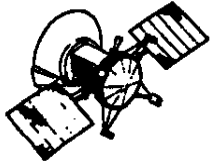#780

MAGELLAN

SDCVR

89-033B-011

MAGELLAN

ALT-EDR

89-033B-011

This data set consists of 8mm Tapes, and CD-ROM
Write-Once disks. The data were originally submitted on 66
8mm tapes. The data were resubmitted on 49 CD-ROM'S by MIT.
The CD'S were written in ASCII format. The DD and the KD
numbers are as follows:

DD 101135 - 101157
DD 107508 - 107550

KD 001456 - 001504

Massachusetts Institute of Technology
Center for Space Research

Cambridge, MA 02139

Radar Astronomy Group

Room 37-601

Tel: (617)-253-6485
Datafax: (617)-253-0861

Thursday, March 30, 1995

Data Ingest
National Space Sciences Data Center
Code 633
Goddard Space Flight Center
Greenbelt, MD 20771
Attn: Ralph Post

Dear Ralph,

This is a delivery of 49 CD–WO disks containing an archival copy of the Magellan SCVDR dataset that has been delivered to NSSDC on 8mm Exabyte tape by the Magellan Project.

This is a collaboration—the original data were generated by Tyler and Simpson at Stanford. We at MIT have merely taken their files, added PDS labels and catalog templates, and written them to CD–WO, retaining only the "best and latest" version of each original. Problems with the PDS labels and CD–WO format should be addressed to MIT; questions about the binary data should go to Stanford. This is stated clearly within the AAREADME.TXT files on each disk, but you should also be aware of it at the NSSDC Request Office.

We are sending catalog information to the PDS Geosciences Node in St. Louis so that these products can appear in future versions of their Magellan Detailed Level Catalog. I'm enclosing a simple 3-page description and printed copies of the two SIS documents—one describing the data files, the other the CD–WO structure—that are recorded on each disk in the files named SCVDR.ASC and SCVDRCD.ASC (ASCII) and SCVDR.PS and SCVDRCD.PS (PostScript) in the DOCUMENT directory. Please let us know if you'd like any ancillary information to assist in filling your own catalogs.

Sincerely,

Dr. Peter G. Ford
Principal Research Scientist

cc: Ray Arvidson, Washington U.
        Richard Simpson, Stanford U.
        Joan Quigley, MIT 37–602

encl: Data description sheet (3 pages)
        SU–MGN–SCVDR SIS v1.0
        SU–MGN–SCVDRCD SIS v1.0
        CD–WO disks MG_2101–MG_2149

```
Data Set Information
=====================

Data Set Id                      : MGN-V-RDRS-5-SCVDR-V1.0
Processing Level Id              : 5
Start Time                       : 1990-09-15
Stop Time                        : 1992-09-14
Data Object Type                 : TABLE
Data Set Release Date            : 1995-01-01
Producer Institution Name        : CENTER FOR RADAR ASTRONOMY,
                                 : STANFORD UNIVERSITY
Software Flag                    : N
Detailed Catalog Flag            : N
Processing Start Time            : 1990-09-16
Processing Stop Time             : UNK
Data Set Collection Member Flg   : N
```

```
Processing Level Description
============================
```

  Derived Data - Derived results, as maps, reports, graphs, etc. NASA
  levels 2 through 5.

```
Data Set Processing
===================
```

```
  Source Data Set Id             : MGN-V-RDRS-2-ALT-EDR-V1.0
  Cognizant Full Name            : MHR
```

  Description

    The Magellan High-Rate Processing System (MHR) consists of a
    Central Database (CDB) and Telemetry Processing Subsystem
    (TPS) used to merge Magellan high-rate and subcommutated
    engineering telemetry and ancillary data files.

```
  Source Data Set Id             : MGN-V-RDRS-5-C-BIDR-V1.0
  Cognizant Full Name            : IDPS
```

  Description

    The Image Data Processing Subsystem (IDPS) is a component of the
    Multimission Image Processing System (MIPS). It reads multiple
    full-resolution (F-BIDR) Magellan image swaths and merges them
    into a variety of mosaics. During this process, it performs a 3-1
    compression of the original 75 meter pixels to 225 meter pixels
    and saves the result as the Compressed Image Data Record (C-BIDR.)

```
Associated Targets
==================
```

  VENUS

```
Associated Instruments
======================
```

```
  Host:        MAGELLAN (MGN)
  Instrument:  RADAR SYSTEM (RDRS)
```

```
Parameter Information
=====================
```

  None.

```
Data Set Description
====================
```

SCVDRCD archive volumes contain Magellan SCVDR (Surface Character-
istics Vector Data Record) archive products that were generated by
Stanford University from Magellan ALT-EDR and C-BIDR products. The
volumes also contain documentation files which describe the SCVDR
data files. Each SCVDR data directory contains data returned from
one orbit, accompanied by ancillary files that describe the data.
The SCVDR files archived on these volumes are the exact products
released by the Magellan Project. Supporting documentation and
label files conform to the Planetary Data System (PDS) Standards,
Version 3.0, Jet Propulsion Laboratory (JPL) document JPL D-7669.

Confidence Level Note
=====================

The PDS labels on these volumes conform to the Data Dictionary
distributed with Release 4.1 of the PDS Toolkit. All TEXT, HEADER,
and TABLE objects obey GENERIC PDS standards, except that some
TABLE objects are not accompanied by sets of COLUMN sub-objects,
in which case format information is included in an accompanying
DESCRIPTION element. The PDS Catalog files, *.CAT, conform to the
PDS 'streamlined' standards introduced in April 1994.

All data files in the data directories were copied directly from
SCVDR product tapes without change, unless otherwise noted in the
ERRATA.TXT file in the ROOT directory.

Reference
=========
    Journal: JOURNAL OF GEOPHYSICAL RESEARCH
    Publication Date: 1990-06-10
    Reference Key ID: SAUNDERSETAL1990

    Authors

      GORDON H. PETTENGILL
      LESLIE J. PIERI
      R. STEPHEN SAUNDERS
      RAYMOND E. ARVIDSON
      W. L. SJOGREN
      WILLIAM T. K. JOHNSON

    Citation

      Saunders, R.S., G.H. Pettengill, R.E. Arvidson, W.L. Sjogren,
      W.T.K. Johnson, L. Pieri, The Magellan Venus Radar Mapping
      Mission, Journal of Geophysical Research, 1990, Vol 95, pp.
      8339-8335

Reference
=========
    Journal: JOURNAL OF GEOPHYSICAL RESEARCH
    Publication Date: 1992-08-01
    Reference Key ID: TYLER1992

    Authors

      G. LEONARD TYLER
      RICHARD A. SIMPSON
      MICHAEL J. MAURER
      EDGAR HOLMANN

    Citation

      Tyler, G. L., R.A. Simpson, M.J. Maurer, and E. Holmann,

Scattering Properties of the Venusian Surface: Preliminary
Results from Magellan, Journal of Geophysical Research, 97,
13115-13139, 1992

Inventory Information
======================

Available from NSSDC

CD-WO Media (WRITE-ONCE COMPACT OPTICAL DISK (CD-WO))

NASA Planetary Data System
Microwave Subnode of the Geosciences Node

Software Interface Specification

PDS-GEO-SCVDRCD

Magellan Surface Characteristics Vector Data Record on Compact Disk Read-Only Memory

prepared by

Center for Space Research
Massachusetts Institute of Technology
70 Vassar Street
Cambridge, MA 02139-4307
617-253-6485

from data supplied by

Center for Radar Astronomy
Stanford University
Durand Building, Room 232
Stanford, CA 94305-4055
415-423-3525

Version 1.0
January 1, 1995

Stanford Center for Radar Astronomy

Magellan Project

Software Interface Specification

SU-MGN-SCVDR

Surface Characteristics Vector Data Record

prepared by

Richard A. Simpson
Joseph D. Twicken
Michael J. Maurer

Center for Radar Astronomy
Stanford University
Stanford, CA 94305–4055

415–423–3525

Version 1.0
1 October 1992