[redacted]

727

PIONEER 10

15-MIN INTERPLANETARY DATA, SFDU

72-012A-02D

[redacted]

[redacted]

Table of Contents

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1. INTRODUCTION:

The documentation for this data set was originally on paper, kept in NSSDC's Data Set Catalogs (DSCs). The paper documentation in the Data Set Catalogs have been made into digital images, and then collected into a single PDF file for each Data Set Catalog. The inventory information in these DSCs is current as of July 1, 2004. This inventory information is now no longer maintained in the DSCs, but is now managed in the inventory part of the NSSDC information system. The information existing in the DSCs is now not needed for locating the data files, but we did not remove that inventory information.

The offline tape datasets have now been migrated from the original magnetic tape to Archival Information Packages (AIP's).

A prior restoration may have been done on data sets, if a requestor of this data set has questions; they should send an inquiry to the request office to see if additional information exists.

2. ERRATA/CHANGE LOG:

NOTE: Changes are made in a text box, and will show up that way when displayed on screen with a PDF reader.

When printing, special settings may be required to make the text box appear on the printed output.

Version	Date	Person	Page	Description of Change
01				
02				

3 LINKS TO RELEVANT INFORMATION IN THE ONLINE NSSDC INFORMATION SYSTEM:

http://nssdc.gsfc.nasa.gov/nmc/

[NOTE: This link will take you to the main page of the NSSDC Master Catalog. There you will be able to perform searches to find additional information]

4. CATALOG MATERIALS:

a. Associated Documents To find associated documents you will need to know the document ID number and then click here. http://nssdcftp.gsfc.nasa.gov/miscellaneous/documents/

b. Core Catalog Materials

REQ. AGENT	ACQ. AGENT
CMW	JFC

PIONEER 10

15-MIN INTERPLANETARY DATA, SFDU

72-012A-02D SPHE-00585

This data set consists of 2 magnetic tapes. The tapes were written on 9-track, 6250 bpi, in SFDU format, and can be read with the VAX COPY command in VMS directory format. The tapes are not labeled. The first two files on each tape contains the volume description and the file formats. These are followed by the data files. All data records are of the same length, 32,256 ASCII characters or bytes per physical record. Each physical record contains 96 logical records of length 336 bytes. The D and C numbers and time span are as follows:

D#	C#	FILES HEADER/DATA	TIME SPAN
D-100499	C-030661	2/24	03/03/72 - 12/31/83
D-100500	C-030662	2/18*	01/01/84 - 09/01/92

* Record 63 of data file 18 contains the last data; records 64 through 184 are all zeroes.

Conformation from Gordon Lentz:
"According to our records, we verify that the CPI instrument was OFF from 09/02/92 through 01/01/93. The instrument was not turned back on until DOY-033/93."

PS: The ending date of the Time Coverage Files "B", as listed in the volume description file, should read June 30 of the respective year and not December 31. (ie. "A" file for first half of the calendar year, and "B" for the second half of the calendar year.)

The University of Chicago
Laboratory for Astrophysics and Space Research

933 E. 56th Street
Chicago IL 60637

Tel: (312)702-7836
FAX: (312)702-6645
Email: lentz@odysseus.uchicago.edu

Date: February 22, 1993

Dr. J. Cooper
ST Systems Corperation
7601 Ora Glenn Drive
Greenbelt MD 20771

Dear John;

With this letter we will ship the tape which contains the first volume (3 March, 1972 through 31 December 1983) of the University of Chicago Pioneer-10 CPI-instrument "flux-data" submission to the NSSDC. This is the

Vol_Ident: USA_NASA_NSSD_P10B_0001
Data_Set_Name: Pioneer 10 CPI Cruise Data Archive.

I am sorry that it has taken so long to produce this tape. When we got into the actual process of preparing and checking the tapes, we discovered that there were some errors -- primarily duplication of some data around data gaps -- which did not bother our subsequent processing or analysis programs, but which had to be cleaned up before we could release the data to you. The volume which we send you now is "clean", as far as we know; the second Pioneer-10 volume should follow within about the next week. We will then prepare and check the Pioneer-11 volumes and send them along as quickly as we can.

Thanks again for all your help in the preparation of the SFDU descriptions and in validating the final product. Please let us know what your evaluation of this tape is -- if there are still problems of some sort we should correct them before we go too far in the production of the other volumes.

Sincerely

Gordon Lentz
Manager, Data Systems
and Analysis

Re: Chicago P10/11 tapes 6/14/93

Ralph,

The VOLDESC.SFD and FORMAT.SFD meta data files are the first two files on each tape.

Earlier copies of these files are in nssdca1::anon_dir:[COHO.SFDU]S.SFD

S = CPI_P10_FINAL.SFD
CPI_P11_REC.SFD

Use these programs from tapes for hardcopy documentation.

John Cooper

The University of Chicago
Laboratory for Astrophysics and Space Research

933 E. 56th Street
Chicago IL 60637

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Email: lentz@odysseus.uchicago.edu

Date: March 12, 1993

Dr. John Cooper
ST Systems Corp
7601 Ora Glenn Drive
Greenbelt MD 20771

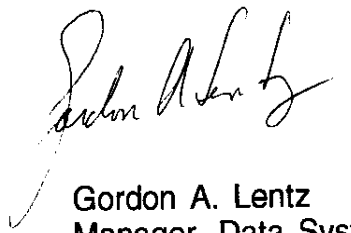
Dear John;

I am sending you today the second volume of the University of Chicago CPI submission for the Pioneer 10 Data Archive. This submission consists of one magnetic tape with the description:

Vol_Ident: USA_NASA_NSSD_P10B_0002
Vol_Creation_Date: 1993-03-10
Medium_Description: 1/2 inch, 9 track, 6250 bpi magnetic tape, unlabeled
Vol_Time_Coverage: 1984-01-01 to 1992-12-31

We are in the process of preparing and validating the CPI data from the Pioneer 11 spacecraft for submission to the archive. This data will be sent to you as soon as we are satisfied with its quality.

Sincerely,



Gordon A. Lentz
Manager, Data Systems
and Analysis

Cc: C. Lopate
C. Sethuraman
J. Simpson

CCSD3ZF0000100000001CCSD3VS00002MRK**001

Vol_Ident: USA_NASA_NSSD_P10B_0001

Vol_Creation_Date: 1993-02-11

Medium_Description: 1/2 inch, 9 track, 6250 bpi magnetic tape, unlabeled

Technical_Contact:

Gordon A. Lentz
University of Chicago
Enrico Fermi Institute
Laboratory for Astrophysics and Space Research
933 E. 56th Street
Chicago, IL 60637
Telephone: (312) 702-7836
E-Mail: (NSI/DECnet) LASR::LENTZ
: (Internet) lentz@odysseus.uchicago.edu

Prev_Vols: none

CCSD$$MARKERMRK**001CCSD3SS00002MRK**002

Data_Set_Name: Pioneer 10 CPI Cruise Data Archive

Data_Source: Pioneer 10 Charged Particle Instrument

Scientific_Contact:

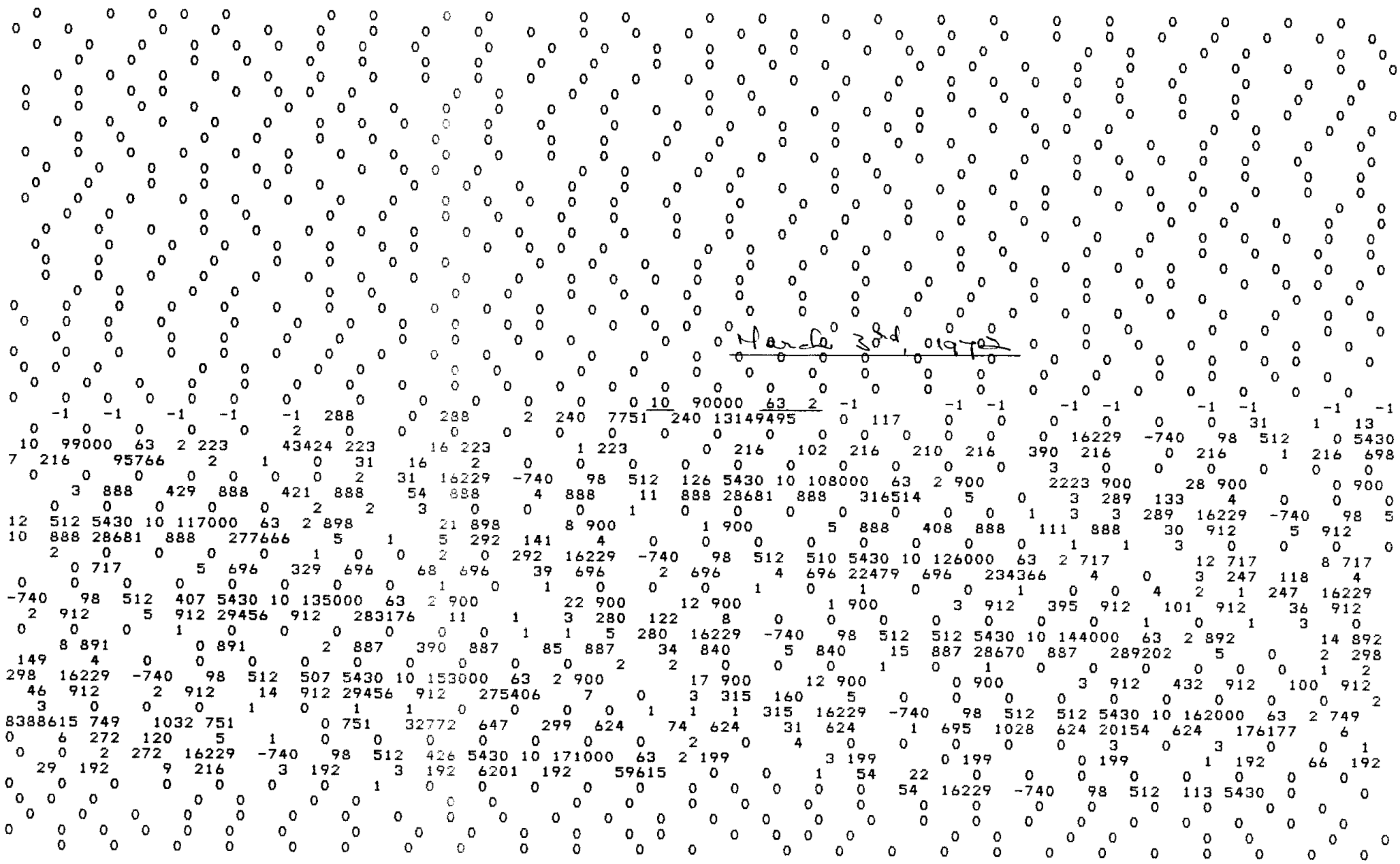
Prof. John A. Simpson
University of Chicago
Enrico Fermi Institute
Laboratory for Astrophysics and Space Research
933 E. 56th Street
Chicago, IL 60637
Telephone: (312) 702-7670

Spacecraft_Characteristics: The Pioneer 10 and 11 spacecraft are near-twin spacecraft which were launched toward Jupiter about a year apart with different closest-approach radii at the respective encounters, and differing post-encounter trajectories. Pioneer 10 was launched on March 3, 1972, and encountered Jupiter in December, 1973. Since the encounter, it has been on an escape trajectory from the solar system, and at the end of 1991 it was at a distance of about 53 AU from the sun, a celestial latitude of +3 degrees, and a celestial longitude (measured eastward from the vernal equinox) of 73 degrees. Pioneer 11 was launched April 5, 1973 and encountered Jupiter in December 1974. Its post-encounter trajectory was chosen so that it would encounter Saturn some 5 years later; this encounter took place successfully in August-September 1979. At the end of 1991 Pioneer 11 was at a radial distance of 35 AU, a celestial latitude of +17 degrees and a celestial longitude of -95 degrees. Both spacecraft were instrumented with a full suite of instruments for fields and particles, including magnetometer, plasma sensors, and four energetic particle and cosmic ray instruments. Other instruments included an ultraviolet photometer, infrared photometer, imaging photopolarimeter, and micrometeoroid detector. The spacecraft are spin stabilized, with the spin axis oriented toward the earth.

ASCII LIST OF CPI_P10_72A.DAT

D-100499
Data file: 1

RECORD 1 32256 BYTES



```
    1    1    0    0    0    0    0    1    1    1   50  16482  -742   98  512  321 5435 10 720000  65  2 876      6882 876   8136 881
     15 881       3  840   360  840   109  840  2516  774     0  774      9  840  9060  840   263995 2675   14    3  123   48 1814
 1    1    2    0    0    0    1    6    1    0    4    1    0    0    1    0    0    0    0    0    1    0    0    0    0  123  16482
-742   98 2048 1993 5435 10 729000  65  2 873      7605 873   8236 874       17 874       1  858   397  858   102  858  2652  870
  5  870    11  858  9255  858   264466 3574   16    1  176   97 2409    2    1    3    0    0    1    0   11    1    0    3    0
 0    0    0    0    0    0    0    0    0    0    0    0    1    3  176  16482  -742   98 2048 1986 5435 10 738000  65  2 891     10017 891
  9976 892      14 892       3  888   402  888   106  888  3375  864     3  864     11  888  9585  888   271766 3838   13    2  153
  71 2523    0    0    5    3    0    1    0    7    0    0    2    0    0    0    2    0    0    0    0    0    0    0    0    0
153  16482  -742   98 2048 2027 5435 10 747000  65  2 900     11572 900  10776 899       15 899       7  900   429  900   112  900
3871  900     4  900    11  900  9708  900   261968 3949   14    6  147   84 2604    0    0    3    1    0    0    0    7    0    1
   3    0    0    0    0    1    1    0    0    1    1    0    1    0    1  147  16482  -742   98 2048 2048 5435 10 756000  65  2 900
  10067 900  11888 899       23 899       4  900   425  900   130  900  3826  900     6  900    11  900  9714  900   258905 4085    2
1    3  136   55 2755    1    0    6    4    0    0    1   11    0    1    8    0    1    0    0    0    1    0    0    1    0    0
 0    1    0  136  16482  -742   98 2048 2048 5435 10 765000  65  2 898     12391 898  14140 898       26 898       4  888   396  888
  110  888  4570  900     4  900     7  888  9578  888   256533 4235   24    4  115   44 2860    0    0    5    1    0    0    2    1
3    1    0    1    0    0    0    2    1    0    0    0    0    0    0    0    1    0  115  16482  -742   98 2048 2043 5435 10 774000
65  2 871     12054 871  12032 870       20 870       3  864   387  864   132  864  4070  864     3  864    12  864  9333  864   262
973 4092   17    2  120   55 2704    0    0    8    2    0    0    6    5    1    1    4    0    0    0    2    0    0    0    0
0    0    0    0    1    0  120  16482  -742   98 2048 1982 5435 10 783000  65  2 900     10255 900  14244 899       32 899       1  888
   391  888   125  888  4442  888     1  888     7  888  9578  888   261427 4259   28    1  115   47 2834    1    0   13    5    0
  1    5   11    0    1    3    0    0    0    1    0    0    0    0    0    0    0    1    1    0  115  16482  -742   98 2048 2048 5435
 10 792000  65  2 899      14169 899  18364 900       43 900       4  900   444  900   108  900  5407  900     8  900    13  900  971
4  900   268766 4435   40    4  122   54 2939    1    0   11    2    0    1    6   23    0    0    0    0    0    0    1    0    0
  0    0    0    0    1    0    0    0  122  16482  -742   98 2048 2045 5435 10 801000  65  2 899     14082 899  16936 899       40 899
      4  900   383  900   126  900  5220  888     3  888     8  900  9714  900   269738 4408   34    3  102   51 2962    0    0    9
    2    0    1    6   18    0    2    6    0    0    0    1    1    1    0    0    0    0    0    0    0    0  102  16482  -742   98 20
48 2045 5435 10 810000  65  2 900     17017 900  20528 899       37 899       3  900   445  900   124  900  6359  900     3  900
 9  900  9708  900   265703 4512   33    3   99   45 2985    1    0   10    3    0    0    4   18    1    1    3    0    0    0    2
    1    0    0    0    0    0    0    0    0    0   99  16482  -742   98 2048 2048 5435 10 819000  65  2 900     18708 900  22408 900
     51 900       1  900   399  900   127  900  6416  900     4  900    11  900  9714  900   267646 4534   42    0   96   53 2956
 1    0   12    3    0    2    6   22    0    1    2    1    0    0    0    0    0    0    0    0    0    0    0    0    0   96  16482
-742   98 2048 2048 5435 10 828000  65  2 874     15243 874  17856 873       41 873       2  858   398  858   101  858  5304  870
  6  870    11  858  9255  858   259675 4294   38    2  116   57 2823    0    0   11    1    0    1    8   21    0    1    2    1
 0    0    1    0    0    0    0    0    0    0    0    0    1  116  16482  -742   98 2048 1988 5435 10 837000  65  2 875     14973 875
 17064 875      44 875       3  870   373  870   122  870  5443  870     5  870    15  870  9391  870   256630 4225   41    3   95
  50 2808    1    0   15    4    0    2    8   17    3    1    2    0    0    0    1    0    0    0    0    0    0    0    0    0
 95  16482  -742   98 2048 1991 5435 10 846000  65  2 811     15542 811  17316 811       40 811       2  804   367  804   116  804
5272  810     6  810    20  804  8685  804   245250 3989   38    2   80   38 2649    1    0    8    2    0    0    6   18    0    0
   3    0    0    0    0    0    0    0    0    0    0    0    1    1    0   80  16482  -742   98 2048 1845 5435 10 855000  65  2 558
  25647 558  20176 557       48 557       5  540   237  540   92  540  3013  552     3  552     5  540  5824  540   168602 2981    4
7    5   47   27 1968    0    0   14    0    0    2    9   25    0    2    6    0    1    0    1    1    0    0    0    0    0    0
 0    0    2   47  16482  -742   98 2048 1269 5435
```

ASCII LIST OF CPI_P10_72A.DAT

D - 100499
Data file: 1

RECORD 120 32256 BYTES

```
 10      0 182  2 894       251 894    128 894       2 894      3  876   410  876    83  876    63  852     2  852     5  876     5
2  876   262446  105    2    3  356  159   79    1    0    0    0    0    0    0    1    0    0    1    1    0    0    1    0    0
  0    0    0    0    0    1    1    1  356 -10301  -186  186 2048 2034 4740 10   9000 182  2 797       232 797    152 796       0 796
      2  780   333  780    72  780    66  792     5  792    14  780    47  780   230178  125    0    1  303  132   90    3    1    0
    0    0    0    0    0    1    2    4    0    0    0    0    0    0    0    0    0    0    0    1    1    5  303 -10301  -186  186 20
48 1813 4740 10   18000 182  2 843       224 843    124 843       1 843       1  816   333  816    92  816    67  816     6  816
12  816    49  816   236661  106    1    1  273  131   78    1    0    0    0    0    0    0    1    1    1    1    0    0    0    1
```