

***WAAS Technical Report
William J. Hughes Technical Center
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DR#41: Loss of availability due WAAS Ionospheric Grid Points (IGP) set to Do Not Use

GPS Week/Day: Week 1398 Day 4 (10/26/2006)

Discussion:

On Day 4 of Week 1398 (10/26/06) both AORW (PRN122) and POR (PRN134) GEO's set all IGP's between 55 west longitude and 100 west longitude to do not use beginning at 404020 GPS time of week (TOW). All users in the affected region lost LPV service until IGP's were updated with normal GIVE values approximately 300 seconds later at 404316 TOW. WAAS release 5.1 update occurred at 372479 TOW, approximately 9 hours before the IGP anomaly. The POR GEO data stream also set IGP's between 100 west and 120 west longitude to do not use during the same period.

The loss of LPV service availability in the CONUS coverage volume can be observed in Figure 1.

Conclusion:

The Loss of LPV service in the central region of CONUS on October 26, 2006 was due to Ionospheric Grid Points (IGP) being set to Do Not Use state. During the time in which the subject IGP's were affected, there was no observed ionospheric activity.

Figure 1 – LPV Coverage, Week 1398 Day 4, 10/26/2006

