# New Horizons MVIC Data review

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1. Datasets overview
- PDS version: PDS3
- 2 data sets from the Multispectral Camera of RALPH instrument

  nh-a-mvic-2-kem1-v6.0

  nh-a-mvic-3-kem1-v6.0

- Level: 2 raw and 3 calibrated
- Mission phases:

  KEM1 v6.0 added new data (data downlink before 05/01/2022)

- Datasets comparison: (**No new data, same calibration**)

| Versions | V 2.0 | V 3.0 | *V 4.0* | *V 5.0* | ***V 6.0*** |
|---|---|---|---|---|---|
| Image number Level 2 raw | 77 | 254 | 321 | 360 | **360** |
| Image number Level 3 | | | | 360 | **360** |
| Time range | 2018-08-31 - 2019-01-01 | 2018-08-31 - 2019-03-20 | 2018-08-31 - 2019-09-02 | 2018-08-31 - 2019-09-02 | **2018-08-31 - 2019-09-02** |

- Summary:
  Benefit from our previous reviews, this version review went pretty simple and easy. I compared the files with the previous version and only checked the changed or new parts. Generally, both level 2 and 3 datasets are well produced, and well documented. Found no issues.

2. Review process
- All processing and evaluation environment:

- Compare difference between different level and different version sets with tools:
  - Diff Files 23.1
  - Beyond Compare 4.4.1
- Read some .fit and label files (all can be read correctly).
- Check the headers and labels
- Compare catalog files in all datasets, and analyze the difference
- Compare documents in document/directory
- Collect aspect data from all image headers, check consistency between levels

3. Catalog/Document/Index
- Document and header changes are all consistent with previous v5.0 data.
- No new data and No problem found except the same small issue as the LORRI review report, see the part about "Soc_inst_icd.pdf" .

4. Data
   Files can be correctly read by python, IDL and ds9.

5. Conclusion: these v6.0 datasets are **certifiable**.