



Global Positioning System Status

Sixth Meeting of the International Committee on GNSS

*Lt Col Robert Erickson
GPS Chief Engineer
5 Sept 2011*

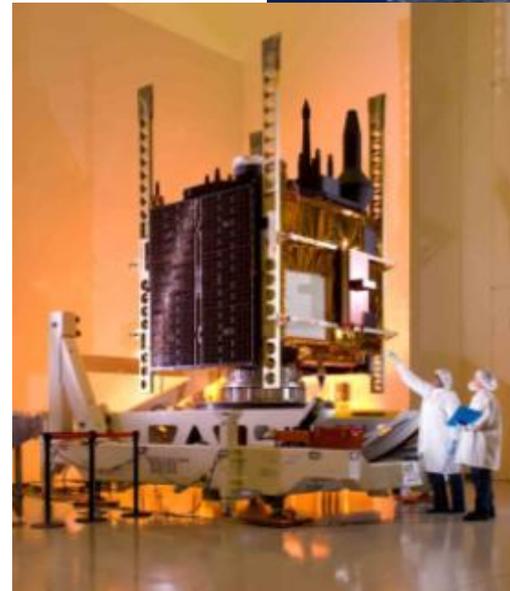


GPS Constellation Status

30 Healthy Satellites

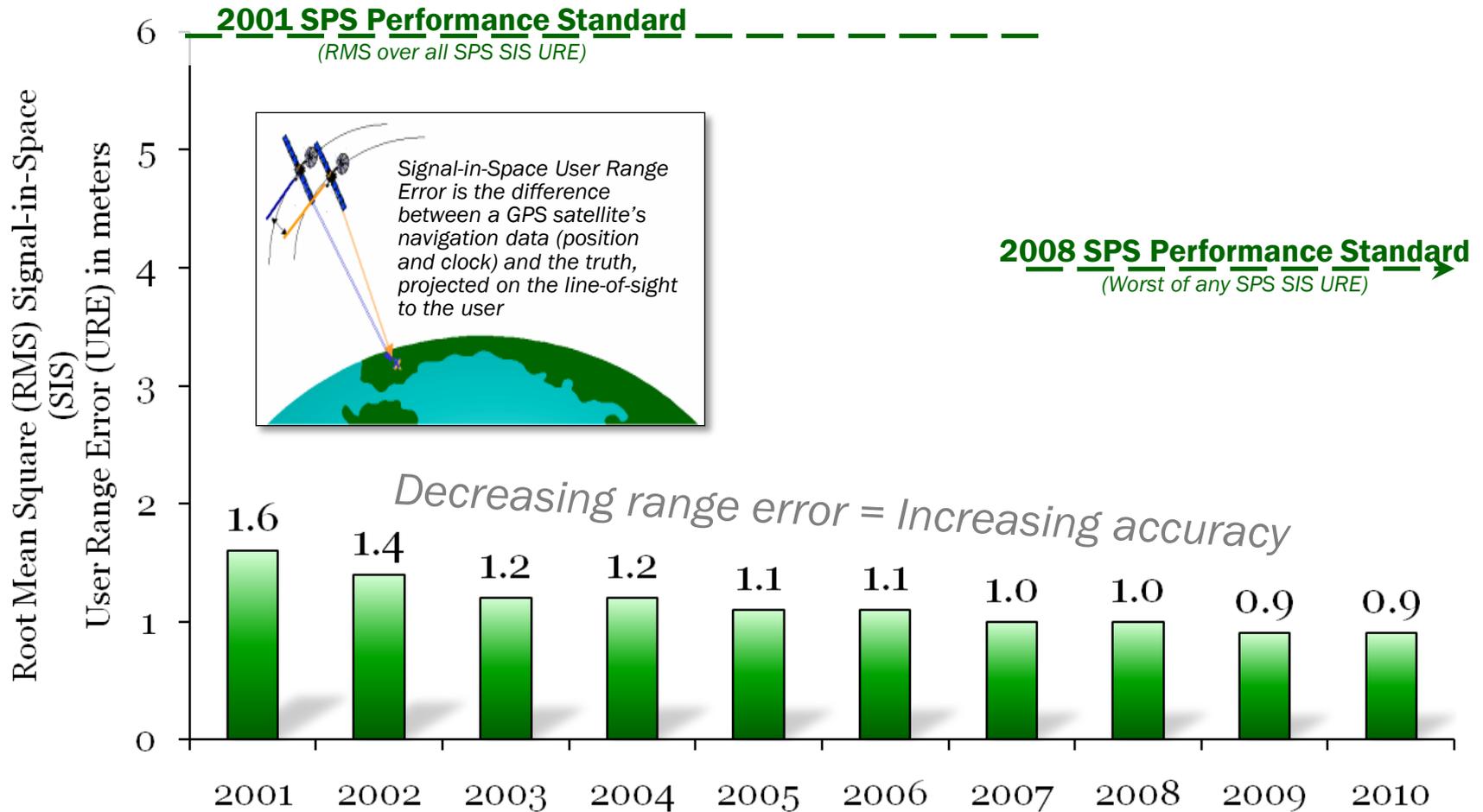
Baseline Constellation: 24

- 10 Block IIA satellites
- 12 Block IIR satellites
- 7 Block IIR-M satellites
- 1 Block IIF satellites
 - IIF-2 launched July 2011
 - Set healthy date TBD
 - Two operational L5 signals
- Next IIF Launch 2012



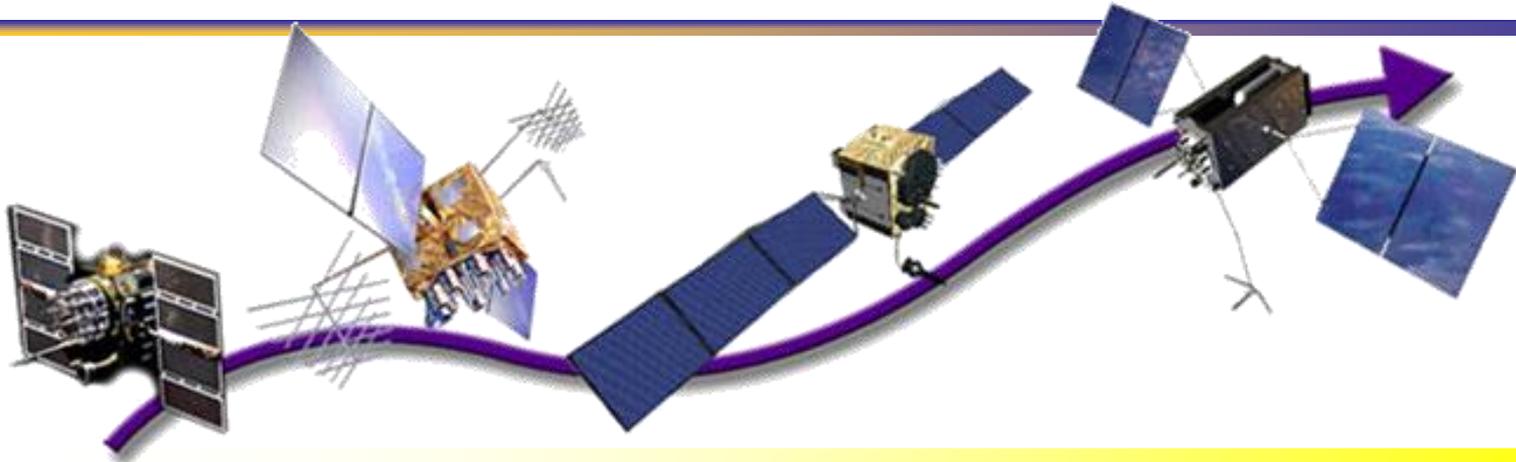


Standard Positioning Service (SPS) Signal-in-Space Performance





GPS Modernization Program



Increasing System Capabilities ♦ Increasing User Benefit

Block IIA/IIR

Basic GPS

- Standard Service
 - Single frequency (L1)
 - Coarse acquisition (C/A) code navigation
- Precise Service
 - Y-Code (L1Y & L2Y)
 - Y-Code navigation

Block IIR-M, IIF

IIR-M: IIA/IIR capabilities plus

- 2nd civil signal (L2C)
- M-Code (L1M & L2M)

IIF: IIR-M capability plus

- 3rd civil signal (L5)
- 2 Rb + 1 Cs Clocks
- 12 year design life

Block III

- Backward compatibility
- 4th civil signal (L1C)
- 4x better User Range Error than IIF
- Increased availability
- Increased integrity
- 15 year design life



Public Interface Specifications

- Next public Interface Control Working Group
 - 13-15 Sept 2011 in El Segundo, CA
- Current versions of the public GPS Signal-in-Space (SIS) and user support Interface Specifications:
 - IS-GPS-200 – L1 (P(Y) , C/A), L2 (P(Y), L2C)
 - IS-GPS-705 – L5
 - IS-GPS-800 – L1C
 - IS-GPS-870 – OCX Data Transfer
- These and other key IS/ICD documents available at:
 - <http://www.navcen.uscg.gov/index.php?pageName=gpsReferenceInfo/>
 - <http://www.gps.gov/technical/icwg/>



Summary

- GPS continues to meet or exceed our performance commitments to worldwide users
 - Performance is better than ever and will continue to improve with planned modernization
- Modernization of all segments is on track