

Dif-c-hrii-2-epoxi-garradd-v1.0

Catalog files:

catinfo.txt

appears complete.

dataset.cat

It would be helpful to give heliocentric and spacecraft distance for each date.

hrii.cat

appears complete.

ref.cat

Appears complete, although the information is generic and probably not very useful.

Would probably be more useful if the description of the object gave information relevant to the observations.

Other .cat files appear OK.

Document directory has some important information and a couple papers. These seem to be the key papers, it may be worthwhile to include copies of others from the ref.cat, but probably not essential.

Not sure if epoxy_cal_pipeline_summ.pdf is needed at the raw data stage because the calibration frames are not included in this set (more later).

Data

Raw 1.05- to 4.8-micron spectral images of comet C/Garradd (2009 P1) acquired by the Deep Impact High Resolution Infrared Spectrometer on 26 March and 02-03 April 2012 during the Cruise 3 phase of the EPOXI mission.

No browse directory – is this dataset not considered large enough for a browse directory?

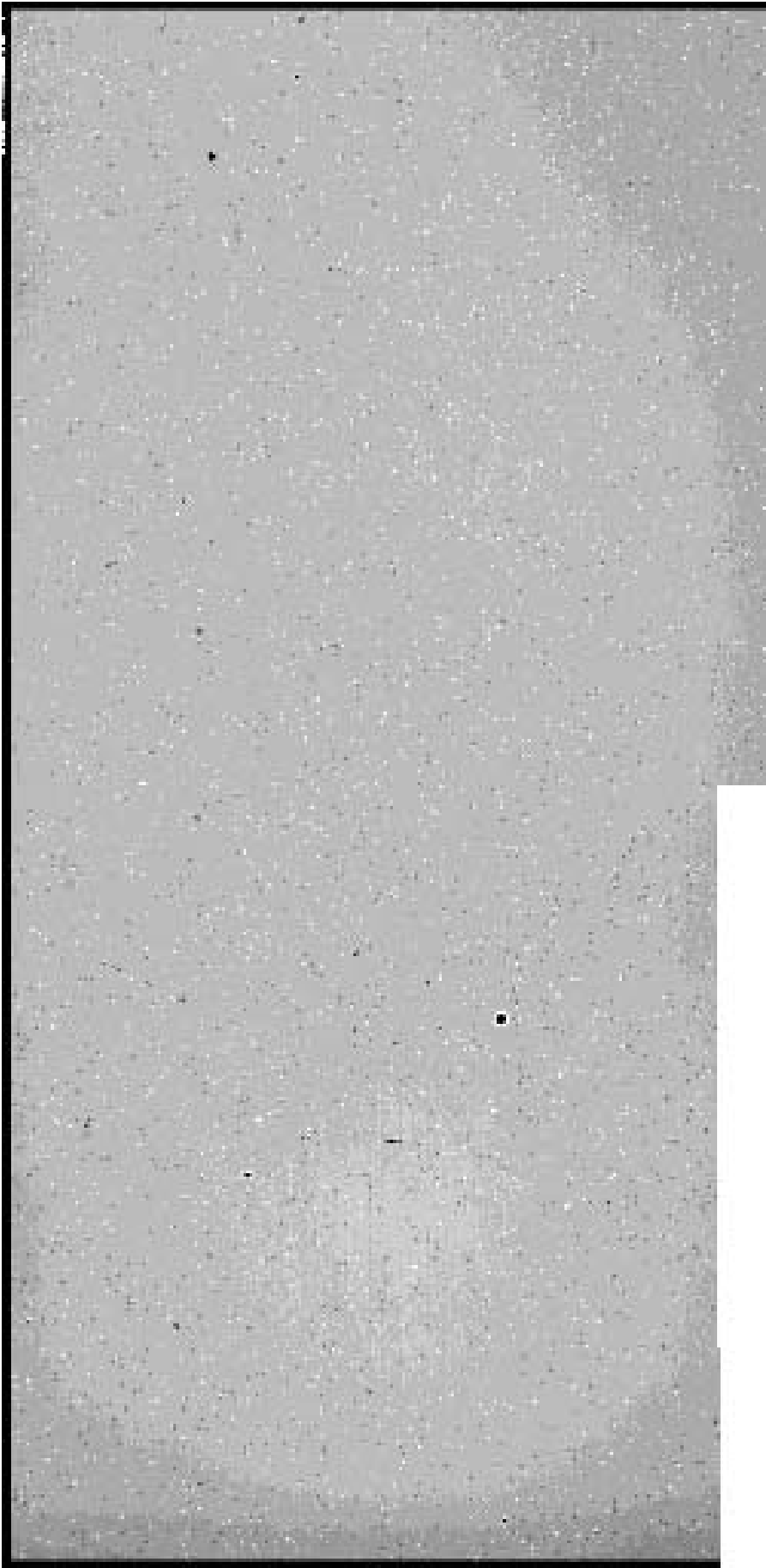
Looked at a set of 17 in directory 086

hi12032617_4000077_017.fit was missing some data in the upper right corner (all values 10923 for rows 234-255, cols 256-507)

Looked at a set of 17 in directory 093

Looked at set beginning with hi12040218_4000083_001.fit

There were no issues with this set of 17.



Directory 094 seems to be the final set of 17 from the directory 093 that spilled over to a new date. (Not sure if this is the best way to set up directory structure, as 094 data is obviously associated with the 093 data).

Looked at the set of 17 in directory 094, and there did not appear to be any issues.

Completeness:

There are no obvious missing files or gaps in data.

In a representative sample of the data labels there were no obvious unaccounted for bytes.

There are no calibration files in this set (they are in the associated calibrated data set)

Intelligibility:

Image and tabular data easily displayable and readable. ASCII data appears to be appropriately formatted and viewed within an editor.

Interpretability:

The documentation describing this raw dataset is clear and relatively straightforward.

There are no calibration data included in this dataset as it is included in calibrated dataset.

For people working from the raw frames it would probably be useful to have calibration files available with the raw data as well as the calibrated data.

Archival Quality:

The data are static over large timescales. The data are unique and not derivable from some other source. The data are scientifically significant.

Dif-c-hrii-3_4-epoxi-garradd-v1.0

The files in the catalog directory seem OK. A good description of the dataset is given in dataset.cat.

Calibration folder

calinfo.txt seems to have all the necessary information describing calibration files.

Data

This dataset contains calibrated, 1.05- to 4.8-micron spectral images of comet C/Garradd (2009 P1) acquired by the High Resolution Infrared Spectrometer on 26 March and 02-03 April 2012 during the Cruise 3 phase of the EPOXI mission 2 sets of calibrated data.

RADREV — Uncleaned radiance data provided in units of Watts/(meter**2 steradian micron). The RADREV data are considered to be reversible because the calibration steps can be backed out to return to the original, raw data numbers.

RAD — Irreversibly cleaned radiance data provided in units of Watts/(meter**2 steradian micron). The RAD data are considered to be irreversible because the calibration steps, such as smoothing over bad pixels, cannot easily be backed out to return to the original, raw data numbers.

No browse directory – is this dataset not considered large enough for a browse directory?

RADREV

Looked at a set of 17 in directory 086

Looked like some data was missing (or at least much larger negative counts seen) in the complete set of 17 files (hi12032617_4000077_001_rr.fit to hi12032617_4000077_017_rr.fit) in the upper right corner (rows 234-255, cols 256-507). Absolute counts were much smaller over the entire array for hi12032617_4000077_017_rr.fit compared to the other 16 files within the set. This is the same set looked at for the raw frame where there appeared to be a problem with the last frame in the set of 17.

Looked at another set of 17. The set starting from hi12032609_4000013_001_rr.fit, the files seemed OK except for the last file hi12032609_4000013_017_rr.fit, which (like set 77) seemed to have much lower absolute counts than the first 16 files in the set.

Looked at a set of 17 in directory 093

Looked at set beginning with hi12040218_4000063_001_rr.fit

The files seemed OK except for the last file hi12040218_4000063_017_rr.fit, which (like the other tested sets) seemed to have much lower absolute counts than the first 16 files in the set.

RAD

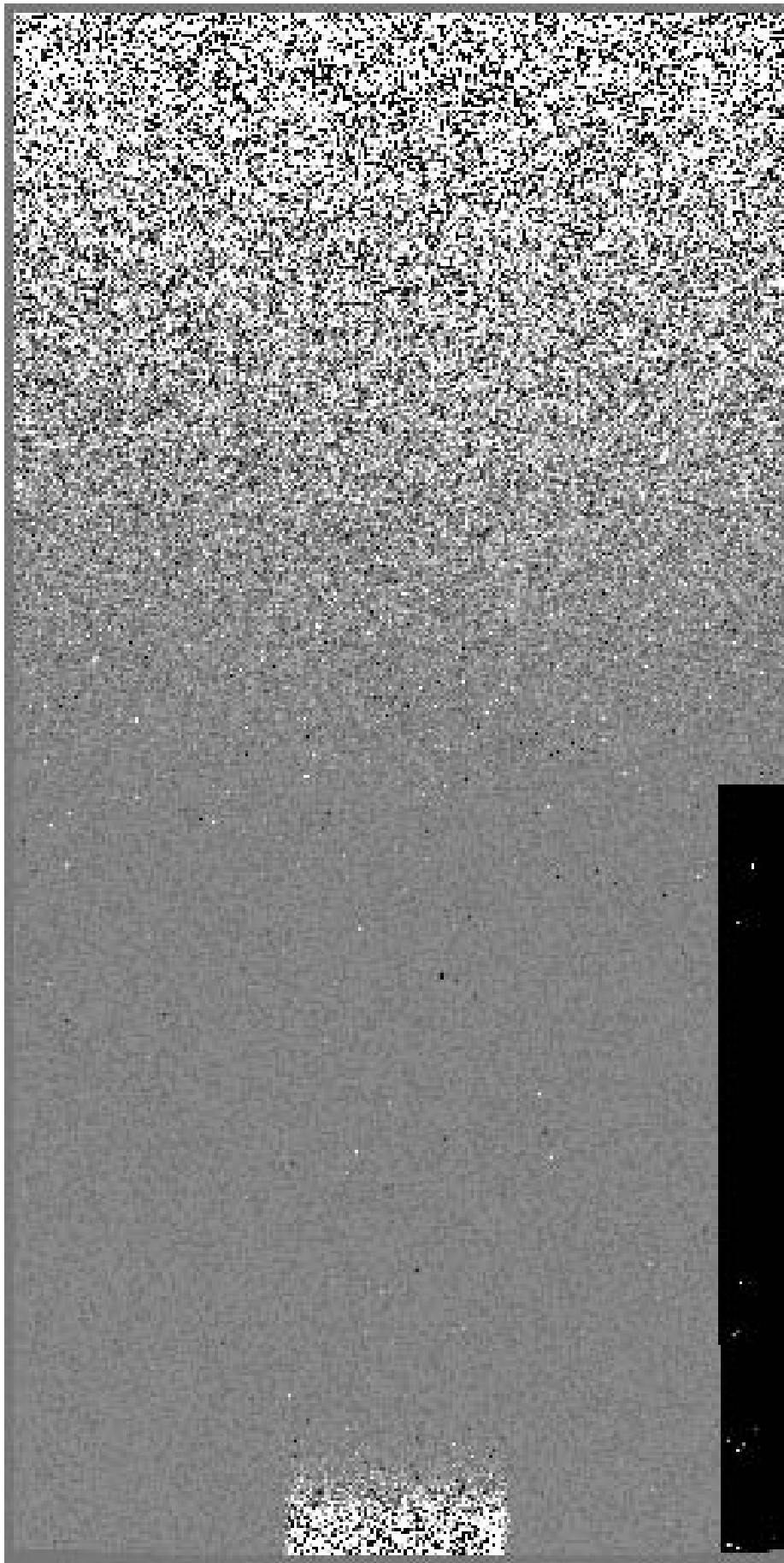
Looked at a set of 17 in directory 086

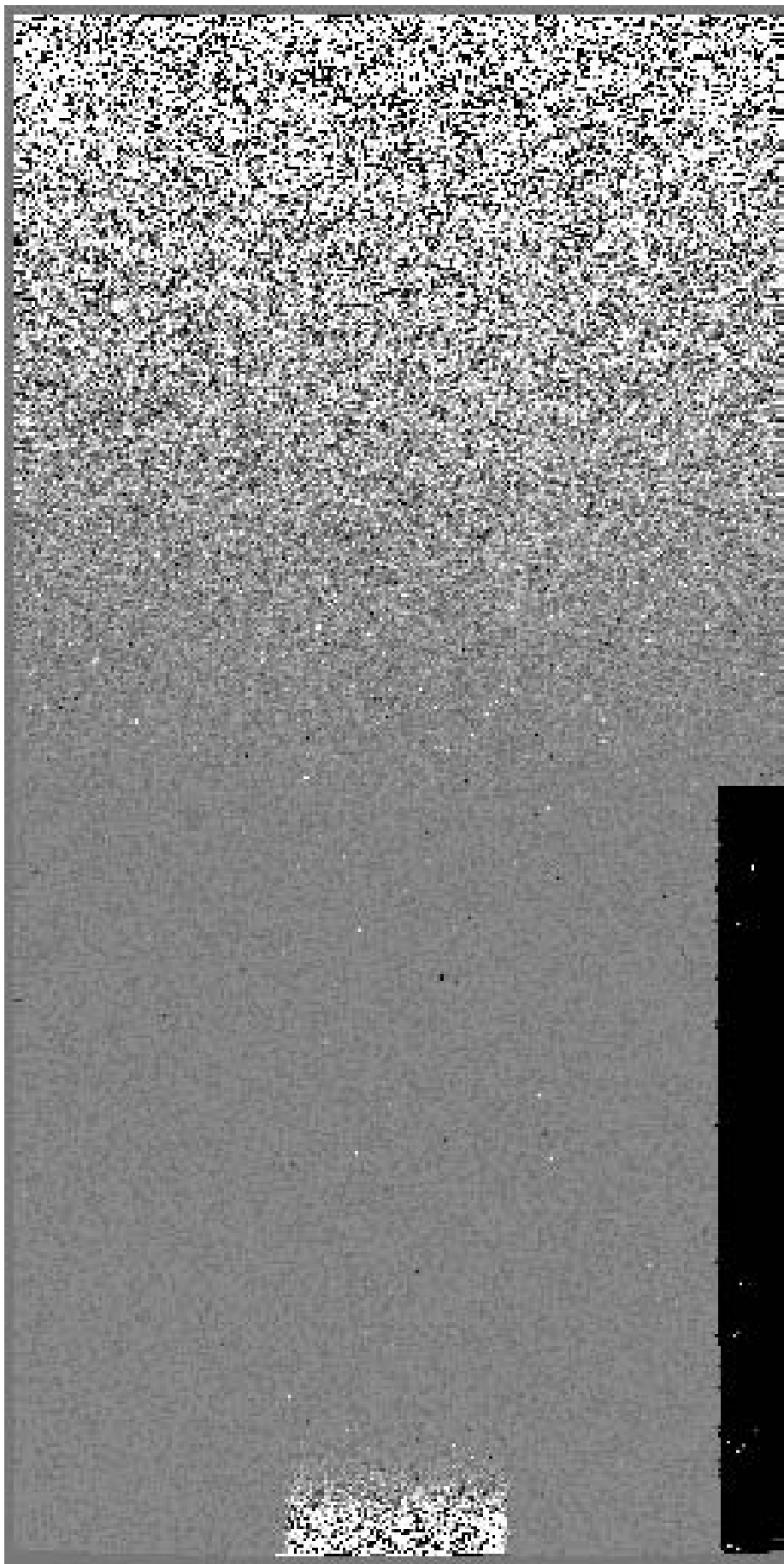
Looked like some data was missing (or at least much larger negative counts seen) in the entire set of 17 files (hi12032617_4000077_001_r.fit to hi12032617_4000077_017_r.fit) in the upper right corner (rows 234-255, cols 256-507). Absolute counts were much smaller over the entire array for hi12032617_4000077_017_r.fit compared to the other 16 files within the set. This is the same set looked at for the raw frames where there appeared to be a problem with the last frame in the set of 17. Looks like some bad pixels were created on far right of the array.

Looked at a set of 17 in directory 093

Looked at set beginning with hi12040218_4000051_001_r.fit

The files seemed OK except for the last file hi12040218_4000051_017_r.fit, which (like the other tested sets) seemed to have much lower absolute counts than the first 16 files in the set.





Calibration Frames

Looked at badpix map – looks OK.

Bias- all set to zero as stated.

Drkmodel – looks OK

Flat – looks OK

Completeness:

There are no obvious missing files or gaps in data.

In a representative sample of the data labels there were no obvious unaccounted for bytes.

Intelligibility:

Image and tabular data easily displayable and readable. ASCII data appears to be appropriately formatted and viewed within an editor.

Interpretability:

The documentation describing this raw dataset is clear and relatively straightforward.

Archival Quality:

The data are static over large timescales. The data are unique and not derivable from some other source. The data are scientifically significant.

dif-c-hrii-2-epoxi-ison-v1.0

Catalog files:

catinfo.txt

appears complete

dataset.cat

appears complete

ison.cat

These are very generic files and probably not very useful. Should at least update the target description to include more recent developments.

Same comment as for Garradd – Not sure if epoxy_cal_pipeline_summ.pdf is needed at the raw data stage because the calibration frames are not included in this set.

Data

This dataset contains raw, 1.05- to 4.8-micron spectral images of comet C/ISON (2012 S1) acquired by the High Resolution Infrared Spectrometer on 16-17 February 2013 during the Cruise 3 phase of the EPOXI mission.

Looked at a set of 17 in directory 047
hi13021616_4000061_001.fit to hi13021616_4000061_017.fit. Data looked OK.

Looked at hi13021618_4000077_017.fit in directory 047 and it also looked OK.

Looked at a set in directory 048
hi13021720_4000291_001.fit to hi13021720_4000291_017.fit. Data looked OK

Completeness:

There are no obvious missing files or gaps in data.

In a representative sample of the data labels there were no obvious unaccounted for bytes.

There are no calibration files in this set (they are in the associated calibrated data set)

Intelligibility:

Image and tabular data easily displayable and readable. ASCII data appears to be appropriately formatted and viewed within an editor.

Interpretability:

The documentation describing this raw dataset is clear and relatively straightforward. There are no calibration data included in this dataset as it is included in calibrated dataset. For people working from the raw frames it would probably be useful to have calibration files available with the raw data as well as the calibrated data.

Archival Quality:

The data are static over large timescales. The data are unique and not derivable from some other source.

dif-c-hrii-3_4-epoxi-ison-v1.0

The files in the catalog directory seem OK. A good description of the dataset is given in dataset.cat.

Calibration folder

calinfo.txt seems to have all the necessary information describing calibration files.

Data

This dataset contains calibrated, 1.05- to 4.8-micron spectral images of comet C/ISON (2012 S1) acquired by the High Resolution Infrared Spectrometer on 16-17 February 2013 during the Cruise 3 phase of the EPOXI mission.

RADREV — Uncleaned radiance data provided in units of Watts/(meter**2 steradian micron). The RADREV data are considered to be reversible because the calibration steps can be backed out to return to the original, raw data numbers.

RAD — Irreversibly cleaned radiance data provided in units of Watts/(meter**2 steradian micron). The RAD data are considered to be irreversible because the calibration steps, such as smoothing over bad pixels, cannot easily be backed out to return to the original, raw data numbers.

RADREV

Looked at a set of 17 in directory 047

Looked at a set of 17. The set starting from hi13021615_4000059_001_rr.fit, the files seemed OK except for the last file hi13021615_4000059_017_rr.fit, which seemed to have much lower absolute counts than the first 16 files in the set. This was the same thing seen with the comet Garradd data.

Looked at another set of 17 in directory 047

Looked at set beginning with hi13021622_4000111_001_rr.fit

The files seemed OK except for the last file hi13021622_4000111_017_rr.fit, which (like the other tested sets) seemed to have much lower absolute counts than the first 16 files in the set.

Looked at a set of 17 in directory 048

Looked at set beginning with
Looked at set beginning with
hi13021716_4000259_001_rr.fit

The files seemed OK except for the last file hi13021716_4000259_017_rr.fit, which (like the other tested sets) seemed to have much lower absolute counts than the first 16 files in the set.

The files seemed OK except for the last file hi13021622_4000111_017_rr.fit, which (like the other tested sets) seemed to have much lower absolute counts than the first 16 files in the set.

RAD

Looked at a set of 17 in directory 047

Looked at set beginning with hi13021608_4000003_001_r.fit

The files seemed OK except for the last file hi13021608_4000003_017_r.fit, which (like the other tested sets) seemed to have much lower absolute counts than the first 16 files in the set.

Looked at a set of 17 in directory 048

Looked at set beginning with hi13021710_4000207_001_r.fit

The files seemed OK except for the last file hi13021710_4000207_017_r.fit, which (like the other tested sets) seemed to have much lower absolute counts than the first 16 files in the set.

Calibration Frames

Drkmodel – same as for Garradd

Flat – same as for Garradd

Completeness:

There are no obvious missing files or gaps in data.

In a representative sample of the data labels there were no obvious unaccounted for bytes.

Intelligibility:

Image and tabular data easily displayable and readable. ASCII data appears to be appropriately formatted and viewed within an editor.

Interpretability:

The documentation describing this raw dataset is clear and relatively straightforward.

Archival Quality:

The data are static over large timescales. The data are unique and not derivable from some other source.

dif-m-hrii-3_4-epoxi-mars-v1.0

Catalog files and documentation files:

Look in order. Did notice that there was no Mars.cat file. Couldn't find the file where the 8 file observing sequence was explained.

This data set contains calibrated, 1.05- to 4.8-micron spectra of Mars acquired by the High Resolution Infrared Spectrometer (HRIS) for the EPOCh project during the second cruise phase of the EPOXI mission. One set of observations was acquired on 20-21 November 2009 to characterize Mars as an analog for extrasolar planets. The observing period lasted approximately 24 hours, and spectra were acquired twice per hour.

RADREV

Directory 324 started with 1000002 went to 1000025 and then jumped to 1001000 and went to 1001014. Is there any significance to the change in exposure ID sequence?

Looked at a set of 8 in directory 324

Looked at a set of 8. The set starting from hi09112017_10000021_001_rr.fit. The max value shown in the .lbl file did not match what was in the file, to plot data a much smaller upper and lower range was appropriate as most values were near 0. A small positive “excess” was seen for the first file on the left and far right side of the array, while that excess was slightly negative for all seven other sets. For frame hi09112017_10000021_006_rr.fit there was a strip of data near row 81 that appears to actually have the Mars atmospheric data, this was not seen in other datasets within the group of 8, why? Are these 7 scans in different optical filters + 1 spectra?

Looked at another set of 8 in directory 324

The set starting from hi09112023_10010013_001_rr.fit. Exact same pattern seen as for the previous set that was checked.

Looked at another set of 8 in directory 325

The set starting from hi09112112_10020021_001_rr.fit. See same pattern as in other 2 checked sets except that strip of Mars data was now near row 65.

RAD

Looked at a set of 8 in directory 324

Looked at a set of 8. The set starting from hi09112017_10000021_001_r.fit. A small positive “excess” was seen for the first file on the left and far right side of the array, while that excess was slightly negative for all seven other sets. For frame hi09112017_10000021_006_rr.fit there was a strip of what appeared to be Mars atmospheric data near row 81 that was not seen in other data within this set, why?

Looked at another set of 8 in directory 325

The set starting from hi09112112_10020023_001_rr.fit. See same pattern as in other checked sets except that strip of Mars data was now near row 50.

Calibration files look OK.

dif-e-hrii-3_4-epoxi-earth-v2.0

Catalog files and documentation files:

Look in order. Couldn't find the file where the 8 file observing sequence was explained.

No browse directory – is this dataset not considered large enough for a browse directory?

Calibrated, 1.05- to 4.8-micron spectra of Earth acquired by the Deep Impact High Resolution Infrared Spectrometer during five, 24-hour-long observing periods on 18-19 Mar, 28-29 May, 4-5 Jun 2008 and 27-28 Mar, 4-5 Oct 2009 for the EPOXI mission.

RADREV

2008

Looked at a set of 8 in directory 078. The set starting from hi08031822_1000017_001_rr.fit. Looks OK, similar to the Mars sequences where set 6 appears to be an Earth spectrum.

Looked at a set of 8 in directory 149. The set starting from hi08052822_1000011_001_rr.fit. Looks OK and similar to set in 078. The spectral frame is centered in a different row and the spatial extent is less than in 078.

Looked at a set of 8 in directory 156. The set starting from hi08060419_1000013_001_rr.fit. Looks OK and similar to sets in 078 and 149. The spectral frame is centered in a different row than the other sets.

2009

Looked at a set of 8 in directory 086. The set starting from hi09032716_1000004_001_rr.fit. Looks OK and similar to other sets. The spectral frame is centered in a different row (drifted down the frame) compared to the other sets.

Looked at a set of 8 in directory 277. The set starting from hi09100417_1001000_001_rr.fit. Looks OK and similar to other sets. The spectral frame is centered in a different row and has more spatial extent than previous sets (closer to Earth?).

RAD

Looked at RAD files from all above directories and they look OK. I did notice some “bad pixels” in a RAD file – seen in the Earth Continuum for example in hi09100417_1001000_006_r.fit that was not in the rr frame. If this was caused by going from RADREV to RAD this might be noteworthy.

dif-l-hrii-3_4-epoxi-lunar-cals-v1.0

Catalog files and documentation files:
Look in order.

This dataset contains calibrated, 1.05- to 4.8-micron spectral images of the Moon acquired by the High Resolution Infrared Spectrometer (HRII) from 29 December 2007 through 18 December 2009 during several in-flight instrument calibrations for the EPOXI mission.

RADREV

Data seem to be in sets of 135. Look at some frames in set 352 (Lunar S. Pole Rad). Looked at frames between hi109121809_1000001_001.fit to hi109121809_1000001_010.fit. Also looked at frames between hi109121809_1000001_055.fit to hi109121809_1000001_064.fit. These had more

background counts than the first set of 10 frames. Also looked at frames between hi109121809_1000001_126.fit to hi109121809_1000001_135.fit. Looks like these frames are stepping back and forth across lunar surface. Frames look OK.

Data in directory 363 (Lunar Calibration Phase 1) was in sets of all different sizes (8, 10, 175, 64, 50, 210, etc). Looked at some frames. Looked at a set of 8 hi07122919_1000006_001_rr.fit to hi07122919_1000006_008_rr.fit, frames looked OK, again the 6th frame looked different than the rest (higher background).

RAD

Looked at the same sets as in RADREV (set 352, 363). Frames look OK.

dif-cal-hrii_hriv_mri-6-epoxi-temps-v3.0

This dataset contains the raw and smoothed (averaged) instrument thermal telemetry for the entire EPOXI mission from 04 October 2007 to 08 August 2013. Measurements were collected by 59 thermal sensors located in the HRII, HRIV, and MRI instruments, on the instrument platform, and on the solar wings of the Deep Impact flyby spacecraft. For Version 3.0, thermal data from 06 February 2011 to 08 August 2013 was added.

Catalog and documentation files seem OK for the most part. Dataset cat needed to decipher the data tables. Some grammatical issues in dataset.cat starting with the section The Pictorial Atlas

Data are in Tables. Table formats seem OK.