PDS_VERSION_ID = PDS3

RECORD_TYPE = FIXED_LENGTH
RECORD_BYTES = 63
FILE_RECORDS = 3

^TABLE = ("LIST_ENERGY_FILES.TAB", 1)

MISSION_NAME = "NEW HORIZONS KUIPER BELT EXTENDED MISSION"
DATA_SET_ID = "NH-A-SWAP-3-KEM1-V2.0"
PRODUCT_ID = "LIST_ENERGY_FILES"
PRODUCER_INSTITUTION_NAME = "SOUTHWEST RESEARCH INSTITUTE"
PRODUCT_CREATION_TIME = 2014-03-03T00:00:00

INSTRUMENT_NAME = "SOLAR WIND AROUND PLUTO"
INSTRUMENT_ID = "SWAP"
INSTRUMENT_HOST_NAME = "NEW HORIZONS"

NOTE = " All the files below are needed to determine the energy passband for given voltage settings. The onboard tables that contain voltage levels for the Retarding Potential Analyzer (RPA) and ElectroStatic Analyzer (ESA) are selected by setting given plans and sweeps number values using instrument commands. When the tables are changed, a given plan and sweep number correspond to different voltage settings. These RPA and ESA voltage settings determine the energy passband of the instrument. The list_energy_files.tab file lists which set of voltage tables were on board the spacecraft at any given time. There was the original launch table, a table set during commissioning, and a 3rd table loaded when we wanted to add the ability to operate only using the ESA with the RPA off. We wanted to operate using only the ESA with the RPA off because then the energy passband is wider and the instrument can measure lower fluxes with improved counting. This would then improve the measurements ~~in when the fluxes were lower such as in~~ Jupiter's magnetosphere, in the Pluto system, the distant solar wind, and all of the interstellar pickup ions.

Performance

Having voltage tables commanded by plan and sweep numbers is a standard method of operation for an electrostatic instrument. Changing voltage tables is also a standard practice especially during commissioning and when adding operational capabilities. When tables are changed, the only way you can analyze the data is to know how given voltage settings correspond to the energy passband. Without this information, you cannot further reduce the data.

File Listing

list_energy_files.lbl - label file for list_energy_files.tab
list_energy_files.tab -file containing the number of elements in a table, the met range over which a given a named table is used.

esa_rpa_v16_energy_binsf_new.lbl - label file for
esa_rpa_v16_energy_binsf_new.tab
esa_rpa_v16_energy_binsf_new.tab - file containing plan number, sweep number, esa dac, rpa dac number, number, esa voltage, rpa voltage, peak/center energy,