

## Ionospheric Corrections 28 May - 2 June 2002

From 28 May through 2 June 2002, some L1 single frequency GPS receivers and unkeyed, dual frequency receivers may have experienced larger than normal navigation errors during portions of the day due to an erroneous navigation message parameter. The errors in the navigation message had the potential to produce additional ranging errors on the order of +/- 16 meters. This problem was detected by US Naval Observatory personnel. While the magnitude of this error was much higher than normal, user performance was still within existing navigation performance values in the GPS Standard Positioning Service Performance Standard (SPS PS)

### 1. World Geodetic System of 1984:

#### Geodetic Positions, Ellipsoidal Heights, and Geoid Heights

Station	Latitude deg min seconds	Longitude deg min seconds	Ellips Ht meters	Geoid Ht meters
JIG-67	32 52 21.296N	105 48 44.354W	2816.474	-21.371
JIG-13	32 22 50.079N	106 28 31.584W	1291.252	-24.091
JIG-56	32 23 15.671N	106 19 44.255W	1220.402	-24.232

### 2. National Geodetic Vertical Datum of 1929 (NGVD 29):

#### Elevations

Station	Meters
JIG-67	2837.845
JIG-13	1315.343
JIG-56	1244.634