



Collins Aerospace

A United Technologies Company

On June 9, 2019, Collins Aerospace received reports that certain GPS and GLU models were not acquiring GPS constellations after power-up. The impacted units known at this time are the GPS-4000S (P/N 822-2189-100) and GLU-2100 (P/N 822-2532-100).

Our team has been actively working to determine a root cause. We found that a software design error resulted in the system misinterpreting GPS time updates due to a "leap second" event, which typically occurs once every 2.5 years within the U.S. Government GPS satellite almanac update. Our GPS-4000S-100 version software's timing calculations have reacted to this leap second by not tracking satellites upon power-up and subsequently failing. The U.S. Government distributed a regularly scheduled almanac update with this "leap second" on 0:00GMT, Sunday, June 9, 2019, and the failures began to occur soon after.

The next scheduled update by the U.S. Government to the GPS constellation is set for next Sunday, June 16 at 00:00Z. At this time, we do not believe this update will have the time information that triggers this error. We are testing additional impact of this next almanac update.

Please contact your OEM and regulatory authority to obtain an MEL or MEL extension if possible. If you have not powered up your units, leave them off until after June 16, 2019 00:15Z.

Collins is also urgently working to find mitigation solutions for all models of aircraft impacted until a correction can be fielded. We are committed to keeping you informed as we work through this issue.

A list of aircraft that may be equipped with the GPS-4000S (P/N 822-2189-100) is below. Please check your configuration to confirm:

- Bombardier Challenger 300
- Bombardier Challenger 350
- Bombardier Challenger 604
- Bombardier Challenger 605
- Bombardier Challenger 650
- Bombardier Global 5000 Vision
- Bombardier Global 6000
- Embraer Legacy 450
- Embraer Legacy 500
- Gulfstream G150
- Gulfstream G200
- Gulfstream G280
- Textron CJ3

Other models with the GPS-4000S (P/N 822-2189-100) may also be impacted.

If you have an issue to report, please reach out directly to Collins Aerospace's Avionics Customer Support at AvionicsSupport@collins.com or 319.295.5000. Please be sure to include the aircraft type, GPS/GLU model number, GPS/GLU part number, serial number and modification status.

We apologize for the inconvenience this has caused.