nh-x-pepssi-2-plutocruise-v2.0/catalog/dataset.cat p.0001 Sun Nov 27 15:05:09 2016 rudy

PDS VERSION ID

LABEL REVISION NOTE

For New Horizons, this LABEL_REVISION_NOTE is used to keep track of when the template is used to generate a DATASET.CAT file for a data set.

Brian Carcich

- Publication date: 2016-10-31

- NH-internal archive software version: V2.0

RECORD TYPE

INSTRUMENT HOST NAME

OBJECT

DATA_SET_ID

OBJECT

START TIME STOP TIME

DATA_SET_DESC

Data Set Overview

= STREAM

= "NEW HORIZONS"

= DATA SET

= "NH-X-PEPSSI-2-PLUTOCRUISE-V2.0"

= DATA SET INFORMATION

= 2007-09-13T23:59:59.446= 2015-01-14T23:59:57.690

This data set contains Raw data taken by New Horizons Pluto Energetic Particle Spectrometer Science Investigation instrument during the PLUTOCRUISE mission phase.

PEPSSI (Pluto Energetic Particles Spectrometer Science Investigation) is a particle telescope and a time-of-flight (TOF) spectrometer that measures ions and electrons over a broad range of energies and pitch angles. Particle composition and energy spectra are measured for H to Fe from ~ 30 keV to ~1 MeV (but not all species are uniquely separated) and for electrons from ~30 keV to 700 keV. PEPSSI comprises a time-of-flight (TOF) section and a solid-state detector (SSD) array that measures particle energy. The combination of measured energy and TOF provides unique particle identification by mass and particle energy depending on the range: for protons from ~30 keV to ~1 MeV; for heavy (CNO) ions from ~80 keV to ~1 MeV. Lower-energy (>3 keV) ion fluxes are measured by TOF only, but without the SSD signal, providing velocity spectra at these energies as well. Due to storage and bandwidth limitations, all event data cannot be stored or telemetered to the ground. Instead, a round-robin algorithm is used to save Energy, TOF, and timing data for select events. The common data products contain these event and summary measurements, accumulated over fixed periods of 86,400 seconds, with each period in a single file comprising multiple binary tables. The documentation provided with this data set describes the data format.

PEPSSI Data Summary --------------

During the Annual Check-out (ACO) periods 1-4 in 2007 though 2010, PEPSSI performed a combination of calibration operations, table and macro loads, and statistics gathering, which may be suitable for science.

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