

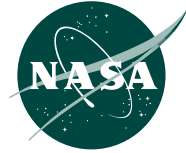
The DORIS DATA CENTER at the CDDIS

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THE DORIS DATA CENTER AT THE CDDIS



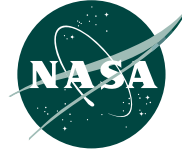
- ◆ **Background**
- ◆ **System Description**
- ◆ **Data Flow**
- ◆ **Archive Content**
- ◆ **Future Plans**

BACKGROUND



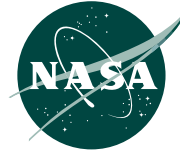
- ◆ **The CDDIS was established in 1982 as a dedicated data bank to archive and distribute all Crustal Dynamics Project-acquired data and information about these data**
- ◆ **CDDIS has served as a global data center for the International GPS Service (IGS) since its start in June 1992, providing on-line access to data from over 160 sites daily as well as a variety of GPS products**
- ◆ **CDDIS also serves as a global data center for the International Laser Ranging Service (ILRS), the International VLBI Service for Geodesy and Astrometry (IVS), and the International GLONASS Experiment (IGEX-98)**
- ◆ **GPS, GLONASS, laser, VLBI, and DORIS data sets are accessible to scientists through ftp and WWW; general information about all data are accessible via WWW**
- ◆ **On-line archive consists of ORACLE data base and GPS, laser, VLBI, and DORIS data sets (over 200 Gbytes on-line, many Gbytes near-line); off-line archive consists of older GPS, laser, and VLBI magneto-optical disks and magnetic tapes**

SYSTEM DESCRIPTION



- ◆ **CDDIS currently operational on dedicated DEC AlphaServer 4000 running UNIX**
- ◆ **Computer facility now equipped with nearly 340 Gbytes of on-line magnetic disk storage; 600 platter CD-ROM jukebox also utilized for older GPS data**
- ◆ **Majority of data accessible via anonymous ftp and web access**
- ◆ **CDDIS computer hosts web sites for the CDDIS, the ILRS, and several GSFC facilities**
- ◆ **CDDIS staff consists of one civil servant and three contractor employees**
- ◆ **In 1999, the CDDIS averaged a download of over 300K files and 60 Gbytes per month**
- ◆ **Over 4000 distinct hosts in nearly 100 countries accessed and downloaded data from the CDDIS in 1999**
- ◆ **Over 150 users access the CDDIS on a daily basis to download data**

CDDIS ARCHIVE CONTENTS



◆ GPS

- **Temporal coverage** 1990 through present
- **Data volume** On-line: 100 Gbytes + 300 Gbyte jukebox
Off-line: 500 Gbytes

◆ GLONASS

- **Temporal coverage** 1998 through present
- **Data volume** On-line: 25 Gbytes
Off-line: n/a

◆ Laser

- **Temporal coverage** 1976 through present
- **Data volume** On-line: 10 Gbytes
Off-line: 200 Gbytes

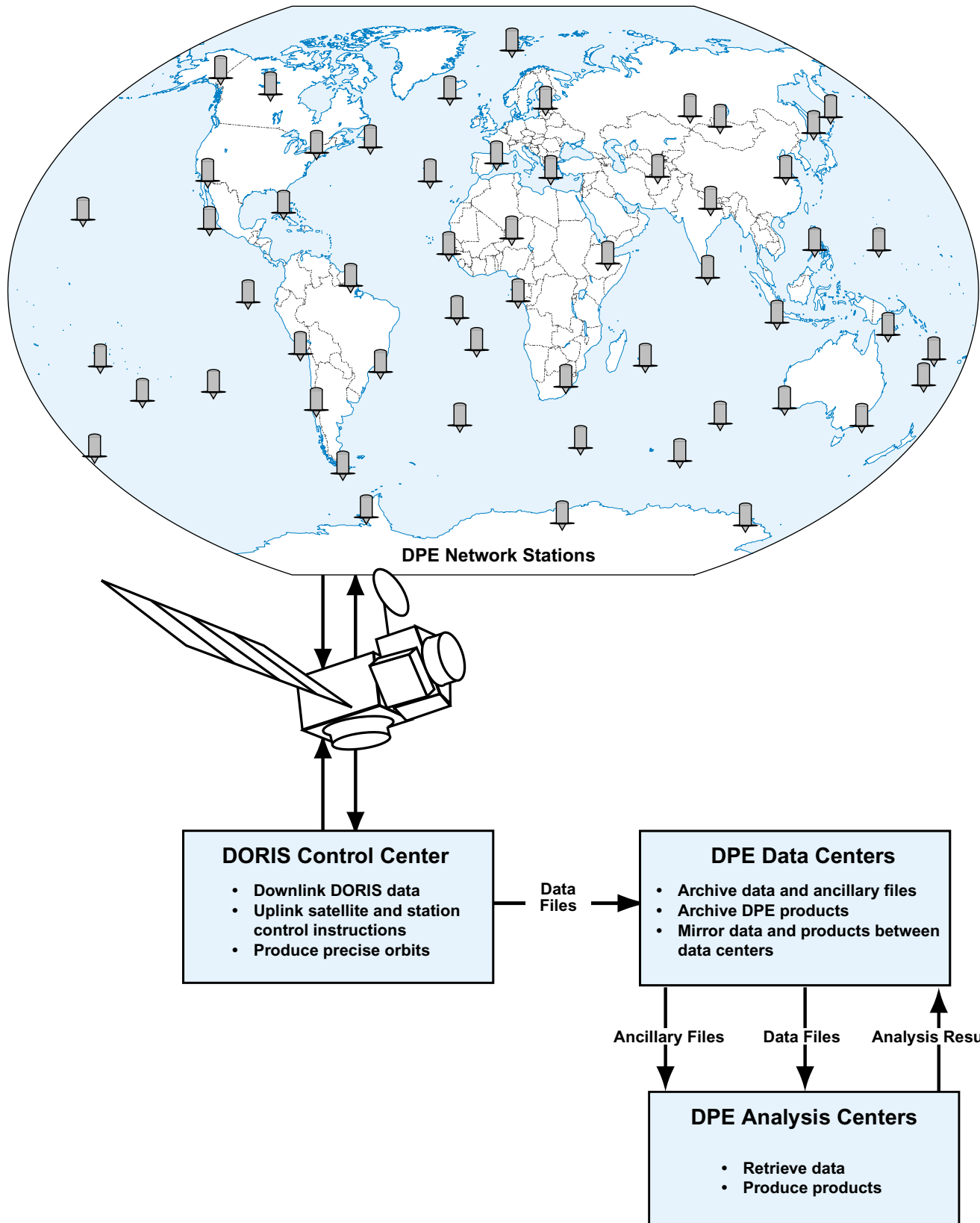
◆ VLBI

- **Temporal coverage** 1979 through present
- **Data volume** On-line: 30 Gbytes
Off-line: 100 Gbytes

◆ DORIS

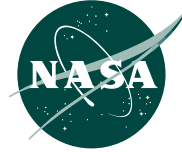
- **Temporal coverage** 1992 through present
- **Data volume** On-line: 2 Gbytes
Off-line: 0 Gbytes

FLOW OF DORIS DATA, PRODUCTS, AND INFORMATION



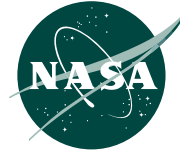
DORIS DATA FLOW

(continued)



- ◆ **CNES deposits data in incoming disk area on CDDIS host computer**
- ◆ **Automated routines peruse incoming data area for new files**
- ◆ **New files copied to public disk area**
- ◆ **Summaries generated from data files and loaded into ORACLE data base**
- ◆ **Data base information includes satellite, site, time span, and number of observations per pass**
- ◆ **During three months in 2000, over thirty groups in 13 countries have accessed DORIS data and information from the CDDIS**

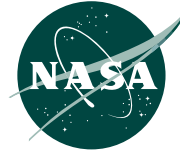
DORIS ARCHIVE CONTENT



- ◆ **CDDIS currently archives DORIS data from three satellites: TOPEX, SPOT-2, and SPOT-4**
- ◆ **Historic archive of SPOT-3 data also available**
- ◆ **Currently, data are stored in multi-day (typically 10-day) cycle files**
- ◆ **Data available ~ 10 days after the last observation day**
- ◆ **Files approximately two Mbytes in size (UNIX compressed)**

ARCHIVE CONTENT

(continued)



Directory	File Name	Description
Data Directories		
/doris/<i>satname</i>	<i>satcode</i>data###.dat.Z	DORIS data for satellite <i>satcode</i> and cycle number ###
	<i>satname</i>.files	File containing multi-day cycle filenames versus time span
/doris/<i>satname</i>/sum	<i>satcode</i>data###.sum	Summary of contents of DORIS data file for satellite <i>satcode</i> and cycle number ###
Other Directories		
/doris/dorismail	dorismail.####	DORISMail message number ####
/doris/general		General DORIS information such as satellite maneuver files

FUTURE PLANS



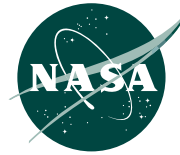
- ◆ **Both the CDDIS and IGN plan to serve as data centers supporting the DORIS Pilot Experiment (DPE) and the future International DORIS Service for Geodesy and Geodynamics (IDS)**
- ◆ **Procedures will be established at both data centers to regularly compare data holdings**
- ◆ **CDDIS will review current archive strategy (archive files by satellite and day or month?)**
- ◆ **CDDIS and IGN will begin archive of DORIS products as DPE commences**

FUTURE PLANS

(continued)



- ◆ **A Data Flow Coordinator for the experiment has been appointed and will review procedures for the exchange of data and information between the control centers, the data centers and the analysis centers**
- ◆ **A Data and Products Formats Working Group has been established to determine the type and format of products for the DPE**
- ◆ **Group will also review existing DORIS data formats**



QUESTIONS?

◆ **Contact:**

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