CDDIS 2001 GLOBAL DATA CENTER REPORT

Carey E. Noll

NASA Goddard Space Flight Center Code 922, Greenbelt, MD 20771, USA noll@cddisa.gsfc.nasa.gov

1 Introduction

The Crustal Dynamics Data Information System (CDDIS) has supported the archive and distribution of laser ranging data (both lunar and satellite) since its inception in 1982. This report summarizes the activities for the year 2001 and future plans of the CDDIS with respect to the International Laser Ranging Service (ILRS). General CDDIS background and system information can be found in the CDDIS data center summary included in the 1999 ILRS Annual Report.

The CDDIS laser data archive consists of data (SLR on-site normal points, SLR full-rate, and LLR normal points), information about these data, and products derived from these data. The CDDIS is located at NASA Goddard Space Flight Center and is operational on a dedicated Compaq AlphaServer running the UNIX operating system. The CDDIS archive of laser ranging data and products are accessible to the public via anonymous ftp and the WWW at address ftp://cddisa.gsfc.nasa.gov/pub/slr and ftp://cddisa.gsfc.nasa.gov/pub/reports.

2 Developments in 2001

2.1 SLR Data and Products Archive

A summary of all data received during 2001 can be found in Section 8.

During 2001, the CDDIS continued the archive of daily and hourly SLR data files, augmenting the archive as required for new missions. The daily files are archived by satellite and year:

ftp://cddisa.gsfc.nasa.gov/pub/slr/slrql/satname/yyyy/new qlyymmddt.allsat

The hourly files can be found in the yearly "allsat" directories on CDDIS:

ftp://cddisa.gsfc.nasa.gov/pub/slr/slrql/allsat/yyyy/new qlyymmddt.allsat

where *satname* is the satellite name, *yyyy* is the four-digit year, *yy* is the two-digit year, *mm* is the two-digit month, *dd* is the two-digit day, and *h* is the hour (a through x). All data available in the hourly files will be delivered the following day in the daily *allsat* file as well as the individual satellite files. The hourly files are retained on-line on the CDDIS for three days after which time they are deleted. The CDDIS staff continues to create and augment merged, time-sorted,

monthly satellite files as daily files are delivered each day. The monthly files contain data for the specific month and satellite; therefore users can easily retrieve data for a particular time span.

The CDDIS staff continued to migrate older SLR full-rate data from magnetic tape to on-line. Monthly files of full-rate data are created from the daily station files approximately six months after the observation month.

S

The CDDIS continued to support the ILRS Analysis Working Group (AWG) pilot projects by archiving solutions from ILRS Analysis Centers (ACs) and Associate Analysis Centers (AACs). These solutions were deposited in the CDDIS by the ACs and AACs and copied to public disk areas within the SLR data directories.

The file of SLR eccentricity information was modified in 2001. The new format accommodates large eccentricity values amounting up to several kilometers, includes the Cartesian eccentricities corresponding to the local vectors, and includes all known DOMES numbers for the SLR sites.

2.2 Support of the ILRS Central Bureau

The CDDIS staff continued to maintain the e-mail distribution lists (or exploders) to aid communication within the ILRS infrastructure. A list of these exploders and their members can be viewed at URL http://ilrs.gsfc.nasa.gov/ilrs_exploders.html. These e-mail exploders are maintained in an automated fashion, updated when any changes are made to the data base of personnel information.

The CDDIS computer facility hosts the web site for the ILRS (http://ilrs.gsfc.nasa.gov). The CDDIS staff also assisted the ILRS Central Bureau in preparation and publication of the 2000 ILRS Annual Report.

3 Contact Information

To obtain more information about the CDDIS archive of ILRS data and products, contact:

Ms. Carey E. Noll Phone: (301) 614-6542 Manager, CDDIS Fax: (301) 614-5970

Code 920.1 E-mail: noll@cddis.gsfc.nasa.gov

NASA GSFC WWW: http://cddisa.gsfc.nasa.gov/cddis welcome.html

Greenbelt, MD 20771

USA