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European Space Astronomy Centre P.O. Box 78 28691 Villanueva de la Cañada Madrid Spain T +34 91 8131 100 F +34 91 8131 139 www.esa.int

# **DOCUMENT**

OSIRIS: Rosetta Enhanced Science Archive Review Procedure

Prepared by David Heather

Reference RO-SGS-PR-2021-App1

Issue 1 Revision 0

Date of Issue 08/08/2018
Status For information

Document Type PR

Distribution



# **APPROVAL**

Title		
Issue 1 Revision 0		
Author	Date 08/08/2018	
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 Enhanced (ENH) Science Archive Review with a specific focus on the data and procedures to be followed when reviewing the instrument **OSIRIS**.

This document complements, and is an Appendix to the Rosetta Archive Enhancement Oct 2018 review procedure document [1], which provides important information on the review as a whole.

#### 1.2 Reference Documents

[1] Rosetta Archive Enhancement Oct 2018 review procedure, RO-SGS-PR-2021, Issue 1.0, 26 July 2018

#### 2 DATA FOR REVIEW

OSIRIS provides data sets grouped into approximate 1-month periods, based on planning blocks called 'Medium Term Plans' or MTPs. The data sets are also split between the two cameras (OSINAC and OSIWAC), and by processing level (levels 2, 3 and 4). The differences between the cameras and processing levels in this case are detailed in the documentation provided in the DOCUMENTS directory of each data.

#### 2.1 What data is under review?

The team has prepared data from MTP12 as a representative sample for each of their processing levels, as listed below. The enhanced archive samples include data corrected for Reflectance (REFLECT), Straylight (STRLIGHT), Reflectance and Straylight (STR-REFL) and Georeferenced (GEO).

In addition, OSIRIS has provided data from the Lutetia flyby (AST2 mission phase), updated using the latest pipelines and calibrations. This is representative science data from the cruise phase, all of which will all be updated and delivered using the latest pipelines in the coming months.

#### 2.1.1 Nominal Mission Data:

RO-C-OSINAC-4-ESC1-67P-M12-REFLECT-Vo.1

RO-C-OSINAC-4-ESC1-67P-M12-STRLIGHT-Vo.1

RO-C-OSINAC-4-ESC1-67P-M12-STR-REFL-Vo.1

RO-C-OSINAC-5-ESC1-67P-M12-GEO-Vo.1

RO-C-OSIWAC-4-ESC1-67P-M12-REFLECT-Vo.1



RO-C-OSIWAC-4-ESC1-67P-M12-STRLIGHT-V0.1 RO-C-OSIWAC-4-ESC1-67P-M12-STR-REFL-V0.1 RO-C-OSIWAC-5-ESC1-67P-M12-GEO-V0.1

### 2.1.2 Lutetia Flyby data

RO-A-OSINAC-2-AST2-LUTETIAFLYBY-V2.0 RO-A-OSINAC-3-AST2-LUTETIAFLYBY-V2.0 RO-A-OSINAC-4-AST2-LUTETIAFLYBY-V1.0 RO-A-OSIWAC-2-AST2-LUTETIAFLYBY-V2.0 RO-A-OSIWAC-3-AST2-LUTETIAFLYBY-V2.0 RO-A-OSIWAC-4-AST2-LUTETIAFLYBY-V1.0

#### 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.

With the high data volume here, it is recommended to use ftp to retrieve the data. Any standard ftp client such as FileZilla can be used to download your data set(s).

N.B. The OSIRIS data for review **is not public data**. As such, they will be provided to you by secure ftp. You will be informed separately as to how to retrieve them.

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

There are no known scientific level issues with the OSIRIS data, and all RIDs from previous reviews have been addressed. Any minor non-compliance issues with the PDS Standards are documented within the ERRATA.TXT file in each data set. Please read this, the EAICD (SIS) document and the OSIRIS User Guide in the DOCUMENT directory to familiarize yourself with the data sets before starting to check the data themselves.



Calibration information can be found in the CALIB directory. 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). The OSIRIS team also includes an IDL based library to read/write the PDS data provided. This can be found in the EXTRAS directory.

### 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)
  - o OSIRIS-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 September 28<sup>th</sup> 2018.

The system will close on 28th September 2018 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 9-10<sup>th</sup> October 2018 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 Science Archive EOM Comet Data 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
OSIRIS Archive Scientist (specific OSIRIS 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	