Global Positioning System

User Support Forum

CGSIC Meeting
Portland, OR
September 20, 2011
Hank Skalski
U.S. Department of Transportation
Overview

• User Support
  • Background & History
  • User Needs / Comments
  • Provider Response
  • The Way Ahead & Your Input
Do you know what this is?
Or this?
... and this?
**Constellation Reporting**

**Circa early ‘90’s**

<table>
<thead>
<tr>
<th>A</th>
<th>B</th>
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**Legend**

- **EXCELLENT**: ERR $< 3m$
- **EXCELLENT TO GOOD**: ERR $< 7m$
- **GOOD**: ERR $> 7m$
- **FAIL**: ERR $> 7m$
- **CLOCK SWAP**

**Roman Number** = Partition Number
**Arabic Number** = Number of Clocks Turned On
Constellation Reporting

Circa mid ‘90’s

**Constellation Status**

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25 Operational Satellites On Orbit

SVN38
(Nov 97)

SVN44
(Feb 98)
## Constellation Status

**Satellite Slots**

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*Actual Plane/Slot location TBD*

**UNCLASSIFIED**

21 Jun 00

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**Constellation Reporting**

**Circa 2000**
NOTICE ADVISORY TO NAVSTAR USERS (NANU) 2011077
SUBJ: SVN35 (PRN30) FORECAST OUTAGE EXTENDED UNTIL FURTHER NOTICE
1. NANU TYPE: FCSTEXTD
   NANU NUMBER: 2011077
   NANU DTG: 091901Z SEP 2011
   REFERENCE NANU: 2011075
   REFERENCE NANU DTG: 042339Z SEP 2011
   SVN: 35
   PRN: 30
   START JDAY: 250
   START TIME ZULU: 2000
   START CALENDAR DATE: 07 SEP 2011
   STOP JDAY: UFN
   STOP TIME ZULU: N/A
   STOP CALENDAR DATE: N/A
2. CONDITION: THE FORECAST OUTAGE FOR GPS SATELLITE SVN35 (PRN30) IS EXTENDED UNTIL FURTHER NOTICE.
3. POC: CIVILIAN - NAVCEN AT 703-313-5900, HTTPS://WWW.NAVCEN.USCG.GOV
   MILITARY - GPS OPERATIONS CENTER at HTTP://GPS.AFSPC.AF.MIL/GPSOC
   COMM 719-567-2541, gps_support@schriever.af.mil
   MILITARY ALTERNATE - JOINT SPACE OPERATIONS CENTER, DSN 276-3514, COMM 805-606-3514, JSPOCCOMBATOPS@VANDENBERG.AF.MIL

Constellation Reporting

World (Best 4) Max Position Error (m)
User Support

*Where do we go from here?*

What do users need?

When do users need it?

*How is it delivered?*
User Needs / Comments

- User needs and comments
  - CGSIC meetings - Public Working Groups
  - USCG Navcen - USAF GPSOC

- Greater NANU consistency / standardization
  - Eliminate errors
  - Automate process
  - Eliminate manual intervention
  - Timely constellation updates

- Request follow-up to “General NANUs”

- Increase “plain language text” usage
Provider Response

• Improvements initiated by 2SOPS
  • ICD-GPS-240 Updated
  • Increased quality control & standardization
  • Improvements to operational transparency with increased NANU transmissions and improved text dialog

• ICD-GPS-870, GPS OCX to User Support Community Interfaces
  • Addresses current & future needs
  • Public Interface Control Working Group meeting
    • April 28, 2011
Provider Response

• GPS User Support
  • GPS.gov (http://www.gps.gov)
    • “GPS User Support” link on home page
    • Links to ICD-GPS-870 and other
  • NAVCEN Website (http://www.navcen.uscg.gov)
    • E-mail: nisws@navcen.uscg.mil
    • Phone: +1 703 313 5900
    • Fax: +1 703 313 5920
Way Ahead

Your turn!

Comments
Questions
Input
Requests
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