



TerraStar L-Band Frequency Changes Scheduled for Q1 2018

Background:

TerraStar satellite based correction services deliver precise GNSS corrections to the end user worldwide via L-Band beams from geostationary satellites. NovAtel GNSS receivers subscribed to TerraStar Correction Services access satellite clock and orbit corrections in these L-Band beams to compute real-time precise point positioning (PPP) solutions.

Issue Summary:

Inmarsat, the communications satellite provider used to deliver TerraStar correction data, has provided notice that all TerraStar L-Band beam frequencies will move from the current location of 1539 MHz to 1545 MHz and higher in Q1 2018. The frequency change is required to avoid any potential impact from future mobile satellite services (MSS) that will share the lower portion of the current L-Band spectrum. This L-Band frequency change will affect all TerraStar L-Band beams and will impact all NovAtel receivers that use TerraStar Correction Services.

Users with non-compatible firmware will lose TerraStar positioning capability once the frequencies move to 1545 MHz. Note that the frequency change is expected to commence in February 2018.

The L-Band frequency change will not impact TerraStar positioning for users with compatible firmware.

Products and Customers Affected:

- All TerraStar Correction Service customers operating OEM6 or OEM7 receivers with non-compatible firmware (see table below)

Mitigation:

NovAtel previously issued a service bulletin strongly urging customers to update their firmware related to the L-Band tracking functionality:

<https://www.novatel.com/assets/Documents/Bulletins/TerraStarLBandConfigurationBulletin.pdf>

All NovAtel receivers capable of L-Band tracking (and with an active or planned TerraStar subscription) must be updated to compatible firmware versions before the frequency change to ensure continuous operation of TerraStar services during and after the transition.



Please refer to the table below for information on compatible firmware versions:

Receivers	NovAtel Product	Compatible Firmware
OEM6	Receiver Board: OEM628 Enclosures: FlexPak6 Smart Antennas: SMART6-L	6.710 or later
	Receiver Board: OEM638 Enclosures: ProPak6	6.606
	SPAN Receivers and Enclosures (L-band capable)	6.631 or later
OEM7	All Products	7.200 (7.02.00) or later

Once a compatible firmware version is loaded, the beam frequencies will be updated seamlessly without impacting TerraStar positioning. While an active TerraStar subscription is not required, L-Band configured receivers should track a TerraStar beam during the frequency change period to update the beam frequencies on the receiver. Alternatively, TerraStar users can manually assign the beam to the new frequency during or after the frequency change.

NovAtel is actively engaged with TerraStar and Inmarsat to finalize the schedule and transition details. NovAtel will communicate updates over the following months to ensure customers are well-informed and prepared for the L-Band frequency change.

For assistance and further information, please contact support@novatel.com