

WAAS Technical Report
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**DR#49: GUS switchover in CRW caused by Serial Port and M&C
Communication failure**
GPS Week/Day: Week 1416 Day 3 (2/28/2007)

Discussion:

On GPS Week 1416 Day 3 (2/8/2007), a switchover occurred on both CRW GUSs around GPS time 294540 (09:49:07GMT). During switchover the Napa GUS faulted from being the primary GUS. As a result, the Littleton GUS that switched to primary. After the switchover Napa GUS was toggling between the modes of faulted, maintenance and verification. Table 1 shows a brief events timeline for both CRW GUSs. Napa was finally placed in Backup mode on GPS time 307757 (13:29:18 GMT) for the rest of the day.

Table 1

GPS Time	GUS	Event (Mode change)
294540	Napa	From Primary to Faulted
294548	Littleton	From Backup to Primary
295292	Napa	From Faulted to Maintenance
296305	Napa	From Maintenance to Verification
296609	Napa	From Verification to Faulted
305064	Napa	From Faulted to Maintenance
305911	Napa	From Maintenance to Verification
307757	Napa	From Verification to Backup

According to the WAAS O&M monitoring, Napa GUS recorded some fault codes to indicate a receiver serial port communication failure that occurred when the GUS faulted. In addition, there was an M&C communication fault at the time of the Napa GUS faulting. After the Napa M&C was reset, the Napa GUS was restored to backup.

Conclusion

A serial port and M&C communication failure caused a GUS switchover for CRW from Napa to Littleton. The Napa M&C was later reset, verified and placed in backup on the same day by WAAS operators.