**DOCUMENT**

# RPC-LAP: Rosetta Archive Enhancement Data Closeout Review Procedure

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| **Prepared by** | **David Heather** |
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# CHANGE RECORD

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# 1 INTRODUCTION

## 1.1 Purpose and scope

This document provides information on the Rosetta Archive Enhancement Data Closeout (CLS) Review with a specific focus on the data and procedures to be followed when reviewing the RPC-LAP instrument deliveries.

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

## 1.2 Reference Documents

 [1] Rosetta Archive Enhancement Data Closeout Review Procedure, RO-SGS-PR-1023, Issue 1.0, 27 June 2019.

[2] RPCLAP DERIV2 RIDs from previous review, RIDS_RPCLAP.PDF, 15 July 2019.


# 2 DATA FOR REVIEW

RPC-LAP provides data sets grouped into mission phases, and are also split by processing level. All information needed to use/calibrate the data is provided in the DOCUMENT and the CALIB directories of each data set. The first documents to read are the EAICD and the User Guide, which can be found in the DOCUMENT directory.


## 2.1 What data is under review?

For this review, the team has provided two data set samples, both containing data that has been cross-calibrated with data from RPC-MIP.

New L5 'NEL' data sets from all comet phases are provided, containing plasma density at higher time resolution than in the 'DERIV2' data sets. ***This is a new delivery and should be fully reviewed.***

In addition, the L5 'DERIV2' data sets from all comet phases have been re-delivered, corrected for all issues raised in the previous review. ***This delivery is NOT under full review, but a 'delta review'. Reviewers are asked to check that issues from the previous review have been addressed satisfactorily***.

To help with the delta review of the DERIV2 data, the previous RIDs are provided in a supplementary document called RIDS-RPCLAP.PDF [2].

### 2.1.1 Level 5 Data available for review:

The following 'NEL' data sets are available for **FULL** review:
RO-C-RPCLAP-5-ESC1-NEL-V1.0
RO-C-RPCLAP-5-ESC2-NEL-V1.0
RO-C-RPCLAP-5-ESC3-NEL-V1.0
RO-C-RPCLAP-5-ESC4-NEL-V1.0
RO-C-RPCLAP-5-EXT1-NEL-V1.0
RO-C-RPCLAP-5-EXT2-NEL-V1.0
RO-C-RPCLAP-5-EXT3-NEL-V1.0
RO-C-RPCLAP-5-PRL-NEL-V1.0

The following 'DERIV2' data sets are available for **delta review only**, to check that issues from the previous review are correctly addressed:
RO-C-RPCLAP-5-ESC1-DERIV2-V1.0
RO-C-RPCLAP-5-ESC2-DERIV2-V1.0
RO-C-RPCLAP-5-ESC3-DERIV2-V1.0
RO-C-RPCLAP-5-ESC4-DERIV2-V1.0
RO-C-RPCLAP-5-EXT1-DERIV2-V1.0
RO-C-RPCLAP-5-EXT2-DERIV2-V1.0
RO-C-RPCLAP-5-EXT3-DERIV2-V1.0
RO-C-RPCLAP-5-PRL-DERIV2-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 RPCLAP data for this review are not yet public and will be provided to you via a secure ftp. Details of how to connect and retrieve the data will be sent by e-mail separately.

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

All information needed to use and understand the data is provided in the DOCUMENT directory, while calibration information can be found in the CALIB directory.  It is recommended to start by reading the EAICD and the instrument User Guide, provided in the DOCUMENT directory of each data set.

For the delta review of the 'DERIV2' data set, reviewers are asked to check the RIDs raised from the previous review have been addressed correctly.   Details of the RIDs from the previous review are provided in RIDS_RPCLAP.PDF [2], delivered as a supplementary document for this review.

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 6).  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  **RPCLAP-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 August 27th 2019.

**_The system will close on 27th August 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 4th - 5th September 2019 at ESAC, Madrid. For US reviewers, a parallel meeting will take place at PDS SBN, University of Maryland, starting the day before (3rd September).  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 |
| RPCLAP Archive Scientist (specific RPCLAP 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 | |

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