

# **New Horizons SDC PDS Review**

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# KEM1 Encounter data v4.0

“This is VERSION 4.0 of this data set.

This version includes data acquired by the spacecraft between **08/14/2018 and 04/30/2020**. It only includes data downlinked before 05/01/2020. Future datasets may include more data acquired by the spacecraft after 08/13/2018 but downlinked after 04/30/2020.

This version includes Dust Counts from prior to, during, and after the Arrokoth Encounter.”

- Additional language in dataset.cat:

V3.0

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Version 3.0 of this data set included data acquired by the spacecraft between 08/14/2018 and 07/31/2019. It only included data downlinked before 08/01/2019.

V2.0

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Version 2.0 included data acquired by the spacecraft between 08/14/2018 and 01/31/2019. It only included data downlinked before 02/01/2019.

Two digits of precision have also been added to the EXPOSURE\_DURATION value in all data labels after V1.0.

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## DATA

- Data is consistent with previous deliveries
  - ENG data: 6 column (Copy #, Ch ID, zero fill, Threshold, Magnitude, Timestamp)
  - SCI data: 11 column (UTC Time, MET, Channel, Charge, Mass, Mass\_Threshold, M\_sigplus, M\_sigminus, Coincident flag, Thruster flag, imp vel)
- Lots of signals, mostly coincident hits, thruster firings, etc.
- No issues found with these data, quality flags seems to match
- Calibrated data consistent

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## DOCUMENTATION

- Overall, no significant changes to the documentation or the dataset, other than updates for the dates of the mission phase; documentation accurately reflects this
  - Added references to new papers
  - Inconsistent end dates

# Inconsistent end dates in document/ files

**\*I just include this now, but don't have any significant issues.**

- nh\_pos\_vel\_angle fixed!
- sdc\_chn\_lvl\_dn: 2020-05-05
- sdc\_off\_3d\_v0841: 2020-07-19
- sdc\_off\_v0841: 2020-08-27
- sdc\_on\_3d\_v0841: 2020-08-24
- sdc\_on\_off\_cmd\_v0002\_alt: 2020-01-06
- sdc\_on\_off\_cmd\_v0003: 2020-01-06
- sdc\_on\_off\_times\_v0841\_alt: 2020-08-28
- sdc\_on\_off\_times\_v0841: 2020-08-28
- sdc\_on\_v0838: 2019-02-04
- sdc\_stm\_v0003 (is also label file)
- sdcram: 2020-04-30
- sdcpower: 2020-11-18