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DOCUMENT

RPC-MIP: Rosetta Final Archive Enhancement Review Procedure

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Reference RO-SGS-PR-1022-App7
Issue 1
Revision 0
Date of Issue 01/04/2019
Status For information
Document Type PR
Distribution



APPROVAL

Title	
Issue 1	Revision 0
Author	Date 01/04/2019
Approved by	Date

CHANGE LOG

Reason for change	Issue	Revision	Date

CHANGE RECORD

Issue 1	Revision 0		
Reason for change	Date	Pages	Paragraph(s)



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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 **RPC-MIP**.

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

RPCMIP is one of the instruments of the Rosetta Plasma Consortium. They underwent the previous comet reviews in 2016, 2017 and 2018, and have addressed all of the RIDs raised from those. For this review, they have provided a sample of cross-calibrated (MIP-LAP) electron density (L5). The instrument and data are described in the RPC MIP User Guide document and the EAICD, both located in the DOCUMENT directory.

2.1 What data is under review?

The cross calibrated sample datasets contain 11 days spread over 4 mission phases, selected to represent different MIP and LAP configurations (in particular different MIP modes and different LAP inputs for the cross-calibration). Mission phases are thus incomplete. They also delivered an RPCMIP/RPCLAP cross-calibration report in the documentation.

2.1.1 *Level 5 MIP/LAP Data:*

RO-C-RPCMIP_RPCLAP-5-ESC1-V1.0
RO-C-RPCMIP_RPCLAP-5-ESC3-V1.0
RO-C-RPCMIP_RPCLAP-5-ESC4-V1.0
RO-C-RPCMIP_RPCLAP-5-EXT1-V1.0
RO-C-RPCMIP_RPCLAP-5-EXT2-V1.0
RO-C-RPCMIP_RPCLAP-5-EXT3-V1.0



2.1.2 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 as described below.

The L5 data for this review are not yet public, and are therefore only available via an SFTP area:

‘sftp rospareview.esac.esa.int’

We will send you the credentials by email.

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

Note that a selection of RPC-LAP macros and RPC-MIP operating modes are used as inputs to the cross-calibration procedure. The RPCMIP team (with the support of the RPCLAP team) may decide in the near future to enlarge this baseline by including extra cross-calibrated intervals (extending the initial input data selection to other LAP macros and/or to the MIP LDL mode of operations). In that case, the currently delivered cross-calibrate densities will not change and there will be no impact on data format or currently delivered dataset, only new time intervals will be delivered to improve temporal coverage.

Browse Images have been generated and enclosed in the BROWSE directory for each dataset. Each Browse Image has a 24-hour duration and is linked to one or several data products, but each data product is linked to a unique Browse Image. Associated label files (*.LBL) have been implemented following the procedures requested by PSA. However, PDS compliancy errors still occur when validating datasets containing Browse Images linked to several data products. The reason is currently unknown, but will be investigated and corrected after this review. This does **not** affect the science products or the usability of the data in combination with the browse products – it is only a technical PSA/PDS issue.

Data should be readable by standard PDS readers such as NASAVIEW (<https://pds.nasa.gov/tools/nasa-view.shtml>) and READPDS (https://pdssbn.astro.umd.edu/tools/tools_readPDS.shtml).

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 o). 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 **RPCMIP-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
RPCMIP Archive Scientist (specific RPCMIP issues)	Dave Heather	dheather@cosmos.esa.int	+34 918131183
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	