	99.910	3	99.884
SCB	SCRIBNER STATE	NE	LPV	2	99.923	2	99.919	3	99.909
SNY	SIDNEY MUNICIPAL/LLOYD W CARR FLD	NE	LPV	1	99.986	2	99.957	3	99.892
SWT	SEWARD MUNICIPAL	NE	LPV	2	99.943	3	99.941	3	99.912
TIF	THOMAS COUNTY	NE	LPV	2	99.948	2	99.912	3	99.884
TQE	TEKAMAH MUNICIPAL	NE	LPV	2	99.922	2	99.920	3	99.909
VTN	MILLER FLD	NE	LPV	3	99.935	2	99.898	3	99.882
ASH	BOIRE FLD	NH	LPV200	5	99.939	4	99.899	8	99.762
CON	CONCORD MUNICIPAL	NH	LPV	3	99.918	3	99.875	8	99.738
DAW	SKYHAVEN	NH	LPV	4	99.911	3	99.866	8	99.715
EEN	DILLANT/HOPKINS	NH	LPV	4	99.954	4	99.918	7	99.767
HIE	MOUNT WASHINGTON RGNL	NH	LPV	4	99.900	5	99.862	8	99.680
LCI	LACONIA MUNICIPAL	NH	LPV	4	99.917	3	99.869	8	99.724
LEB	LEBANON MUNICIPAL	NH	LPV	4	99.929	4	99.886	7	99.740
MHT	MANCHESTER BOSTON RGNL	NH	LPV200	3	99.921	3	99.886	8	99.743
PSM	PORTSMOUTH INTL AT PEASE	NH	LPV200	4	99.911	3	99.870	7	99.708
47N	CENTRAL JERSEY RGNL	NJ	LP	0	100	1	99.995	4	99.972
4N1	GREENWOOD LAKE	NJ	LP	0	100	1	99.994	6	99.943
ACY	ATLANTIC CITY INTL	NJ	LPV200	0	100	1	99.999	2	99.978
CDW	ESSEX COUNTY	NJ	LPV	0	100	1	99.994	4	99.954
EWR	NEWARK LIBERTY INTL	NJ	LPV200	0	100	1	99.995	4	99.965

Airport	Airport Name	State/ Province	Service	LP Outages	LP Avail (%)	LPV Outages	LPV Avail (%)	LPV200 Outages	LPV200 Avail (%)
MIV	MILLVILLE MUNICIPAL	NJ	LPV200	0	100	1	99.999	2	99.980
MJX	OCEAN COUNTY	NJ	LPV	0	100	1	99.997	2	99.977
MMU	MORRISTOWN MUNICIPAL	NJ	LPV200	0	100	1	99.994	4	99.958
N12	LAKEWOOD	NJ	LP	0	100	1	99.997	2	99.977
N14	FLYING W	NJ	LPV	0	100	1	99.998	2	99.979
N40	SKY MANOR	NJ	LP	0	100	1	99.995	3	99.973
TEB	TETERBORO	NJ	LPV	0	100	1	99.994	6	99.953
TTN	TRENTON MERCER	NJ	LPV	0	100	1	99.996	2	99.979
VAY	SOUTH JERSEY RGNL	NJ	LP	0	100	1	99.998	2	99.979
WWD	CAPE MAY COUNTY	NJ	LPV	0	100	0	100	2	99.980
CVB2	VOISEY'S BAY	NL	LPV	36	98.370	41	98.319	60	97.172
CYDF	DEER LAKE	NL	LPV200	17	99.184	17	99.176	28	98.695
CYJT	STEPHENVILLE	NL	LPV	15	99.408	14	99.364	24	98.856
CYQX	GANDER INTL	NL	LPV200	20	99.098	27	99.035	104	97.803
CYWK	WABUSH	NL	LPV	18	98.985	21	98.925	40	98.422
CYYR	GOOSE BAY	NL	LPV	27	98.831	30	98.788	48	97.862
CYYT	ST. JOHN'S INTL	NL	LPV	18	99.133	28	98.968	222	95.991
CZUM	CHURCHILL FALLS	NL	LPV	23	98.870	26	98.804	42	98.107
LFVM	MIQUELON	NL	LPV	13	99.441	15	99.373	31	98.772
LFVP	ST PIERRE	NL	LPV	12	99.471	14	99.417	31	98.780
0E0	MORIARTY MUNICIPAL	NM	LPV	0	100	0	100	3	99.996
ABQ	ALBUQUERQUE INTL SUNPORT	NM	LPV200	0	100	0	100	3	99.994
AEG	DOUBLE EAGLE II	NM	LPV200	0	100	0	100	3	99.994
ALM	ALAMOGORDO-WHITE SANDS RGNL	NM	LPV	1	99.999	1	99.999	8	99.914
ATS	ARTESIA MUNICIPAL	NM	LPV200	0	100	1	99.999	5	99.929
CAO	CLAYTON MUNICIPAL AIRPARK	NM	LPV	0	100	1	99.997	1	99.978
CNM	CAVERN CITY AIR TRML	NM	LPV200	0	100	1	99.998	4	99.931
CVN	CLOVIS RGNL	NM	LPV200	0	100	0	100	4	99.991
DMN	DEMING MUNICIPAL	NM	LPV	1	99.993	1	99.993	21	99.863
E06	LEA COUNTY/ZIP FRANKLIN MEML	NM	LPV	0	100	0	100	2	99.936
FMN	FOUR CORNERS RGNL	NM	LPV200	0	100	0	100	2	99.971
HOB	LEA COUNTY RGNL	NM	LPV	0	100	1	99.999	3	99.954
LAM	LOS ALAMOS	NM	LP	0	100	0	100	2	99.989
LRU	LAS CRUCES INTL	NM	LPV200	1	99.993	2	99.992	18	99.886
ONM	SOCORRO MUNICIPAL	NM	LP	0	100	0	100	4	99.964
ROW	ROSWELL AIR CENTER	NM	LPV	0	100	0	100	3	99.932
SAF	SANTA FE MUNICIPAL	NM	LPV200	0	100	0	100	1	99.997

Airport	Airport Name	State/ Province	Service	LP Outages	LP Avail (%)	LPV Outages	LPV Avail (%)	LPV200 Outages	LPV200 Avail (%)
SRR	SIERRA BLANCA RGNL	NM	LPV200	0	100	0	100	5	99.924
SVC	GRANT COUNTY	NM	LPV	1	99.993	1	99.993	21	99.873
CCQ3	DEBERT	NS	LPV	7	99.647	7	99.617	10	99.440
CYHZ	STANFIELD INTL	NS	LPV200	6	99.661	6	99.630	11	99.464
CYQI	YARMOUTH	NS	LPV	6	99.784	5	99.679	7	99.556
CYQY	J.A. DOUGLAS MCCURDY	NS	LPV200	5	99.581	5	99.563	13	99.305
CYTN	TRENTON	NS	LPV	5	99.592	5	99.577	9	99.364
CYZX	GREENWOOD	NS	LP	7	99.694	6	99.648	9	99.506
CDK2	DIAVIK	NT	LPV	10	99.503	19	99.256	67	97.725
CEU9	SAMBAA K'E	NT	LPV	8	99.693	9	99.621	29	99.163
CGK2	GAHCHO KUE	NT	LPV	10	99.436	16	99.246	55	97.877
CSK6	SNAP LAKE	NT	LPV	9	99.489	14	99.279	53	97.957
CYEV	INUVIK (MIKE ZUBKO)	NT	LPV	10	99.533	12	99.427	36	98.962
CYFR	FORT RESOLUTION	NT	LPV	12	99.559	12	99.382	38	98.788
CYFS	FORT SIMPSON	NT	LPV	9	99.682	10	99.589	30	99.069
CYGH	FORT GOOD HOPE	NT	LPV	11	99.603	13	99.520	35	98.893
CYHY	MERLYN CARTER AIRPORT	NT	LPV	11	99.583	12	99.450	37	99.005
CYJP	FORT PROVIDENCE	NT	LPV	8	99.635	11	99.490	35	99.020
CYKD	FREDDIE CARMICHAEL	NT	LPV	10	99.534	12	99.435	34	99.027
CYOA	EKATI	NT	LPV	10	99.522	19	99.265	70	97.711
CYOC	OLD CROW	NT	LPV	9	99.592	9	99.498	21	99.223
CYPC	PAULATUK (NORA ALIQATCHIALUK RUBEN)	NT	LPV	8	99.511	17	99.354	55	98.186
CYSM	FORT SMITH	NT	LPV	14	99.548	10	99.390	34	98.892
CYSY	SACHS HARBOUR (DAVID NASOGALUAK JR. SAARYUAQ)	NT	LPV	9	99.451	24	99.195	83	97.547
CYUB	JAMES GRUBEN	NT	LPV	10	99.490	12	99.401	40	98.741
CYVQ	NORMAN WELLS	NT	LPV	7	99.624	11	99.533	37	98.908
CYWJ	DELINE	NT	LPV	6	99.618	12	99.547	39	98.690
CYZF	YELLOWKNIFE	NT	LPV200	9	99.601	11	99.395	40	98.636
CZFM	FORT MCPHERSON	NT	LPV	12	99.580	13	99.463	30	99.114
CZFN	TULITA	NT	LPV	7	99.629	9	99.538	34	98.942
CMB2	MEADOWBANK	NU	LPV	21	98.684	46	98.120	127	94.957
CMR2	MARY RIVER	NU	LPV	370	94.418	524	89.033	987	64.193
CYBK	BAKER LAKE	NU	LPV	20	98.679	39	98.216	119	95.351
CYCS	CHESTERFIELD INLET	NU	LPV	25	98.524	40	97.961	120	95.026
CYEK	ARVIAT	NU	LPV	18	98.842	29	98.506	87	96.691
CYFB	IQALUIT	NU	LPV200	60	97.498	83	96.765	263	92.779

Airport	Airport Name	State/ Province	Service	LP Outages	LP Avail (%)	LPV Outages	LPV Avail (%)	LPV200 Outages	LPV200 Avail (%)
CYRB	RESOLUTE BAY	NU	LPV	130	97.206	285	92.927	1234	62.470
CYRT	RANKIN INLET	NU	LPV	25	98.607	37	98.108	104	95.488
CYSK	SANIKILUAQ	NU	LPV	24	98.736	35	98.444	56	97.504
CYTE	KINNGAIT AIRPORT	NU	LPV	45	97.719	62	97.135	156	93.705
CYYH	TALOYOAK	NU	LPV	41	98.399	74	97.324	195	91.870
05U	EUREKA	NV	LP	0	100	1	99.990	2	99.959
10U	OWYHEE	NV	LPV200	1	99.974	3	99.970	3	99.939
67L	MESQUITE	NV	LP	0	100	0	100	1	99.988
BAM	BATTLE MOUNTAIN	NV	LPV	1	99.983	1	99.975	3	99.945
BVU	BOULDER CITY MUNICIPAL	NV	LP	0	100	0	100	2	99.987
CXP	CARSON CITY	NV	LP	0	100	0	100	4	99.960
ELY	ELY/YELLAND FLD	NV	LPV	0	100	1	99.999	2	99.965
HTH	HAWTHORNE INDUSTRIAL	NV	LP	0	100	0	100	2	99.981
LAS	HARRY REID INTL	NV	LPV200	0	100	0	100	2	99.989
LOL	DERBY FLD	NV	LPV	0	100	1	99.981	3	99.944
RNO	RENO/TAHOE INTL	NV	LPV	0	100	0	100	4	99.955
RTS	RENO/STEAD	NV	LPV	0	100	0	100	4	99.945
SPZ	SILVER SPRINGS	NV	LPV	0	100	0	100	3	99.957
TPH	TONOPAH	NV	LP	0	100	0	100	3	99.987
VGT	NORTH LAS VEGAS	NV	LP	0	100	0	100	2	99.989
WMC	WINNEMUCCA MUNICIPAL	NV	LPV	1	99.983	1	99.975	3	99.940
06N	RANDALL	NY	LP	0	100	1	99.993	5	99.924
0G7	FINGER LAKES RGNL	NY	LPV	1	99.967	2	99.956	6	99.902
1B1	COLUMBIA COUNTY	NY	LPV	1	99.995	4	99.955	8	99.848
20N	KINGSTON-ULSTER	NY	LPV	1	99.998	2	99.970	7	99.877
44N	SKY ACRES	NY	LPV	0	100	2	99.971	7	99.878
4B6	TICONDEROGA MUNICIPAL	NY	LPV	3	99.940	4	99.904	6	99.763
5B2	SARATOGA COUNTY	NY	LPV	2	99.961	4	99.921	8	99.823
5G0	LE ROY	NY	LP	1	99.967	1	99.967	5	99.908
9G0	BUFFALO AIRFIELD	NY	LP	1	99.967	1	99.967	5	99.939
9G3	AKRON/JESSON FLD	NY	LP	1	99.967	1	99.967	6	99.932
ALB	ALBANY INTL	NY	LPV200	2	99.984	4	99.944	8	99.825
ART	WATERTOWN INTL	NY	LPV200	2	99.943	2	99.935	6	99.796
BGM	GREATER BINGHAMTON/EDWIN A LIN	NY	LPV200	1	99.997	2	99.978	5	99.925
BUF	BUFFALO NIAGARA INTL	NY	LPV200	1	99.967	1	99.967	6	99.936
ELM	ELMIRA/CORNING RGNL	NY	LPV200	1	99.998	1	99.994	5	99.942
ELZ	WELLSVILLE MUNICIPAL/TARANTINE FLD	NY	LPV200	1	99.998	1	99.994	4	99.969

Airport	Airport Name	State/ Province	Service	LP Outages	LP Avail (%)	LPV Outages	LPV Avail (%)	LPV200 Outages	LPV200 Avail (%)
FOK	FRANCIS S GABRESKI	NY	LPV200	0	100	2	99.989	5	99.890
FRG	REPUBLIC	NY	LPV200	0	100	2	99.993	6	99.938
FZY	OSWEGO COUNTY	NY	LPV	1	99.967	2	99.941	7	99.854
GFL	FLOYD BENNETT MEML	NY	LPV200	2	99.946	4	99.920	7	99.783
GVQ	GENESEE COUNTY	NY	LPV200	1	99.967	1	99.967	5	99.931
HPN	WESTCHESTER COUNTY	NY	LPV	0	100	2	99.992	6	99.920
HTF	HORNELL MUNICIPAL	NY	LPV	2	99.995	2	99.993	4	99.931
HTO	EAST HAMPTON	NY	LPV	0	100	2	99.989	5	99.875
HWV	BROOKHAVEN	NY	LPV	0	100	2	99.991	6	99.907
IAG	NIAGARA FALLS INTL	NY	LPV	1	99.968	1	99.967	5	99.917
ISP	LONG ISLAND MAC ARTHUR	NY	LPV200	0	100	2	99.992	6	99.915
ITH	ITHACA TOMPKINS INTL	NY	LPV	1	99.995	3	99.981	5	99.917
IUA	CANANDAIGUA	NY	LPV	1	99.967	1	99.967	5	99.906
JFK	JOHN F KENNEDY INTL	NY	LPV200	0	100	1	99.995	6	99.962
JHW	CHAUTAUQUA COUNTY/JAMESTOWN	NY	LPV200	1	99.999	1	99.995	4	99.976
K09	PISECO	NY	LP	2	99.946	3	99.929	7	99.794
LGA	LAGUARDIA	NY	LPV	0	100	1	99.994	6	99.954
MAL	MALONE-DUFORT	NY	LPV	4	99.910	5	99.895	6	99.732
MGJ	ORANGE COUNTY	NY	LPV	0	100	2	99.982	8	99.918
MSS	MASSENA INTL-RICHARDS FLD	NY	LPV	4	99.915	6	99.907	6	99.736
MSV	SULLIVAN COUNTY INTL	NY	LPV	0	100	2	99.979	6	99.937
N23	SIDNEY MUNICIPAL	NY	LP	1	99.995	2	99.968	7	99.906
N66	ALBERT S NADER RGNL	NY	LPV	1	99.995	2	99.967	8	99.884
NY0	FULTON COUNTY	NY	LPV	2	99.963	3	99.929	8	99.835
OGS	OGDENSBURG INTL	NY	LPV	3	99.925	5	99.913	6	99.757
OIC	LT WARREN EATON	NY	LP	1	99.989	2	99.964	7	99.898
OLE	CATTARAUGUS COUNTY-OLEAN	NY	LPV	1	99.998	1	99.994	4	99.971
PBG	PLATTSBURGH INTL	NY	LPV	3	99.910	5	99.899	7	99.721
PEO	PENN YAN	NY	LPV	2	99.984	2	99.984	5	99.919
POU	HUDSON VALLEY RGNL	NY	LPV	0	100	3	99.971	7	99.885
RME	GRIFFISS INTL	NY	LPV200	1	99.967	2	99.938	8	99.850
ROC	FREDERICK DOUGLASS/GREATER ROC	NY	LPV200	1	99.967	1	99.967	5	99.893
SCH	SCHENECTADY COUNTY	NY	LPV200	2	99.962	4	99.923	8	99.827
SDC	WILLIAMSON-SODUS	NY	LPV	1	99.967	2	99.961	6	99.886
SLK	ADIRONDACK RGNL	NY	LPV200	3	99.924	4	99.913	6	99.749
SWF	NEW YORK STEWART INTL	NY	LPV200	0	100	2	99.974	7	99.901
SYR	SYRACUSE HANCOCK INTL	NY	LPV200	1	99.967	2	99.941	8	99.884

Airport	Airport Name	State/ Province	Service	LP Outages	LP Avail (%)	LPV Outages	LPV Avail (%)	LPV200 Outages	LPV200 Avail (%)
VGC	HAMILTON MUNICIPAL	NY	LPV	1	99.967	2	99.943	9	99.893
0G6	WILLIAMS COUNTY	OH	LPV	1	99.993	2	99.991	2	99.963
10G	HOLMES COUNTY	OH	LP	0	100	1	99.999	1	99.983
16G	SENECA COUNTY	OH	LPV	0	100	1	99.999	2	99.982
17G	PORT BUCYRUS-CRAWFORD COUNTY	OH	LP	0	100	1	99.999	1	99.982
1G0	WOOD COUNTY	OH	LPV	1	99.995	2	99.991	1	99.968
1G3	KENT STATE UNIVERSITY	OH	LPV	0	100	1	99.998	1	99.981
2G2	GEARY A BATES/JEFFERSON COUNTY	OH	LPV	0	100	1	99.999	1	99.989
4G5	MONROE COUNTY	OH	LP	0	100	0	100	1	99.993
4I3	KNOX COUNTY	OH	LPV200	0	100	0	100	1	99.989
5A1	NORWALK-HURON COUNTY	OH	LP	0	100	1	99.998	2	99.981
6G5	BARNESVILLE-BRADFIELD	OH	LP	0	100	0	100	1	99.993
7G8	GEAUGA COUNTY	OH	LP	0	100	1	99.997	1	99.981
AKR	AKRON FULTON INTL	OH	LP	0	100	1	99.998	1	99.982
AOH	LIMA ALLEN COUNTY	OH	LPV200	0	100	0	100	1	99.985
AXV	NEIL ARMSTRONG	OH	LPV	0	100	0	100	1	99.985
BJJ	WAYNE COUNTY	OH	LPV	0	100	1	99.999	1	99.981
BKL	BURKE LAKEFRONT	OH	LPV	0	100	1	99.995	1	99.981
CAK	AKRON-CANTON RGNL	OH	LPV200	0	100	1	99.998	1	99.982
CDI	CAMBRIDGE MUNICIPAL	OH	LP	0	100	0	100	1	99.993
CGF	CUYAHOGA COUNTY	OH	LPV200	0	100	1	99.995	1	99.981
CLE	CLEVELAND-HOPKINS INTL	OH	LPV200	0	100	1	99.998	1	99.981
CMH	JOHN GLENN COLUMBUS INTL	OH	LPV200	0	100	0	100	1	99.994
CQA	LAKEFIELD	OH	LPV	0	100	0	100	1	99.985
CYO	PICKAWAY COUNTY MEML	OH	LPV	0	100	0	100	1	99.994
DAY	JAMES M COX DAYTON INTL	OH	LPV200	0	100	0	100	1	99.997
DLZ	DELAWARE MUNICIPAL/JIM MOORE FLD	OH	LPV	0	100	0	100	1	99.990
EDJ	BELLEFONTAINE RGNL	OH	LPV	0	100	0	100	1	99.987
EOP	PIKE COUNTY	OH	LP	0	100	0	100	1	99.995
FDY	FINDLAY	OH	LPV	0	100	0	100	2	99.983
FZI	FOSTORIA METRO	OH	LPV	0	100	1	99.999	2	99.981
GQQ	GALION MUNICIPAL	OH	LP	0	100	1	99.999	1	99.982
HAO	BUTLER COUNTY RGNL/HOGAN FLD	OH	LPV	0	100	0	100	1	99.998
HOC	HIGHLAND COUNTY	OH	LP	0	100	0	100	1	99.996
HZY	NORTHEAST OHIO RGNL	OH	LPV	0	100	1	99.995	2	99.981
I10	NOBLE COUNTY	OH	LP	0	100	0	100	1	99.993
I19	GREENE COUNTY/LEWIS A JACKSON	OH	LPV	0	100	0	100	1	99.996

Airport	Airport Name	State/ Province	Service	LP Outages	LP Avail (%)	LPV Outages	LPV Avail (%)	LPV200 Outages	LPV200 Avail (%)
I40	RICHARD DOWNING	OH	LPV	0	100	1	99.999	1	99.989
I66	CLINTON FLD	OH	LPV	0	100	0	100	1	99.996
I68	WARREN COUNTY/JOHN LANE FLD	OH	LPV	0	100	0	100	1	99.997
I69	CLERMONT COUNTY	OH	LP	0	100	0	100	1	99.998
I74	GRIMES FLD	OH	LPV	0	100	0	100	1	99.994
ILN	WILMINGTON AIR PARK	OH	LPV200	0	100	0	100	1	99.996
LCK	RICKENBACKER INTL	OH	LPV200	0	100	0	100	1	99.994
LHQ	FAIRFIELD COUNTY	OH	LPV200	0	100	0	100	1	99.993
LNN	LAKE COUNTY EXEC	OH	LPV	0	100	1	99.995	1	99.981
LPR	LORAIN COUNTY RGNL	OH	LPV200	0	100	1	99.998	1	99.981
LUK	CINCINNATI MUNICIPAL/LUNKEN FLD	OH	LPV	0	100	0	100	1	99.998
MFD	MANSFIELD LAHM RGNL	OH	LPV200	0	100	1	99.999	1	99.981
MGY	DAYTON-WRIGHT BROTHERS	OH	LPV	0	100	0	100	1	99.997
MNN	MARION MUNICIPAL	OH	LPV	0	100	0	100	1	99.983
MRT	UNION COUNTY	OH	LP	0	100	0	100	1	99.992
MWO	MIDDLETOWN RGNL/HOOK FLD	OH	LPV	0	100	0	100	1	99.997
OSU	OHIO STATE UNIVERSITY	OH	LPV200	0	100	0	100	1	99.994
OWX	PUTNAM COUNTY	OH	LPV	0	100	0	100	2	99.983
OXD	MIAMI UNIVERSITY	OH	LPV	0	100	0	100	1	99.994
PCW	ERIE-OTTAWA INTL	OH	LPV	1	99.996	2	99.991	1	99.967
PHD	HARRY CLEVER FLD	OH	LP	0	100	1	99.999	1	99.989
PMH	GREATER PORTSMOUTH RGNL	OH	LPV	0	100	0	100	1	99.998
POV	PORTAGE COUNTY	OH	LPV	0	100	1	99.998	1	99.981
RZT	ROSS COUNTY	OH	LPV	0	100	0	100	1	99.994
S24	SANDUSKY COUNTY RGNL	OH	LPV	0	100	1	99.998	2	99.980
SCA	SIDNEY MUNICIPAL	OH	LPV	0	100	0	100	1	99.992
SGH	SPRINGFIELD/BECKLEY MUNICIPAL	OH	LPV200	0	100	0	100	1	99.996
TDZ	TOLEDO EXEC	OH	LPV	1	99.994	2	99.989	2	99.961
TOL	EUGENE F KRANZ TOLEDO EXPRESS	OH	LPV200	1	99.994	2	99.989	2	99.955
TSO	CARROLL COUNTY-TOLSON	OH	LP	0	100	1	99.999	1	99.984
TZR	BOLTON FLD	OH	LPV	0	100	0	100	1	99.994
UNI	OHIO UNIVERSITY	OH	LPV200	0	100	0	100	1	99.993
USE	FULTON COUNTY	OH	LPV	1	99.993	2	99.992	2	99.955
UYF	MADISON COUNTY	OH	LPV	0	100	0	100	1	99.995
VES	DARKE COUNTY	OH	LPV	0	100	0	100	1	99.986
VTA	NEWARK-HEATH	OH	LP	0	100	0	100	1	99.993
YNG	YOUNGSTOWN/WARREN RGNL	OH	LPV	0	100	1	99.997	1	99.981

Airport	Airport Name	State/ Province	Service	LP Outages	LP Avail (%)	LPV Outages	LPV Avail (%)	LPV200 Outages	LPV200 Avail (%)
ZZV	ZANESVILLE MUNICIPAL	OH	LPV200	0	100	0	100	1	99.993
1F0	ARDMORE DOWNTOWN EXEC	OK	LP	0	100	0	100	0	100
1K8	SOUTH GRAND LAKE RGNL	OK	LPV	0	100	0	100	2	99.990
1O4	THOMAS MUNICIPAL	OK	LPV	0	100	1	99.999	2	99.975
2K4	SCOTT FLD	OK	LPV	0	100	0	100	2	99.989
3F7	JONES MEML	OK	LPV	0	100	0	100	1	99.982
4O4	MC CURTAIN COUNTY RGNL	OK	LP	0	100	0	100	0	100
6K4	FAIRVIEW MUNICIPAL	OK	LPV	0	100	1	99.992	2	99.975
80F	ANTLERS MUNICIPAL	OK	LPV	0	100	0	100	0	100
ADH	ADA RGNL	OK	LPV	0	100	0	100	0	100
ADM	ARDMORE MUNICIPAL	OK	LPV	0	100	0	100	0	100
AVK	ALVA RGNL	OK	LPV	0	100	1	99.989	2	99.972
AXS	ALTUS/QUARTZ MOUNTAIN RGNL	OK	LPV	0	100	0	100	2	99.995
BKN	BLACKWELL-TONKAWA MUNICIPAL	OK	LPV	0	100	1	99.990	2	99.971
BVO	BARTLESVILLE MUNICIPAL	OK	LPV	0	100	0	100	2	99.971
CHK	CHICKASHA MUNICIPAL	OK	LPV200	0	100	0	100	1	99.983
CLK	CLINTON RGNL	OK	LPV	0	100	0	100	2	99.976
CSM	CLINTON/SHERMAN	OK	LPV200	0	100	0	100	2	99.975
CUH	CUSHING MUNICIPAL	OK	LPV	0	100	0	100	2	99.978
DUA	DURANT RGNL/EAKER FLD	OK	LPV	0	100	0	100	0	100
DUC	HALLIBURTON FLD	OK	LPV200	0	100	0	100	0	100
ELK	ELK CITY RGNL BUSINESS	OK	LPV	0	100	0	100	2	99.975
F22	PERRY MUNICIPAL	OK	LPV	0	100	1	99.997	2	99.972
FDR	FREDERICK RGNL	OK	LPV200	0	100	0	100	1	99.999
GCM	CLAREMORE RGNL	OK	LPV	0	100	0	100	2	99.975
GMJ	GROVE MUNICIPAL	OK	LPV	0	100	0	100	2	99.990
GOK	GUTHRIE/EDMOND RGNL	OK	LPV	0	100	0	100	2	99.975
GUY	GUYMON MUNICIPAL	OK	LPV	0	100	1	99.992	3	99.976
GZL	STIGLER RGNL	OK	LPV	0	100	0	100	1	99.997
H71	MID-AMERICA INDUSTRIAL	OK	LPV	0	100	0	100	2	99.987
HBR	HOBART RGNL	OK	LPV	0	100	0	100	2	99.991
HHW	STAN STAMPER MUNICIPAL	OK	LPV	0	100	0	100	0	100
HSD	SUNDANCE	OK	LPV	0	100	0	100	2	99.977
LAW	LAWTON-FORT SILL RGNL	OK	LPV200	0	100	0	100	0	100
MKO	MUSKOGEE-DAVIS RGNL	OK	LPV	0	100	0	100	1	99.997
MLC	MC ALESTER RGNL	OK	LPV	0	100	0	100	0	100
OJA	WEATHERFORD STAFFORD	OK	LPV	0	100	0	100	2	99.976

Airport	Airport Name	State/ Province	Service	LP Outages	LP Avail (%)	LPV Outages	LPV Avail (%)	LPV200 Outages	LPV200 Avail (%)
OKC	WILL ROGERS WORLD	OK	LPV200	0	100	0	100	1	99.980
OKM	OKMULGEE RGNL	OK	LPV200	0	100	0	100	1	99.985
OUN	UNIVERSITY OF OKLAHOMA WESTHEI	OK	LPV200	0	100	0	100	1	99.982
OWP	WILLIAM R POGUE MUNICIPAL	OK	LPV	0	100	0	100	2	99.978
PNC	PONCA CITY RGNL	OK	LPV	0	100	1	99.990	2	99.971
PVJ	PAULS VALLEY MUNICIPAL	OK	LPV200	0	100	0	100	0	100
PWA	WILEY POST	OK	LPV200	0	100	0	100	2	99.978
RCE	CLARENCE E PAGE MUNICIPAL	OK	LPV	0	100	0	100	2	99.978
RKR	ROBERT S KERR	OK	LPV	0	100	0	100	0	100
RQO	EL RENO RGNL	OK	LPV	0	100	0	100	2	99.978
RVS	TULSA RIVERSIDE	OK	LPV200	0	100	0	100	1	99.980
SNL	SHAWNEE RGNL	OK	LPV200	0	100	0	100	1	99.982
SWO	STILLWATER RGNL	OK	LPV200	0	100	1	99.997	2	99.975
TQH	TAHLEQUAH MUNICIPAL	OK	LPV	0	100	0	100	1	99.997
TUL	TULSA INTL	OK	LPV200	0	100	0	100	2	99.978
WDG	ENID WOODRING RGNL	OK	LPV200	0	100	1	99.992	2	99.972
WWR	WEST WOODWARD	OK	LPV	0	100	1	99.997	2	99.972
C&V8	EDENVALE	ON	LPV	2	99.959	2	99.955	9	99.882
CNY3	COLLINGWOOD	ON	LPV	2	99.958	2	99.955	9	99.886
CYAC	CAT LAKE	ON	LPV	9	99.425	9	99.385	14	99.164
CYAM	SAULT STE. MARIE	ON	LPV200	6	99.823	8	99.795	13	99.609
CYCC	CORNWALL REGIONAL	ON	LPV	4	99.912	6	99.901	6	99.729
CYCK	CHATHAM-KENT	ON	LPV	1	99.970	1	99.967	4	99.954
CYEE	HURONIA	ON	LPV	2	99.948	2	99.946	9	99.855
CYFA	FORT ALBANY	ON	LPV	11	99.390	15	99.273	27	98.783
CYGK	KINGSTON	ON	LPV	2	99.941	2	99.937	7	99.796
CYHD	DRYDEN REGIONAL	ON	LPV	9	99.619	9	99.507	10	99.310
CYHF	HEARST (RENE FONTAINE) MUNICIPALCIPALITY	ON	LPV	8	99.628	9	99.514	14	99.306
CYHM	HAMILTON	ON	LPV	1	99.967	1	99.967	5	99.919
CYHS	SAUGEEN MUNICIPALCIPALITY	ON	LPV	1	99.967	1	99.963	6	99.913
CYKF	WATERLOO	ON	LPV200	1	99.967	1	99.963	6	99.917
CYKM	KINCARDINE	ON	LPV	1	99.967	1	99.963	6	99.885
CYKZ	BUTTONVILLE MUNICIPALCIPAL	ON	LPV	1	99.967	1	99.963	6	99.904
CYLS	LAKE SIMCOE	ON	LPV	2	99.957	2	99.953	9	99.871
CYMG	MANITOUWADGE	ON	LPV	9	99.670	9	99.539	9	99.326
CYMO	MOOSONEE	ON	LPV	10	99.470	11	99.370	20	98.965
CYOO	OSHAWA EXECUTIVE AIRPORT	ON	LPV	1	99.967	1	99.963	7	99.886

Airport	Airport Name	State/ Province	Service	LP Outages	LP Avail (%)	LPV Outages	LPV Avail (%)	LPV200 Outages	LPV200 Avail (%)
CYOS	BILLY BISHOP REGIONAL	ON	LPV	2	99.964	2	99.963	9	99.861
CYOW	MACDONALD-CARTIER INTL	ON	LPV200	4	99.908	6	99.899	8	99.748
CYPL	PICKLE LAKE	ON	LPV	8	99.412	9	99.364	15	99.139
CYPQ	PETERBOROUGH	ON	LPV	2	99.950	2	99.946	7	99.839
CYPT	PELEE ISLAND	ON	LPV	1	99.994	2	99.989	2	99.960
CYQG	WINDSOR	ON	LPV	1	99.969	1	99.967	4	99.936
CYQK	KENORA	ON	LPV	8	99.634	8	99.528	12	99.351
CYQS	ST. THOMAS MUNICIPALCIPALITY	ON	LPV	1	99.967	1	99.967	5	99.942
CYQT	THUNDER BAY	ON	LPV200	7	99.750	9	99.579	14	99.417
CYRL	RED LAKE	ON	LPV	10	99.535	10	99.441	13	99.236
CYSA	STRATFORD MUNICIPALCIPALITY	ON	LPV	1	99.967	1	99.963	6	99.918
CYSB	SUDBURY	ON	LPV	8	99.873	10	99.829	12	99.582
CYSN	NIAGARA DISTRICT	ON	LPV	1	99.967	1	99.967	5	99.919
CYTL	BIG TROUT LAKE	ON	LPV	8	99.286	10	99.238	29	98.834
CYTS	TIMMINS (VICTOR M. POWER)	ON	LPV200	8	99.731	8	99.616	13	99.406
CYTZ	BILLY BISHOP TORONTO CITY AIRPORT	ON	LPV	1	99.967	1	99.963	5	99.917
CYVV	WIARTON	ON	LPV	2	99.963	3	99.959	10	99.856
CYWP	WEBEQUIE	ON	LPV	8	99.303	11	99.239	24	98.828
CYXL	SIOUX LOOKOUT	ON	LPV	9	99.571	9	99.453	11	99.296
CYXR	EARLTON (TIMISKAMING REGIONAL)	ON	LPV	8	99.789	10	99.681	11	99.500
CYXU	LONDON	ON	LPV200	1	99.967	1	99.967	5	99.940
CYYB	NORTH BAY	ON	LPV200	4	99.892	9	99.846	11	99.614
CYYU	KAPUSKASING	ON	LPV	8	99.661	11	99.552	13	99.366
CYYW	ARMSTRONG	ON	LPV	9	99.498	10	99.438	13	99.260
CYYZ	LESTER B. PEARSON INTL	ON	LPV200	1	99.967	1	99.963	5	99.917
CYZD	DOWNSVIEW	ON	LPV	1	99.967	1	99.963	5	99.917
CYZR	SARNIA (CHRIS HADFIELD)	ON	LPV	2	99.967	2	99.967	5	99.927
CZPB	SACHIGO LAKE	ON	LP	7	99.350	9	99.295	24	98.957
3S8	GRANTS PASS	OR	LP	1	99.971	3	99.942	4	99.900
77S	HOBBY FLD	OR	LPV	2	99.967	3	99.922	2	99.864
AST	ASTORIA RGNL	OR	LPV	3	99.933	3	99.909	8	99.836
BDN	BEND MUNICIPAL	OR	LPV	2	99.950	3	99.921	3	99.867
BKE	BAKER CITY MUNICIPAL	OR	LPV	2	99.950	3	99.928	3	99.884
CVO	CORVALLIS MUNICIPAL	OR	LPV200	2	99.961	3	99.921	3	99.861
EUG	MAHLON SWEET FLD	OR	LPV200	2	99.964	3	99.921	2	99.863
GCD	GRANT COUNTY RGNL/OGILVIE FLD	OR	LPV	2	99.950	3	99.935	2	99.889
HIO	PORTLAND-HILLSBORO	OR	LPV200	3	99.942	3	99.915	7	99.864

Airport	Airport Name	State/ Province	Service	LP Outages	LP Avail (%)	LPV Outages	LPV Avail (%)	LPV200 Outages	LPV200 Avail (%)
LGD	LA GRANDE/UNION COUNTY	OR	LPV	2	99.949	3	99.918	3	99.883
LKV	LAKE COUNTY	OR	LPV	1	99.975	2	99.950	3	99.913
LMT	CRATER LAKE/KLAMATH RGNL	OR	LPV	1	99.972	3	99.948	3	99.907
MMV	MC MINNVILLE MUNICIPAL	OR	LPV	3	99.942	3	99.917	6	99.865
ONO	ONTARIO MUNICIPAL	OR	LPV	2	99.964	3	99.946	2	99.893
ONP	NEWPORT MUNICIPAL	OR	LPV	2	99.960	3	99.922	6	99.875
OTH	SOUTHWEST OREGON RGNL	OR	LPV	1	99.971	3	99.924	4	99.878
PDT	EASTERN OREGON RGNL AT PENDLET	OR	LPV200	3	99.946	3	99.912	3	99.880
PDX	PORTLAND INTL	OR	LPV200	3	99.942	3	99.911	8	99.881
RDM	ROBERTS FLD	OR	LPV200	2	99.947	3	99.921	3	99.867
S33	MADRAS MUNICIPAL	OR	LPV	2	99.946	3	99.921	3	99.864
S39	PRINEVILLE	OR	LP	2	99.949	3	99.929	3	99.867
SLE	MCNARY FLD	OR	LPV200	2	99.947	3	99.918	6	99.866
SPB	SCAPPOOSE	OR	LPV	3	99.942	3	99.910	7	99.868
UAO	AURORA STATE	OR	LPV	3	99.942	3	99.917	6	99.866
22N	JAKE ARNER MEML	PA	LP	0	100	1	99.995	3	99.966
29D	GROVE CITY	PA	LP	0	100	1	99.997	1	99.981
2G9	SOMERSET COUNTY	PA	LPV	0	100	1	99.999	1	99.992
6G1	TITUSVILLE	PA	LPV	0	100	1	99.996	1	99.981
6P7	MCVILLE	PA	LP	0	100	1	99.998	1	99.983
8G2	CORRY-LAWRENCE	PA	LPV	0	100	1	99.995	2	99.981
8N8	DANVILLE	PA	LP	0	100	1	99.995	3	99.967
9D4	DECK	PA	LPV	0	100	1	99.996	2	99.983
ABE	LEHIGH VALLEY INTL	PA	LPV200	0	100	1	99.995	3	99.973
AFJ	WASHINGTON COUNTY	PA	LPV200	0	100	1	99.999	1	99.992
AGC	ALLEGHENY COUNTY	PA	LPV200	0	100	1	99.998	1	99.989
AOO	ALTOONA/BLAIR COUNTY	PA	LPV	0	100	1	99.998	2	99.989
AVP	WILKES-BARRE/SCRANTON INTL	PA	LPV200	0	100	1	99.994	3	99.945
AXQ	CLARION COUNTY	PA	LPV	0	100	1	99.997	1	99.981
BFD	BRADFORD RGNL	PA	LPV	0	100	1	99.995	2	99.980
BTP	PITTSBURGH/BUTLER RGNL	PA	LPV	0	100	1	99.998	1	99.983
BVI	BEAVER COUNTY	PA	LPV	0	100	1	99.998	1	99.983
CXY	CAPITAL CITY	PA	LPV	0	100	1	99.997	2	99.987
DUJ	DUBOIS RGNL	PA	LPV200	0	100	1	99.997	2	99.980
ERI	ERIE INTL/TOM RIDGE FLD	PA	LPV	1	99.999	1	99.995	3	99.978
FIG	CLEARFIELD-LAWRENCE	PA	LPV	0	100	1	99.997	2	99.980
FKL	VENANGO RGNL	PA	LPV	0	100	1	99.997	1	99.981

Airport	Airport Name	State/ Province	Service	LP Outages	LP Avail (%)	LPV Outages	LPV Avail (%)	LPV200 Outages	LPV200 Avail (%)
FWQ	ROSTRAVER	PA	LPV	0	100	1	99.999	1	99.991
GKJ	PORT MEADVILLE	PA	LP	0	100	1	99.997	1	99.981
HMZ	BEDFORD COUNTY	PA	LPV	0	100	1	99.998	2	99.991
HZL	HAZLETON RGNL	PA	LPV	0	100	1	99.995	3	99.960
IDI	INDIANA COUNTY/JIMMY STEWART F	PA	LPV	0	100	1	99.998	1	99.984
IPT	WILLIAMSPORT RGNL	PA	LPV	0	100	1	99.995	3	99.955
JST	JOHN MURTHA JOHNSTOWN/CAMBRIA	PA	LPV200	0	100	1	99.998	2	99.990
LBE	ARNOLD PALMER RGNL	PA	LPV200	0	100	1	99.998	1	99.990
LNS	LANCASTER	PA	LPV200	0	100	1	99.997	2	99.983
LOM	WINGS FLD	PA	LPV	0	100	1	99.997	2	99.980
MDT	HARRISBURG INTL	PA	LPV	0	100	1	99.997	2	99.987
MPO	POCONO MOUNTAINS RGNL	PA	LPV	0	100	1	99.994	4	99.949
MQS	CHESTER COUNTY G O CARLSON	PA	LPV	0	100	1	99.997	2	99.982
N38	GRAND CANYON RGNL	PA	LP	0	100	1	99.995	3	99.947
N57	NEW GARDEN	PA	LP	0	100	1	99.998	2	99.981
N79	NORTHUMBERLAND COUNTY	PA	LPV	0	100	1	99.996	3	99.970
N96	BELLEFONTE	PA	LPV	0	100	1	99.996	2	99.981
OQN	BRANDYWINE RGNL	PA	LP	0	100	1	99.998	2	99.981
OYM	ST MARYS MUNICIPAL	PA	LPV	0	100	1	99.996	2	99.980
PHL	PHILADELPHIA INTL	PA	LPV200	0	100	1	99.998	2	99.980
PIT	PITTSBURGH INTL	PA	LPV200	0	100	1	99.998	1	99.989
PNE	NORTHEAST PHILADELPHIA	PA	LPV200	0	100	1	99.997	2	99.979
PSB	MID-STATE	PA	LPV	0	100	1	99.997	2	99.980
PTW	HERITAGE FLD	PA	LPV	0	100	1	99.997	2	99.981
RDG	READING RGNL/CARL A SPAATZ FLD	PA	LPV	0	100	1	99.996	2	99.981
RVL	MIFFLIN COUNTY	PA	LPV	0	100	1	99.997	2	99.986
SEG	PENN VALLEY	PA	LP	0	100	1	99.996	3	99.975
THV	YORK	PA	LP	0	100	1	99.998	2	99.983
UCP	NEW CASTLE MUNICIPAL	PA	LPV	0	100	1	99.998	1	99.981
UKT	QUAKERTOWN	PA	LP	0	100	1	99.996	2	99.980
UNV	UNIVERSITY PARK	PA	LPV200	0	100	1	99.997	2	99.981
VVS	JOSEPH A HARDY CONNELLSVILLE	PA	LPV	0	100	1	99.999	1	99.992
WAY	GREENE COUNTY	PA	LPV	0	100	0	100	1	99.993
WBW	WILKES-BARRE WYOMING VALLEY	PA	LPV	0	100	1	99.994	3	99.947
XLL	ALLENTOWN QUEEN CITY MUNICIPAL	PA	LP	0	100	1	99.995	3	99.975
ZER	SCHUYLKILL COUNTY/JOE ZERBEY	PA	LPV200	0	100	1	99.996	3	99.980
CYYG	CHARLOTTETOWN	PE	LPV	5	99.603	5	99.575	7	99.350

Airport	Airport Name	State/ Province	Service	LP Outages	LP Avail (%)	LPV Outages	LPV Avail (%)	LPV200 Outages	LPV200 Avail (%)
CEL8	ELEONORE	QC	LPV	19	99.303	16	99.134	38	98.604
CFX5	RENARD	QC	LPV	16	99.155	19	99.050	36	98.484
CSC3	DRUMMONDVILLE	QC	LPV	4	99.852	5	99.806	9	99.630
CSD4	MONT-LAURIER	QC	LPV	4	99.838	7	99.794	10	99.566
CSF3	POSTE MONTAGNAIS (MILE 134)	QC	LPV	19	99.149	19	99.079	30	98.666
CSH4	LEBEL-SUR-QUEVILLON	QC	LPV	7	99.684	9	99.584	12	99.403
CSR3	VICTORIAVILLE (ANDRE-FORTIN)	QC	LPV	6	99.836	6	99.778	12	99.605
CSU2	CHISASIBI	QC	LPV	20	99.210	23	98.988	45	98.333
CTP9	DONALDSON	QC	LPV	44	97.942	53	97.625	108	95.264
CTT5	LA ROMAINE	QC	LPV	17	99.262	17	99.244	28	98.769
CTU2	FONTANGES	QC	LPV	29	98.842	29	98.742	50	97.903
CYAD	LA GRANDE-3	QC	LPV	18	99.158	18	99.038	47	98.361
CYAH	LA GRANDE-4	QC	LPV	20	99.005	23	98.917	46	98.235
CYAS	KANGIRSUK	QC	LPV	37	98.087	44	97.860	103	95.970
CYBC	BAIE-COMEAU	QC	LPV200	6	99.602	7	99.568	12	99.359
CYBG	BAGOTVILLE	QC	LPV200	6	99.709	6	99.646	10	99.401
CYBX	LOURDES-DE-BLANC-SABLON	QC	LPV	24	98.876	28	98.831	50	97.777
CYFY	MAGNY	QC	LPV	7	99.724	10	99.624	12	99.436
CYFJ	MONT-TREMBLANT	QC	LPV	3	99.852	6	99.805	11	99.593
CYGL	LA GRANDE RIVIERE	QC	LPV	21	99.208	22	99.026	43	98.316
CYGP	GASPE (MICHEL-POULIOT)	QC	LPV	7	99.609	7	99.559	14	99.344
CYGR	ILES-DE-LA-MADELEINE	QC	LPV	5	99.578	5	99.559	14	99.321
CYGV	HAVRE ST-PIERRE	QC	LPV	17	99.514	17	99.447	20	99.075
CYGW	KUUIJUAPIK	QC	LPV	19	98.903	28	98.758	53	97.845
CYHA	QUAQTAQ	QC	LPV	38	97.985	46	97.699	110	95.512
CYHH	NEMISCAU	QC	LPV	13	99.452	16	99.349	31	98.881
CYHR	CHEVERY	QC	LPV	18	99.165	17	99.132	29	98.633
CYHU	ST-HUBERT	QC	LPV	3	99.873	5	99.844	8	99.681
CYIF	ST-AUGUSTIN	QC	LPV	21	99.027	22	98.998	40	98.379
CYIK	IVUJIVIK	QC	LPV	35	97.924	46	97.478	123	94.715
CYKG	KANGIJSUJUAQ (WAKEHAM BAY)	QC	LPV	43	97.955	56	97.666	111	95.288
CYKL	SCHEFFERVILLE	QC	LPV	28	98.679	28	98.643	45	97.780
CYKO	AKULIVIK	QC	LPV	33	98.051	40	97.708	118	95.539
CYKQ	WASKAGANISH	QC	LPV	10	99.467	12	99.346	21	98.902
CYLA	AUPALUK	QC	LPV	32	98.126	39	97.935	96	96.300
CYLQ	LA TUQUE	QC	LPV	5	99.773	8	99.744	12	99.521
CYLU	KANGIJSUALUJUAQ (GEORGES RIVER)	QC	LPV	31	98.111	39	97.909	99	96.234

Airport	Airport Name	State/ Province	Service	LP Outages	LP Avail (%)	LPV Outages	LPV Avail (%)	LPV200 Outages	LPV200 Avail (%)
CYME	RUSSELL-BURNETT	QC	LPV	6	99.606	7	99.571	13	99.376
CYMT	CHAPAIS	QC	LPV	7	99.647	9	99.562	13	99.330
CYMU	UMIUJQAQ	QC	LPV	29	98.667	33	98.373	55	97.397
CYMW	MANIWAKI	QC	LPV	4	99.876	6	99.833	10	99.617
CYMX	MONTREAL INTL (MIRABEL)	QC	LPV200	3	99.870	6	99.838	8	99.673
CYNA	NATASHQUAN	QC	LPV	17	99.419	17	99.396	22	99.041
CYNC	WEMINDJI	QC	LPV	14	99.328	18	99.116	35	98.519
CYND	GATINEAU	QC	LPV	4	99.893	6	99.878	9	99.733
CYNM	MATAGAMI	QC	LPV	10	99.624	10	99.513	18	99.360
CYPH	INUKJUAQ	QC	LPV	34	98.265	36	98.054	82	96.767
CYPN	PORT-MENIER	QC	LPV	13	99.570	12	99.516	22	99.209
CYPX	PUVIRNITUQ	QC	LPV	36	98.147	39	97.842	115	95.892
CYQB	JEAN LESAGE INTL	QC	LPV200	5	99.776	7	99.757	11	99.524
CYRI	RIVIERE-DU-LOUP	QC	LPV	8	99.700	8	99.645	9	99.405
CYRJ	ROBERVAL	QC	LPV	6	99.733	7	99.692	10	99.402
CYRQ	TROIS-RIVIERES	QC	LPV200	5	99.811	6	99.777	11	99.595
CYSC	SHERBROOKE	QC	LPV	4	99.870	5	99.831	7	99.652
CYSG	ST-GEORGES	QC	LPV	6	99.805	7	99.781	10	99.568
CYTF	ALMA	QC	LPV	6	99.736	9	99.684	9	99.390
CYTQ	TASIUJQAQ	QC	LPV	36	98.217	38	97.981	89	96.554
CYUL	PIERRE-ELLIOTT-TRUDEAU INTL	QC	LPV200	4	99.889	5	99.847	7	99.683
CYUY	ROUYN-NORANDA	QC	LPV200	7	99.733	9	99.643	11	99.455
CYVB	BONAVENTURE	QC	LPV	6	99.614	5	99.578	11	99.393
CYVO	VAL-DOR	QC	LPV200	6	99.757	9	99.644	11	99.462
CYVP	KUUIJUAQ	QC	LPV200	31	98.161	33	98.003	79	96.794
CYYY	MONT-JOLI	QC	LPV	7	99.624	6	99.586	11	99.402
CYZG	SALLUIT	QC	LPV	39	97.912	52	97.504	115	94.914
CYZV	SEPT-ILES	QC	LPV200	13	99.555	14	99.490	17	99.202
BID	BLOCK ISLAND STATE	RI	LPV	0	100	4	99.986	7	99.826
OQU	QUONSET STATE	RI	LPV200	1	99.999	5	99.947	7	99.786
PVD	RHODE ISLAND TF GREEN INTL	RI	LPV200	1	99.999	4	99.929	7	99.786
SFZ	NORTH CENTRAL STATE	RI	LPV	3	99.994	4	99.928	7	99.784
35A	UNION COUNTY' TROY SHELTON FLD	SC	LP	0	100	0	100	0	100
6J0	LEXINGTON COUNTY	SC	LPV	1	99.998	1	99.998	1	99.998
AIK	AIKEN RGNL	SC	LPV200	1	99.997	1	99.997	1	99.997
AND	ANDERSON RGNL	SC	LPV200	0	100	0	100	0	100
AQX	ALLENDAL COUNTY	SC	LPV	1	99.971	1	99.971	1	99.971

Airport	Airport Name	State/ Province	Service	LP Outages	LP Avail (%)	LPV Outages	LPV Avail (%)	LPV200 Outages	LPV200 Avail (%)
ARW	BEAUFORT EXEC	SC	LPV200	1	99.971	1	99.971	1	99.971
BBP	MARLBORO COUNTY JETPORT - H E	SC	LPV	0	100	0	100	0	100
BNL	BARNWELL RGNL	SC	LPV	1	99.986	1	99.986	1	99.986
CAE	COLUMBIA METRO	SC	LPV200	1	99.998	1	99.998	1	99.998
CDN	WOODWARD FLD	SC	LPV	0	100	0	100	0	100
CEU	OCONEE COUNTY RGNL	SC	LPV200	0	100	0	100	0	100
CHS	CHARLESTON AFB/INTL	SC	LPV200	1	99.976	1	99.976	1	99.971
CKI	WILLIAMSBURG RGNL	SC	LPV	0	100	0	100	0	100
CQW	CHERAW MUNICIPAL/LYNCH BELLINGER FL	SC	LPV	0	100	0	100	0	100
CRE	GRAND STRAND	SC	LPV200	0	100	0	100	0	100
CUB	JIM HAMILTON L B OWENS	SC	LPV	1	99.998	1	99.998	1	99.998
DCM	CHESTER CATAWBA RGNL	SC	LPV	0	100	0	100	0	100
DYB	SUMMERVILLE	SC	LPV200	1	99.979	1	99.979	1	99.971
FDW	FAIRFIELD COUNTY	SC	LPV	0	100	0	100	0	100
FLO	FLORENCE RGNL	SC	LPV	0	100	0	100	0	100
GGE	GEORGETOWN COUNTY	SC	LPV	1	99.989	1	99.989	1	99.989
GMU	GREENVILLE DOWNTOWN	SC	LPV200	0	100	0	100	0	100
GRD	GREENWOOD COUNTY	SC	LPV	0	100	0	100	0	100
GSP	GREENVILLE SPARTANBURG INTL	SC	LPV200	0	100	0	100	0	100
GYH	DONALDSON FLD	SC	LPV	0	100	0	100	0	100
HVS	HARTSVILLE RGNL	SC	LPV	0	100	0	100	0	100
HXD	HILTON HEAD	SC	LPV	1	99.971	1	99.971	1	99.971
HYW	CONWAY-HORRY COUNTY	SC	LPV	0	100	0	100	0	100
JZI	CHARLESTON EXEC	SC	LPV200	1	99.971	1	99.971	1	99.971
LKR	LANCASTER COUNTY-MC WHIRTER FL	SC	LPV200	0	100	0	100	0	100
LQK	PICKENS COUNTY	SC	LPV	0	100	0	100	0	100
LRO	MT PLEASANT RGNL-FAISON FLD	SC	LPV	1	99.974	1	99.974	1	99.971
LUX	LAURENS COUNTY	SC	LPV	0	100	0	100	0	100
MAO	MARION COUNTY	SC	LPV	0	100	0	100	0	100
MKS	BERKELEY COUNTY	SC	LPV	1	99.981	1	99.981	1	99.981
MYR	MYRTLE BEACH INTL	SC	LPV200	0	100	0	100	0	100
OGB	ORANGEBURG MUNICIPAL	SC	LPV	1	99.991	1	99.991	1	99.991
PYG	PAGELAND	SC	LPV	0	100	0	100	0	100
RBW	LOWCOUNTRY RGNL	SC	LPV200	1	99.973	1	99.973	1	99.971
SMS	SUMTER	SC	LPV200	0	100	0	100	0	100
SPA	SPARTANBURG DOWNTOWN MEML/SIMP	SC	LPV200	0	100	0	100	0	100
UDG	DARLINGTON COUNTY	SC	LPV	0	100	0	100	0	100

Airport	Airport Name	State/ Province	Service	LP Outages	LP Avail (%)	LPV Outages	LPV Avail (%)	LPV200 Outages	LPV200 Avail (%)
UZA	ROCK HILL/YORK COUNTY/BRYANT F	SC	LPV200	0	100	0	100	0	100
0D8	GETTYSBURG MUNICIPAL	SD	LP	2	99.891	2	99.890	4	99.850
49B	STURGIS MUNICIPAL	SD	LPV	2	99.925	2	99.906	3	99.888
4X4	WESSINGTON SPRINGS	SD	LP	2	99.897	2	99.893	4	99.859
8D3	SISSETON MUNICIPAL	SD	LPV	2	99.888	4	99.863	7	99.797
8D7	CLARK COUNTY	SD	LP	2	99.888	2	99.884	5	99.827
8V3	PARKSTON MUNICIPAL	SD	LPV	2	99.899	2	99.895	3	99.881
98D	ONIDA MUNICIPAL	SD	LP	2	99.899	2	99.890	4	99.850
9D0	HIGHMORE MUNICIPAL	SD	LPV	2	99.890	2	99.890	4	99.848
9D1	GREGORY MUNICIPAL - FLYNN FLD	SD	LPV	3	99.924	2	99.896	3	99.876
9V6	MARTIN MUNICIPAL	SD	LPV	2	99.938	2	99.899	3	99.882
9V9	CHAMBERLAIN MUNICIPAL	SD	LP	2	99.900	2	99.895	4	99.863
ABR	ABERDEEN RGNL	SD	LPV200	2	99.888	3	99.884	6	99.821
AGZ	WAGNER MUNICIPAL	SD	LPV	2	99.907	2	99.899	3	99.878
ATY	WATERTOWN RGNL	SD	LPV200	2	99.888	2	99.884	5	99.835
BKX	BROOKINGS RGNL	SD	LPV200	2	99.892	2	99.884	5	99.841
EFC	BELLE FOURCHE MUNICIPAL	SD	LPV	2	99.924	2	99.909	3	99.898
FSD	JOE FOSS FLD	SD	LPV200	2	99.899	2	99.893	4	99.854
HON	HURON RGNL	SD	LPV200	2	99.889	2	99.889	4	99.847
HSR	HOT SPRINGS MUNICIPAL	SD	LP	2	99.940	2	99.915	3	99.891
ICR	WINNER RGNL	SD	LPV	3	99.931	2	99.896	3	99.872
IEN	PINE RIDGE	SD	LPV	2	99.940	2	99.904	3	99.886
LEM	LEMMON MUNICIPAL	SD	LPV	2	99.909	3	99.884	5	99.846
MBG	MOBRIDGE MUNICIPAL	SD	LPV	2	99.906	3	99.885	6	99.838
MDS	MADISON MUNICIPAL	SD	LPV	2	99.892	2	99.884	4	99.846
MHE	MITCHELL MUNICIPAL	SD	LPV	2	99.897	2	99.893	4	99.864
MKA	MILLER MUNICIPAL	SD	LPV	2	99.889	2	99.889	4	99.843
PHP	PHILIP	SD	LPV	2	99.929	2	99.897	3	99.876
PIR	PIERRE RGNL	SD	LPV	2	99.916	2	99.895	4	99.853
RAP	RAPID CITY RGNL	SD	LPV200	2	99.932	2	99.907	3	99.889
SPF	BLACK HILLS-CLYDE ICE FLD	SD	LPV	2	99.925	2	99.910	3	99.898
SUO	ROSEBUD SIOUX TRIBAL	SD	LPV	3	99.934	2	99.898	3	99.874
VMR	HAROLD DAVIDSON FLD	SD	LPV	2	99.910	2	99.910	3	99.880
YKN	CHAN GURNEY MUNICIPAL	SD	LPV200	2	99.899	2	99.899	3	99.881
CCB2	SEABEE MINE	SK	LPV	8	99.411	11	99.298	16	98.937
CJC5	SHAUNAVON	SK	LPV	4	99.847	5	99.821	12	99.713
CJE3	WEYBURN	SK	LPV	4	99.797	5	99.777	11	99.614

Airport	Airport Name	State/ Province	Service	LP Outages	LP Avail (%)	LPV Outages	LPV Avail (%)	LPV200 Outages	LPV200 Avail (%)
CJH3	MAIDSTONE	SK	LPV	5	99.723	10	99.659	12	99.379
CJP9	CHARLOT RIVER	SK	LP	12	99.413	10	99.312	37	98.752
CJQ4	MAPLE CREEK	SK	LPV	3	99.833	5	99.826	13	99.707
CJU4	HUMBOLDT	SK	LPV	9	99.671	13	99.616	13	99.310
CJW7	CIGAR LAKE	SK	LPV	10	99.335	11	99.180	28	98.808
CJY3	TISDALE	SK	LPV	9	99.630	11	99.475	10	99.199
CJZ3	MELFORT (MILLER FIELD)	SK	LPV	9	99.626	13	99.482	10	99.195
CKQ8	MCARTHUR RIVER	SK	LPV	8	99.352	9	99.202	25	98.860
CYBE	URANIUM CITY	SK	LPV	11	99.395	10	99.296	39	98.694
CYBU	NIPAWIN	SK	LPV	10	99.612	11	99.433	12	99.144
CYEN	ESTEVAN REGIONAL	SK	LPV	4	99.805	4	99.766	10	99.629
CYES	EDMUNDSTON	SK	LPV	7	99.683	7	99.651	9	99.424
CYKC	COLLINS BAY	SK	LPV	9	99.303	12	99.164	30	98.720
CYKJ	KEY LAKE	SK	LPV	7	99.376	9	99.211	18	98.930
CYLJ	MEADOW LAKE	SK	LPV	7	99.667	9	99.568	12	99.234
CYMJ	AIR VICE MARSHAL C.M. MCEWEN	SK	LPV200	4	99.789	6	99.769	17	99.556
CYNL	POINTS NORTH LANDING	SK	LPV	10	99.313	11	99.161	29	98.732
CYPA	PRINCE ALBERT (GLASS FIELD)	SK	LPV	9	99.619	12	99.490	12	99.189
CYQR	REGINA INTL	SK	LPV200	4	99.777	9	99.736	15	99.499
CYQV	YORKTON MUNICIPALCIPALITY	SK	LPV	8	99.684	9	99.623	13	99.322
CYQW	NORTH BATTLEFORD	SK	LPV	6	99.717	13	99.671	15	99.362
CYVC	LA RONGE (BARBER FIELD)	SK	LPV	8	99.467	10	99.353	17	99.036
CYXE	JOHN G. DIEFENBAKER INTL	SK	LPV200	6	99.735	11	99.684	13	99.318
CYYN	SWIFT CURRENT	SK	LPV	4	99.812	5	99.795	16	99.633
0A3	SMITHVILLE MUNICIPAL	TN	LPV	0	100	0	100	0	100
0M3	PAUL BRIDGES FLD	TN	LP	0	100	0	100	0	100
0M4	BENTON COUNTY	TN	LPV	0	100	0	100	0	100
0M5	HUMPHREYS COUNTY	TN	LP	0	100	0	100	0	100
1A3	MARTIN CAMPBELL FLD	TN	LP	0	100	0	100	0	100
1M5	PORTLAND MUNICIPAL	TN	LPV	0	100	0	100	0	100
2A0	MARK ANTON	TN	LPV	0	100	0	100	0	100
2M2	LAWRENCEBURG-LAWRENCE COUNTY	TN	LPV	0	100	0	100	0	100
2M8	CHARLES W BAKER	TN	LPV	0	100	0	100	0	100
3A2	NEW TAZEWEEL MUNICIPAL	TN	LP	0	100	0	100	0	100
3M7	LAFAYETTE MUNICIPAL	TN	LPV	0	100	0	100	0	100
8A3	LIVINGSTON MUNICIPAL	TN	LP	0	100	0	100	0	100
BGF	WINCHESTER MUNICIPAL	TN	LPV	0	100	0	100	0	100

Airport	Airport Name	State/ Province	Service	LP Outages	LP Avail (%)	LPV Outages	LPV Avail (%)	LPV200 Outages	LPV200 Avail (%)
BNA	NASHVILLE INTL	TN	LPV200	0	100	0	100	0	100
CHA	LOVELL FLD	TN	LPV200	0	100	0	100	0	100
CKV	OUTLAW FLD	TN	LPV	0	100	0	100	0	100
CSV	CROSSVILLE MEML-WHITSON FLD	TN	LPV200	0	100	0	100	0	100
DYR	DYERSBURG RGNL	TN	LPV	0	100	0	100	0	100
FYE	FAYETTE COUNTY	TN	LPV	0	100	0	100	0	100
FYM	FAYETTEVILLE MUNICIPAL	TN	LPV	0	100	0	100	0	100
GCV	GREENEVILLE MUNICIPAL	TN	LPV	0	100	0	100	0	100
GHM	CENTERVILLE MUNICIPAL	TN	LP	0	100	0	100	0	100
GKT	GATLINBURG-PIGEON FORGE	TN	LPV	0	100	0	100	0	100
GZS	ABERNATHY FLD	TN	LPV	0	100	0	100	0	100
HZD	CARROLL COUNTY	TN	LPV	0	100	0	100	0	100
JAU	COLONEL TOMMY C STINER AIRFIEL	TN	LP	0	100	0	100	0	100
JWN	JOHN C TUNE	TN	LPV	0	100	0	100	0	100
LUG	ELLINGTON	TN	LPV	0	100	0	100	0	100
M01	GENERAL DEWITT SPAIN	TN	LPV	0	100	0	100	0	100
M08	WILLIAM L WHITEHURST FLD	TN	LP	0	100	0	100	0	100
M53	HUMBOLDT MUNICIPAL	TN	LPV	0	100	0	100	0	100
M54	LEBANON MUNICIPAL	TN	LPV	0	100	0	100	0	100
M91	SPRINGFIELD ROBERTSON COUNTY	TN	LPV	0	100	0	100	0	100
MBT	MURFREESBORO MUNICIPAL	TN	LPV	0	100	0	100	0	100
MEM	MEMPHIS INTL	TN	LPV200	0	100	0	100	0	100
MKL	MC KELLAR-SIPES RGNL	TN	LPV200	0	100	0	100	0	100
MMI	MCMINN COUNTY	TN	LPV	0	100	0	100	0	100
MNV	MONROE COUNTY	TN	LPV	0	100	0	100	0	100
MOR	MOORE-MURRELL	TN	LPV	0	100	0	100	0	100
MQY	SMYRNA	TN	LPV200	0	100	0	100	0	100
MRC	MAURY COUNTY RGNL	TN	LPV	0	100	0	100	0	100
NQA	MILLINGTON/MEMPHIS	TN	LPV200	0	100	0	100	0	100
PHT	HENRY COUNTY	TN	LPV200	0	100	0	100	0	100
PVE	BEECH RIVER RGNL	TN	LPV	0	100	0	100	0	100
RKW	ROCKWOOD MUNICIPAL	TN	LPV	0	100	0	100	0	100
RNC	WARREN COUNTY MEML	TN	LPV	0	100	0	100	0	100
RVN	HAWKINS COUNTY	TN	LP	0	100	0	100	0	100
RZR	CLEVELAND RGNL JETPORT	TN	LPV200	0	100	0	100	0	100
SCX	SCOTT MUNICIPAL	TN	LPV	0	100	0	100	0	100
SNH	SAVANNAH-HARDIN COUNTY	TN	LPV	0	100	0	100	0	100

Airport	Airport Name	State/ Province	Service	LP Outages	LP Avail (%)	LPV Outages	LPV Avail (%)	LPV200 Outages	LPV200 Avail (%)
SRB	UPPER CUMBERLAND RGNL	TN	LPV	0	100	0	100	0	100
SYI	BOMAR FLD/SHELBYVILLE MUNICIPAL	TN	LPV	0	100	0	100	0	100
SZY	ROBERT SIBLEY	TN	LPV	0	100	0	100	0	100
TGC	GIBSON COUNTY	TN	LP	0	100	0	100	0	100
THA	TULLAHOMA RGNL/WM NORTHERN FLD	TN	LPV	0	100	0	100	0	100
TRI	TRI-CITIES	TN	LPV200	0	100	0	100	0	100
TYS	MC GHEE TYSON	TN	LPV200	0	100	0	100	0	100
UCY	EVERETT-STEWART RGNL	TN	LPV200	0	100	0	100	0	100
XNX	MUSIC CITY EXEC	TN	LPV	0	100	0	100	0	100
0F2	BOWIE MUNICIPAL	TX	LPV	0	100	0	100	0	100
11R	BRENHAM MUNICIPAL	TX	LPV	1	99.978	1	99.971	5	99.936
2R9	KENEDY RGNL	TX	LP	2	99.973	4	99.947	5	99.843
3R9	LAKEWAY AIRPARK	TX	LP	2	99.997	2	99.968	4	99.941
3T5	FAYETTE RGNL AIR CENTER	TX	LPV	1	99.978	2	99.968	6	99.917
41F	FLOYDADA MUNICIPAL	TX	LP	0	100	0	100	2	99.991
45R	HAWTHORNE FLD	TX	LP	1	99.999	1	99.975	3	99.954
4T2	KENNETH COPELAND	TX	LPV	0	100	0	100	2	99.975
50R	LOCKHART MUNICIPAL	TX	LPV	1	99.978	2	99.968	5	99.923
5C1	BOERNE STAGE FLD	TX	LP	1	99.995	2	99.961	5	99.919
5T9	MAVERICK COUNTY MEML INTL	TX	LPV	3	99.969	3	99.932	8	99.844
60R	NAVASOTA MUNICIPAL	TX	LPV	1	99.978	1	99.971	4	99.948
6R3	CLEVELAND MUNICIPAL	TX	LPV	1	99.978	1	99.971	3	99.952
77F	WINTERS MUNICIPAL	TX	LP	0	100	1	99.979	4	99.964
8F3	CROSBYTON MUNICIPAL	TX	LP	0	100	0	100	2	99.991
ABI	ABILENE RGNL	TX	LPV200	0	100	1	99.989	3	99.975
ACT	WACO RGNL	TX	LPV200	1	99.999	1	99.978	2	99.968
ADS	ADDISON	TX	LPV	0	100	0	100	1	99.978
AFW	FORT WORTH ALLIANCE	TX	LPV200	0	100	0	100	1	99.975
ALI	ALICE INTL	TX	LPV	6	99.932	5	99.842	11	99.712
AMA	RICK HUSBAND AMARILLO INTL	TX	LPV200	0	100	0	100	2	99.978
ARM	WHARTON RGNL	TX	LPV	1	99.975	2	99.971	6	99.872
ASL	HARRISON COUNTY	TX	LPV	0	100	0	100	1	99.975
AUS	AUSTIN-BERGSTROM INTL	TX	LPV200	1	99.979	2	99.968	5	99.931
AXH	HOUSTON/SOUTHWEST	TX	LPV	1	99.975	1	99.971	6	99.890
BAZ	NEW BRAUNFELS NTL	TX	LPV	1	99.978	2	99.968	5	99.921
BBD	CURTIS FLD	TX	LPV	0	100	2	99.977	4	99.964
BEA	BEEVILLE MUNICIPAL	TX	LPV	2	99.952	6	99.886	6	99.793

Airport	Airport Name	State/ Province	Service	LP Outages	LP Avail (%)	LPV Outages	LPV Avail (%)	LPV200 Outages	LPV200 Avail (%)
BFE	TERRY COUNTY	TX	LPV	0	100	1	99.999	3	99.958
BGD	HUTCHINSON COUNTY	TX	LPV	0	100	2	99.996	2	99.978
BKD	STEPHENS COUNTY	TX	LP	0	100	1	99.999	2	99.969
BKS	BROOKS COUNTY	TX	LPV	5	99.875	5	99.814	15	99.646
BMT	BEAUMONT MUNICIPAL	TX	LPV	1	99.997	1	99.971	4	99.934
BPG	BIG SPRING MC MAHON-WRINKLE	TX	LPV200	0	100	2	99.982	4	99.964
BPT	JACK BROOKS RGNL	TX	LPV200	1	99.997	1	99.971	4	99.931
BRO	BROWNSVILLE/SOUTH PADRE ISLAND	TX	LPV200	5	99.767	5	99.690	36	99.578
BWD	BROWNWOOD RGNL	TX	LPV	0	100	1	99.978	3	99.966
BYY	BAY CITY RGNL	TX	LPV	1	99.975	1	99.971	6	99.869
CDS	CHILDRESS MUNICIPAL	TX	LPV200	0	100	0	100	2	99.993
CFD	COULTER FLD	TX	LPV	1	99.978	1	99.971	3	99.964
CLL	EASTERWOOD FLD	TX	LPV200	1	99.978	1	99.971	3	99.962
CNW	TSTC WACO	TX	LPV200	1	99.997	1	99.978	2	99.968
COM	COLEMAN MUNICIPAL	TX	LPV	0	100	1	99.978	3	99.960
COT	COTULLA-LA SALLE COUNTY	TX	LPV	3	99.959	4	99.906	8	99.814
CPT	CLEBURNE RGNL	TX	LPV	0	100	1	99.990	2	99.968
CRP	CORPUS CHRISTI INTL	TX	LPV200	4	99.941	5	99.832	9	99.706
CVB	CASTROVILLE MUNICIPAL	TX	LPV	2	99.990	2	99.956	7	99.893
CWC	KICKAPOO DOWNTOWN	TX	LPV	0	100	0	100	1	99.998
CXO	CONROE/NORTH HOUSTON RGNL	TX	LPV200	1	99.978	1	99.971	5	99.950
CZT	DIMMIT COUNTY	TX	LPV	3	99.956	4	99.919	8	99.815
DAL	DALLAS LOVE FLD	TX	LPV200	0	100	0	100	1	99.978
DFW	DALLAS-FORT WORTH INTL	TX	LPV200	0	100	0	100	1	99.978
DHT	DALHART MUNICIPAL	TX	LPV	0	100	1	99.997	2	99.978
DKR	HOUSTON COUNTY	TX	LP	1	99.979	1	99.975	1	99.975
DRT	DEL RIO INTL	TX	LPV	3	99.981	3	99.964	7	99.874
DTO	DENTON ENTERPRISE	TX	LPV200	0	100	0	100	1	99.994
DUX	MOORE COUNTY	TX	LPV200	0	100	1	99.997	1	99.978
DWH	DAVID WAYNE HOOKS MEML	TX	LPV	1	99.975	1	99.971	5	99.918
E01	ROY HURD MEML	TX	LP	0	100	1	99.999	3	99.915
E11	ANDREWS COUNTY	TX	LPV	0	100	1	99.999	4	99.937
E19	GRUVER MUNICIPAL	TX	LP	0	100	1	99.997	3	99.977
E30	BRUCE FLD	TX	LPV	0	100	1	99.979	4	99.962
E38	ALPINE-CASPARIS MUNICIPAL	TX	LPV	1	99.978	3	99.970	4	99.880
EBG	SOUTH TEXAS INTL AT EDINBURG	TX	LPV	4	99.799	6	99.755	26	99.607
EDC	AUSTIN EXEC	TX	LPV200	1	99.979	2	99.968	4	99.942

Airport	Airport Name	State/ Province	Service	LP Outages	LP Avail (%)	LPV Outages	LPV Avail (%)	LPV200 Outages	LPV200 Avail (%)
EFD	ELLINGTON	TX	LPV200	1	99.975	1	99.971	5	99.892
ELA	EAGLE LAKE	TX	LP	1	99.975	1	99.971	6	99.881
ELP	EL PASO INTL	TX	LP	1	99.975	2	99.972	25	99.866
ERV	KERRVILLE MUNICIPAL/LOUIS SCHREINER	TX	LPV	1	99.999	2	99.967	6	99.924
ETN	EASTLAND MUNICIPAL	TX	LP	0	100	1	99.992	2	99.975
F00	JONES FLD	TX	LPV	0	100	0	100	0	100
F05	WILBARGER COUNTY	TX	LPV	0	100	0	100	1	99.998
F49	CITY OF SLATON/LARRY T NEAL ME	TX	LPV	0	100	1	99.998	3	99.969
F98	YOAKUM COUNTY	TX	LPV	0	100	0	100	3	99.962
FST	FORT STOCKTON-PECOS COUNTY	TX	LPV	0	100	2	99.988	4	99.890
FTW	FORT WORTH MEACHAM INTL	TX	LPV200	0	100	0	100	2	99.974
FWS	FORT WORTH SPINKS	TX	LPV200	0	100	0	100	2	99.968
GDJ	GRANBURY RGNL	TX	LPV	0	100	1	99.997	2	99.968
GGG	EAST TEXAS RGNL	TX	LPV	0	100	0	100	1	99.975
GKY	ARLINGTON MUNICIPAL	TX	LPV200	0	100	0	100	1	99.971
GLE	GAINESVILLE MUNICIPAL	TX	LPV	0	100	0	100	0	100
GLS	SCHOLES INTL AT GALVESTON	TX	LPV200	1	99.975	1	99.971	6	99.879
GNC	GAINES COUNTY	TX	LPV	0	100	0	100	4	99.941
GRK	ROBERT GRAY AAF	TX	LPV200	0	100	1	99.975	4	99.952
GTU	GEORGETOWN MUNICIPAL	TX	LPV	1	99.994	1	99.975	4	99.946
GVT	MAJORS	TX	LPV200	0	100	0	100	2	99.990
GYI	NORTH TEXAS RGNL/PERRIN FLD	TX	LPV200	0	100	0	100	0	100
GZN	GREGORY M SIMMONS MEML	TX	LPV	0	100	1	99.990	2	99.969
HBV	JIM HOGG COUNTY	TX	LPV	5	99.863	5	99.812	14	99.689
HDO	SOUTH TEXAS RGNL AT HONDO	TX	LPV	2	99.989	2	99.956	6	99.881
HHF	HEMPHILL COUNTY	TX	LPV	0	100	1	99.997	2	99.976
HOU	WILLIAM P HOBBY	TX	LPV200	1	99.975	1	99.971	5	99.893
HQZ	MESQUITE METRO	TX	LPV	0	100	0	100	1	99.975
HRL	VALLEY INTL	TX	LPV200	5	99.800	7	99.739	26	99.609
HRX	HEREFORD MUNICIPAL	TX	LPV200	0	100	0	100	2	99.993
HYI	SAN MARCOS RGNL	TX	LPV200	1	99.978	2	99.968	5	99.924
IAH	GEORGE BUSH INTCNTL/HOUSTON	TX	LPV200	1	99.975	1	99.971	5	99.921
IKG	KLEBERG COUNTY	TX	LPV	5	99.883	5	99.817	12	99.700
ILE	SKYLARK FLD	TX	LPV200	1	99.999	1	99.978	4	99.961
INJ	HILLSBORO MUNICIPAL	TX	LPV	0	100	1	99.978	2	99.968
INK	WINKLER COUNTY	TX	LPV200	0	100	0	100	3	99.918
IWS	WEST HOUSTON	TX	LP	1	99.975	1	99.971	5	99.902

Airport	Airport Name	State/ Province	Service	LP Outages	LP Avail (%)	LPV Outages	LPV Avail (%)	LPV200 Outages	LPV200 Avail (%)
JAS	JASPER COUNTY/BELL FLD	TX	LPV	0	100	1	99.975	2	99.969
JSO	CHEROKEE COUNTY	TX	LPV	0	100	1	99.975	1	99.975
JWY	MID-WAY RGNL	TX	LPV200	0	100	1	99.996	1	99.971
JXI	FOX STEPHENS FLD - GILMER MUNICIPAL	TX	LP	0	100	0	100	1	99.975
LBB	LUBBOCK PRESTON SMITH INTL	TX	LPV200	0	100	1	99.999	3	99.984
LBX	TEXAS GULF COAST RGNL	TX	LPV	1	99.975	1	99.971	6	99.873
LFK	ANGELINA COUNTY	TX	LPV	0	100	1	99.975	1	99.975
LHB	HEARNE MUNICIPAL	TX	LPV200	1	99.979	1	99.975	3	99.964
LIU	LITTLEFIELD TAYLOR BROWN MUNICIPAL	TX	LPV	0	100	0	100	3	99.985
LLN	LEVELLAND MUNICIPAL	TX	LPV	0	100	0	100	2	99.972
LNC	LANCASTER RGNL	TX	LPV200	0	100	0	100	1	99.975
LRD	LAREDO INTL	TX	LPV200	6	99.881	7	99.859	15	99.707
LUD	DECATUR MUNICIPAL	TX	LPV	0	100	0	100	1	99.994
LUV	LAMESA MUNICIPAL	TX	LPV200	0	100	1	99.998	4	99.968
LVJ	PEARLAND RGNL	TX	LPV	1	99.975	1	99.971	6	99.888
LXY	MEXIA-LIMESTONE COUNTY	TX	LP	1	99.992	1	99.977	2	99.969
MAF	MIDLAND INTL AIR AND SPACE POR	TX	LPV200	0	100	2	99.995	4	99.934
MDD	MIDLAND AIRPARK	TX	LPV	0	100	2	99.995	4	99.934
MFE	MC ALLEN MILLER INTL	TX	LPV200	5	99.788	5	99.731	40	99.560
MKN	COMANCHE COUNTY-CITY	TX	LPV	0	100	1	99.978	3	99.967
MNZ	HAMILTON MUNICIPAL	TX	LPV	0	100	1	99.978	3	99.964
MWL	MINERAL WELLS RGNL	TX	LPV200	0	100	0	100	2	99.973
OCH	NACOGDOCHES A L MANGHAM JR RGN	TX	LPV200	0	100	1	99.978	1	99.975
ODO	ODESSA-SCHLEMEYER FLD	TX	LPV200	0	100	1	99.999	4	99.934
ONY	OLNEY MUNICIPAL	TX	LPV	0	100	0	100	4	99.986
ORG	ORANGE COUNTY	TX	LPV	1	99.999	1	99.975	3	99.935
PEQ	PECOS MUNICIPAL	TX	LPV200	0	100	1	99.990	4	99.903
PIL	PORT ISABEL-CAMERON COUNTY	TX	LPV	4	99.802	6	99.716	25	99.615
PKV	CALHOUN COUNTY	TX	LPV	2	99.974	5	99.945	5	99.830
PPA	PERRY LEFORS FLD	TX	LPV	0	100	1	99.999	2	99.977
PRX	COX FLD	TX	LPV	0	100	0	100	0	100
PSX	PALACIOS MUNICIPAL	TX	LPV	1	99.975	4	99.955	5	99.837
PVW	HALE COUNTY	TX	LPV	0	100	0	100	2	99.992
PWG	MC GREGOR EXEC	TX	LPV	1	99.998	1	99.978	2	99.968
PYX	PERRYTON OCHILTREE COUNTY	TX	LPV	0	100	1	99.996	3	99.975
RAS	MUSTANG BEACH	TX	LPV	4	99.940	6	99.841	11	99.731
RBD	DALLAS EXEC	TX	LPV200	0	100	0	100	1	99.975

Airport	Airport Name	State/ Province	Service	LP Outages	LP Avail (%)	LPV Outages	LPV Avail (%)	LPV200 Outages	LPV200 Avail (%)
RBO	NUECES COUNTY	TX	LPV	4	99.941	5	99.833	10	99.707
RKP	ARANSAS COUNTY	TX	LPV	4	99.946	6	99.850	5	99.755
RYW	LAGO VISTA TX/RUSTY ALLEN	TX	LPV	2	99.999	2	99.972	4	99.945
SAT	SAN ANTONIO INTL	TX	LPV200	2	99.990	2	99.959	6	99.912
SGR	SUGAR LAND RGNL	TX	LPV200	1	99.975	1	99.971	5	99.892
SJT	SAN ANGELO RGNL/MATHIS FLD	TX	LPV	0	100	1	99.980	3	99.934
SLR	SULPHUR SPRINGS MUNICIPAL	TX	LPV	0	100	0	100	1	99.995
SNK	WINSTON FLD	TX	LPV200	0	100	0	100	4	99.970
SWI	SHERMAN MUNICIPAL	TX	LP	0	100	0	100	0	100
SWW	AVENGER FLD	TX	LPV	0	100	1	99.988	3	99.970
T23	ALBANY MUNICIPAL	TX	LPV	0	100	1	99.997	2	99.970
T41	LA PORTE MUNICIPAL	TX	LPV	1	99.975	1	99.971	5	99.901
T74	TAYLOR MUNICIPAL	TX	LPV	1	99.979	1	99.971	4	99.944
T78	LIBERTY MUNICIPAL	TX	LP	1	99.978	1	99.971	4	99.926
T82	GILLESPIE COUNTY	TX	LPV	0	100	2	99.972	5	99.934
TDW	TRADEWIND	TX	LPV	0	100	0	100	1	99.978
TFP	MCCAMPBELL-PORTER	TX	LPV	4	99.942	6	99.844	8	99.743
TKI	MCKINNEY NTL	TX	LPV200	0	100	0	100	1	99.994
TME	HOUSTON EXEC	TX	LPV	1	99.975	1	99.971	5	99.900
TPL	DRAUGHON-MILLER CENTRAL TEXAS	TX	LPV200	1	99.995	1	99.978	4	99.962
TRL	TERRELL MUNICIPAL	TX	LPV	0	100	0	100	1	99.975
TX2	CHASE FLD INDUSTRIAL	TX	LPV	2	99.954	6	99.886	6	99.794
TXW	MID VALLEY	TX	LPV	5	99.792	5	99.731	35	99.595
TYR	TYLER POUNDS RGNL	TX	LPV200	0	100	0	100	1	99.975
UTS	HUNTSVILLE MUNICIPAL	TX	LPV	1	99.978	1	99.975	1	99.971
VCT	VICTORIA RGNL	TX	LPV200	2	99.974	3	99.955	5	99.837
XBP	BRIDGEPORT MUNICIPAL	TX	LPV	0	100	0	100	2	99.991
41U	MANTI-EPHRAIM	UT	LPV	0	100	1	99.975	3	99.970
74V	ROOSEVELT MUNICIPAL	UT	LPV	1	99.975	1	99.974	3	99.944
BCE	BRYCE CANYON	UT	LPV	0	100	1	99.999	1	99.974
BDG	BLANDING MUNICIPAL	UT	LPV	0	100	1	99.986	1	99.974
BMC	BRIGHAM CITY RGNL	UT	LP	1	99.974	2	99.971	3	99.939
CDC	CEDAR CITY RGNL	UT	LPV	0	100	1	99.999	1	99.975
CNY	CANYONLANDS RGNL	UT	LP	0	100	1	99.975	3	99.973
DTA	DELTA MUNICIPAL	UT	LP	0	100	1	99.975	3	99.959
ENV	WENDOVER	UT	LPV	1	99.975	1	99.974	3	99.946
FOM	FILLMORE MUNICIPAL	UT	LPV	0	100	1	99.976	3	99.973

Airport	Airport Name	State/ Province	Service	LP Outages	LP Avail (%)	LPV Outages	LPV Avail (%)	LPV200 Outages	LPV200 Avail (%)
LGU	LOGAN-CACHE	UT	LPV	1	99.974	2	99.970	3	99.937
OGD	OGDEN-HINCKLEY	UT	LPV	1	99.974	2	99.972	3	99.942
PUC	CARBON COUNTY RGNL/BUCK DAVIS	UT	LP	1	99.983	1	99.974	3	99.951
PVU	PROVO MUNICIPAL	UT	LPV200	1	99.975	1	99.974	3	99.950
RIF	RICHFIELD MUNICIPAL	UT	LP	0	100	1	99.976	1	99.974
SGU	ST GEORGE RGNL	UT	LPV	0	100	0	100	1	99.978
SLC	SALT LAKE CITY INTL	UT	LPV200	1	99.975	1	99.974	3	99.943
SPK	SPANISH FORK MUNICIPAL/WOODHOUSE FL	UT	LP	1	99.979	1	99.974	3	99.951
TVY	BOLINDER FLD-TOOELE VALLEY	UT	LPV200	1	99.975	1	99.974	3	99.944
U14	NEPHI MUNICIPAL	UT	LPV	1	99.988	1	99.974	3	99.955
U42	SOUTH VALLEY RGNL	UT	LPV	1	99.975	1	99.974	3	99.944
U55	PANGUITCH MUNICIPAL	UT	LPV200	0	100	1	99.998	1	99.974
VEL	VERNAL RGNL	UT	LPV	1	99.974	1	99.974	3	99.937
0V4	BROOKNEAL/CAMPBELL COUNTY	VA	LPV	0	100	0	100	0	100
0VG	LEE COUNTY	VA	LPV	0	100	0	100	0	100
AVC	MECKLENBURG-BRUNSWICK RGNL	VA	LPV	0	100	0	100	0	100
BCB	VIRGINIA TECH/MONTGOMERY EXEC	VA	LPV	0	100	0	100	0	100
BKT	ALLEN C PERKINSON BLACKSTONE A	VA	LPV	0	100	0	100	0	100
CHO	CHARLOTTESVILLE-ALBEMARLE	VA	LPV200	0	100	0	100	0	100
CJR	CULPEPER RGNL	VA	LPV	0	100	0	100	1	99.999
CPK	CHESAPEAKE RGNL	VA	LPV200	0	100	0	100	1	99.992
DAN	DANVILLE RGNL	VA	LPV200	0	100	0	100	0	100
EMV	EMPORIA-GREENSVILLE RGNL	VA	LPV	0	100	0	100	1	99.999
FCI	RICHMOND EXEC/CHESTERFIELD COU	VA	LPV	0	100	0	100	0	100
FKN	FRANKLIN RGNL	VA	LPV	0	100	0	100	1	99.995
FVX	FARMVILLE RGNL	VA	LPV	0	100	0	100	0	100
FYJ	MIDDLE PENINSULA RGNL	VA	LPV	0	100	0	100	1	99.996
HLX	TWIN COUNTY	VA	LPV	0	100	0	100	0	100
HSP	INGALLS FLD	VA	LPV	0	100	0	100	0	100
HWY	WARRENTON/FAUQUIER	VA	LPV200	0	100	0	100	1	99.998
JFZ	TAZEWELL COUNTY	VA	LPV	0	100	0	100	0	100
JYO	LEESBURG EXEC	VA	LPV	0	100	0	100	1	99.991
LKU	LOUISA COUNTY/FREEMAN FLD	VA	LPV	0	100	0	100	0	100
LNP	LONESOME PINE	VA	LPV	0	100	0	100	0	100
LUA	LURAY CAVERNS	VA	LP	0	100	0	100	1	99.998
LYH	LYNCHBURG RGNL/PRESTON GLENN F	VA	LPV	0	100	0	100	0	100
MFV	ACCOMACK COUNTY	VA	LPV	0	100	0	100	1	99.992

Airport	Airport Name	State/ Province	Service	LP Outages	LP Avail (%)	LPV Outages	LPV Avail (%)	LPV200 Outages	LPV200 Avail (%)
MKJ	MOUNTAIN EMPIRE	VA	LPV	0	100	0	100	0	100
MTV	BLUE RIDGE	VA	LPV	0	100	0	100	0	100
OFP	HANOVER COUNTY MUNICIPAL	VA	LPV	0	100	0	100	0	100
OKV	WINCHESTER RGNL	VA	LPV200	0	100	0	100	1	99.992
ORF	NORFOLK INTL	VA	LPV200	0	100	0	100	1	99.992
PHF	NEWPORT NEWS/WILLIAMSBURG INTL	VA	LPV200	0	100	0	100	1	99.993
PSK	NEW RIVER VALLEY	VA	LPV200	0	100	0	100	0	100
PTB	DINWIDDIE COUNTY	VA	LPV	0	100	0	100	1	99.999
PVG	HAMPTON ROADS EXEC	VA	LPV200	0	100	0	100	1	99.993
RIC	RICHMOND INTL	VA	LPV200	0	100	0	100	0	100
RMN	STAFFORD RGNL	VA	LPV	0	100	0	100	0	100
ROA	ROANOKE/BLACKSBURG RGNL (WOODR	VA	LPV	0	100	0	100	0	100
SFQ	SUFFOLK EXEC	VA	LPV	0	100	0	100	1	99.993
SHD	SHENANDOAH VALLEY RGNL	VA	LPV200	0	100	0	100	0	100
VJI	VIRGINIA HIGHLANDS	VA	LPV	0	100	0	100	0	100
W78	WILLIAM M TUCK	VA	LPV	0	100	0	100	0	100
W96	NEW KENT COUNTY	VA	LP	0	100	0	100	0	100
WAL	WALLOPS FLIGHT FACILITY	VA	LPV	0	100	0	100	1	99.991
XSA	TAPPAHANNOCK/ESSEX COUNTY	VA	LPV	0	100	0	100	1	99.999
BTM	BURLINGTON INTL	VT	LPV200	3	99.909	4	99.900	7	99.721
EFK	NORTHEAST KINGDOM INTL	VT	LP	3	99.875	5	99.853	7	99.668
FSO	FRANKLIN COUNTY STATE	VT	LPV	4	99.904	6	99.894	6	99.690
MPV	EDWARD F KNAPP STATE	VT	LPV	3	99.909	4	99.890	7	99.724
MVL	MORRISVILLE-STOWE STATE	VT	LPV	3	99.906	6	99.884	7	99.707
RUT	RUTLAND - SOUTHERN VERMONT RGN	VT	LPV	3	99.941	4	99.903	6	99.762
ALW	WALLA WALLA RGNL	WA	LPV200	3	99.936	3	99.906	5	99.867
AWO	ARLINGTON MUNICIPAL	WA	LPV200	3	99.910	4	99.885	10	99.764
BLI	BELLINGHAM INTL	WA	LPV200	3	99.910	4	99.869	9	99.735
BVS	SKAGIT RGNL	WA	LPV	3	99.910	5	99.884	9	99.755
CLM	WILLIAM R FAIRCHILD INTL	WA	LPV	3	99.910	5	99.892	9	99.759
CLS	CHEHALIS-CENTRALIA	WA	LPV	3	99.918	3	99.905	8	99.819
DEW	DEER PARK	WA	LPV	3	99.906	4	99.885	6	99.801
EPH	EPHRATA MUNICIPAL	WA	LPV	3	99.922	4	99.890	7	99.793
FHR	FRIDAY HARBOR	WA	LPV	3	99.910	6	99.887	9	99.769
GEG	SPOKANE INTL	WA	LPV200	3	99.913	4	99.885	7	99.813
HQM	BOWERMAN	WA	LPV200	3	99.910	4	99.905	9	99.800
KLS	SOUTHWEST WASHINGTON RGNL	WA	LPV	3	99.940	3	99.910	8	99.845

Airport	Airport Name	State/ Province	Service	LP Outages	LP Avail (%)	LPV Outages	LPV Avail (%)	LPV200 Outages	LPV200 Avail (%)
MWH	GRANT COUNTY INTL	WA	LPV200	3	99.923	4	99.890	9	99.826
OLM	OLYMPIA RGNL	WA	LPV200	3	99.918	4	99.905	9	99.797
ORS	ORCAS ISLAND	WA	LP	3	99.910	5	99.869	8	99.737
PAE	SNOHOMISH COUNTY (PAINE FLD)	WA	LPV200	3	99.911	4	99.888	10	99.770
PLU	PIERCE COUNTY - THUN FLD	WA	LPV	3	99.918	4	99.894	9	99.809
PSC	TRI-CITIES	WA	LPV200	3	99.927	3	99.905	4	99.862
PWT	BREMERTON NTL	WA	LPV200	3	99.911	4	99.892	11	99.793
RLD	RICHLAND	WA	LPV	3	99.926	3	99.904	5	99.859
RNT	RENTON MUNICIPAL	WA	LPV	3	99.914	4	99.890	11	99.801
SEA	SEATTLE-TACOMA INTL	WA	LPV200	3	99.914	4	99.894	11	99.802
SFF	FELTS FLD	WA	LPV	3	99.913	4	99.885	6	99.813
SHN	SANDERSON FLD	WA	LPV	3	99.918	5	99.907	10	99.789
TDO	ED CARLSON MEML FLD - SOUTH LE	WA	LPV	3	99.925	3	99.909	7	99.824
TIW	TACOMA NARROWS	WA	LPV	3	99.918	4	99.894	10	99.791
YKM	YAKIMA AIR TRML/MCALLISTER FLD	WA	LPV200	3	99.926	4	99.898	7	99.832
3T3	BOYCEVILLE MUNICIPAL	WI	LPV	3	99.889	5	99.802	5	99.780
57C	EAST TROY MUNICIPAL	WI	LPV	3	99.932	4	99.907	6	99.846
61C	FORT ATKINSON MUNICIPAL	WI	LP	3	99.932	4	99.890	5	99.832
82C	MAUSTON/NEW LISBON UNION	WI	LP	3	99.899	5	99.859	5	99.812
8D1	NEW HOLSTEIN MUNICIPAL	WI	LPV	3	99.912	4	99.871	6	99.808
AHH	AMERY MUNICIPAL	WI	LP	3	99.887	5	99.798	7	99.768
AIG	LANGLADE COUNTY	WI	LPV	4	99.887	5	99.843	8	99.776
ARV	LAKELAND/NOBLE F LEE MEML FLD	WI	LPV	6	99.859	6	99.806	9	99.643
ASX	JOHN F KENNEDY MEML	WI	LPV	5	99.771	6	99.724	10	99.568
ATW	APPLETON INTL	WI	LPV200	3	99.903	5	99.864	5	99.792
AUW	WAUSAU DOWNTOWN	WI	LPV200	4	99.890	5	99.838	5	99.786
BCK	BLACK RIVER FALLS AREA	WI	LPV	2	99.902	5	99.828	4	99.796
BUU	BURLINGTON MUNICIPAL	WI	LP	3	99.933	4	99.920	6	99.849
C29	MIDDLETON MUNICIPAL/MOREY FLD	WI	LPV	3	99.909	5	99.883	5	99.827
C35	REEDSBURG MUNICIPAL	WI	LP	3	99.901	5	99.864	5	99.822
C47	PORTAGE MUNICIPAL	WI	LP	3	99.897	5	99.866	5	99.823
CLI	CLINTONVILLE MUNICIPAL	WI	LPV	3	99.893	6	99.858	5	99.789
CMY	SPARTA/FORT MC COY	WI	LPV	2	99.903	6	99.847	5	99.809
CWA	CENTRAL WISCONSIN	WI	LPV200	4	99.892	5	99.839	5	99.789
DLL	BARABOO/WISCONSIN DELLS RGNL	WI	LPV	3	99.900	5	99.864	5	99.822
EAU	CHIPPEWA VALLEY RGNL	WI	LPV200	3	99.890	6	99.815	5	99.780
EGV	EAGLE RIVER UNION	WI	LPV	7	99.852	7	99.815	11	99.655

Airport	Airport Name	State/ Province	Service	LP Outages	LP Avail (%)	LPV Outages	LPV Avail (%)	LPV200 Outages	LPV200 Avail (%)
ENW	KENOSHA RGNL	WI	LPV200	3	99.937	3	99.926	6	99.870
ETB	WEST BEND MUNICIPAL	WI	LPV	3	99.923	4	99.880	6	99.822
EZS	SHAWANO MUNICIPAL	WI	LPV	3	99.891	5	99.860	6	99.787
FLD	FOND DU LAC COUNTY	WI	LPV	3	99.911	4	99.871	6	99.809
GRB	GREEN BAY/AUSTIN STRAUBEL INTL	WI	LPV200	3	99.911	4	99.869	6	99.791
GTG	GRANTSBURG MUNICIPAL	WI	LP	3	99.852	5	99.786	7	99.720
HXF	HARTFORD MUNICIPAL	WI	LPV	3	99.923	4	99.882	5	99.829
HYR	SAWYER COUNTY	WI	LPV	5	99.837	7	99.763	9	99.663
ISW	ALEXANDER FLD SOUTH WOOD COUNT	WI	LPV	3	99.895	5	99.840	4	99.796
JVL	SOUTHERN WISCONSIN RGNL	WI	LPV200	3	99.934	4	99.918	5	99.828
LNR	TRI-COUNTY RGNL	WI	LPV	2	99.906	5	99.874	5	99.823
LSE	LA CROSSE RGNL	WI	LPV	2	99.906	5	99.849	5	99.812
LUM	MENOMONIE MUNICIPAL/SCORE FLD	WI	LPV	3	99.890	5	99.803	5	99.780
MDZ	TAYLOR COUNTY	WI	LPV	4	99.892	6	99.828	7	99.791
MFI	MARSHFIELD MUNICIPAL	WI	LPV	3	99.895	5	99.829	4	99.796
MKE	GENERAL MITCHELL INTL	WI	LPV200	3	99.932	4	99.916	6	99.858
MRJ	IOWA COUNTY	WI	LPV200	2	99.915	4	99.906	5	99.826
MSN	DANE COUNTY RGNL/TRUAX FLD	WI	LPV200	3	99.907	5	99.882	5	99.827
MTW	MANITOWOC COUNTY	WI	LPV200	3	99.920	4	99.883	6	99.800
MWC	LAWRENCE J TIMMERMAN	WI	LPV	3	99.928	4	99.904	6	99.850
OCQ	OCONTO/J DOUGLAS BAKE MUNICIPAL	WI	LP	3	99.904	4	99.869	6	99.788
OEO	L O SIMENSTAD MUNICIPAL	WI	LPV200	3	99.887	5	99.799	6	99.757
OSH	WITTMAN RGNL	WI	LPV200	3	99.905	5	99.865	5	99.792
OVS	BOSCOBEL	WI	LPV	2	99.906	5	99.877	5	99.822
PBH	PRICE COUNTY	WI	LPV	6	99.869	6	99.800	8	99.690
PCZ	WAUPACA MUNICIPAL	WI	LPV	3	99.893	6	99.858	5	99.789
PVB	PLATTEVILLE MUNICIPAL	WI	LPV	2	99.915	2	99.915	5	99.825
RAC	BATTEN INTL	WI	LPV	3	99.933	4	99.922	6	99.866
RCX	RUSK COUNTY	WI	LPV	4	99.884	6	99.812	6	99.744
RHI	RHINELANDER/ONEIDA COUNTY	WI	LPV200	5	99.872	6	99.816	9	99.711
RNH	NEW RICHMOND RGNL	WI	LPV	3	99.889	5	99.799	6	99.776
RPD	RICE LAKE RGNL/CARL'S FLD	WI	LPV200	3	99.886	5	99.799	7	99.755
RRL	MERRILL MUNICIPAL	WI	LPV	4	99.887	6	99.837	7	99.761
SBM	SHEBOYGAN COUNTY MEML	WI	LPV200	3	99.919	4	99.884	6	99.815
STE	STEVENS POINT MUNICIPAL	WI	LPV	3	99.892	5	99.840	5	99.791
SUE	DOOR COUNTY CHERRYLAND	WI	LPV	3	99.913	4	99.870	6	99.792
SUW	RICHARD I BONG	WI	LP	5	99.776	6	99.720	9	99.542

Airport	Airport Name	State/ Province	Service	LP Outages	LP Avail (%)	LPV Outages	LPV Avail (%)	LPV200 Outages	LPV200 Avail (%)
TKV	TOMAHAWK RGNL	WI	LP	5	99.884	7	99.830	7	99.727
UBE	CUMBERLAND MUNICIPAL	WI	LPV	3	99.872	5	99.798	6	99.738
UES	WAUKESHA COUNTY	WI	LPV200	3	99.927	4	99.892	5	99.833
UNU	DODGE COUNTY	WI	LPV	3	99.916	4	99.878	5	99.827
VIQ	NEILLSVILLE MUNICIPAL	WI	LPV	3	99.899	5	99.828	4	99.796
Y50	WAUTOMA MUNICIPAL	WI	LP	3	99.895	6	99.859	4	99.797
Y55	CRANDON/STEVE CONWAY MUNICIPAL	WI	LPV	5	99.873	6	99.820	8	99.718
Y72	BLOYER FLD	WI	LP	3	99.900	6	99.842	4	99.797
3I2	MASON COUNTY	WV	LPV	0	100	0	100	1	99.994
6L4	LOGAN COUNTY	WV	LPV	0	100	0	100	0	100
BKW	RALEIGH COUNTY MEML	WV	LPV200	0	100	0	100	0	100
BLF	MERCER COUNTY	WV	LPV	0	100	0	100	0	100
CKB	NORTH CENTRAL WEST VIRGINIA	WV	LPV200	0	100	0	100	1	99.993
CRW	WEST VIRGINIA INTL YEAGER	WV	LPV200	0	100	0	100	0	100
HLG	WHEELING OHIO COUNTY	WV	LPV200	0	100	1	99.999	1	99.992
HTS	TRI-STATE/MILTON J FERGUSON FL	WV	LPV200	0	100	0	100	0	100
I18	JACKSON COUNTY	WV	LPV200	0	100	0	100	1	99.994
LWB	GREENBRIER VALLEY	WV	LPV	0	100	0	100	0	100
MGW	MORGANTOWN MUNICIPAL (WALTER L BILL	WV	LPV200	0	100	0	100	1	99.993
MRB	EASTERN WV RGNL/SHEPHERD FLD	WV	LPV	0	100	1	99.999	1	99.991
PKB	MID-OHIO VALLEY RGNL	WV	LPV	0	100	0	100	1	99.993
USW	BOGGS FLD	WV	LPV	0	100	0	100	1	99.994
W22	UPSHUR COUNTY RGNL	WV	LPV	0	100	0	100	1	99.994
W35	POTOMAC AIRPARK	WV	LP	0	100	1	99.999	2	99.990
W99	GRANT COUNTY	WV	LP	0	100	0	100	1	99.996
BYG	JOHNSON COUNTY	WY	LPV	2	99.935	2	99.909	2	99.897
COD	YELLOWSTONE RGNL	WY	LPV	2	99.937	2	99.910	2	99.895
CPR	CASPER/NATRONA COUNTY INTL	WY	LPV	2	99.954	3	99.934	2	99.903
CYS	CHEYENNE RGNL/JERRY OLSON FLD	WY	LPV200	1	99.981	2	99.962	3	99.910
DGW	CONVERSE COUNTY	WY	LPV200	2	99.958	3	99.933	2	99.899
DWX	DIXON	WY	LP	1	99.974	2	99.964	3	99.929
EAN	PHIFER AIRFIELD	WY	LPV200	2	99.974	3	99.937	2	99.899
ECS	MONDELL FLD	WY	LPV	2	99.936	2	99.910	2	99.902
EMM	KEMMERER MUNICIPAL	WY	LPV	1	99.974	3	99.970	3	99.933
EVW	EVANSTON-UINTA COUNTY BURNS FL	WY	LPV	1	99.974	2	99.971	3	99.939
FBR	FORT BRIDGER	WY	LP	1	99.974	2	99.972	3	99.937
GCC	NORTHEAST WYOMING RGNL	WY	LPV	2	99.935	2	99.910	2	99.897

Airport	Airport Name	State/ Province	Service	LP Outages	LP Avail (%)	LPV Outages	LPV Avail (%)	LPV200 Outages	LPV200 Avail (%)
GEY	SOUTH BIG HORN COUNTY	WY	LPV	2	99.935	2	99.909	2	99.895
GUR	CAMP GUERNSEY	WY	LP	2	99.968	3	99.937	2	99.899
HSG	HOT SPRINGS COUNTY	WY	LPV	2	99.943	3	99.934	2	99.909
JAC	JACKSON HOLE	WY	LPV200	2	99.953	2	99.941	2	99.906
LAR	LARAMIE RGNL	WY	LPV	1	99.975	2	99.963	3	99.918
LND	HUNT FLD	WY	LPV	2	99.955	2	99.941	3	99.923
PNA	RALPH WENZ FLD	WY	LPV	2	99.955	2	99.944	3	99.923
POY	POWELL MUNICIPAL	WY	LPV	2	99.936	2	99.908	2	99.895
RIW	CENTRAL WYOMING RGNL	WY	LPV200	2	99.955	2	99.940	2	99.909
RKS	SOUTHWEST WYOMING RGNL	WY	LPV200	1	99.974	3	99.970	3	99.921
RWL	RAWLINS MUNICIPAL/HARVEY FLD	WY	LPV	1	99.974	3	99.940	3	99.919
SAA	SHIVELY FLD	WY	LPV	1	99.974	2	99.964	3	99.920
SHR	SHERIDAN COUNTY	WY	LPV	2	99.935	2	99.908	2	99.895
U68	NORTH BIG HORN COUNTY	WY	LPV	2	99.935	2	99.908	2	99.895
W43	HULETT MUNICIPAL	WY	LPV	2	99.925	2	99.909	2	99.900
WRL	WORLAND MUNICIPAL	WY	LPV	2	99.937	2	99.911	2	99.901
CYMA	MAYO	YT	LPV	10	99.689	9	99.572	19	99.338
CYQH	WATSON LAKE	YT	LPV	7	99.705	6	99.659	22	99.365
CYXY	ERIK NIELSEN INTL	YT	LPV200	6	99.690	8	99.644	17	99.458
CYZW	TESLIN	YT	LPV	7	99.705	7	99.656	17	99.463

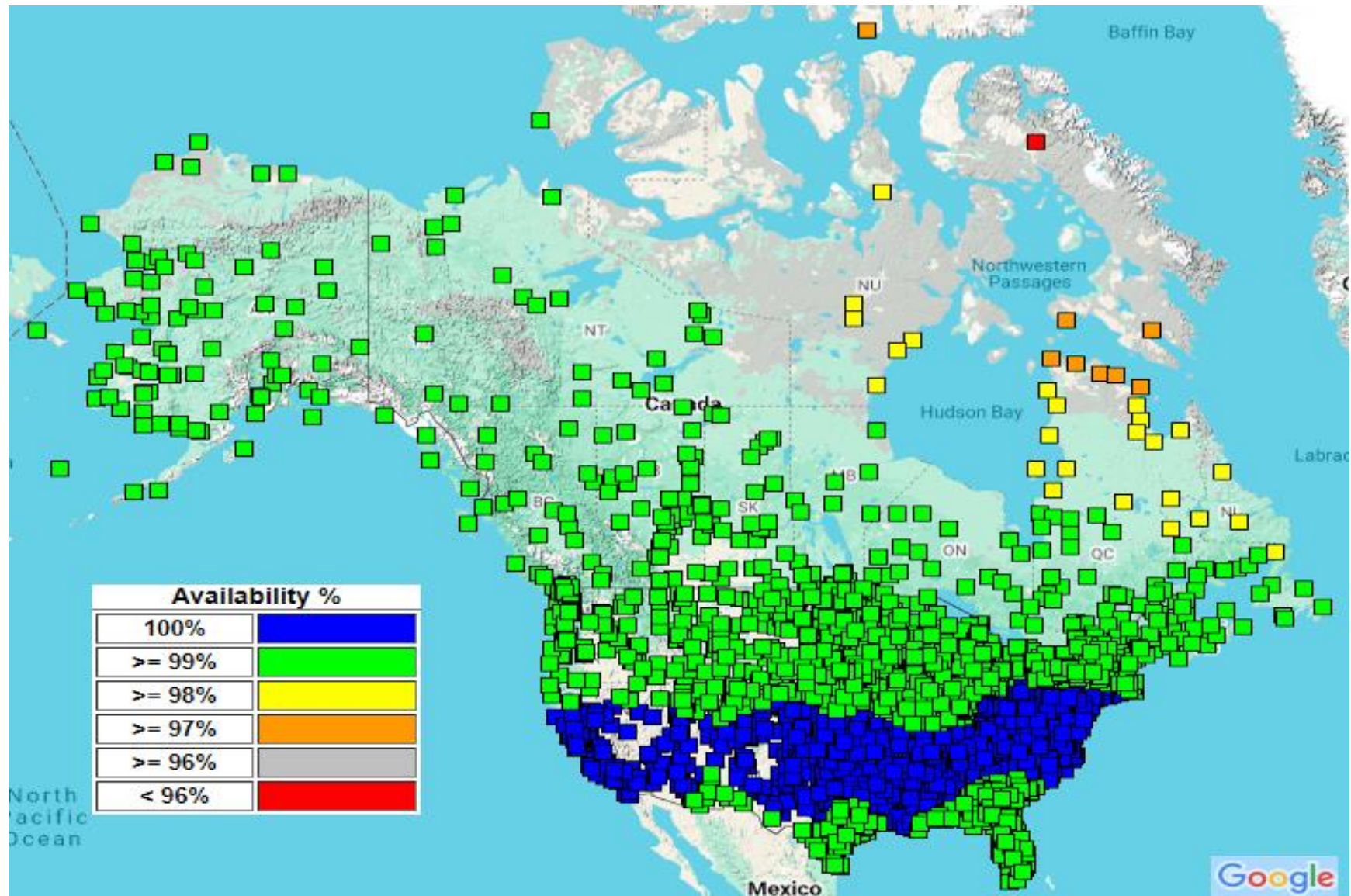


Figure 8-1 WAAS LP Availability at Airports in the U.S. and Canada with GPS RNAV IAPs

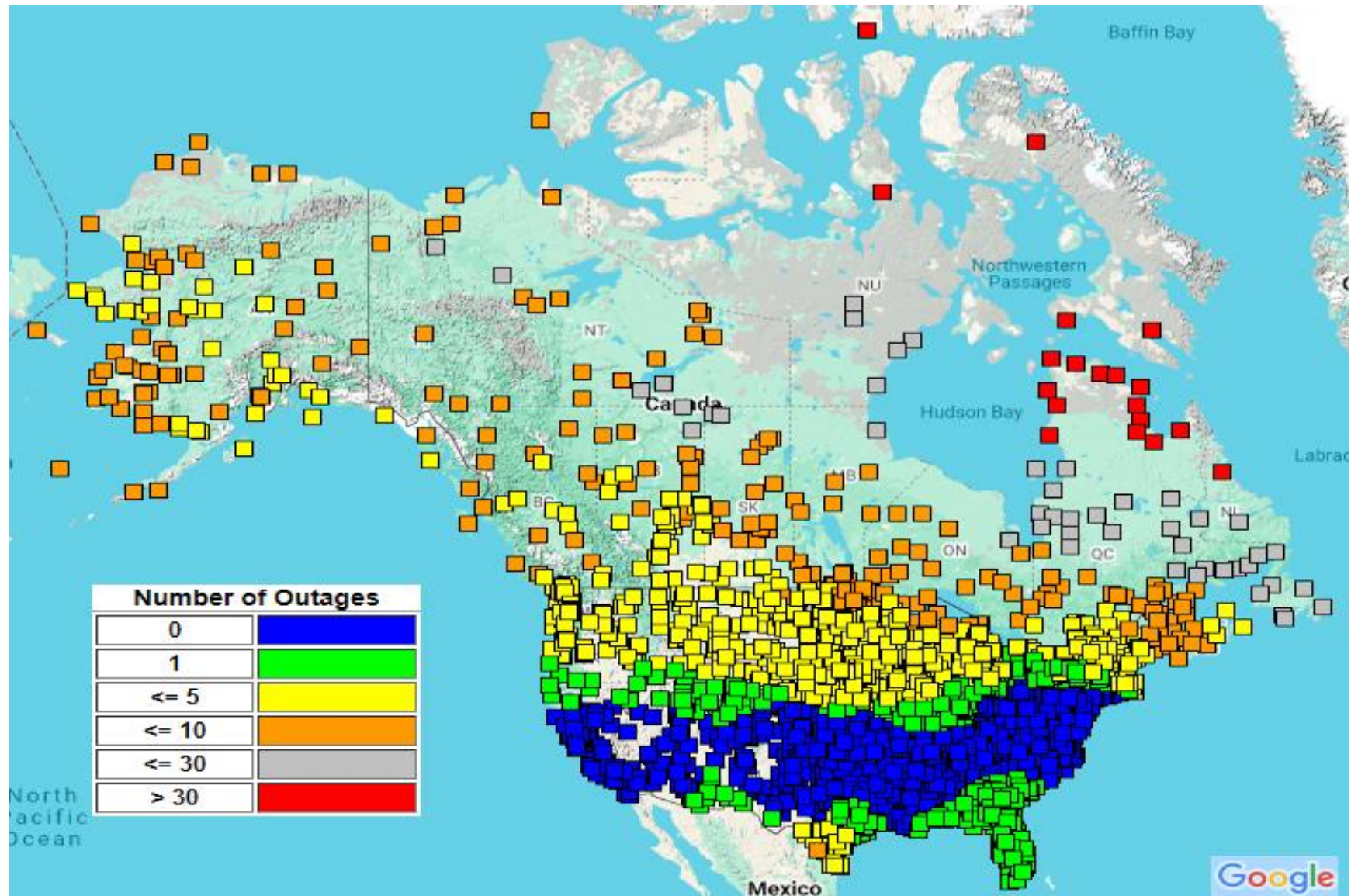


Figure 8-2 WAAS LP Outages at Airports in the U.S. and Canada with GPS RNAV IAPs

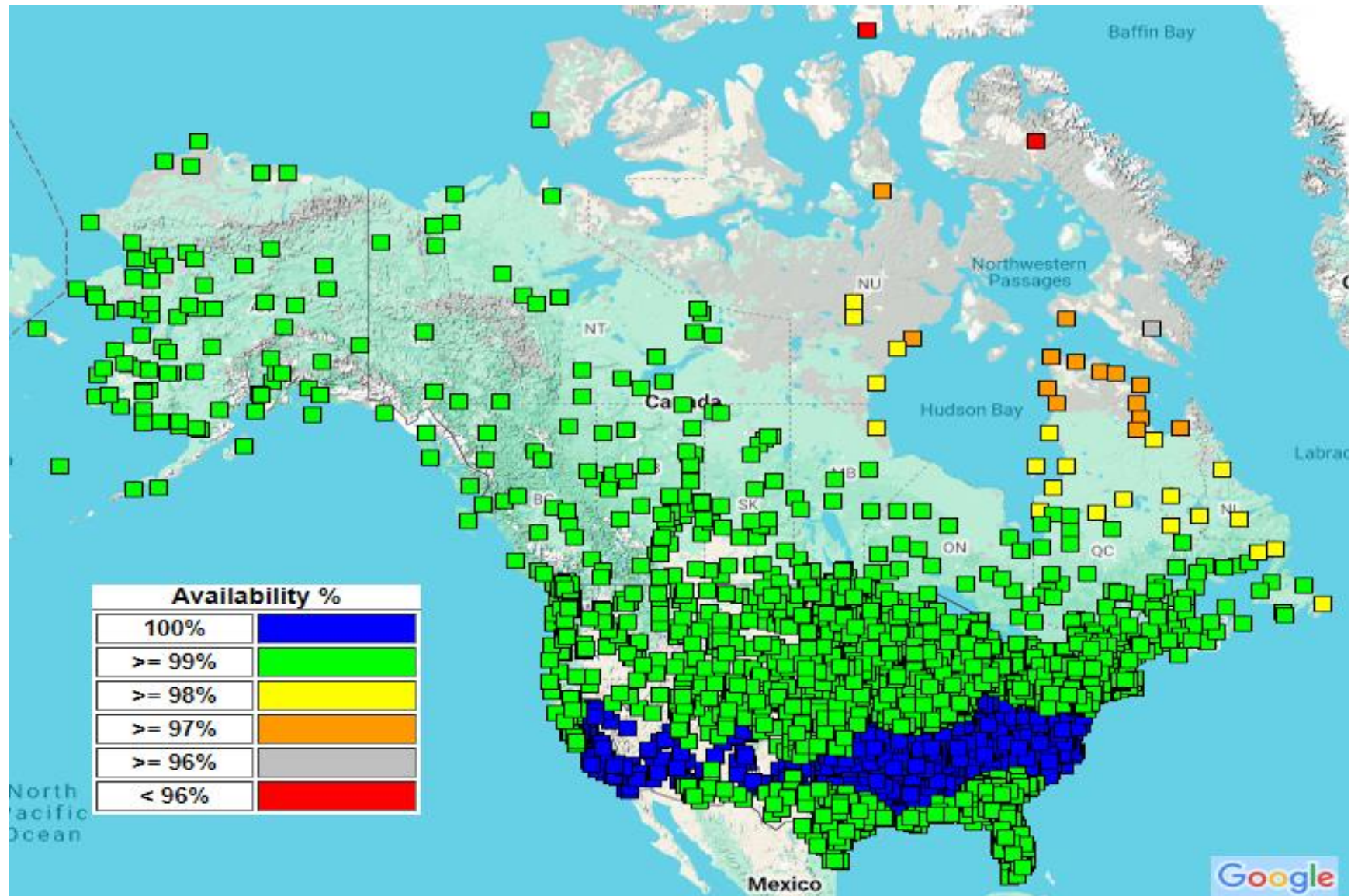


Figure 8-3 WAAS LPV Availability Airports in the U.S. and Canada with GPS RNAV IAPs

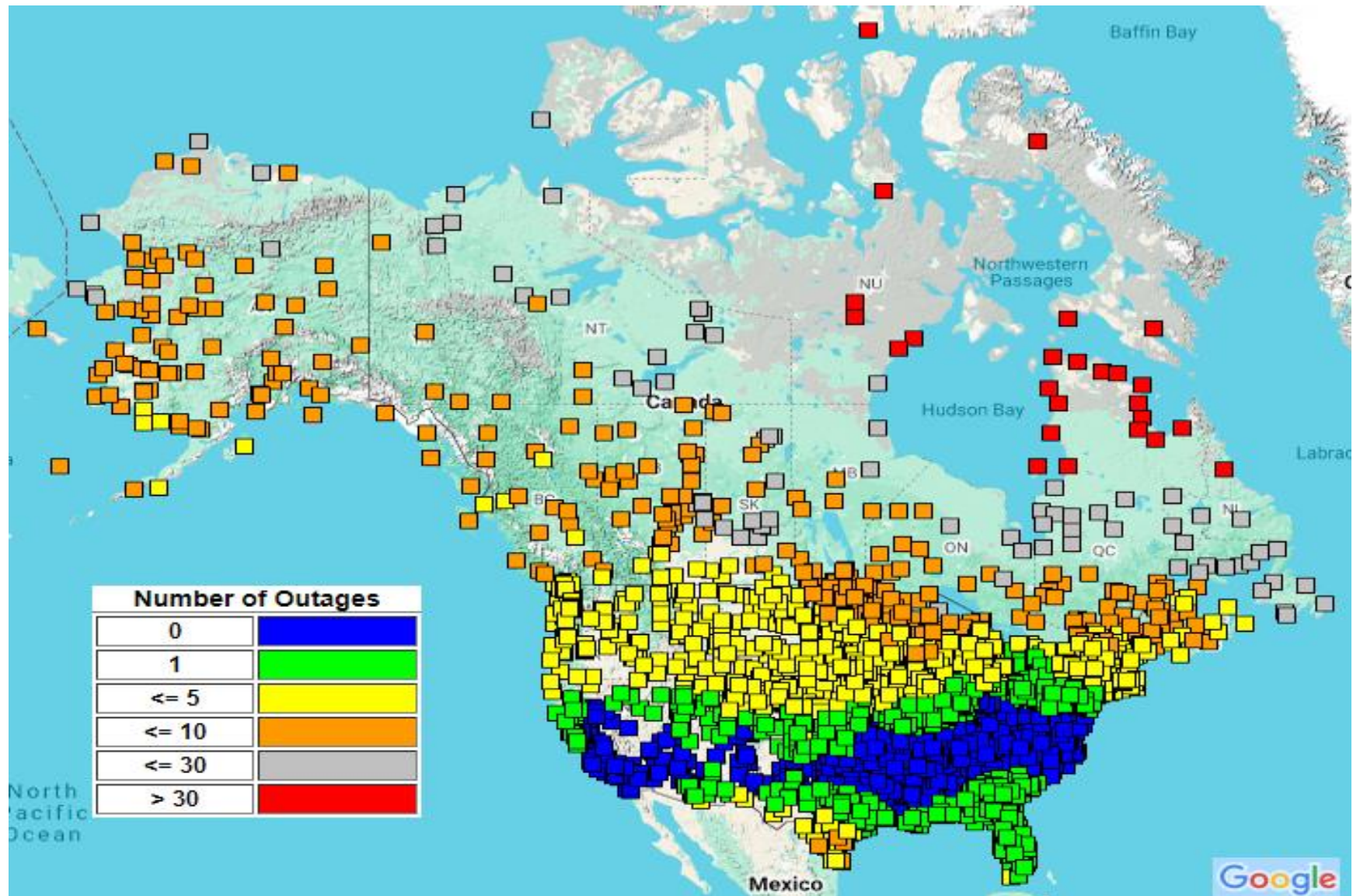


Figure 8-4 WAAS LPV Outages at Airports in the U.S. and Canada with GPS RNAV IAPs

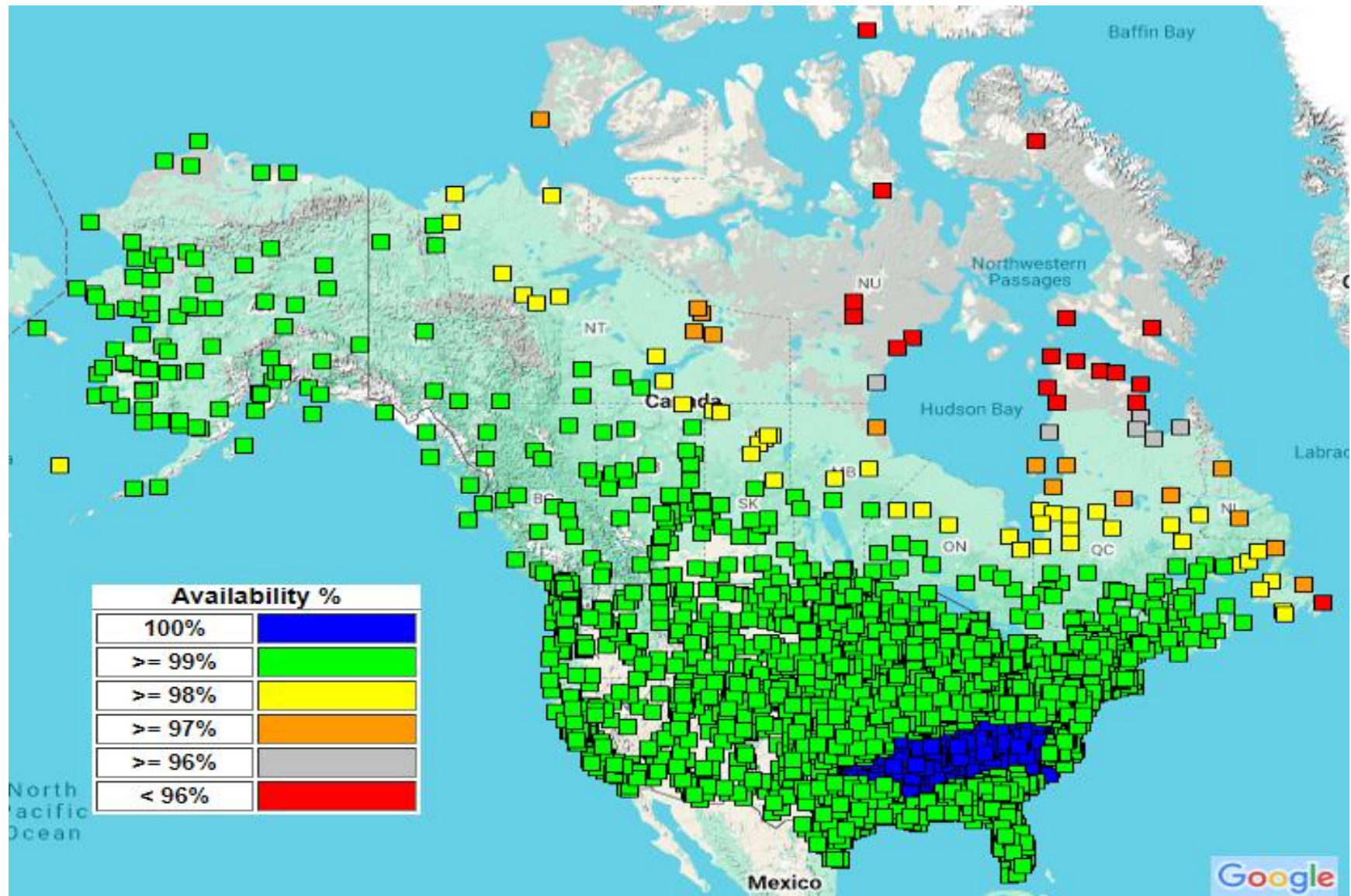


Figure 8-5 WAAS LPV200 Availability at Airports in the U.S. and Canada with GPS RNAV IAPs

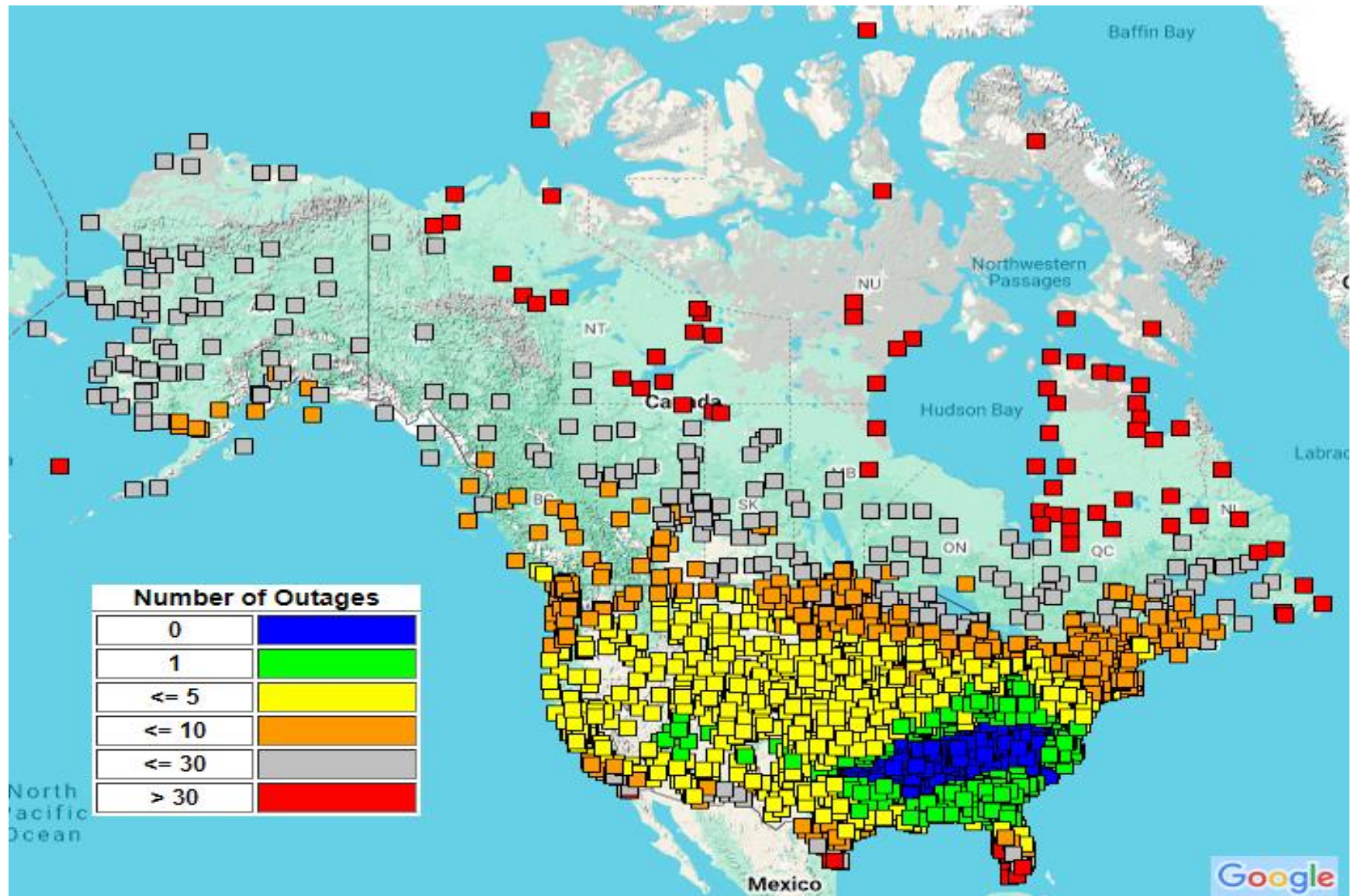


Figure 8-6 WAAS LPV200 Outages at Airports in the U.S. and Canada with GPS RNAV IAPs

9.0 WAAS CNMP BOUNDING ANALYSIS

The purpose of the WAAS CNMP Bounding Analysis is to evaluate the performance of the CNMP algorithm and identify any undetected anomalous events to limit exposure to faulted receivers and persistent large multipath errors. The identification of undetected anomalous events ensures that the probability of more than one WAAS reference station (WRS)-producing persistent unbounded measurement errors is negligible. This offline analysis is critical to ensure that CNMP bounding is not invalidated by changes in WRE environmental conditions.

The operational CNMP functionality resides in the WAAS safety processor. The CNMP algorithm estimates, and corrects for, observed code noise and multipath and provides confidence estimates for residual error in multipath-corrected pseudorange measurements. These confidence terms provide a conservative Gaussian overbound of the true error distribution, which integrity monitors use in the weighting of the measurements.

The measurement data from the offline analysis is post-processed to estimate the carrier phase ambiguity of each entire arc of measurements for each satellite pass. The ambiguity estimate is used to level the carrier measurement, which is then used as a multipath-free truth estimate. The WAAS real-time CNMP smoothing algorithm is then applied to the original measurements, and the difference between the smoothed measurements and the multipath-free truth estimates is the observed residual error. To minimize the impacts of non-zero mean multipath biasing the truth estimates, only arcs with a continuous carrier phase greater than 7200 seconds are used for this analysis. The WAAS dual frequency cycle slip detector algorithm is used to detect any discontinuities in the carrier phase.

Statistics are calculated based on how well Gaussian distributions with 0.1 multiples of the CNMP standard deviation bound the observed residual error. Subsequently, these statistics are compared to a theoretical Gaussian distribution, and an extensive set of plots are generated and manually reviewed. Table 9-1 shows the analysis results for the previous 12 months for all three threads of WRE at each WAAS reference station. The color coding represents four levels of performance based on the magnitude and probability distribution of the residual error and the bounding performance of the CNMP algorithm.

Table 9-1 CNMP Bounding Statistics

WAAS Site	WRE	Jan 25	Feb 25	Mar 25	Apr 25	May 25	Jun 25	Jul 25	Aug 25	Sep 25	Oct 25	Nov 25	Dec 25
Albuquerque	A	•	•	•	•	•	•	•	•	•	•	•	•
	B	•	•	•	•	•	•	•	•	•	•	•	•
	C	•	•	•	•	•	•	•	•	•	•	•	•
Anchorage	A	•	•	•	•	•	•	•	•	•	•	•	•
	B	•	•	•	•	•	•	•	•	•	•	•	•
	C	•	•	•	•	•	•	•	•	•	•	•	•
Atlanta	A	•	•	•	•	•	•	•	•	•	•	•	•
	B	•	•	•	•	•	•	•	•	•	•	•	•
	C	•	•	•	•	•	•	•	•	•	•	•	•
Barrow	A	•	•	•	•	•	•	•	•	•	•	•	•
	B	•	•	•	•	•	•	•	•	•	•	•	•
	C	•	•	•	•	•	•	•	•	•	•	•	•
Bethel	A	•	•	•	•	•	•	•	•	•	•	•	•
	B	•	•	•	•	•	•	•	•	•	•	•	•
	C	•	•	•	•	•	•	•	•	•	•	•	•
Billings	A	•	•	•	•	•	•	•	•	•	•	•	•
	B	•	•	•	•	•	•	•	•	•	•	•	•
	C	•	•	•	•	•	•	•	•	•	•	•	•
Boston	A	•	•	•	•	•	•	•	•	•	•	•	•
	B	•	•	•	•	•	•	•	•	•	•	•	•
	C	•	•	•	•	•	•	•	•	•	•	•	•
Chicago	A	•	•	•	•	•	•	•	•	•	•	•	•
	B	•	•	•	•	•	•	•	•	•	•	•	•
	C	•	•	•	•	•	•	•	•	•	•	•	•
Cleveland	A	•	•	•	•	•	•	•	•	•	•	•	•
	B	•	•	•	•	•	•	•	•	•	•	•	•
	C	•	•	•	•	•	•	•	•	•	•	•	•
Cold Bay	A	•	•	•	•	•	•	•	•	•	•	•	•
	B	•	•	•	•	•	•	•	•	•	•	•	•
	C	•	•	•	•	•	•	•	•	•	•	•	•
Dallas	A	•	•	•	•	•	•	•	•	•	•	•	•
	B	•	•	•	•	•	•	•	•	•	•	•	•
	C	•	•	•	•	•	•	•	•	•	•	•	•
Denver	A	•	•	•	•	•	•	•	•	•	•	•	•
	B	•	•	•	•	•	•	•	•	•	•	•	•
	C	•	•	•	•	•	•	•	•	•	•	•	•
Fairbanks	A	•	•	•	•	•	•	•	•	•	•	•	•
	B	•	•	•	•	•	•	•	•	•	•	•	•
	C	•	•	•	•	•	•	•	•	•	•	•	•
Gander	A	•	•	•	•	•	•	•	•	•	•	•	•
	B	•	•	•	•	•	•	•	•	•	•	•	•
	C	•	•	•	•	•	•	•	•	•	•	•	•
Goose Bay	A	•	•	•	•	•	•	•	•	•	•	•	•
	B	•	•	•	•	•	•	•	•	•	•	•	•
	C	•	•	•	•	•	•	•	•	•	•	•	•
Honolulu	A	•	•	•	•	•	•	•	•	•	•	•	•
	B	•	•	•	•	•	•	•	•	•	•	•	•
	C	•	•	•	•	•	•	•	•	•	•	•	•
Houston	A	•	•	•	•	•	•	•	•	•	•	•	•
	B	•	•	•	•	•	•	•	•	•	•	•	•
	C	•	•	•	•	•	•	•	•	•	•	•	•
Iqaluit	A	•	•	•	•	•	•	•	•	•	•	•	•
	B	•	•	•	•	•	•	•	•	•	•	•	•
	C	•	•	•	•	•	•	•	•	•	•	•	•
Jacksonville	A	•	•	•	•	•	•	•	•	•	•	•	•
	B	•	•	•	•	•	•	•	•	•	•	•	•
	C	•	•	•	•	•	•	•	•	•	•	•	•

WAAS Site	WRE	Jan 25	Feb 25	Mar 25	Apr 25	May 25	Jun 25	Jul 25	Aug 25	Sep 25	Oct 25	Nov 25	Dec 25
Juneau	A	●	●	●	●	●	●	●	●	●	●	●	●
	B	●	●	●	●	●	●	●	●	●	●	●	●
	C	●	●	●	●	●	●	●	●	●	●	●	●
Kansas City	A	●	●	●	●	●	●	●	●	●	●	●	●
	B	●	●	●	●	●	●	●	●	●	●	●	●
	C	●	●	●	●	●	●	●	●	●	●	●	●
Kotzebue	A	●	●	●	●	●	●	●	●	●	●	●	●
	B	●	●	●	●	●	●	●	●	●	●	●	●
	C	●	●	●	●	●	●	●	●	●	●	●	●
Los Angeles	A	●	●	●	●	●	●	●	●	●	●	●	●
	B	●	●	●	●	●	●	●	●	●	●	●	●
	C	●	●	●	●	●	●	●	●	●	●	●	●
Memphis	A	●	●	●	●	●	●	●	●	●	●	●	●
	B	●	●	●	●	●	●	●	●	●	●	●	●
	C	●	●	●	●	●	●	●	●	●	●	●	●
Merida	A	●	●	●	●	●	●	●	●	●	●	●	●
	B	●	●	●	●	●	●	●	●	●	●	●	●
	C	●	●	●	●	●	●	●	●	●	●	●	●
Mexico City	A	●	●	●	●	●	●	●	●	●	●	●	●
	B	●	●	●	●	●	●	●	●	●	●	●	●
	C	●	●	●	●	●	●	●	●	●	●	●	●
Miami	A	●	●	●	●	●	●	●	●	●	●	●	●
	B	●	●	●	●	●	●	●	●	●	●	●	●
	C	●	●	●	●	●	●	●	●	●	●	●	●
Minneapolis	A	●	●	●	●	●	●	●	●	●	●	●	●
	B	●	●	●	●	●	●	●	●	●	●	●	●
	C	●	●	●	●	●	●	●	●	●	●	●	●
New York	A	●	●	●	●	●	●	●	●	●	●	●	●
	B	●	●	●	●	●	●	●	●	●	●	●	●
	C	●	●	●	●	●	●	●	●	●	●	●	●
Oakland	A	●	●	●	●	●	●	●	●	●	●	●	●
	B	●	●	●	●	●	●	●	●	●	●	●	●
	C	●	●	●	●	●	●	●	●	●	●	●	●
Puerto Vallarta	A	●	●	●	●	●	●	●	●	●	●	●	●
	B	●	●	●	●	●	●	●	●	●	●	●	●
	C	●	●	●	●	●	●	●	●	●	●	●	●
Salt Lake City	A	●	●	●	●	●	●	●	●	●	●	●	●
	B	●	●	●	●	●	●	●	●	●	●	●	●
	C	●	●	●	●	●	●	●	●	●	●	●	●
San Jose Del Cabo	A	●	●	●	●	●	●	●	●	●	●	●	●
	B	●	●	●	●	●	●	●	●	●	●	●	●
	C	●	●	●	●	●	●	●	●	●	●	●	●
San Juan	A	●	●	●	●	●	●	●	●	●	●	●	●
	B	●	●	●	●	●	●	●	●	●	●	●	●
	C	●	●	●	●	●	●	●	●	●	●	●	●
Seattle	A	●	●	●	●	●	●	●	●	●	●	●	●
	B	●	●	●	●	●	●	●	●	●	●	●	●
	C	●	●	●	●	●	●	●	●	●	●	●	●
Tapachula	A	●	●	●	●	●	●	●	●	●	●	●	●
	B	●	●	●	●	●	●	●	●	●	●	●	●
	C	●	●	●	●	●	●	●	●	●	●	●	●
Washington, DC	A	●	●	●	●	●	●	●	●	●	●	●	●
	B	●	●	●	●	●	●	●	●	●	●	●	●
	C	●	●	●	●	●	●	●	●	●	●	●	●
Winnipeg	A	●	●	●	●	●	●	●	●	●	●	●	●
	B	●	●	●	●	●	●	●	●	●	●	●	●
	C	●	●	●	●	●	●	●	●	●	●	●	●

- Excellent - 3.29σ bounded 100%
- Good - 4σ bounded 100%
- Fair - 4σ bounded 100% with one worst satellite excluded (Requires manual review if symptoms repeat from month to month)
- Poor - Requires manual review
- N/A - No data available

10.0 WRS ANTENNA SURVEY VALIDATION

Antenna L1 phase center position surveys were performed for all the WAAS Reference Station antennas using 24 hour sets on 12/26/2025. Merida Thread C (MMD3), Puerto Vallarta Thread B (MPR2), Tapachula Thread A (MTP1), Tapachula Thread B (MTP2), and Oakland Thread A (ZOA1) are excluded from this since they were out of service. Each WAAS WRS has three independent threads of WRE: (1) Thread A is also referred to as Thread 1, (2) Thread B is also referred to as Thread 2, and (3) Thread C is referred to as Thread 3.

Duplicate surveys were performed using both the NGS OPUS and the CSRS PPP services. The International GPS Service (IGS) 08 reference frame is used for the OPUS solutions. A value of -0.4445 meters was used for the antenna reference point (ARP) to antenna phase center (APC) offset for the MicroPulse MPL-WAAS-2225W WAAS antennas in the processing of the data.

The OPUS-reported RMS quality metrics were 2.4 cm or less. The CSRS surveys' RSSs of the reported ECEF sigmas were 11.37 mm or less. The OPUS and CSRS surveys agreed to an average of 1.31 cm with a standard deviation of 7.32 mm. The maximum of difference was 4.71 cm at Juneau Thread A (JNU1).

The OPUS positions were compared to the positions computed by the WAAS C&Vs. The survey was completed on December 26, 2025. The OPUS surveys agree with the calculated positions to better or equal to 6.36 cm for most sites. The maximum difference was 14.35 cm at Honolulu Thread C (ZHN3). This site will be used as the maximum in this case, since the Mexico City sites are significant outliers by over 50 cm.

Table 10-1 WAAS Antenna Positions (OPUS IGS08) as of 04/02/2017 lists the WAAS antenna L1 phase center positions using the OPUS data.

Table 10-1 WAAS Antenna Positions (OPUS IGS08) as of 04/02/2017

WRE	X(m)	Y(m)	Z(m)	LATITUDE	LONGITUDE	H(m)
BET1	-2965385.321	-972576.651	5543892.739	60.7879127	-161.841726	52.176
BET2	-2965386.103	-972580.381	5543891.697	60.7878932	-161.8416654	52.197
BET3	-2965388.661	-972577.512	5543890.832	60.7878773	-161.8417301	52.192
BIL1	-1416446.068	-4223577.005	4550862.053	45.8037059	-108.5397254	1112.206
BIL2	-1416450.139	-4223574.859	4550862.78	45.8037153	-108.5397838	1112.211
BIL3	-1416441.771	-4223574.261	4550865.915	45.8037557	-108.5396842	1112.209
BRW1	-1886759.196	-809058.707	6018494.372	71.2827624	-156.7899266	15.559
BRW2	-1886756.614	-809055.956	6018495.56	71.2827951	-156.7899688	15.575
BRW3	-1886755.519	-809059.744	6018495.378	71.2827905	-156.7898596	15.558
CDB1	-3484099.334	-1084748.831	5213678.467	55.1923712	-162.7064053	49.725
CDB2	-3484105.971	-1084741.637	5213675.52	55.1923251	-162.7065441	49.702
CDB3	-3484112.254	-1084734.857	5213672.771	55.1922817	-162.7066751	49.719
FAI1	-2304742.084	-1448715.351	5748843.652	64.8096277	-147.8473426	150.02
FAI2	-2304741.626	-1448706.545	5748846.05	64.809678	-147.8474944	150.03
FAI3	-2304733.099	-1448707.475	5748849.192	64.8097446	-147.8473823	150.011
JNU1	-2354255.229	-2388549.733	5407043.224	58.3625729	-134.5857101	16.349
JNU2	-2354253.135	-2388565.849	5407037.061	58.3624674	-134.5854913	16.351
JNU3	-2354239.916	-2388568.696	5407041.506	58.3625437	-134.5852964	16.332
MMD1	35070.3	-5959686.65	2264365.772	20.9319094	-89.6628418	29.105
MMD2	35065.373	-5959687.017	2264364.994	20.9319017	-89.6628892	29.142
MMD3	N/A	N/A	N/A	N/A	N/A	N/A
MMX1	-948700.609	-5943931.988	2109211.481	19.4316541	-99.0683905	2231.746
MMX2	-948696.175	-5943931.808	2109213.913	19.4316774	-99.0683491	2231.728
MMX3	-948705.039	-5943932.168	2109209.07	19.4316309	-99.0684318	2231.77
MPR1	-1570142.311	-5759530.589	2238184.728	20.6790031	-105.2492041	10.977
MPR2	N/A	N/A	N/A	N/A	N/A	N/A
MPR3	-1570143.584	-5759527.956	2238190.533	20.6790592	-105.2492225	10.963

WRE	X(m)	Y(m)	Z(m)	LATITUDE	LONGITUDE	H(m)
MSD1	-1979520.34	-5523222.714	2493107.068	23.1604496	-109.7176549	104.293
MSD2	-1979521.912	-5523225.054	2493100.668	23.1603868	-109.7176616	104.288
MSD3	-1979526.356	-5523221.773	2493104.339	23.1604229	-109.7177133	104.271
MTP1	N/A	N/A	N/A	N/A	N/A	N/A
MTP2	N/A	N/A	N/A	N/A	N/A	N/A
MTP3	-254855.551	-6162910.279	1617800.157	14.7913204	-92.3680099	54.812
OTZ1	-2396056.281	-750356.222	5843502.368	66.8873294	-162.6113734	10.854
OTZ2	-2396053.11	-750354.393	5843503.888	66.8873643	-162.6113916	10.85
OTZ3	-2396053.089	-750358.332	5843503.4	66.887353	-162.6113056	10.855
YFB1	1035381.203	-2634289.676	5696539.63	63.7314913	-68.5431883	10.083
YFB2	1035371.986	-2634296.097	5696538.249	63.7314649	-68.5434095	9.997
YFB3	1035365.912	-2634306.859	5696534.477	63.7313872	-68.5436036	10.064
YQX1	2430424.424	-3419640.428	4788223.939	48.9664913	-54.5976348	146.898
YQX2	2430432.365	-3419639.076	4788220.877	48.9664495	-54.5975357	146.885
YQX3	2430440.265	-3419637.717	4788217.883	48.9664083	-54.597437	146.904
YWG1	-520164.645	-4083475.994	4855842.971	49.9005733	-97.2594012	222.104
YWG2	-520150.775	-4083468.93	4855850.367	49.9006764	-97.2592222	222.119
YWG3	-520152.646	-4083478.049	4855842.545	49.9005673	-97.259232	222.115
YYR1	1885341.219	-3321428.409	5091171.791	53.3086483	-60.4194713	37.92
YYR2	1885344.175	-3321419.927	5091176.203	53.3087146	-60.41937	37.922
YYR3	1885339.897	-3321413.109	5091182.202	53.3088047	-60.4193753	37.928
ZAB1	-1488637.026	-5003946.528	3654557.644	35.1735747	-106.5673518	1620.122
ZAB2	-1488631.689	-5003948.213	3654557.621	35.173574	-106.5672904	1620.185
ZAB3	-1488632.466	-5003950.796	3654553.768	35.1735317	-106.5672905	1620.17
ZAN1	-2659536.858	-1549114.657	5567750.719	61.2292006	-149.7802547	80.722
ZAN2	-2659548.601	-1549110.698	5567746.23	61.2291171	-149.7804284	80.712
ZAN3	-2659541.556	-1549106.578	5567750.709	61.2292006	-149.7804287	80.71
ZAU1	138703.915	-4761244.117	4227763.911	41.7826581	-88.3313391	195.852
ZAU2	138704.178	-4761248.736	4227758.748	41.7825957	-88.3313376	195.86

WRE	X(m)	Y(m)	Z(m)	LATITUDE	LONGITUDE	H(m)
ZAU3	138710.881	-4761248.474	4227758.831	41.7825966	-88.3312569	195.866
ZBW1	1490299.019	-4448983.185	4306010.542	42.7357211	-71.4804282	39.109
ZBW2	1490304.137	-4448981.18	4306010.887	42.7357251	-71.4803612	39.14
ZBW3	1490305.841	-4448984.803	4306006.578	42.7356723	-71.4803555	39.137
ZDC1	1069125.566	-4839598.989	4001126.527	39.1015963	-77.5427488	80.045
ZDC2	1069127.962	-4839603.613	4001120.328	39.1015244	-77.5427332	80.04
ZDC3	1069123.867	-4839602.7	4001122.521	39.1015498	-77.5427772	80.046
ZDV1	-1273628.806	-4711375.574	4094890.061	40.1873026	-105.1272266	1541.362
ZDV2	-1273623.101	-4711377.084	4094890.068	40.1873029	-105.1271573	1541.343
ZDV3	-1273625.115	-4711380.285	4094885.784	40.1872524	-105.1271703	1541.34
ZFW1	-659983.361	-5324060.77	3438276.439	32.8306494	-97.0664735	155.612
ZFW2	-659988.639	-5324063.32	3438271.44	32.830596	-97.0665261	155.574
ZFW3	-659983.661	-5324063.849	3438271.647	32.830598	-97.0664726	155.613
ZHN1	-5508637.244	-2234492.474	2303722.615	21.3129944	-157.9208355	24.654
ZHN2	-5508656.413	-2234482.793	2303687.377	21.3126516	-157.9209914	25.005
ZHN3	-5508647.825	-2234496.728	2303694.481	21.3127203	-157.9208359	25.053
ZHU1	-513864.618	-5506451.604	3166720.405	29.9618962	-95.3314279	10.74
ZHU2	-513867.265	-5506454.999	3166714.239	29.9618317	-95.3314519	10.802
ZHU3	-513873.543	-5506457.641	3166708.641	29.9617735	-95.3315141	10.791
ZJX1	772646.287	-5434462.186	3237231.763	30.6988599	-81.9081867	2.125
ZJX2	772649.613	-5434463.746	3237228.374	30.6988244	-81.9081546	2.125
ZJX3	772645.55	-5434466.175	3237225.265	30.6987918	-81.9082002	2.114
ZKC1	-415247.699	-4954556.385	3982161.089	38.8801592	-94.7908359	305.89
ZKC2	-415231.306	-4954557.703	3982161.142	38.8801598	-94.7906464	305.88
ZKC3	-415237.425	-4954561.05	3982155.947	38.8801017	-94.7907135	305.613
ZLA1	-2474410.239	-4637294.456	3602183.624	34.6035191	-118.0838992	763.54
ZLA2	-2474404.944	-4637297.224	3602183.609	34.6035193	-118.0838341	763.49
ZLA3	-2474411.565	-4637296.942	3602179.653	34.6034752	-118.0838992	763.604
ZLC1	-1808273.425	-4486410.799	4145302.941	40.7860424	-111.95218	1287.424

WRE	X(m)	Y(m)	Z(m)	LATITUDE	LONGITUDE	H(m)
ZLC2	-1808274.809	-4486414.421	4145298.444	40.785989	-111.9521791	1287.422
ZLC3	-1808270.605	-4486416.12	4145298.443	40.7859889	-111.9521254	1287.425
ZMA1	966042.163	-5662999.817	2761581.534	25.8246126	-80.3191911	-7.598
ZMA2	966029.19	-5662999.122	2761586.022	25.8246603	-80.3193175	-8.224
ZMA3	966037.263	-5662997.944	2761586.369	25.8246624	-80.3192362	-7.896
ZME1	4070.713	-5226189.295	3644028.415	35.0673941	-89.955372	68.597
ZME2	4070.742	-5226186.75	3644032.534	35.0674376	-89.9553716	68.88
ZME3	4064.549	-5226186.618	3644032.682	35.0674394	-89.9554395	68.853
ZMP1	-249978.586	-4539297.49	4458955.013	44.637463	-93.1520881	262.628
ZMP2	-249972.782	-4539297.833	4458955.018	44.6374629	-93.1520148	262.648
ZMP3	-249973.878	-4539302.109	4458950.54	44.6374068	-93.1520256	262.583
ZNY1	1406144.43	-4627343.969	4144322.121	40.7843294	-73.097168	6.435
ZNY2	1406146.232	-4627347.018	4144317.32	40.7842765	-73.097158	5.905
ZNY3	1406140.673	-4627348.673	4144317.356	40.7842769	-73.0972268	5.904
ZOA1	N/A	N/A	N/A	N/A	N/A	N/A
ZOA2	-2684434.149	-4293341.204	3865349.553	37.5430276	-122.0158989	-3.5
ZOA3	-2684438.525	-4293342.081	3865345.699	37.5429833	-122.0159356	-3.419
ZOB1	650769.984	-4754715.655	4187420.749	41.2971547	-82.2064471	223.647
ZOB2	650777.664	-4754714.828	4187422.767	41.297167	-82.2063549	225.146
ZOB3	650775.992	-4754719.654	4187414.977	41.2970873	-82.2063825	223.427
ZSE1	-2308930.407	-3668169.663	4663526.404	47.2869924	-122.1883744	82.087
ZSE2	-2308934.801	-3668175.215	4663520.004	47.2869068	-122.1883845	82.16
ZSE3	-2308935.859	-3668179.486	4663516.055	47.2868551	-122.1883662	82.092
ZSU1	2462589.505	-5529372.041	2003724.637	18.4313373	-65.9934759	-28.09
ZSU2	2462587.573	-5529377.414	2003712.348	18.4312202	-65.9935133	-28.065
ZSU3	2462594.2	-5529375.152	2003710.268	18.4312006	-65.9934473	-28.125
ZTL1	529840.239	-5305248.814	3489342.864	33.3796888	-84.2967278	261.132
ZTL2	529846.614	-5305247.968	3489343.144	33.3796919	-84.2966587	261.112
ZTL3	529847.298	-5305251.409	3489337.913	33.3796352	-84.2966551	261.15

Figure 10-1 through Figure 10-3 show the RSS of the ECEF differences between the OPUS survey antenna phase center locations and the locations in the WAAS C&V calculated software. Figure 10-4 through Figure 10-6 show the OPUS surveys overall RMS quality indications.

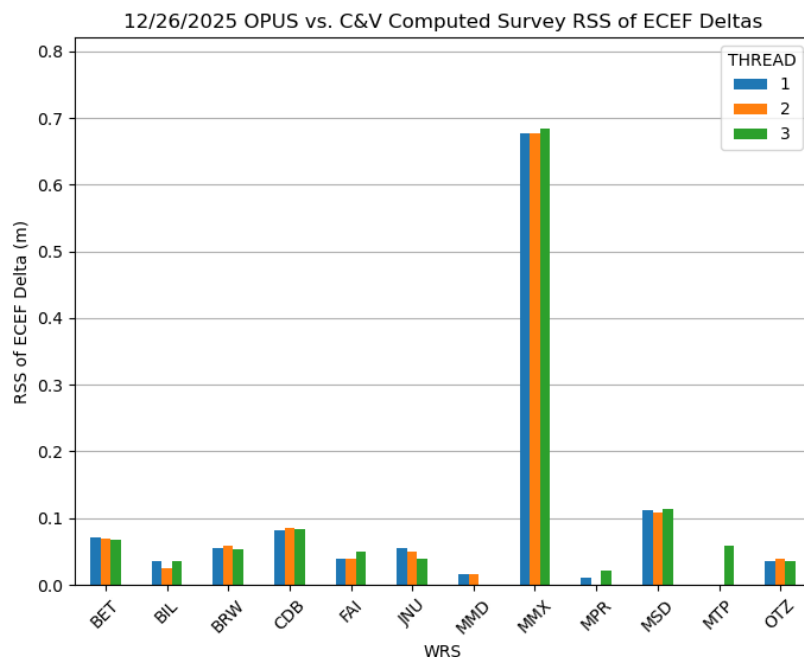


Figure 10-1 WAAS C&V Calculated Antenna Positions Deltas OPUS Survey

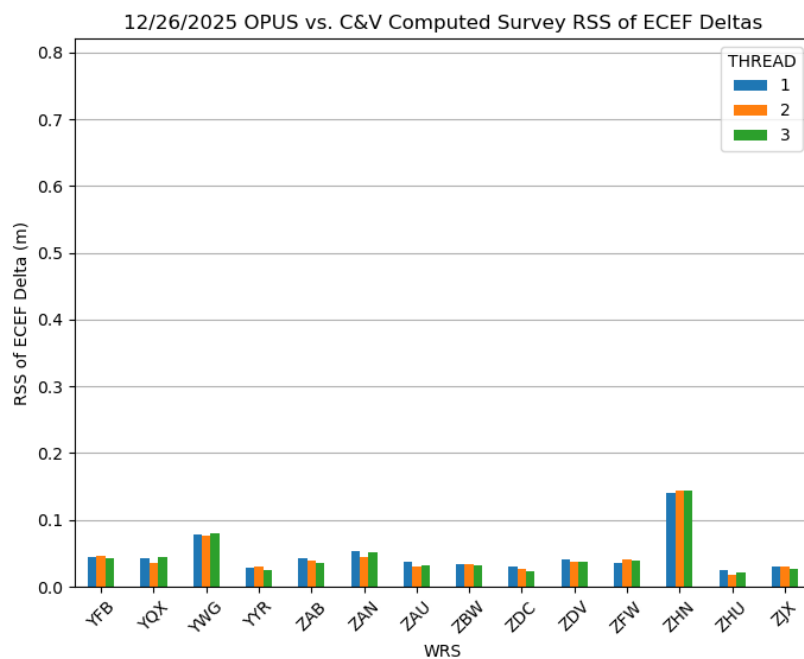


Figure 10-2 WAAS C&V Calculated Antenna Positions Deltas OPUS Survey

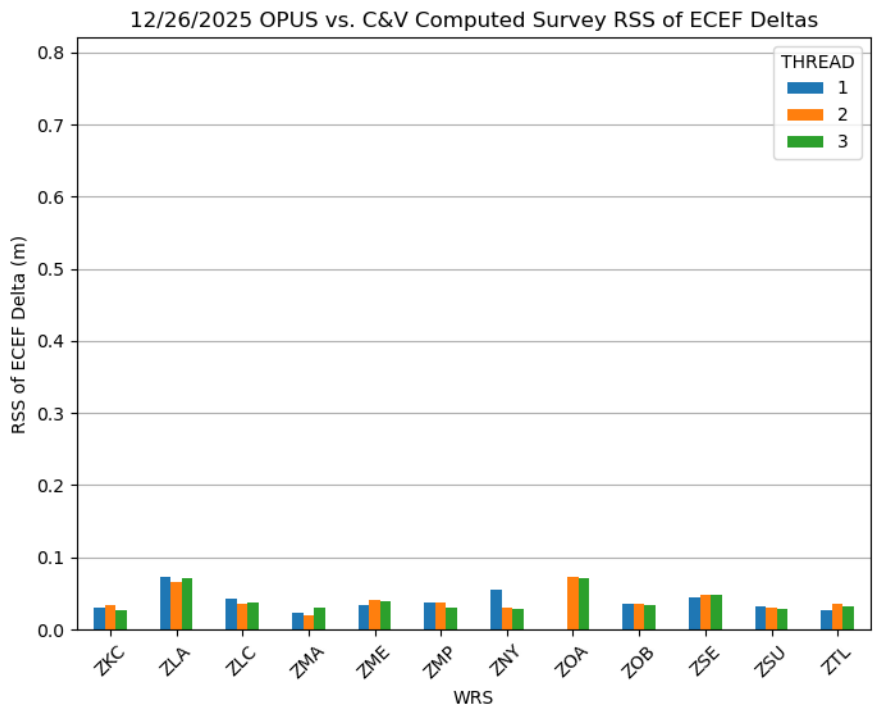


Figure 10-3 WAAS C&V Calculated Antenna Positions Deltas OPUS Survey

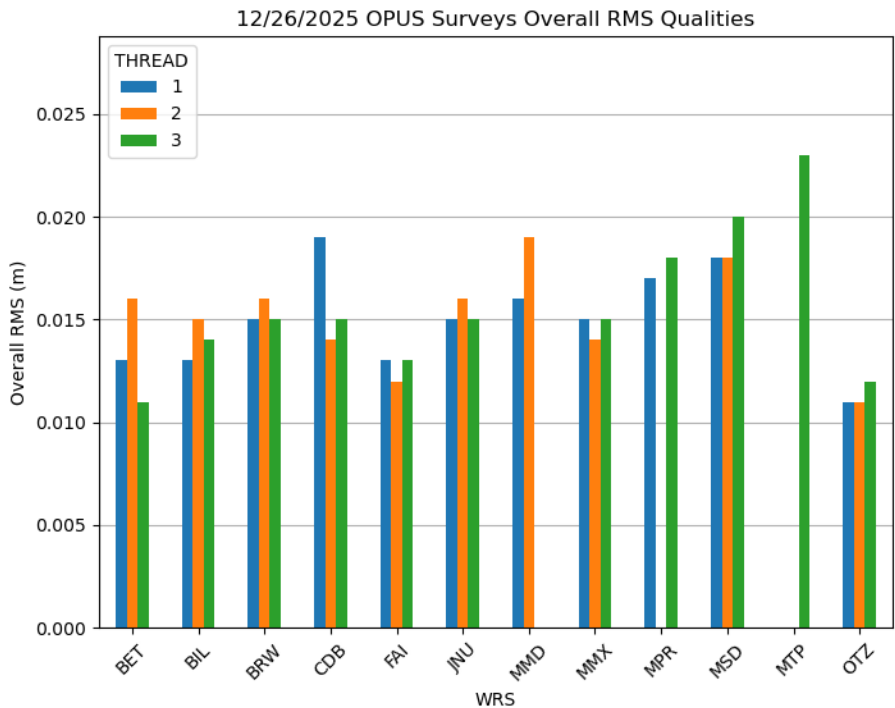


Figure 10-4 OPUS Survey Overall RMS Qualities

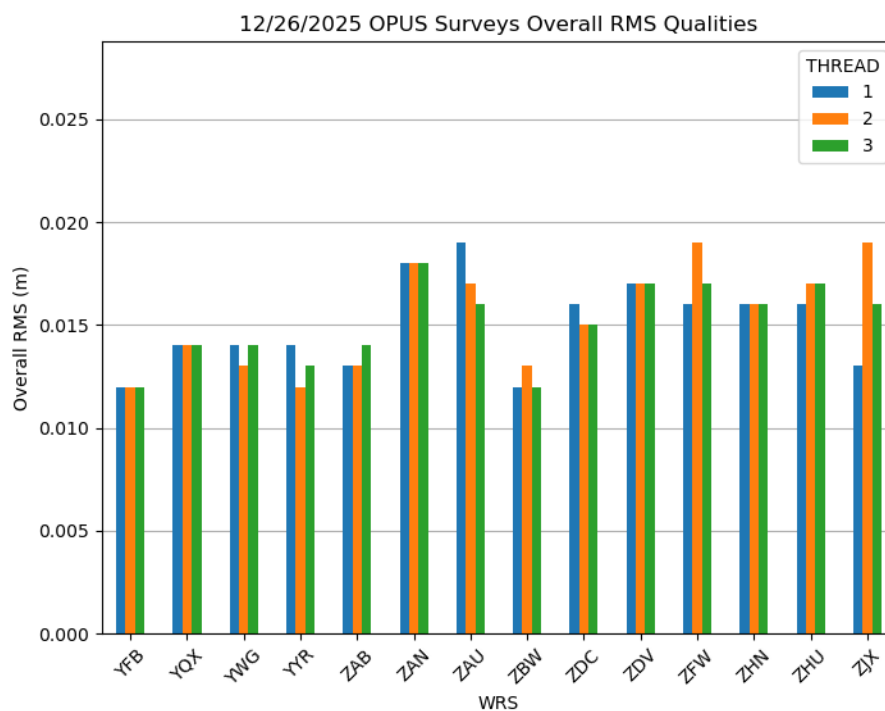


Figure 10-5 OPUS Survey Overall RMS Qualities

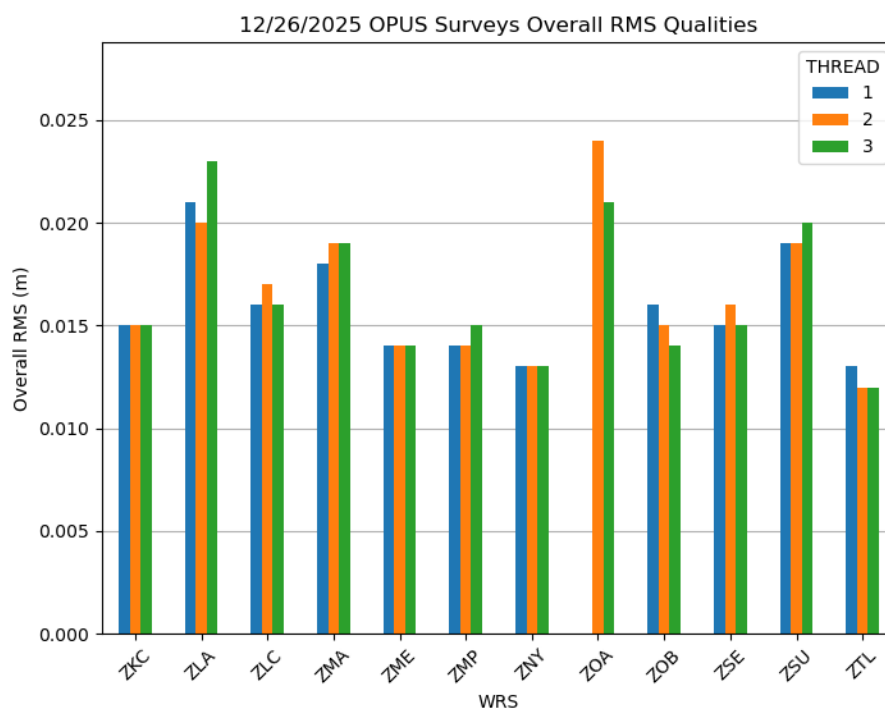


Figure 10-6 OPUS Survey Overall RMS Qualities

The “take action” threshold established by the WAAS Integrity Performance Panel (WIPP) is 25 cm for Mexico City and 10 cm for the remaining sites. The large MMX allowance is required because of the rapid subsidence in Mexico City (approximately 28 to 30 cm/year).

Figure 10-7 through Figure 10-9 show the RSS of the ECEF difference between the OPUS positions and the CSRS positions. Note that the OPUS positions are in IGS08 and the CSRS positions are in ITRF-2008. Figure 10-10 to Figure 10-12 show the RSS of the ECEF sigma’s survey qualities reported by CSRS.

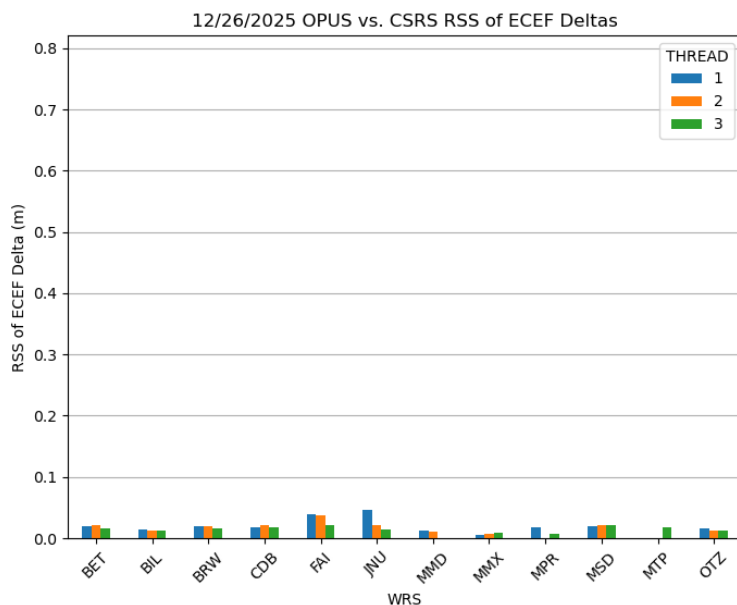


Figure 10-7 OPUS vs. CSRS RSS ECEF Deltas

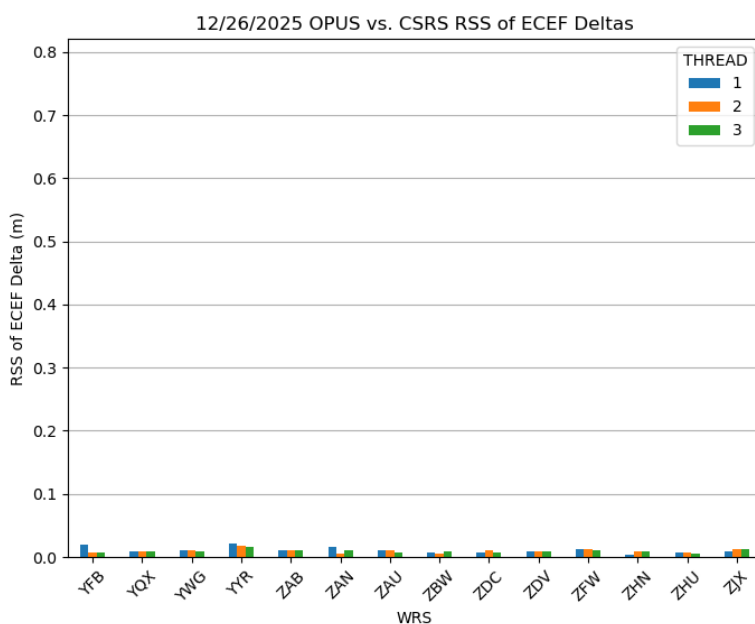


Figure 10-8 OPUS vs. CSRS RSS ECEF Deltas

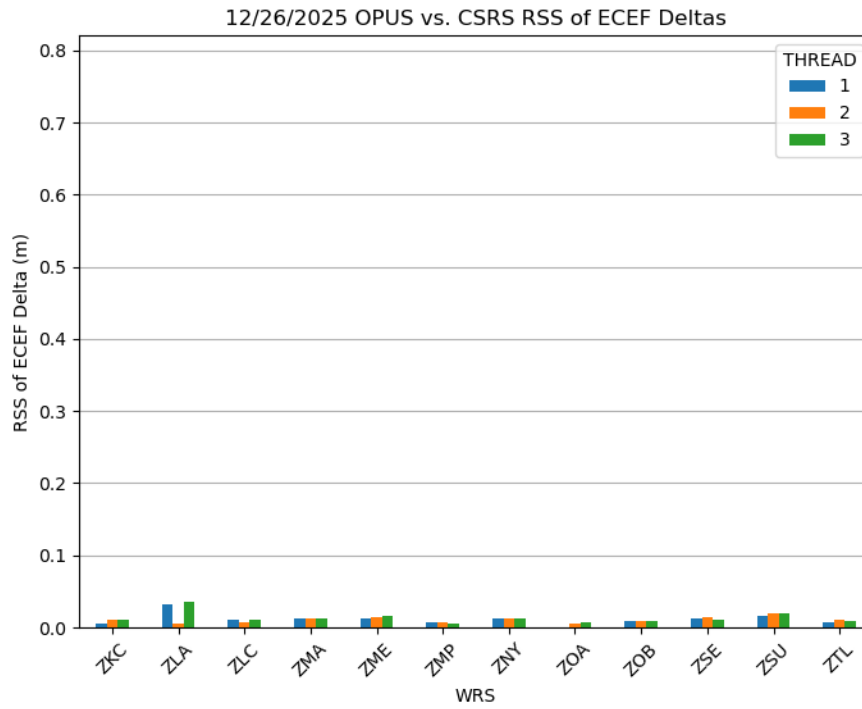


Figure 10-9 OPUS vs. CSRS RSS ECEF Deltas

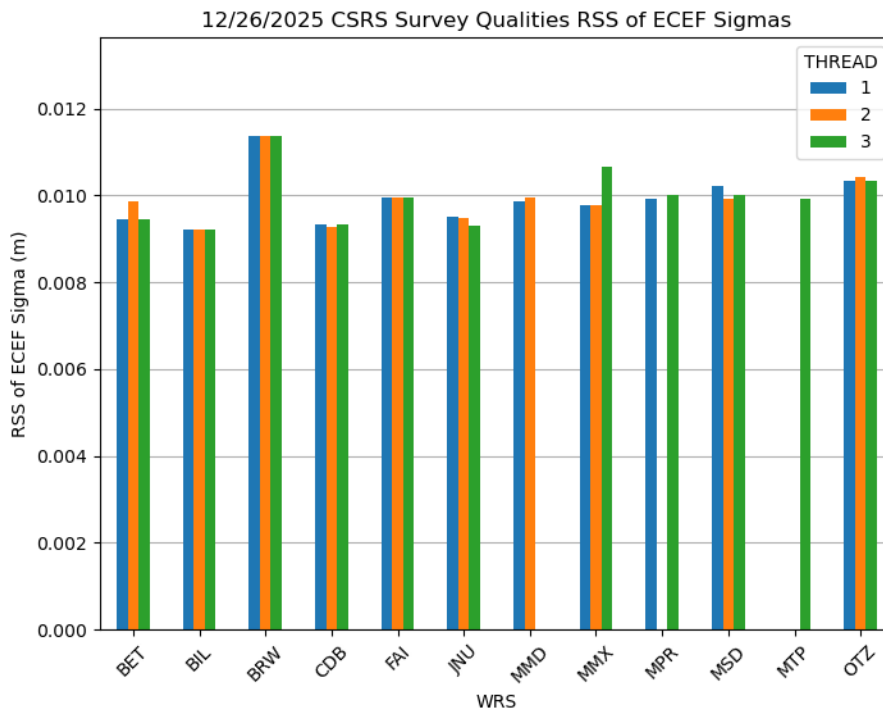


Figure 10-10 CSRS Survey Qualities

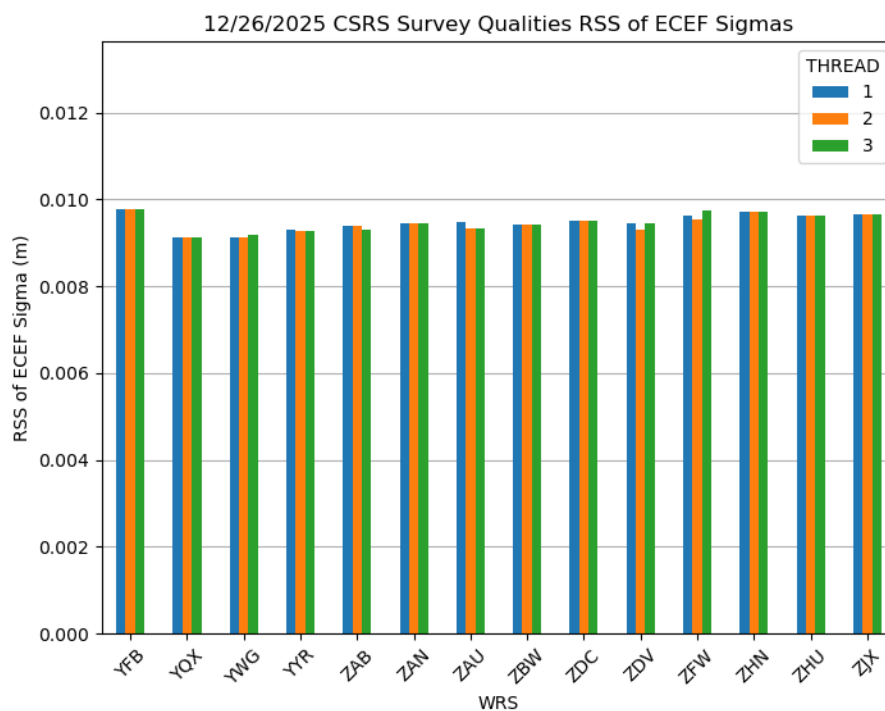


Figure 10-11 CSRS Survey Qualities

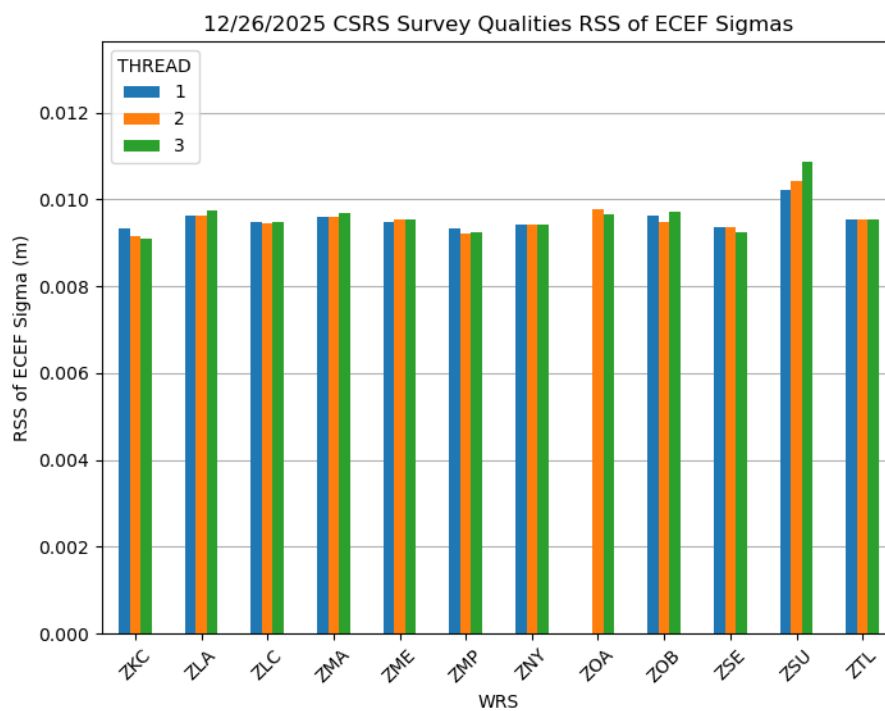


Figure 10-12 CSRS Survey Qualities

11.0 SQM

The SQM is designed to detect signal deformations originating from the GPS or GEO satellites and to ensure that the UDRE values are sufficiently inflated given the monitor's current observations. The SQM processes various correlator spacing measurements produced by the reference station receivers. These measurements are used to form four detection metrics for each receiver, and statistics are calculated based on the observed performance against "ideal" signal correlation peaks, resulting in an overall estimated deformation per satellite. The estimated deformation is compared against threshold values, which includes the acceptable error levels per UDRE value. If the estimated deformation exceeds threshold, the SQM trips for the given satellite and the UDRE value is set to "Don't Use". Currently, all 114 WAAS WREs are being used in the SQM computations because SQM depends on the entire ground network to ensure the satellite is the source of any detected problem rather than a localized affect.

The WAAS SQM offline monitoring effort includes the monitoring of the PRN type biases, trips, and the estimated deformation for each satellite (referred to as PRN bias in this report).

11.1 Alpha Metrics

The alpha metrics values are pre-determined by offline integrity analysis and are defined as constants in the SQM algorithm. These values remained unchanged for this reporting period and are listed in Table 11-1. Currently there are four sets of alpha metrics in the WAAS SQM algorithm that form four detection metrics for each receiver channel. For this report, the four detection metrics (DM) will be referred to as: DM1, DM2, DM3, and DM4.

Table 11-1 Alpha Metrics

Correlator Spacing	DM1	DM2	DM3	DM4
-0.1	0	0.43407318	0	-0.36110353
-0.075	0	0.48570652	-0.0058771682	-0.74860302
-0.05	-0.4071265	-0.69931105	-0.011382325	0.23726003
-0.025	1	-0.010099034	0.00037033029	-0.0076011735
0	0	0	0	0
0.025	-0.25	0.13317879	0.99991788	-0.062414070
0.05	1.008525	-0.22851782	0	0.25177272
0.075	0	0.10209042	0	0.42875623
0.1	0	0.078436452	0	0.41602138

11.2 Type Bias

The PRN type biases are evaluated as part of the WAAS SQM offline monitoring effort. Depending on the PRN number of any given GPS satellite, it can be classified into three categories of correlation function shapes: skinny (Type 0), nominal (Type 1), and broad (Type 2). Note that wideband GEOs are considered a different type (Type 3). The PRN type biases are estimates that are computed at each epoch, and daily averages are computed for each type, for four detection metrics.

For this reporting period, the GEO-type biases were not evaluated. Table 11-2 shows the rollup averages for the quarter. Table 11-3 shows the rollup averages since January 1, 2008. Figure 11-1 shows the daily averages of the four detection metrics for the quarter.

Table 11-2 Type Bias Average for the Quarter

Detection Metric	Type 0	Type 1	Type 2
DM 1	1.31772	1.31939	1.32142
DM 2	0.243321	0.246376	0.2495
DM 3	0.972654	0.973112	0.973735
DM 4	-0.188033	-0.189894	-0.19183

Table 11-3 Type Bias Average since January 1, 2008

Detection Metric	Type 0	Type 1	Type 2
DM 1	1.31605	1.31818	1.31997
DM 2	0.241678	0.244847	0.247977
DM 3	0.970841	0.97133	0.971918
DM 4	-0.186991	-0.188675	-0.190681

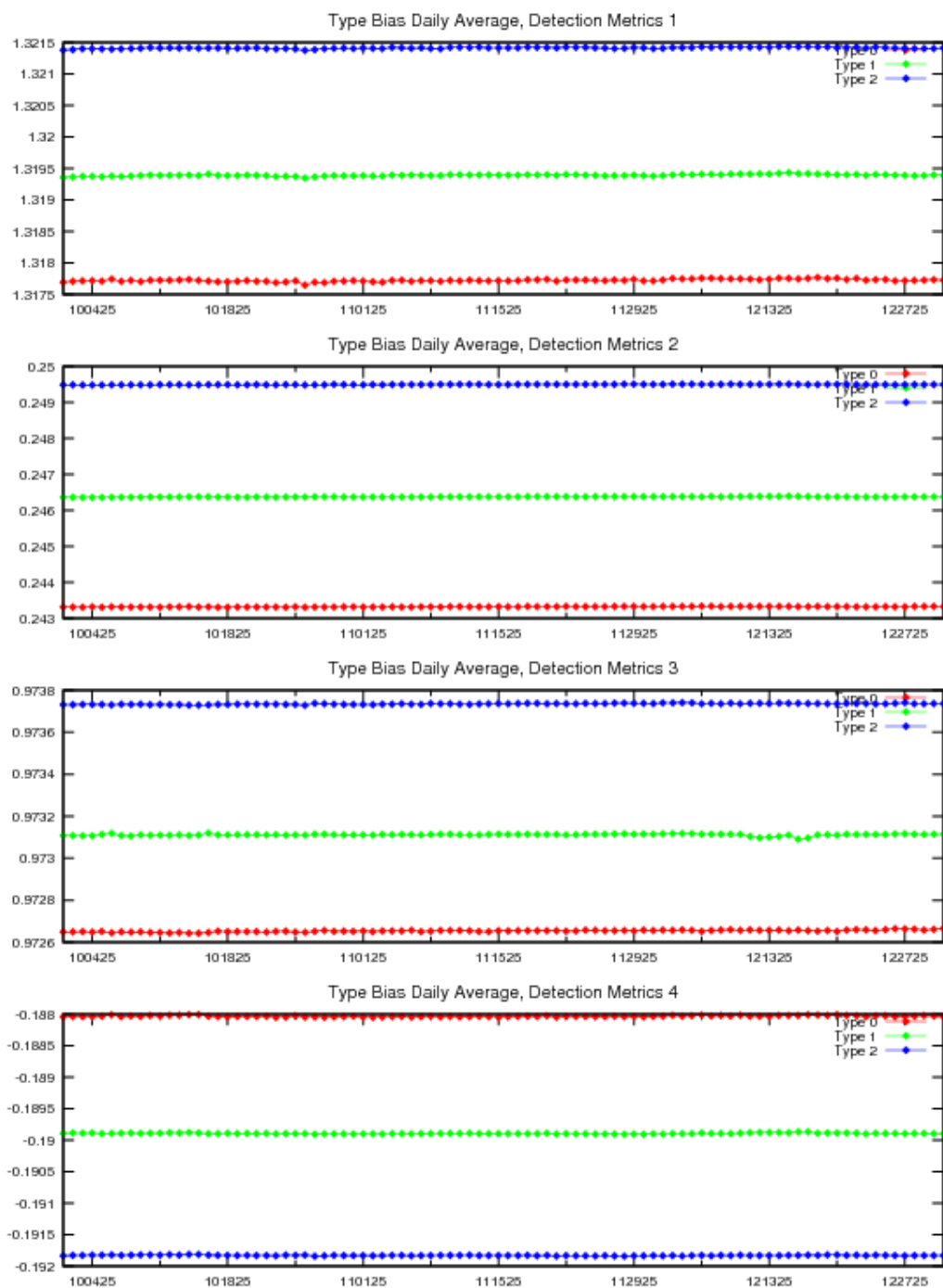


Figure 11-1 Type Bias Average Trend

11.3 PRN Bias

PRN bias for each satellite. PRN biases are collected at each epoch and daily averages are computed for each satellite for four detection metrics.

Table 11-4 and Figure 11-2 show the rollup PRN bias averages for the quarter with the maximum values for each detection metrics as follows: (1) the maximum average for DM1 is 0.0014167 observed on PRN22, (2) the maximum average for DM2 is 0.0002269 observed on PRN19, (3) the maximum average for DM3 is 0.0004230 observed on PRN18, (4) the maximum average for DM4 is 0.0005950 observed on PRN22.

Table 11-4 PRN Bias Average for the Quarter

PRN	DM 1	DM 2	DM 3	DM 4
1	0.00025373	0.000117186	0.00032068	0.000291254
2	0.000235022	8.28283e-05	8.69446e-05	0.000102877
3	0.00017533	5.41565e-05	0.00010999	9.20065e-05
4	0.000729029	0.000222889	0.000377589	0.000229535
5	0.000167825	8.89239e-05	9.2575e-05	9.48837e-05
6	0.000825995	9.47565e-05	8.30043e-05	0.000379474
7	0.000168409	0.000170921	4.65239e-05	0.000157029
8	0.000378757	0.000113405	0.000101358	0.000185429
9	0.000253802	7.485e-05	0.000155003	8.53511e-05
10	0.000178399	0.000101023	6.38348e-05	0.000114707
11	0.00032836	0.00011173	0.000383907	0.000315482
12	0.000386193	5.47554e-05	6.00772e-05	8.96272e-05
13	0.000611275	7.48065e-05	6.86587e-05	0.000252413
14	0.000523425	0.000183228	0.000374007	0.000230568
15	0.000416329	0.000149064	7.19522e-05	0.000108974
16	0.000197058	5.44707e-05	0.000130475	0.000231479
17	0.000372359	0.000126633	6.42022e-05	0.00011278
18	0.000641491	0.000150224	0.000422964	0.00024879
19	0.000726888	0.000226899	6.78217e-05	0.000116826
20	0.000181888	0.000107361	5.00541e-05	0.000161809
21	0.000256384	7.03076e-05	0.00017967	9.36098e-05
22	0.00141672	0.000162354	5.70185e-05	0.000594988
23	0.000416467	0.000157033	0.000343952	0.000252352
24	0.000210592	8.19641e-05	0.000235584	0.000311085
25	0.000488133	0.000104713	3.7137e-05	0.000185878
26	0.000162045	5.24141e-05	0.00013657	0.000179774
27	0.000264764	0.000130644	0.000239647	0.000361029
28	0.000288464	9.62413e-05	0.000362475	0.000334577
29	0.00035045	0.00016392	0.000148339	0.000249346
30	0.000307987	0.000102812	0.000135571	0.000107266
31	0.000157272	0.00010455	7.58522e-05	0.00012412
32	0.000300402	0.00016822	5.82902e-05	0.000331379

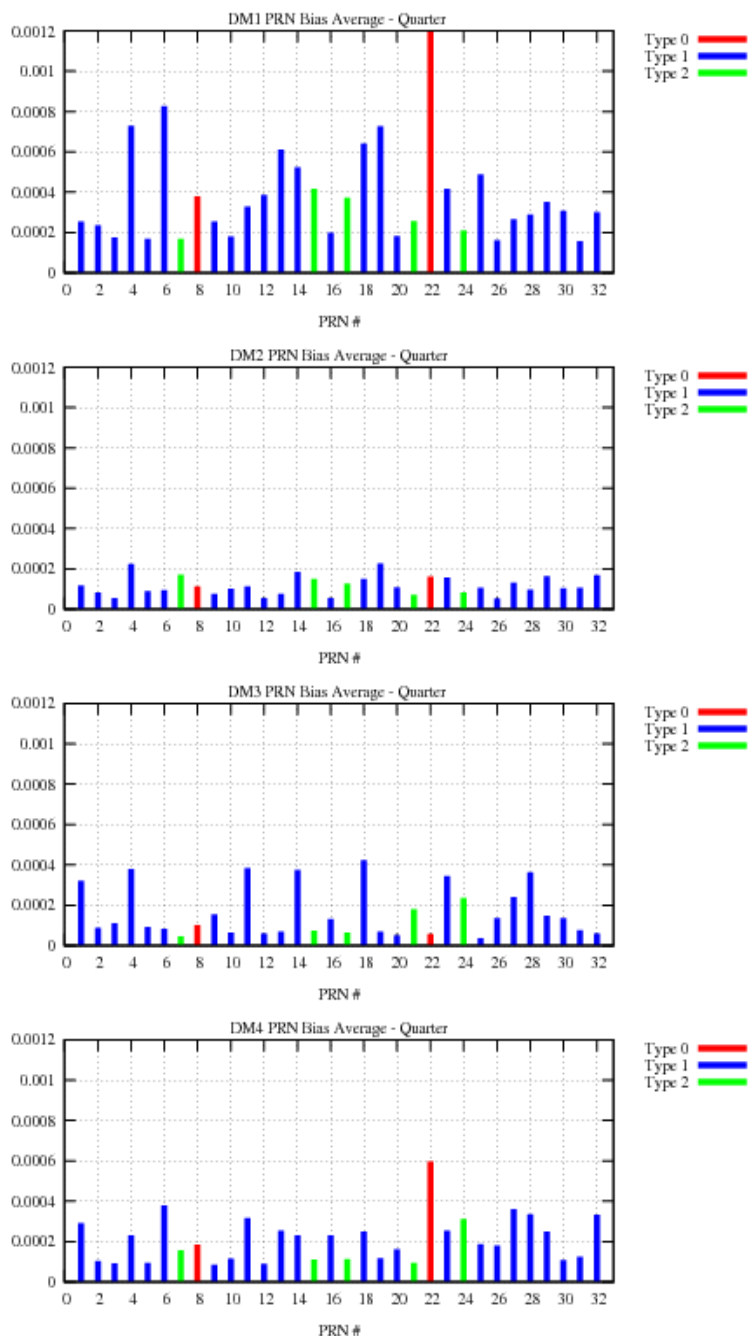


Figure 11-2 PRN Bias Average for the Quarter

Figure 11-3 to Figure 11-10 show the daily PRN bias for each PRN for four detection metrics. Figure 11-3 shows no SQM data for PRN1 bias from 2025/10/05 to 2025/10/07 and from 2025/12/13 to 2025/12/16 due to UNUSABLE NANU on PRN1. PRN 20 was decommissioned and not in service prior to the start of this quarter. Therefore, Figure 11-7 shows no SQM data for PRN20 bias because PRN20 was not reinitialized and in service until 2025/10/08. PRN20 was initialized on 2025/10/08. Figure 11-9 shows no SQM data for PRN27 bias from 2025/12/11 to 2025/12/17 due to UNUSABLE NANU on PRN27.

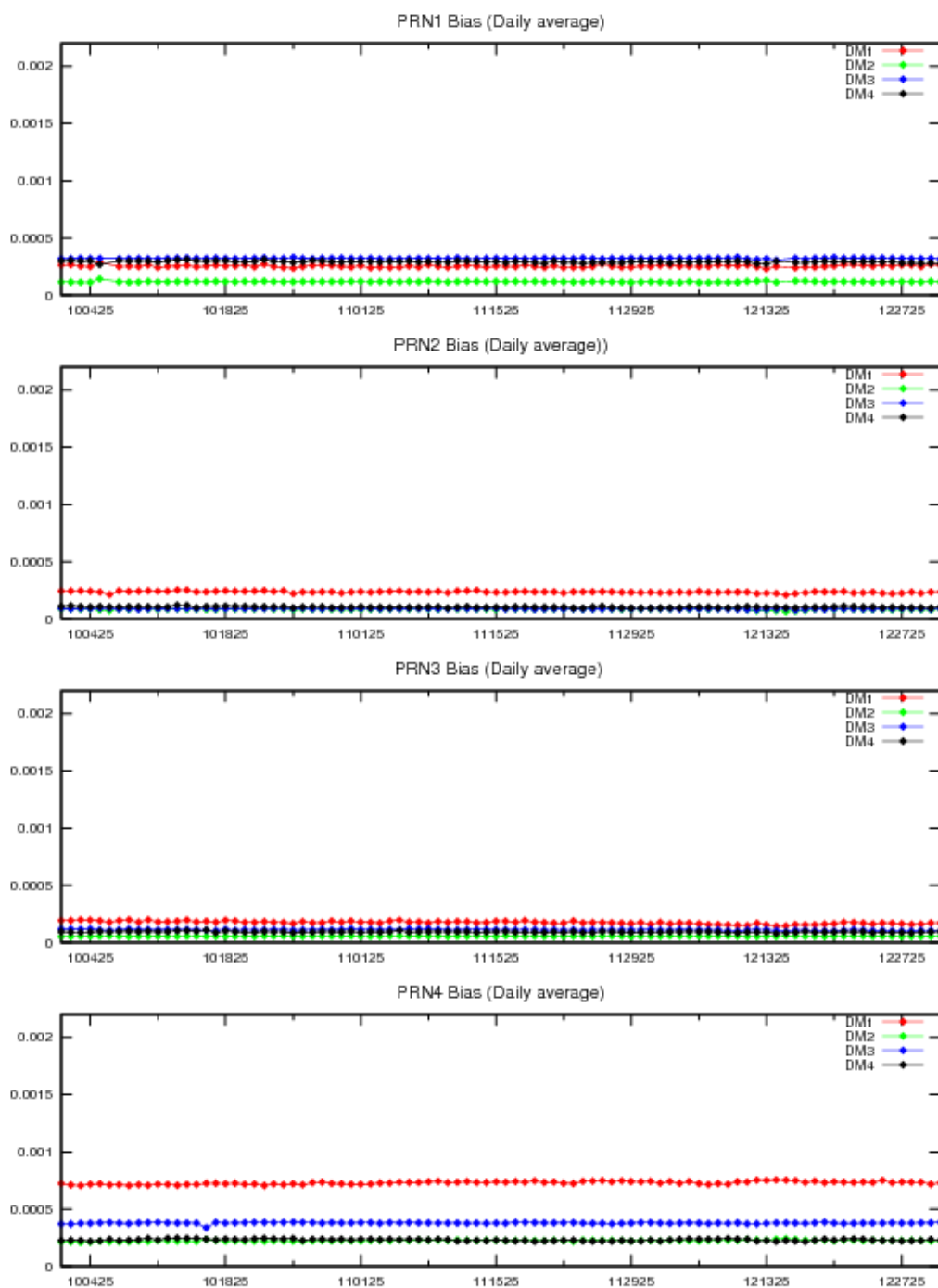


Figure 11-3 PRN Bias Average Trend (PRN1–PRN4)

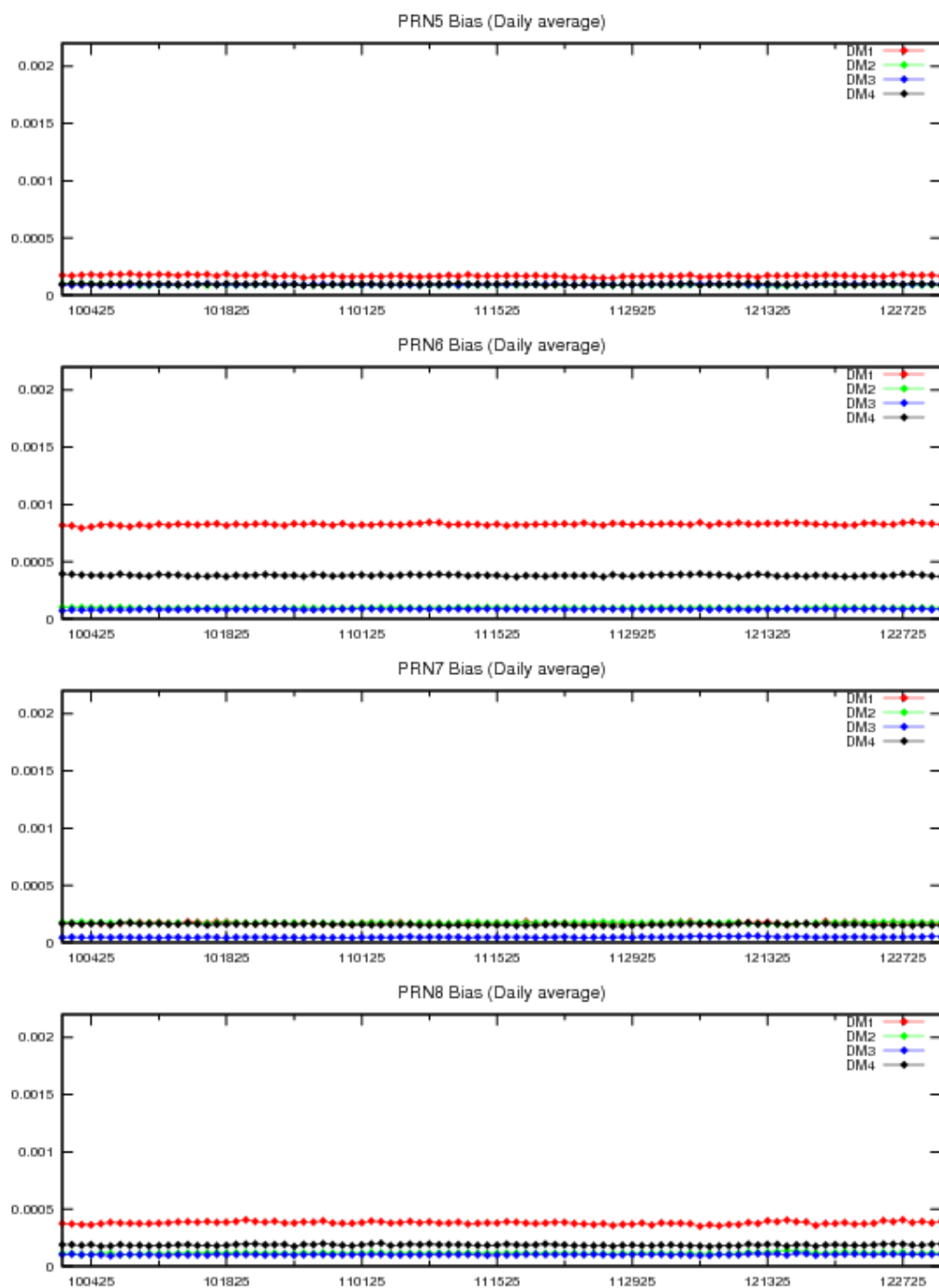


Figure 11-4 PRN Bias Average Trend (PRN5–PRN8)

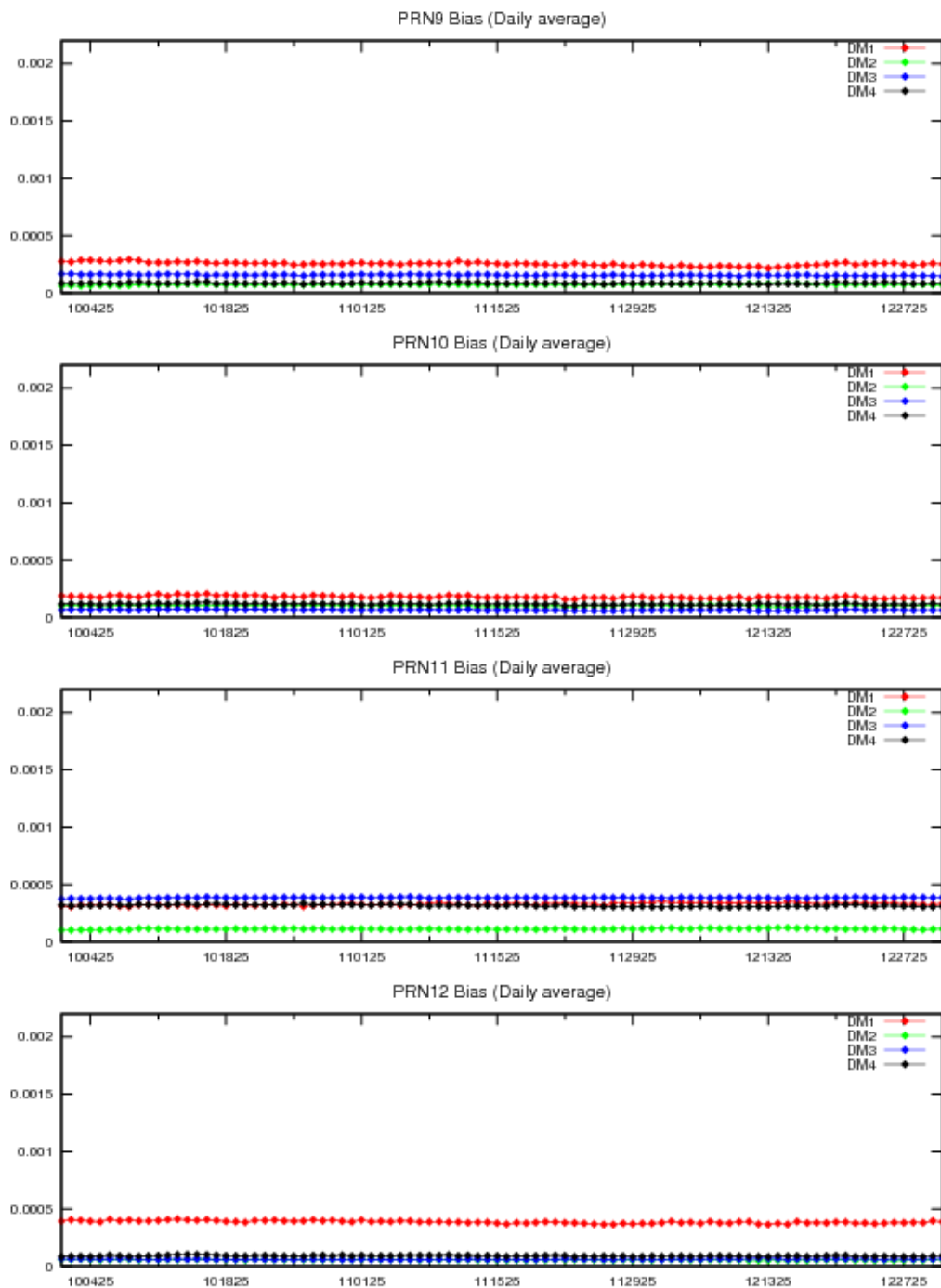


Figure 11-5 PRN Bias Average Trend (PRN9–PRN12)

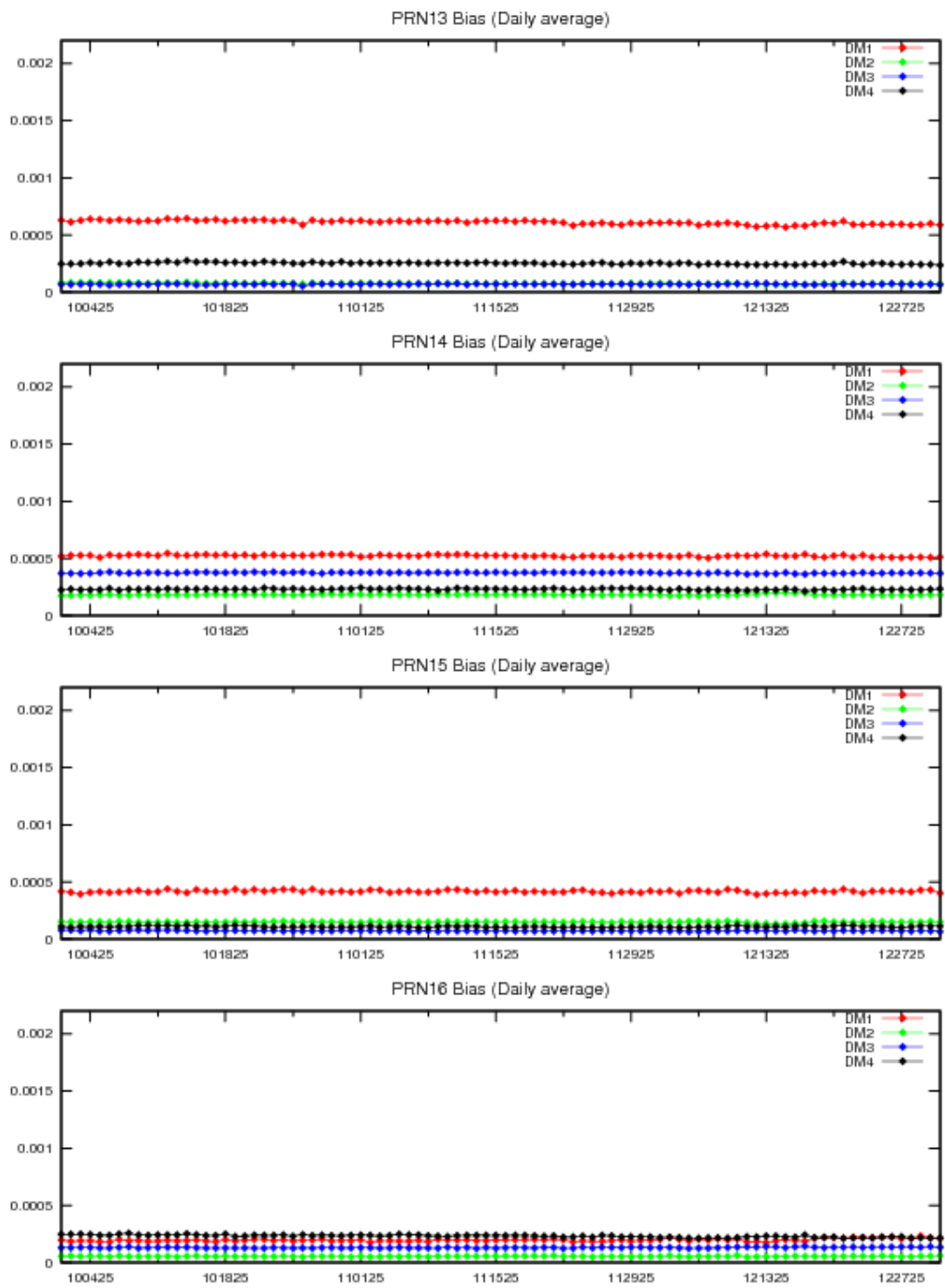


Figure 11-6 PRN Bias Average Trend (PRN13–PRN16)

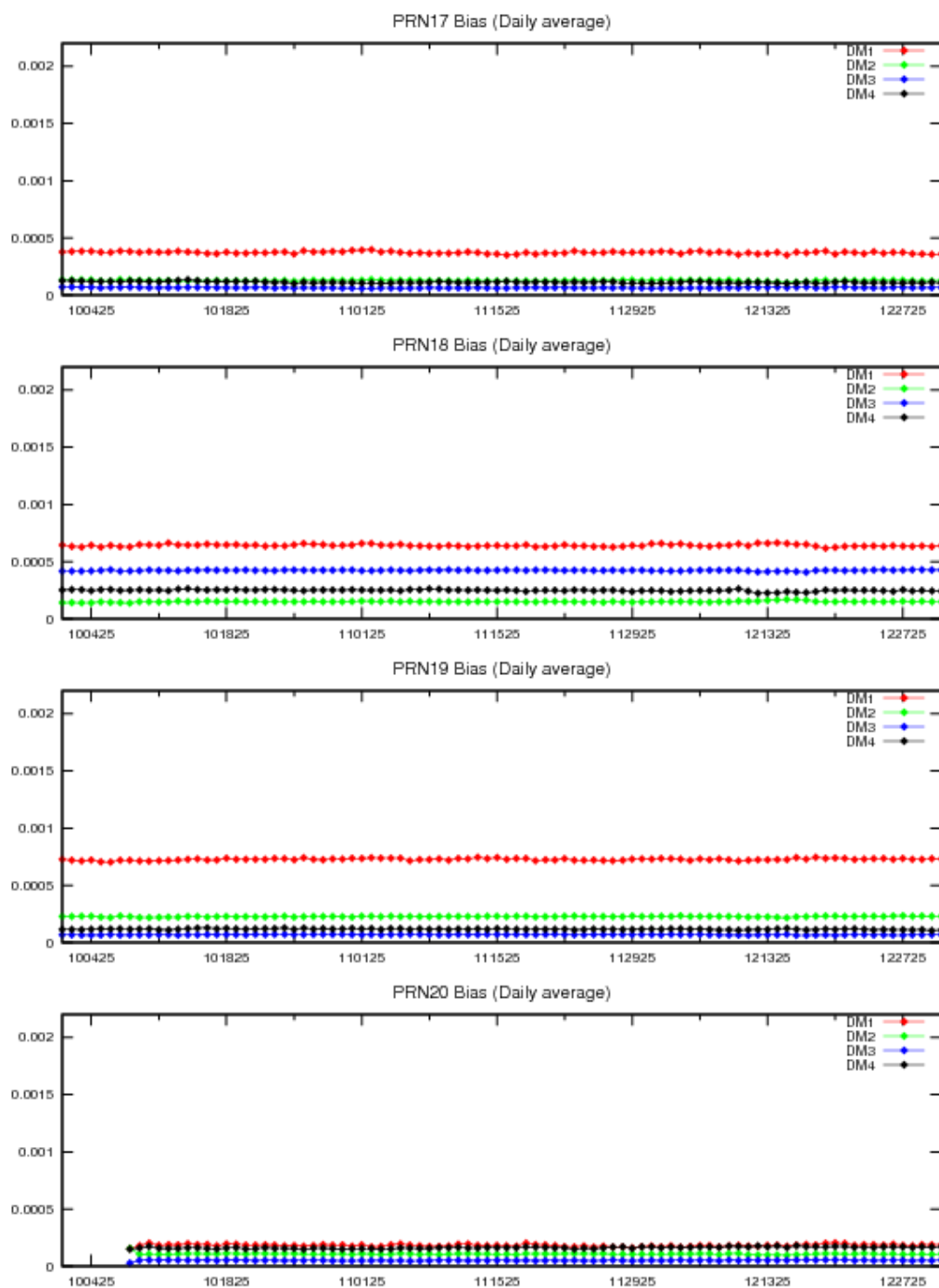


Figure 11-7 PRN Bias Average Trend (PRN17–PRN20)

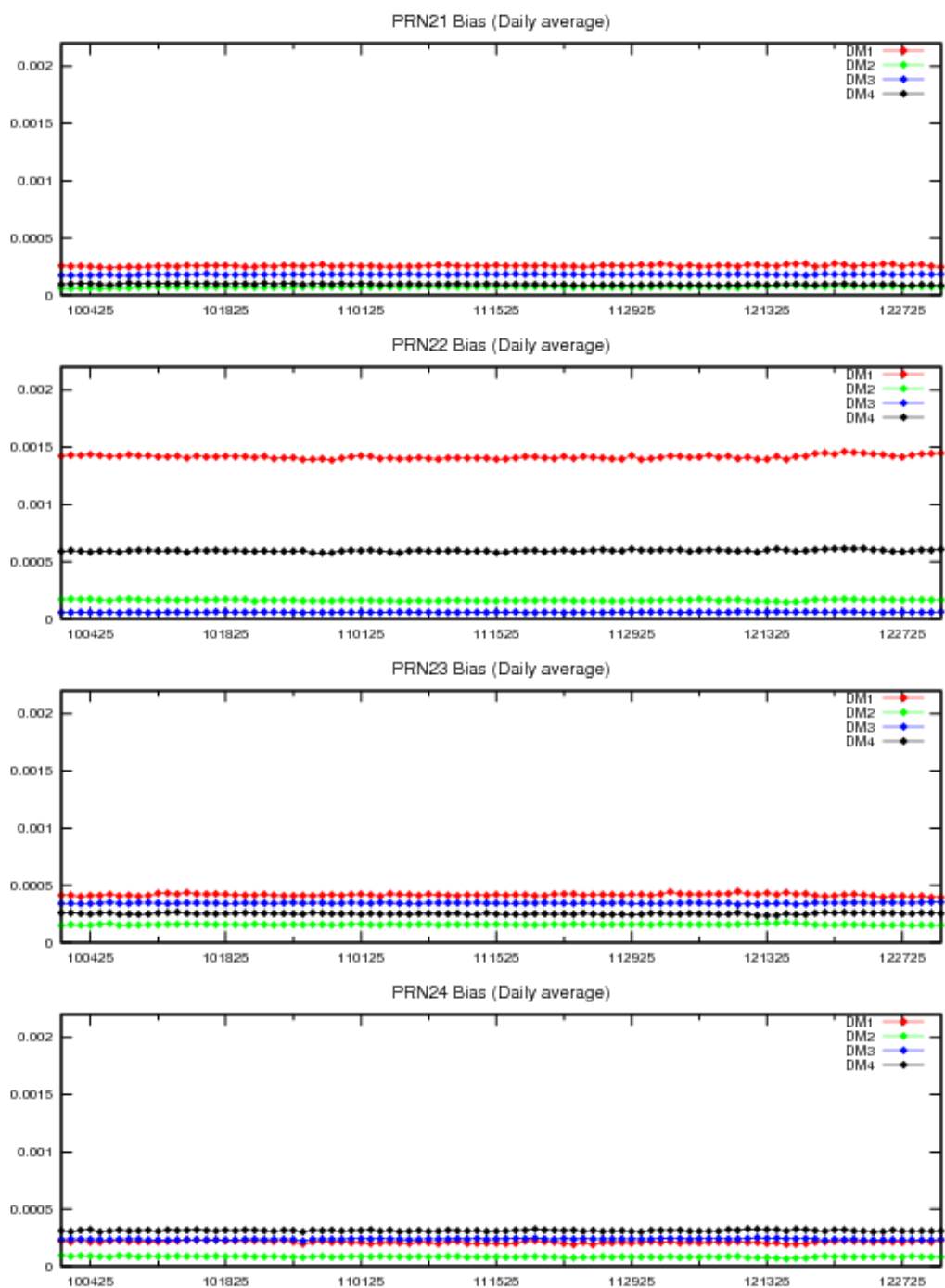


Figure 11-8 PRN Bias Average Trend (PRN21–PRN24)

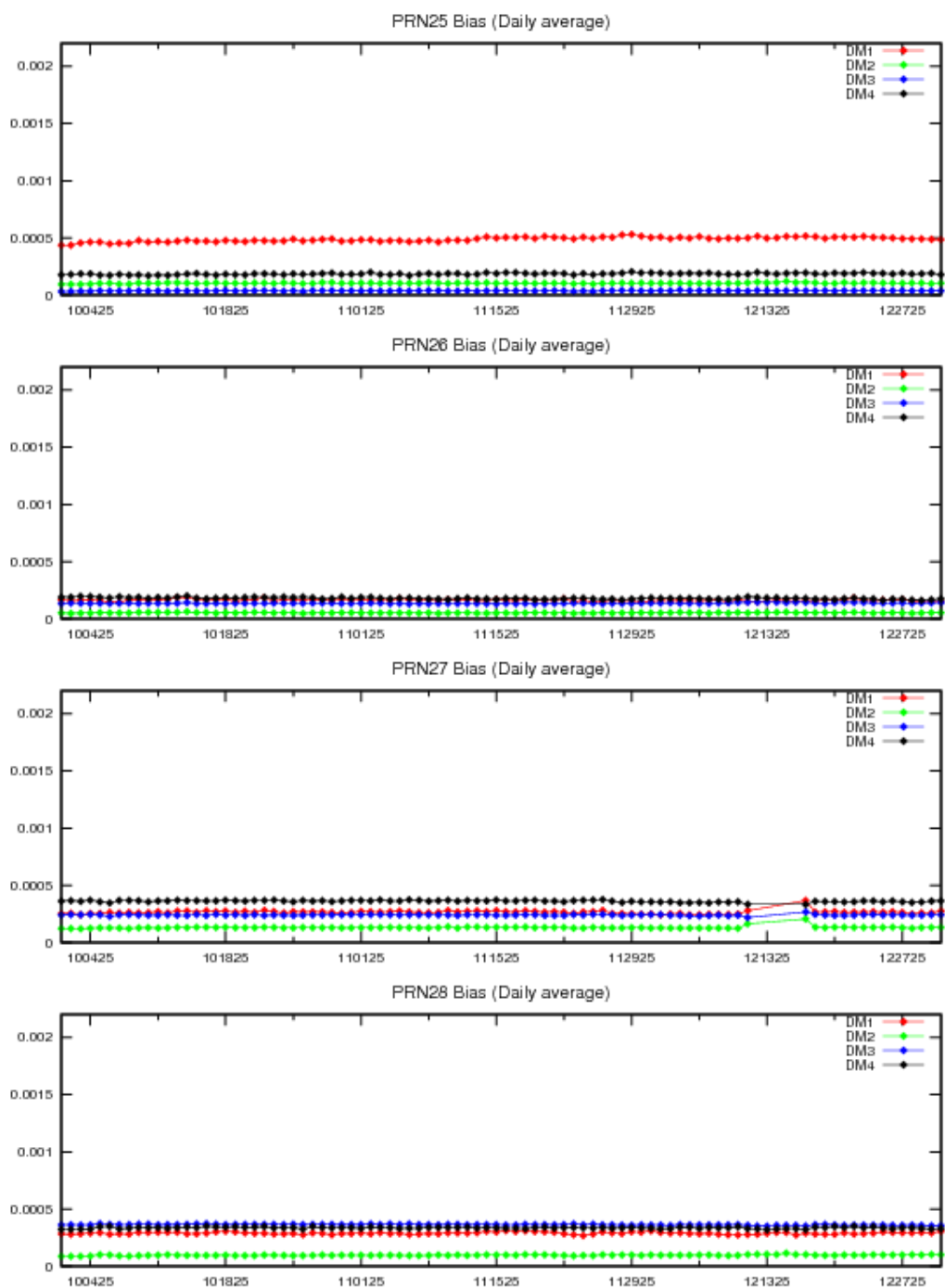


Figure 11-9 PRN Bias Average Trend (PRN25–PRN28)

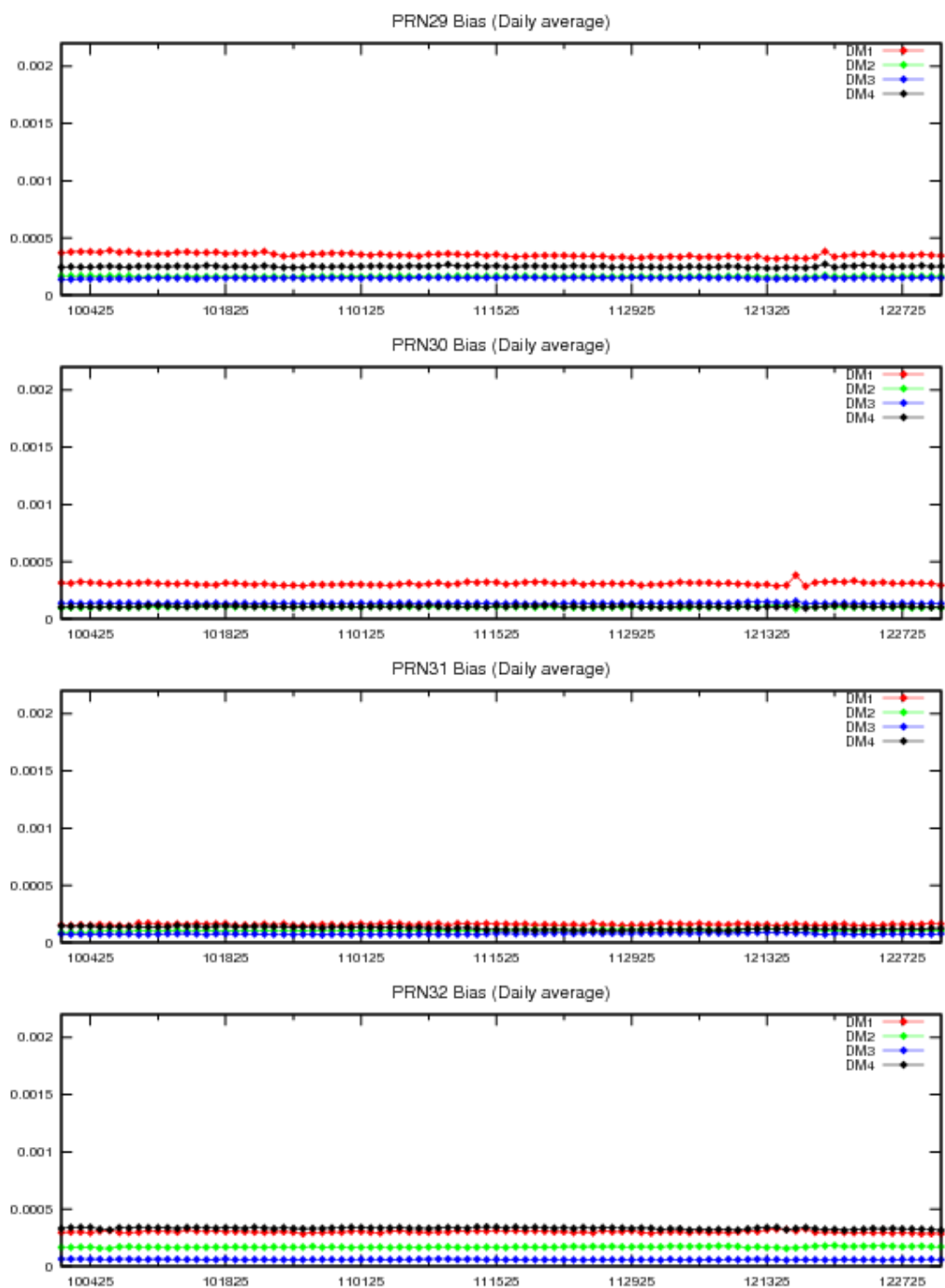


Figure 11-10 PRN Bias Average Trend (PRN29–PRN32)

11.4 SQM Trips

An SQM trip occurs when the estimated deformation exceeds threshold. For this reporting quarter, the WJHTC SQM tool observed the following:

- SQM trip on PRN27 on 2025/12/18 on Detection Metric 1, 3, and 4
 - PRN27 entered tripped state at TOW 373760 on DM 4 and left tripped state at TOW 377403
 - PRN 27 entered tripped state at TOW 373761 on DM 1 and left tripped state at TOW 377366
 - PRN 27 entered tripped state at TOW 373762 on DM 3 and left tripped state at TOW 414565

APPENDIX A: GENERAL TERMS AND DEFINITIONS

Alert. An alert is an indication provided by the GPS/WAAS equipment to inform the user when the positioning performance achieved by the equipment does not meet the integrity requirements.

APC. Antenna phase center

ARP. Antenna reference point

Availability. The availability of a navigation system is the ability of the system to provide the required function and performance at the initiation of the intended operation. Availability is an indication of the ability of the system to provide usable service within the specified coverage area.

C&V. The Correction and Verification Subsystem

CNMP. Code noise and multipath

CONUS. Continental United States

Continuity. The continuity of a system is the ability of the total system (comprising all elements necessary to maintain aircraft position within the defined airspace) to perform its function without interruption during the intended operation. More specifically, continuity is the probability that the specified system performance will be maintained for the duration of a phase of operation, presuming that the system was available at the beginning of that phase of operation.

Coverage. The coverage provided by a radio navigation system is the surface area or space volume in which the signals are adequate to permit the user to determine position to a specified level of accuracy. Coverage is influenced by system geometry, signal power levels, receiver sensitivity, atmospheric noise conditions, and other factors that affect signal availability.

CSRS. Canadian Spatial Reference System

DM. Detection metrics

DR. Discrepancy Report

ECEF. Earth-centered, Earth-fixed

FAA. Federal Aviation Administration

FD. Fault Detection

FDE. Fault Detection and Exclusion. A receiver processing scheme that autonomously provides integrity monitoring for the position solution using redundant range measurements. The FDE consists of two distinct parts: fault detection and fault exclusion. The fault detection part detects the presence of an unacceptably large position error for a given mode of flight. Upon the detection, fault exclusion follows and excludes the source of the unacceptably large position error, thereby allowing navigation to return to normal performance without an interruption in service.

G30. GEO PRN135

GEO. Geostationary satellite

GIVE. Grid Ionospheric Vertical Error. Indicate the accuracy of ionospheric vertical delay correction at a geographically defined IGP. WAAS transmits one GIVE for each IGP in the mask.

GMT. Greenwich Mean Time

GPS. Global Positioning System. A space-based positioning, velocity, and time system composed of space, control, and user segments. The space segment, when fully operational, will be composed of 24 satellites in six orbital planes. The control segment consists of five monitor stations, three ground antennas, and a master control station. The user segment consists of antennas and receiver-processors that provide positioning, velocity, and precise timing to the user.

GUS. Ground uplink station

HAL. Horizontal alert limit. The radius of a circle in the horizontal plane (the local plane tangent to the WGS-84 ellipsoid), with its center being at the true position, which describes the region that is required to contain the indicated horizontal position with a probability of $1-10^{-7}$ per flight hour, for a particular navigation mode, assuming the probability of a GPS satellite integrity failure being included in the position solution is less than or equal to 10^{-4} per hour.

HMI. Hazardous Misleading Information. Any position data that has an error larger than the current protection level (HPL/VPL), without any indication of the error (e.g., alert message sequence).

HPE. Horizontal position error

HPL. Horizontal protection level. The radius of a circle in the horizontal plane (the plane tangent to the WGS-84 ellipsoid), with its center being at the true position, which describes the region that is assured to contain the indicated horizontal position. It is based on the error estimates provided by WAAS.

IAP. Instrument Approach Procedures

IGP. Ionospheric grid point. A geographically defined point for which the WAAS provides the vertical ionospheric delay.

IGS. International GPS Service.

Kp. Planetary index

LNAV. Lateral navigation

LP. Localizer Performance. A WAAS operational service level with a HAL equal to 40 meters.

LPV. Localizer Performance with Vertical Guidance. A WAAS operational service level with a HAL equal to 40 meters and a VAL equal to 50 meters.

LPV200. Localizer Performance with Vertical Guidance to 200 ft decision height. A WAAS operational service level with a HAL equal to 40 meters and a VAL equal to 35 meters.

NANU. Notice Advisory to Navstar Users. NANU is an advisory message to inform users of a change in the GPS constellation. These messages inform users in advance of planned maintenance and also notify users of unscheduled outages.

NAS. National Airspace System

Navigation Message. Message structure designed to carry navigation data.

NGS. National Geodetic Survey

NPA Navigation Mode. Non-precision approach navigation mode. Refers to the navigation solution operating with a minimum of four satellites with fast and long term WAAS corrections (no WAAS ionospheric corrections) available.

NTSB. National Satellite Test Bed

OCONUS. Outside Contiguous United States

OPUS. Online Positioning Use Server

PA Navigation Mode. Precision approach navigation mode. Refers to the navigation solution operating with a minimum of four satellites with all WAAS corrections (fast, long term, and ionospheric) available.

PAN. Performance Analysis Network

Position Solution. The use of ranging signal measurements and navigation data from at least four satellites to solve for three position coordinates and a time offset.

PPP. Precise Point Positioning

PRN. Pseudo-random noise

RAIM. Receiver autonomous integrity monitoring

RFI. Radio frequency interference

RNAV. Area navigation

RNP. Required Navigation Performance

RSS. Residual sum of squares

S15. GEO PRN133

SBAS. Space Based Augmentation System

SIS. Signal in space

SM9. GEO PRN131

SPS. Standard positioning service. Three-dimensional position and time determination capability provided to a user equipped with a minimum capability GPS SPS receiver in accordance with GPS national policy and the performance specifications.

SQM. Signal quality monitor. Monitors correlator measurements to detect signal deformations that originate in the GPS or GEO satellites and ensures that the UDREs are sufficiently inflated to protect given the monitor's current observations.

SSM. System support modification

SV. Space vehicle

SVN. Space Vehicle Number

TOW. Time of GPS week

UDRE. User differential range error. Indicates the accuracy of combined fast and slow error corrections. WAAS transmits one UDRE for each satellite in the mask.

UTC. Coordinated Universal Time

VAL. Vertical alert limit. Half the length of a segment on the vertical axis (perpendicular to the horizontal plane of WGS-84 ellipsoid), with its center being at the true position, which describes the region that is required to contain the indicated vertical position with a probability of $1-10^{-7}$ per flight hour, for a particular navigation mode, assuming the probability of a GPS satellite integrity failure being included in the position solution is less than or equal to 10^{-4} per hour.

VNAV. Vertical navigation

VPE. Vertical position error

VPL. Vertical protection level. Half the length of a segment on the vertical axis (perpendicular to the horizontal plane of WGS-84 ellipsoid), with its center being at the true position, which describes the region that is assured to contain the indicated vertical position. It is based upon the error estimates provided by WAAS.

WAAS. Wide Area Augmentation System. Made up of an integrity reference monitoring network, processing facilities, geostationary satellites, and control facilities. Wide-area reference stations and integrity monitors are widely dispersed data collection sites that contain GPS/WAAS ranging receivers that monitor all signals from the GPS and the WAAS geostationary satellites. The reference stations collect measurements from the GPS and WAAS satellites so that differential corrections, ionospheric delay information, GPS/WAAS accuracy, WAAS network time, GPS time, and UTC can be determined. The wide-area reference station and integrity monitor data are forwarded to the central data processing sites. These sites process the data to determine differential corrections, ionospheric delay information, and GPS/WAAS accuracy, as well as verify residual error bounds for each monitored satellite. The central data processing sites also generate navigation messages for the geostationary satellites and WAAS messages. This information is modulated on the GPS-like signal and broadcast to the users from geostationary satellites.

WIPP. WAAS Integrity Performance Panel

WJHTC. William J. Hughes Technical Center for Advanced Aerospace

WRE. Wide-Area Reference Equipment

WRS. WAAS reference station

APPENDIX B: ADDITIONAL COVERAGE PLOTS

Appendix B includes the coverage plots with 99% LPV200 availability contour, 98% LPV availability contours, and 98% LP availability contours for the quarter. Figure B-1 shows CONUS coverage with 98% LP availability contour. Figure B-2 shows Alaska coverage with 98% LP availability contour. Figure B-3 shows CONUS coverage with 98% LPV availability contour. Figure B-4 shows Alaska coverage with 98% LPV availability contour. Figure B-5 shows CONUS coverage with 99% LPV200 availability contour. Figure B-6 shows Alaska coverage with 99% LPV200 availability contour.

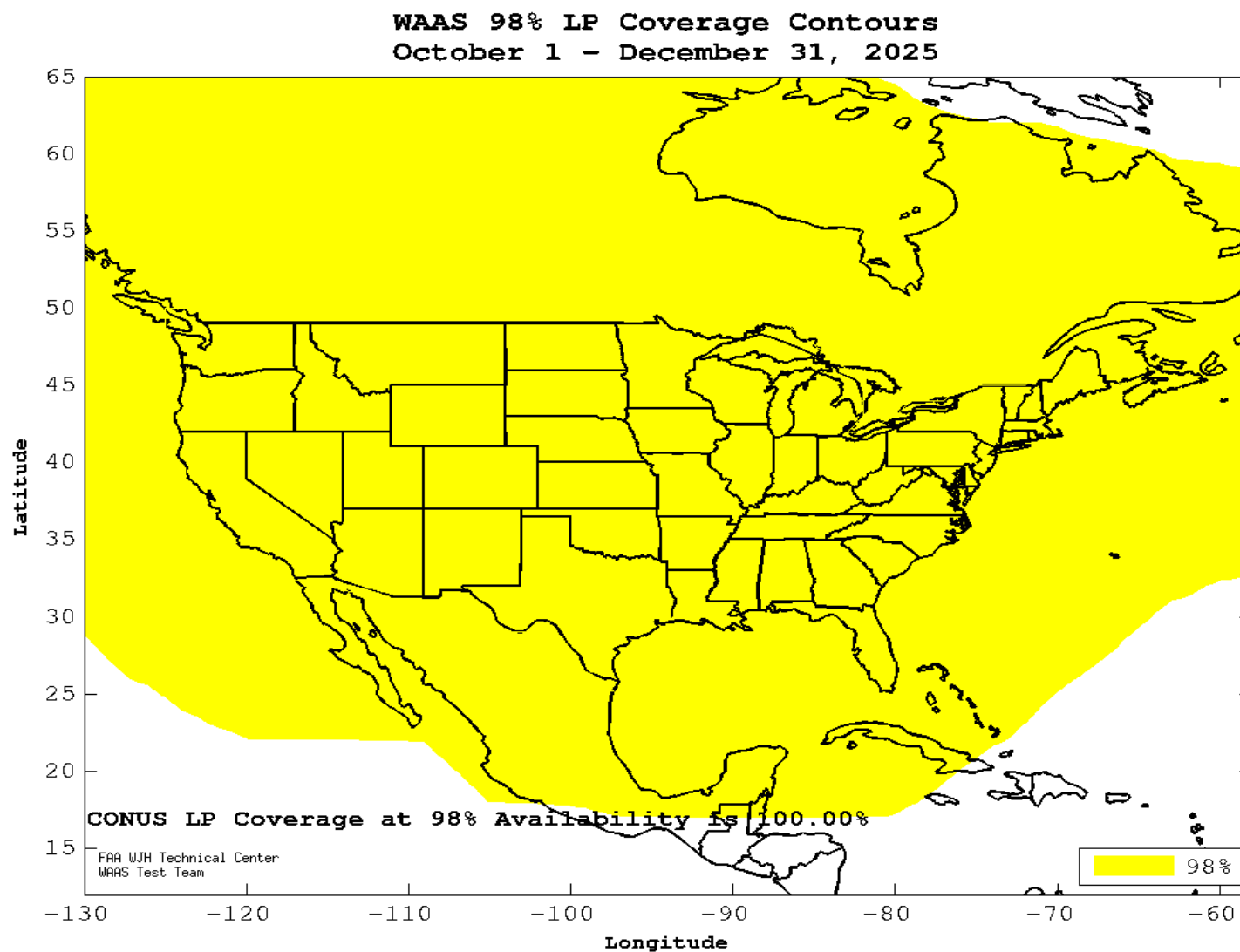


Figure B-1 98% CONUS LP Availability Contour

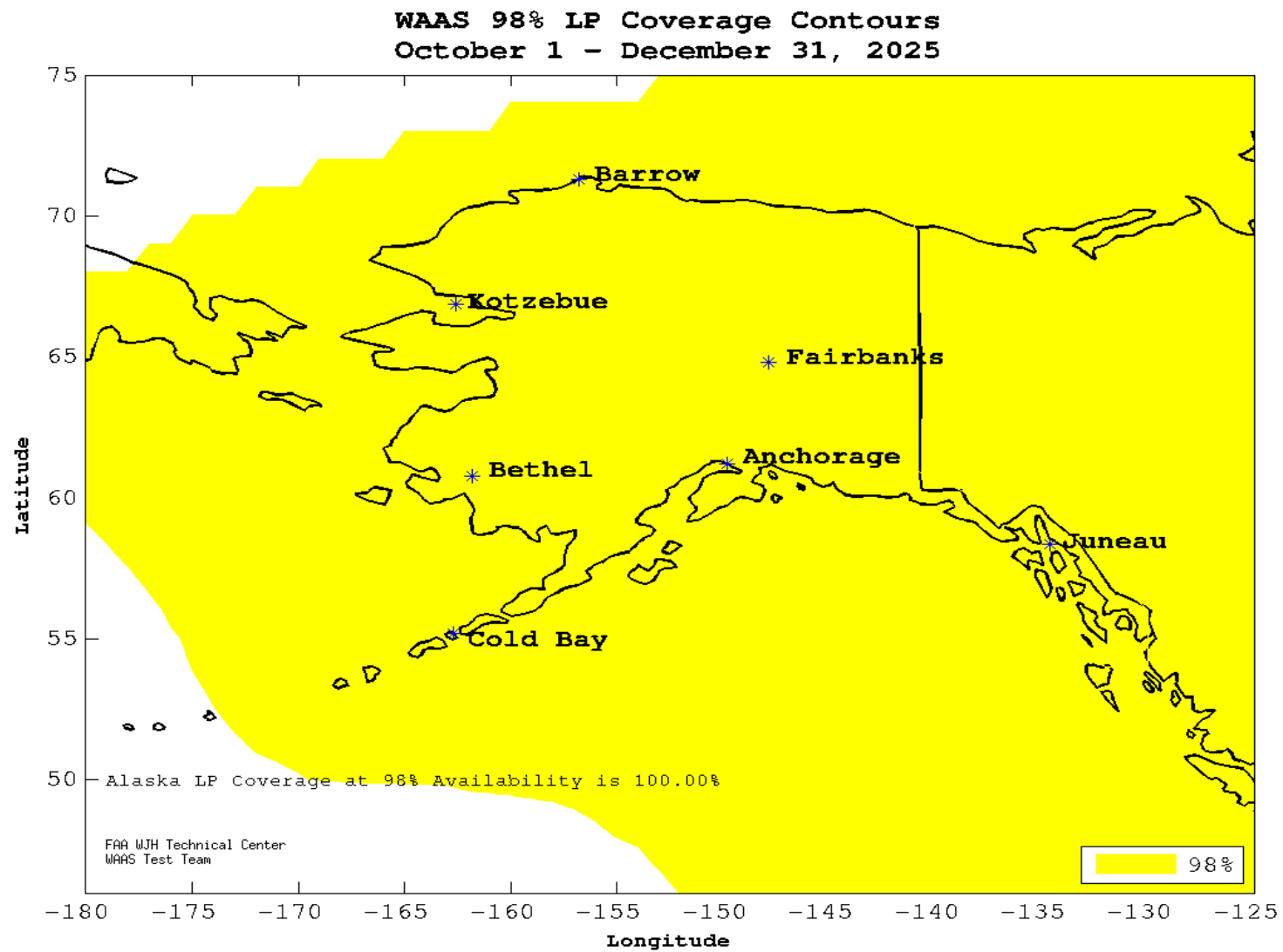


Figure B-2 98% Alaska LP Availability Contour

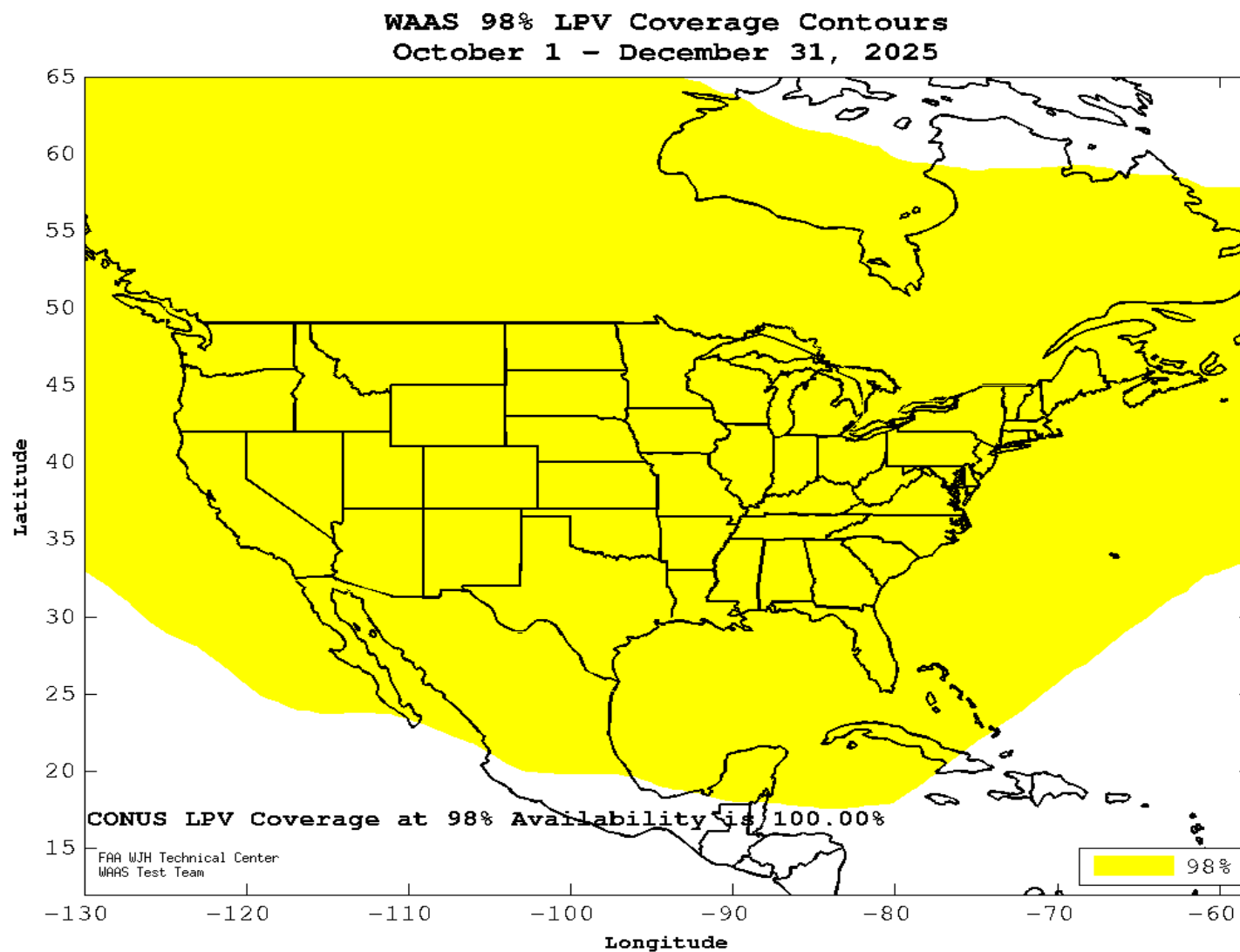


Figure B-3 98% CONUS LPV Availability Contour

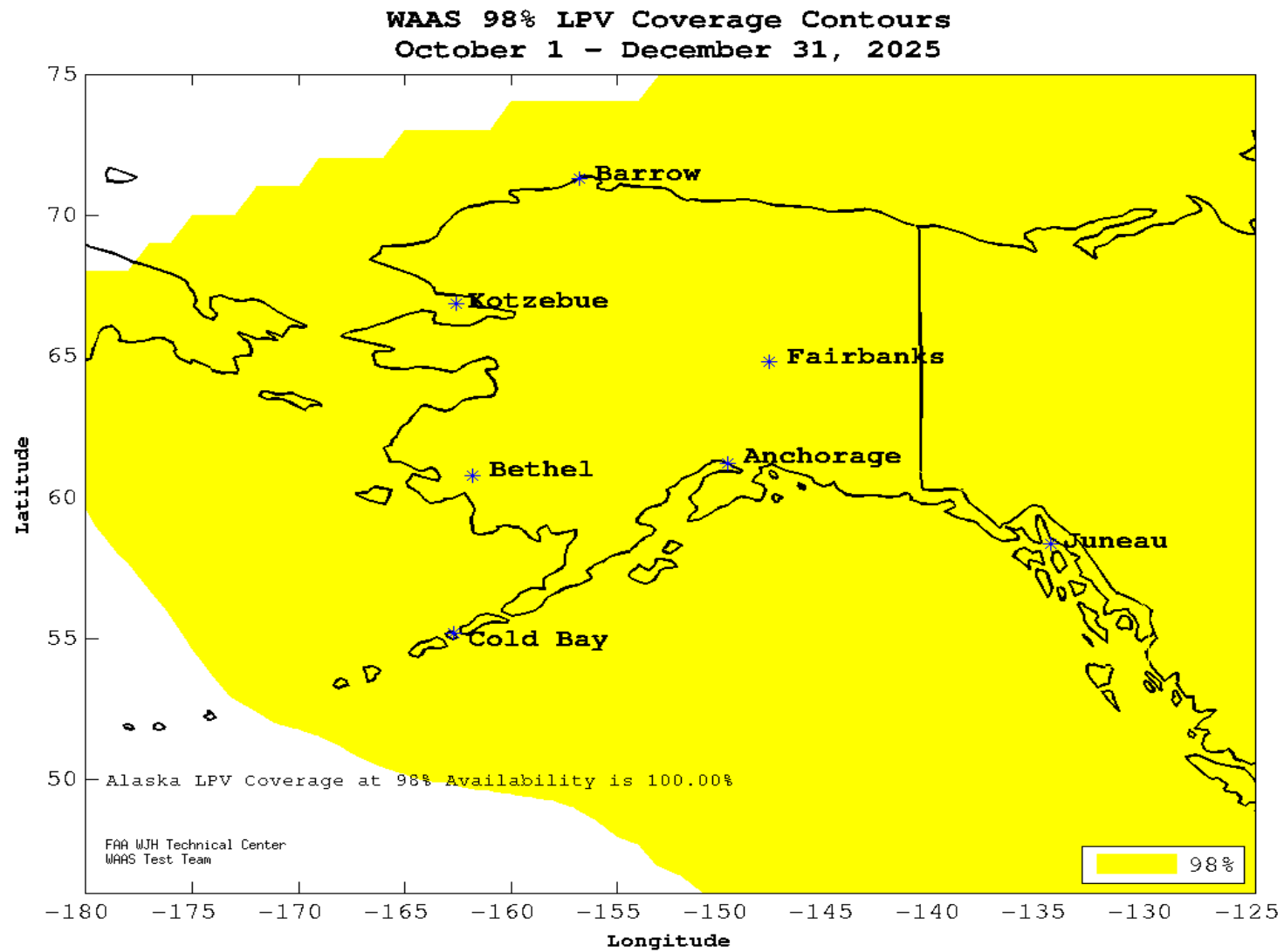


Figure B-4 98% Alaska LPV Availability Contour

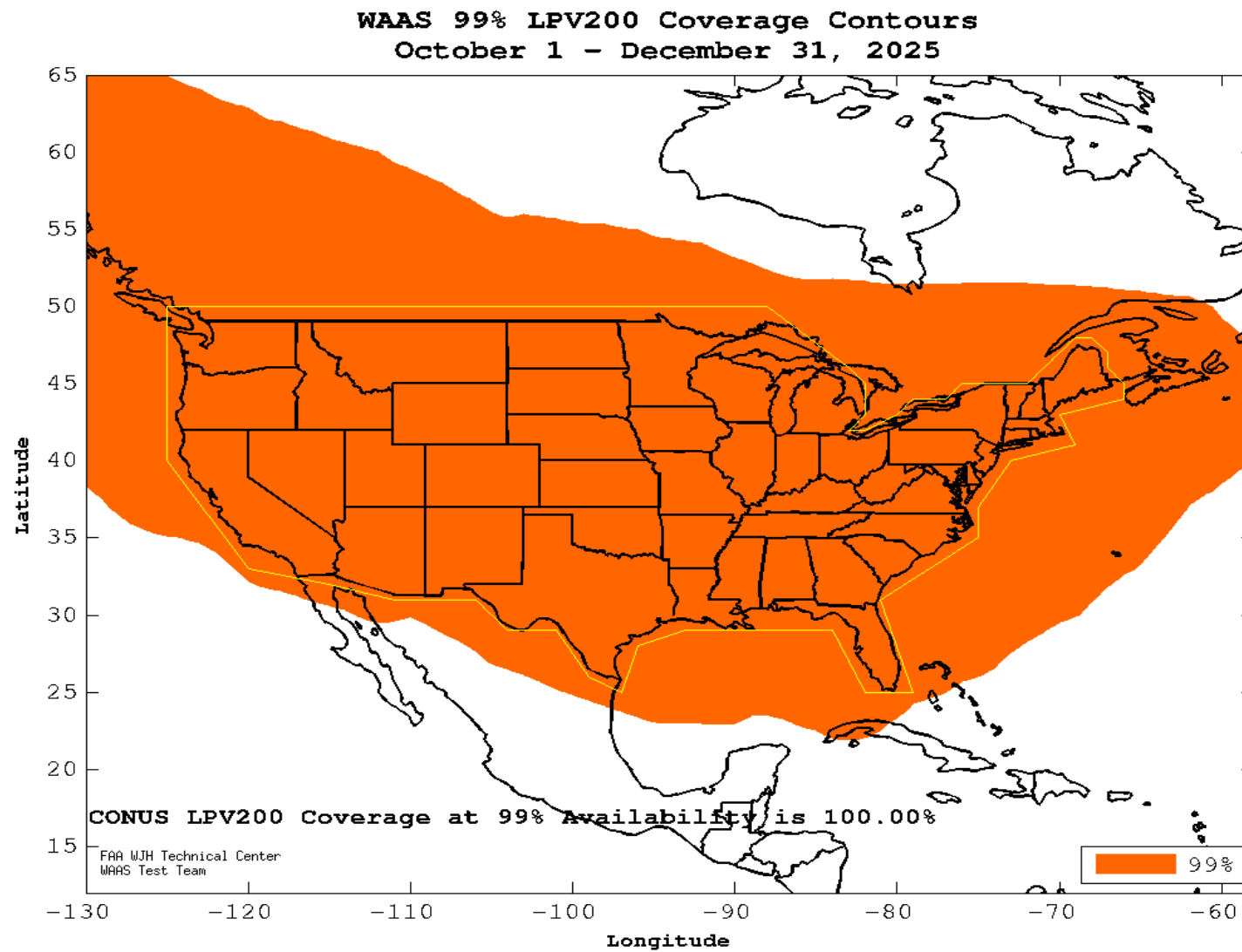


Figure B-5 99% CONUS LPV200 Availability Contour

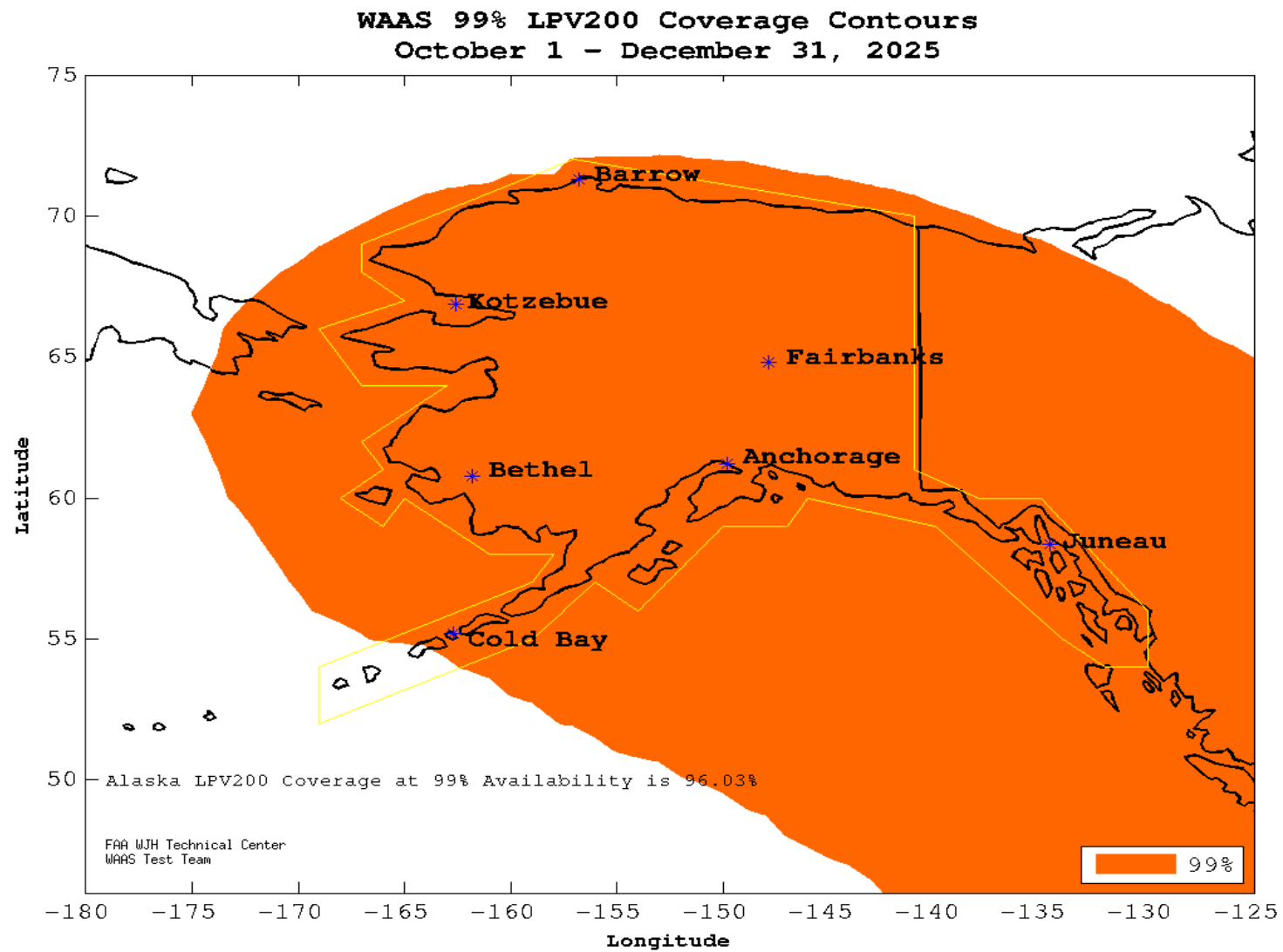


Figure B-6 99% Alaska LPV200 Availability Contour

APPENDIX C: RTCA TABLE DO-229F

Appendix C shows Table A-8: Fast Corrections Degradation Factor and User Time-Out Interval Evaluation from the RTCA Table DO-229F.

Table A-8: Fast Corrections Degradation Factor and User Time-Out Interval Evaluation

Fast Corrections Degradation Factor Indicator (a_i)	Fast Corrections Degradation Factor (a_i)- m/s²	User Time-Out Interval for fast corrections - seconds En Route through LNAV Approach (I_{fc})	User Time-Out Interval for fast corrections - seconds LNAV/VNAV, LPV, LP Approach (I_{fc})	Maximum Fast Correction Update Interval (seconds)
0	0.00000	180	120	60
1	0.00005	180	120	60
2	0.00009	153	102	51
3	0.00012	135	90	45
4	0.00015	135	90	45
5	0.00020	117	78	39
6	0.00030	99	66	33
7	0.00045	81	54	27
8	0.00060	63	42	21
9	0.00090	45	30	15
10	0.00150	45	30	15
11	0.00210	27	18	9
12	0.00270	27	18	9
13	0.00330	27	18	9
14	0.00460	18	12	6
15	0.00580	18	12	6