GPS GROUND SYSTEM ANOMALY

On 28 January the US Air Force announced from the 2nd Space Operations Squadron at the 50th Space Wing, Schriever Air Force Base, Colorado, that verified users were experiencing GPS timing issues.

Further investigation revealed an issue in the Global Positioning System ground software which only affected the time on legacy L-band signals. This change occurred when the oldest vehicle, SVN 23, was removed from the constellation.

While the core navigation systems were working normally, the coordinated universal time timing signal was off by 13 microseconds, which exceeded the design specifications. The issue was resolved at 0610 MST, however global users may have experienced GPS timing issues for several hours. US Strategic Command’s Commercial Integration Cell, operating out of the Joint Space Operations Center, effectively served as the portal to determine the scope of commercial user impacts.

Additionally, the Joint Space Operations Center at Vandenberg Air Force Base has determined that the timing error was not attributable to any type of outside interference such as jamming or spoofing.

Operator procedures were modified to preclude a repeat of this issue until the ground system software is corrected, and the 50th Space Wing will conduct an Operational Review Board to review procedures and impacts on users.

Commercial and Civil users who experienced impacts are invited to contact the US Coast Guard Navigation Center at +1 703 313 5900.