#694

ISEE - 3

HELIUM IONS, N, V, T: HOURLY AVGS

78-079A-11A

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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 This inventory information is now no longer maintained in the DSCs, but is now managed in the inventory part of the NSSDC information system.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

ISEE - 3

HELIUM IONS, N, V, T: HOURLY AVGS

78-079A-11A SPHE-00350

This data set consists of one magnetic tape. The tape is is 6250, 9-track, ASCII, mult-filed (VAX copy format). The tape was created on a VAX computer. The D and C number, number of files and time span are as follows:

D#	C#	FILES	TIME SPAN
D-82889	C-28063	3	08/17/78 - 12/29/83

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NSSDC data set: 78-079A-11A

Spacecraft: ISEE-3/ICE

Instrument: Ion Composition Experiment (see: Coplan et al., Ion Composition Experiment, IEEE Trans. Geosci. Electron., vol. GE-16, No. 3, July 1978, pp. 185-191.)

PI: Dr. Keith W. Ogilvie
NASA/GSFC - Code 692.0
Greenbelt, MD 20771
(301)-286-5904
LEPVAX::U2KWO

Data Set Name: HELIUM IONS, DENSITY, BULK SPEED, KINETIC TEMP; HOURLY AVERAGES, 1978-1983

These data were electronically transferred to the NSSDC and then copied to tape using the VAX COPY command, thus creating a labeled tape with a default block size of 2048 bytes. The tape contains one data file (see note 1, below). Some explanatory text which was part of the original file has also been copied to tape and is part of the first data block. The tape label is IC3HE, and the data file name is HE7883.DAT.

The file contains data from the ion composition experiment of the ICE spacecraft. The data are in ASCII and consist of the time and hourly average values of speed, density, and temperature of 4-He++ ions. The time interval of the data is 1978-Aug-17 to 1983-Dec-29. Major data gaps occur from 1982-Oct-05 to 1982-Dec-04, 1982-Dec-21 to 1983-Feb-08, and 1983-Mar-10 to 1983-Nov-19. The absolute density values are believed to be good to within about 20%, with relative changes in density good to within a few percent. The absolute uncertainties in the velocity and temperature measurements are believed to be 2% and 20% respectively. The geotail period data (October 1982 to December 1983) tend to be spotty with many zero values for density and temperature.

Spacecraft ephemeris data are not included. Daily values of the ISEE-3/ICE position in GSE coordinates are included as part of NSSDC data set 78-079A-02D.

For further information about the data and its limitations, contact Dr. Keith Ogilvie, Code 692, Goddard Space Flight Center, (301-286-5904), or Dr. Michael Coplan, University of Maryland, IPST, (301-405-4858). The user of this data should also see: Ogilvie, et al., "Solar Wind Observations with the Ion Composition Instrument aboard the ISEE-3/ICE Spacecraft", Solar Physics, vol. 124, pp. 167-183, 1989.

Sample data (format: 1X,F12.8,6X,F5.1,5X,E10.4,5X,E10.4):

TIME(DECIMAL YR)	HELIUM SPEED (km/s)	HELIUM DENSITY (cm-3)	HELIUM TEMPERATURE (K)
78.62927808	394.7	0.2625E+00	0.3505E+06
78.62938341	402.1	0.3166E+00	0.2703E+06
78.62948870	400.3	0.0000E+00	0.0000E+00
78.62963916	400.5	0.3350E+00	0.4395E+06
78.62974445	400.9	0.1716E+00	0.3158E+06
78.62984978	407.0	0.3542E+00	0.7103E+06
78.62996008	434.5	0.2996E+00	0.3517E+06
78.63007543	442.1	0.2063E+00	0.2983E+06
.			
.			
.			
.			
.			
last record is			
83.99719477	525.2	0.1766E+01	0.3055E+06

Tape label	Data File name	Data File Size Tape Blocks/VAX blocks/MBy/lines
IC3HE	HE7883.DAT	787 / 3012 / 1.5 / 27535

Notes:

1. Since this is a labeled tape, there is a 5-block header file and a 4-block trailer file associated with the data file.

2. On a VAX, to copy the data file HE7883.DAT from tape to a disk file with the same name, do the following:

```
$ ALLOCATE  <dev-name>:
$ MOUNT  <dev_name>:  IC3HE
$ COPY  <dev_name>:HE7883.DAT  *.*
```

This will require 3012 VAX blocks on disk, and will create a file with 27535 lines of data.

```
$NOP
$NOP  ---------------------------  LIST OF ROUT3  ----------------------
$NOP
$EXE TPLIST BS

INPUT PARAMETERS ARE:  AS FL=1=1 1 1 2

 TAPE NO.   1              FILE NO.   2
 RECORD   1                LENGTH   2048
0080 THE FOLLOWING FILE CONTAINS DATA FROM THE ION COMPOSITION EXPERIMENT OF THE0075 ICE SPACECRAFT
. THE FILE IS AN ASCII FILE AND CONTAINS TIME AND HOURLY0075 AVERAGE VALUES FOR SPEED, DENSITY, AND
 TEMPERATURE. THE TIME INTERVAL 0075 OF THE DATA IN THE FILE IS 1978 - 1983. FOR FURTHER INFORMATIO
N ABOUT 0077 THE DATA AND ITS LIMITATIONS, DR. KEITH OGILVIE, CODE 692, GODDARD SPACE0082 FLIGHT CE
NTER, (301-286-5904), OR DR. MICHAEL COPLAN, UNIVERSITY OF MARYLAND,0078 IPST, (301-454-5352). THE
USER OF THIS DATA SHOULD ALSO SEE SOLAR PHYSICS0019 124:167, 1989.0008 ___00040055
  HELIUM      HELIUM          HELIUM0058 TIME(DECIMAL YR)  SPEED        DENSITY        TEMPERATURE0059 __
 ____________  _____  ___________  ____________0058  78.62927808       394.7      0.2625E+00
 0.3505E+060058  78.62938341      402.1      0.3166E+00      0.2703E+060058  78.62948870      400.3
   0.0000E+00      0.0000E+000058  78.62963916      400.5      0.3350E+00      0.4395E+060058  78.6297
4445      400.9      0.1716E+00      0.3158E+060058  78.62984978      407.0      0.3542E+00      0.7103
E+060058  78.62996018      434.5      0.2996E+00      0.3517E+060058  78.63007543      442.1      0.20
63E+00      0.2983E+060058  78.63019578      445.5      0.2257E+00      0.5068E+060058  78.63028607
   451.8      0.1444E+00      0.2180E+060058  78.63052676      460.6      0.1734E+00      0.2780E+06005
8  78.63063206      472.8      0.2242E+00      0.3667E+060058  78.63075241      473.2      0.2662E+00
   0.4767E+060058  78.63088783      463.2      0.2766E+00      0.5715E+060058  78.63099310      463.
9     0.1883E+00      0.3540E+060058  78.63109844      455.3      0.1638E+00      0.3678E+060058  78.6
3123383      454.8      0.3104E+00      0.7747E+060058  78.63132410      459.2      0.4017E+00      0.1
041E+070058  78.63145949      452.0      0.1650E+00      0.4545E+060058  78.63156483      447.8      0
.1996E+00      0.5373E+060058  78.63167011      450.3      0.1484E+00      0.3118E+060058  78.63179049
   450.3      0.1688E+00      0.2993E+06^^^
```