# DOCUMENT

# SREM: Rosetta Archive Enhancement Data Closeout Review Procedure

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# CHANGE LOG

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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 SREM 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 DATA FOR REVIEW

SREM is a particle detector, developed for space applications. It provides the host spacecraft with radiation information. It has been launched on board several satellites such as Proba-1, Integral and Rosetta. Until now, access to the data has been provided by the Paul Scherrer Institut (PSI), with the data available in CDF format only. At ESA/PSA we have converted the CDF to PDS3 format to allow long term archiving in the PDS and the PSA. Initial samples of this were first submitted for review in October 2018, and several issues were raised. For this review, we have updated two data sets for MTP34, one for raw data (CODMAC L2) and one for higher-level data (CODMAC L5), accounting for all of the issues raised in the previous review. The instrument and data are described in the EAICD document located in the DOCUMENT directory.

## 2.1 What data is under review?

The reviewers are provided with L2 and L5 SREM data from a one-month planning period (MTP034) during the third mission extension phase (EXT3), as was the case for the previous review.

RO-C-SREM-2-EXT3-MTP034-V1.0
RO-C-SREM-5-EXT3-MTP034-V1.0

All issues from the previous review have been addressed, and as a result, the data format has changed significantly.

### *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 as described below.

As the SREM data are proprietary and not ingested in the PSA, you will have to download them from a ***secure*** ftp:

'***sftp*** rospsareview.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

The SREM sample data sets provided have been created and updated in a short timescale, and we are conscious that although the documentation is greatly improved thanks to the comments from the previous review, it remains sparse in places, and there is room for further improvement. Any comments that would help to improve the documentation are gratefully received.

The original CDF files are also provided in EXTRAS directory and the reviewers are invited to comment on those. 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). 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
  - 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.
  - 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!!*
  - **SREM-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.

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## 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 |
| SREM Archive Scientist (specific SREM 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 | |