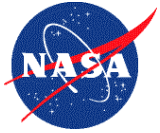




CDDIS SUPPORT OF THE IGS LEO PILOT PROJECT

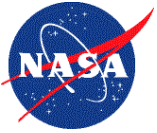
**Carey Noll
CDDIS Manager
NASA GSFC**

**IGS LEO Pilot Project Meeting
GFZ Potsdam
February 06-08, 2001**



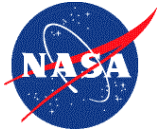
CDDIS Support of LEO Missions

- **CDDIS currently supports the IGS as a global data center**
 - Daily 30-second GPS data (1998-present on-line; 1992-1997 on CD-ROM)
 - Hourly 30-second data (5 days on-line; older deleted)
 - All products since 1992 (orbits, SINEX, IONEX, troposphere)
- **CDDIS will support LEO missions**
 - Archive data from high-rate ground network
 - Archive data from flight receivers
 - Allocate approximately 75 Gbytes of on-line disk space to this activity



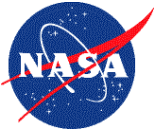
CDDIS Computer Configuration

- **Components**
 - Compaq AlphaServer 4000
 - 512 Mbytes memory
 - ~330 Gbytes on-line magnetic disk space
 - ~120 Gbytes for GPS data and products
 - ~ 25 Gbytes for GLONASS data and products
 - ~ 30 Gbytes for VLBI data and products
 - ~ 10 Gbytes for laser data and products
 - Digital UNIX
 - ORACLE RDBMS
 - 600 slot JVC CD-ROM jukebox
- Host name `cddisa.gsfc.nasa.gov` (128.183.102.102)
- Host name `cddis.gsfc.nasa.gov` (128.183.102.101) used for email and migration/archive of data from/on optical disk and 4mm tapes



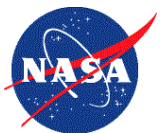
Data Centers Supporting LEO Pilot Project

Data Center	Ground Network Data	Flight Receiver Data
CDDIS	X	X
GFZ	X	X
JPL	X	X (GENESIS)
AUSLIG	X (Regional)	



Questions

- **For high-rate ground network data:**
 - What is sampling rate?
 - What format will be used?
 - What is the time span of each file (e.g., 15 minutes, one day, etc.)
 - How long are data to be retained on-line?
 - Any restrictions on distribution?
- **For flight receiver data:**
 - Same as above
 - What is the time frame for availability to data centers?



CDDIS Hourly Data Latency

(July through December 2000)

Delay (minutes)	No. of Station Hours	Percent
5	26,018	14%
10	48,084	26%
15	40,699	22%
20	42,594	23%
25	23,896	13%
30	10,993	6%
35	3,533	2%
40	3,408	2%
45 or more	26,768	14%
Total station hours:		184,838
Number of sites:		63
Within 15 minutes:		62%
Within 20 minutes:		85%