

## GPS CNAV ACTIVATION

### Customer Notification:

**To Begin on April 28, 2014 AT J118/1430z:**

### **Activation of a Navigation Message (CNAV) on GPS L2C and L5 Signals**

Beginning on April 28, 2014 at J118/1430z as announced in a NOTICE ADVISORY TO NAVSTAR USERS (NANU) 2014038 NANU TYPE: GENERAL; "GENERAL MESSAGE TO ALL GPS USERS", the United States Air Force (USAF) Space Command will implement a navigation message, called CNAV (civil navigation), on GPS satellites that have the capability to broadcast GPS L2C and L5 signals with updates from the control segment approximately twice per week. The message populated signal content will include Broadcast Message Types (MT) 10, 11, 12, 30, and 33. There are no planned GPS satellite outages or degradations for this activity. There are currently seven GPS satellites (IIR-M) broadcasting L2C signals and four GPS satellites (IIF) broadcasting both L2C and L5. On average, users of GPS equipment having L2C and L5 signal capability may expect at least one GPS satellite broadcasting L2C to be in view at all times. Population of these signals with CNAV messages is to facilitate user familiarization and development of compatible user equipment and to enable more robust civilian and commercial GPS products with increased signal diversity. L2C and L5 CNAV messages should be transparent to GPS receivers that do not process L2C or L5 CNAV messages. Certain Trimble products track and use L2C and L5 observables in the position solution. The CNAV data message is not currently used in Trimble products and so the Air Force testing of the CNAV message is not anticipated to affect our products having L2C and L5 support. The introduction of CNAV has the potential to improve GPS positioning performance and robustness, therefore Trimble plans to monitor the CNAV testing but will not release CNAV functionality to customers until it has been thoroughly tested and no adverse effects are detected. As in the past, Trimble intends to maintain a close and constructive dialog with the United States Government during testing. The Air Force intends to broadcast the L2C and L5 messages with the health bits set healthy, as was the case with the CNAV testing performed in June, 2013. The United States Government is advising users to be aware that these pre-operational CNAV messages should not be considered operational which means that the availability and other characteristics of the broadcast signal may not comply with all requirements of the relevant Interface Specifications and should be employed at the users' own risk and should not be used for safety-of-life or other critical purposes.