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DOCUMENT

NAVCAM: Rosetta Final Archive Enhancement Review Procedure

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1   INTRODUCTION

1.1   Purpose and scope

This document provides information on the Rosetta Final (FIN) Archive Enhancement Review with a specific focus on the data and procedures to be followed when reviewing the instrument **NAVCAM**.

This document complements, and is an Appendix to the Rosetta Final Archive Enhancement Review Procedure document [1], which provides important information on the review as a whole.

1.2   Reference Documents

 [1] Rosetta Final Archive Enhancement Review Procedure, RO-SGS-PR-1022, Issue 1.0, 29 March 2019.

2   DATA FOR REVIEW

The CODMAC Level 2 NAVCAM data have already successfully passed review. This review will focus on the radiometrically calibrated (CODMAC Level 3) data. The instrument and data are described in the EAICD document located in the DOCUMENT directory.

2.1   What data is under review?

The following items are under review:

1. RO-C-NAVCAM-3-EXT1-MTP026-V1.0: Sample dataset of Level 3 (radiometrically calibrated images)
2. BGeiger-NavCam-Calibration-20190331.pdf: Radiometric Calibration of the Rosetta Navigation Camera. This is a draft and the final version will be produced after the review.
3. stx1589.pdf: Cross-calibration of the Rosetta Navigation Camera based on images of the 67P comet nucleus.

Documents 2 and 3 will be integrated into the Level 3 datasets after the review.

All these items under review are not public yet and must not be distributed.

More data is available under request if necessary for the review, but these will not form a "dataset" with all supplementary files.

2.1.1 Supporting SPICE Data:

Should you need them, the latest SPICE kernels for Rosetta are published in:
 ftp://spiftp.esac.esa.int/data/SPICE/ROSETTA/kernels/

NOTE: These data are NOT under review, but may be of use if you need to do some analyses using geometry.

More precisely, you can use the kernels indicated in the meta-kernel:
 ftp://spiftp.esac.esa.int/data/SPICE/ROSETTA/kernels/mk/ROS_OPS.TM

The release notes for the latest version (V3.0.0) are published here:
 ftp://spiftp.esac.esa.int/data/SPICE/ROSETTA/misc/release_notes/ros_skd_current.txt

Should you have any doubts concerning the SPICE data, please see here:
 https://www.cosmos.esa.int/web/spice/spice-for-rosetta

Finally, there is a very nice online tool for geometry, supported by SPICE, called WebGeocalc:
 http://spice.esac.esa.int/webgeocalc/

If using WebGeocalc, in the kernel selection, you should choose: "OPS — ROSETTA — OPERATIONAL".

2.2   How to retrieve the data

If you are a reviewer from the US, you will be contacted separately by PDS-SBN with details of how you will be provided with the data.

For European reviewers, the data can be retrieved from a *secure* FTP server dedicated to this review. **The data in this server is not public yet and you must not distribute it.**

Any standard ftp client such as FileZilla can be used to download your data set(s).

From within your preferred client use *secure ftp* to login to

rospsareview.esac.esa.int

The user and password to log in will be provided to you be e-mail.

Then navigate to the folder with the name of the instrument under review.

Should you have any issues retrieving the data you wish to review, please contact us using the details provided in Section 6.

3 REVIEW PROCEDURE

Please check the Sections 2 and 5.2 of the Review Procedure Document [1] for an overview of the review objectives, and the strategy you should try to follow when reviewing the data. It is a good idea to try to replicate a published scientific result using the data provided.

3.1 Special things to look out for

The following are known issues. There is no need to raise a RID for these issues since they are already being tracked:

• The version number V9.2 appears in the labels of the products and other places. This is an internal version number that will be substituted by the version 1.0 before the data set Is made public.

• Files in the CALB directory do not yet have PDS3 label files.

• NasaView cannot properly open the IMG files in the DATA directory.

• DvalNG test on expected vs real sizes of IMG files is not passed. This might perhaps indicate an error in the values of keywords like FILE_RECORDS or RECORD_BYTES in the label files, although the actual reason has not been investigated yet.

• ENCODING is not an allowed keyword for object BROWSE_IMAGE. Recommendation is to change the object to PNG_DOCUMENT.

• In browse images the pointer ^BROWSE_IMAGE should have the simple format ^BROWSE_IMAGE = "file_name"

• In browse images PRODUCT_ID should be a product identification assigned to the browse image product not to the source data file.

• Inclusion of the calibration paper in the dataset is pending.

Please read the EAICD document in the DOCUMENT directory to familiarize yourself with the data sets before starting to check the data themselves.

4 THE RID / LIEN SYSTEM

This review will use the ECLIPSE system to raise, track and manage issues raised. Within ESA, issues raised are known as RIDs (Review Item Discrepancies), while PDS refer to these as liens. A User Manual for the ECLIPSE system is provided, and the Rosetta

Archive Team is also on-hand to provide direct support should any issues arise (Section 6). If you are a new user, you will receive a separate e-mail with your individual login credentials for the ECLIPSE system, and you can then choose your own password.

When you raise a RID, please click on the document associated with the instrument you are reviewing, and fill in all fields available, including recommendations for how any issue you find might be resolved to your satisfaction. The following briefly describes each of the fields available and how they should be filled in:

- The **RID Number** is automatically generated by the system.

- In the **Classification** field, please indicate whether the issue being raised is

    o Minor: an issue that does not hinder the understanding of the data to an extent by which the data cannot be analyzed by an independent scientist.

    o Major: an issue that compromises the understanding/use of the data to an extent by which the data cannot be analyzed without additional support.

    N.B. Editorial issues (e.g. typographical errors) are not RIDs, and should be raised as described in Section 4.1.

- In the **Originator Reference** field, please follow the convention (note that you will have to type this yourself) *PLEASE FILL THIS FIELD IN!!*

    o **NAVCAM-AA-XX-YYY** where

        ▪ **AA** is either **EU** for a European RID or **US** for a US RID;

        ▪ **XX** are your initials;

        ▪ **YYY** is a sequential number, starting at 001 for the first of your RIDs.

- The **Panel** is a drop-down selection. If you are a scientific reviewer, please choose *Science Panel*. If you are a technical reviewer (e.g. PDS or PSA), please select *Technical Panel*.

- In the **Title of RID** field, please provide a short title of the RID (max. 52 characters)

- The **Datapack Document** field is filled in automatically by the system.

- In the **Document Page / Section / Para** field, please include the specific DATA_SET_ID and, where applicable, the FILE affected by the issue.

- The **Discrepancy Document** field can be ignored.

- In the **Description of Discrepancy** field, please include a full description of the process you followed to encounter the issue, as well as the issue itself.

- In the **Initiator Recommended Solution** field, please provide a recommendation as to how the RID can be resolved to your satisfaction.

The remainder of the fields will be populated during the panel discussion at the review meeting.

IMPORTANT: The RID deadline is April 26th 2019.

The system will close on 26th April 2019 at 23:59 (CET).

You **must** have all of your items raised within the system by this time.

4.1 Raising Editorial Issues

Editorials are typographical errors and issues that have no impact on the understanding and/or use of the data provided. In case you identify any issues that are editorial in nature, they should be raised using the 'Editorials' menu in the blue bar at the top of the screen. As with a RID, please complete all applicable fields when raising an editorial. Note that these will not be discussed in the review meeting, and will be sent to the teams separately.

5 REVIEW MEETING

The panel meeting for this review will take place 7th May 2019 at ESAC, Madrid. For US reviewers, a parallel meeting will take place at PDS SBN, University of Maryland. The exact agenda will be communicated to you by e-mail before the meeting, detailing when each instrument will be discussed within each meeting, and when joint discussions between the US and European reviewers will take place.

Further details of the review meeting are provided in Section 5.4 of the Rosetta Final Archive Enhancement Review Procedure [1].

6   CONTACT POINTS

In case of any questions related to the review, don't hesitate to contact the relevant person from the table below:

Role	Name	E-Mail	Telephone
Review Manager (issues using the ECLIPSE system)	Dave Heather	dheather@cosmos.esa.int	+34 918131183
NAVCAM Archive Scientist (specific NAVCAM issues)	Diego Fraga	dfraga@sciops.esa.int	
Rosetta SGS Archive Team (general Rosetta review issues)	Rosetta Archive Team	rsgs_arc@sciops.esa.int	
PDS Contact (specific US issues)	Tilden Barnes	tbarnes4@astro.umd.edu	