

GPS CONSTELLATION STATUS -- Wed Sep 28 12:06:44 UTC 2005

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UNITED STATES NAVAL OBSERVATORY (USNO)

GPS CONSTELLATION STATUS

Information in this file is retained for approximately seven days or until completion of the event; be aware that the information provided below may change.

A. BLOCK II/IIA/IIR/IIR-M INDIVIDUAL SATELLITE STATUS

SVN	PRN	
15	15	Launched 01 OCT 1990; usable 15 OCT 1990; operating on Cs std
24	24	Launched 04 JUL 1991; usable 30 AUG 1991; operating on Cs std
25	25	Launched 23 FEB 1992; usable 24 MAR 1992; operating on Cs std Unusable 28 Sep 0435 UT and will remain unusable until further notice (NANU 2005124)
26	26	Launched 07 JUL 1992; usable 23 JUL 1992; operating on Rb std
27	27	Launched 09 SEP 1992; usable 30 SEP 1992; operating on Rb std
29	29	Launched 18 DEC 1992; usable 05 JAN 1993; operating on Rb std
30	30	Launched 12 SEP 1996; usable 01 OCT 1996; operating on Rb std
31	31	Launched 30 MAR 1993; usable 13 APR 1993; operating on Rb std Unusable 14 Apr 1634 UT and will remain unusable until further notice (NANU 2005055)
32	01	Launched 22 NOV 1992; usable 11 DEC 1992; operating on Cs std
33	03	Launched 28 MAR 1996; usable 09 APR 1996; operating on Cs std
34	04	Launched 26 OCT 1993; usable 22 NOV 1993; operating on Rb std
35	05	Launched 30 AUG 1993; usable 28 SEP 1993; operating on Cs std
36	06	Launched 10 MAR 1994; usable 28 MAR 1994; operating on Rb std
37	07	Launched 13 MAY 1993; usable 12 JUN 1993; operating on Rb std
38	08	Launched 06 NOV 1997; usable 18 DEC 1997; operating on Cs std
39	09	Launched 26 JUN 1993; usable 20 JUL 1993; operating on Cs std
40	10	Launched 16 JUL 1996; usable 15 AUG 1996; operating on Cs std
41	14	Launched 10 NOV 2000; usable 10 DEC 2000; operating on Rb std
43	13	Launched 23 JUL 1997; usable 31 JAN 1998; operating on Rb std

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44 28 Launched 16 JUL 2000; usable 17 AUG 2000; operating on Rb std
45 21 Launched 31 MAR 2003; usable 12 APR 2003; operating on Rb std
46 11 Launched 07 OCT 1999; usable 03 JAN 2000; operating on Rb std
47 22 Launched 21 DEC 2003; usable 12 JAN 2004; operating on Rb std
51 20 Launched 11 MAY 2000; usable 01 JUN 2000; operating on Rb std
53 17 Launched 26 SEP 2005 (NANU 2005123/26 SEP)
For more information about PRN17/SVN53, see:
<http://www.spaceflightnow.com/delta/d313a/>
54 18 Launched 30 JAN 2001; usable 15 FEB 2001; operating on Rb std
56 16 Launched 29 JAN 2003; usable 18 FEB 2003; operating on Rb std
59 19 Launched 20 MAR 2004; usable 05 APR 2004; operating on Rb std
Unusable 27 Sep 1115 UT to 28 Sep 0546 UT due to
maintenance (NANUs 2005122, 28 SEP)
60 23 Launched 23 JUN 2004; usable 09 JUL 2004; operating on Rb std
61 02 Launched 06 NOV 2004; usable 22 NOV 2004; operating on Rb std

B. GPS ACTIVITIES

1. Scheduled Coordinated Universal Time (UTC) Time Step (Leap Second)

The International Earth Rotation and Reference Systems service (IERS) has announced the introduction of a time step to occur at the end of December, 2005. Coordinated Universal Time (UTC) will be retarded by 1.0s so that the sequence of dates of the UTC markers will be:

2005 December 31 23h 59m 59s
2005 December 31 23h 59m 60s
2006 January 01 0h 0m 0s

UTC and all time scales based on UTC will be affected by this adjustment. However, GPS will not be adjusted physically. For GPS, the leap second correction contained within the UTC data of subframe 4, page 18 of the navigation message transmitted by satellites will change.

Before the leap second

GPS-UTC = +13s (i.e. GPS is ahead of UTC by thirteen seconds)

After the leap second

GPS-UTC = +14s (i.e. GPS is ahead of UTC by fourteen seconds)

2. Selective Availability (SA) levels set to zero.

On May 2, 2000 at 0400 UT, SA levels were set to zero. For more details, check the Interagency GPS Executive Board (IGEB) web site at <http://www.igeb.gov>.

3. Coordinated Universal Time (UTC) Time Step (Leap Second)

As of January 1, 1999, 0H 0M 0S, GPS is AHEAD of UTC by THIRTEEN (+13) seconds.

4. GPS Automatic Time Steering

In effect 18 Mar 1994 at 1415 UT and will remain in effect until further notice at rate +/-1.0E-19 seconds per second squared.

5. Activation of Anti-Spoof (A-S)

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A-S was activated January 31, 1994 at 0000 UTC. Due to the December 8, 1993 declaration of Initial Operational Capability (IOC), the P-code will not normally be available to users who do not have valid cryptographic keys (iaw Federal Radionavigation Plan (FRP) 1992). (NANU 050-94042/DTG 112045Z FEB 94)

6. Implementation of Selective Availability (SA)

- a. SA was reactivated on July 1, 1991 at 0400 UT and will remain in effect until further notice. Civil users will receive Standard Positioning Service (SPS) accuracy as specified in the Federal Radionavigation Plan (FRP). POC for policy: CDR Jackson at DSN 692-2634 or (719) 554-2634. (NANU 121-91182/DTG 011354Z JUL 91)
- b. According to the 2nd Satellite Operations Squadron (2SOPS) Operational Advisory Bulletin: SA was implemented on November 15, 1991 to the SPS level.

7. Change to GPS Broadcast Navigation Message

On June 2, 1995 beginning approximately 1900 UT, the GPS Master Control Station began adding data to the spare data fields in the broadcast navigation message. The navigation message will be in full compliance with existing message structure agreements outlined in ICD-GPS-200C and the GPS Standard Positioning Service (SPS) signal specification. However, it must be stressed that this capability is only to be used for test purposes and not intended for operational use. Note that SPS and PPS users will not be affected.

For information concerning: BLOCK II see file GPSB2
 GPS SYSTEM see file GPSSY
 TIME TRANSFER see file GPSTT

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File GPSTD
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