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**Joint Polar Satellite System (JPSS)
Algorithm Specification Volume III:
Operational Algorithm Description (OAD)
for the VIIRS RDR/SDR**



National Aeronautics and
Space Administration

**Goddard Space Flight Center
Greenbelt, Maryland**

**Joint Polar Satellite System (JPSS) Algorithm Specification
Volume III:
Operational Algorithm Description (OAD) for the VIIRS
RDR/SDR
JPSS Review/Approval Page**

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Preface

This document is under JPSS Algorithm ERB configuration control. Once this document is approved, JPSS approved changes are handled in accordance with Class I and Class II change control requirements as described in the JPSS Configuration Management Procedures, and changes to this document shall be made by complete revision.

Any questions should be addressed to:

JPSS Configuration Management Office
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Change History Log

| Revision | Effective Date | Description of Changes (Reference the CCR & CCB/ERB Approve Date) |
|-------------------------|----------------|---|
| Rev - | Jul 26, 2013 | This was approved by the JPSS Ground ERB via 474-CCR-13-1104 on the effective date shown. |
| Rev -1 | Oct 23, 2014 | This version incorporates 474-CCR-14-2094 which was approved by JPSS Ground ERB on the effective date shown. This version was baselined in support of Change Order 10. |
| Rev -1 - Revalidated | Dec 11, 2019 | The expiration date on this document has been extended five years by 474-CCR-19-4789, which was approved by the JPSS Ground AERB on Dec 11, 2019. The effective date and the revision/version on this document will remain the same, only the expiration date has been changed. |
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1 Introduction

1.1 Scope

The scope of this document is to inform the user of Joint Polar Satellite System (JPSS) Algorithm Specification Volume III: Operational Algorithm Description (OAD) for the VIIRS RDR/SDR of the available and applicable Operational Algorithm Description(s) (OAD) or sections contained within an OAD (in the case of multiple algorithms contained within one OAD).

1.1.1 Details of scope

This document is a pointer to independently established OADs available on the JPSS MIS server. In the case of multiple algorithms contained within one OAD, the appropriate section will be detailed in Section 3.0.

1.2 Purpose

The Joint Polar Satellite System (JPSS) Algorithm Specification Volume III: Operational Algorithm Description (OAD) for the VIIRS RDR/SDR contains the reference(s) to applicable OAD(s).

1.3 Organization

Section 1 provides information regarding the scope, purpose, and organization of this document.

Section 2 lists parent documents and related documents that were used as sources of information for this document or that provide additional background information to aid understanding of the interface implementations.

Section 3 provides the titles of applicable OAD(s).

2 Related Documentation

The latest JPSS document(s) can be obtained from URL: https://jpssmis.gsfc.nasa.gov/frontmenu_dsp.cfm. JPSS Project documents have a document number starting with 470, 472 or 474 indicating the governing Configuration Control Board (CCB) (Program, Flight, or Ground (or AERB)) that has the control authority of the document.

2.1 Parent Documents

N/A.

2.2 Applicable Documents

The following document(s) is (are) the Applicable Document(s) from which this document has been derived. Any modification to an Applicable Document will be reviewed to identify the impact upon this document. In the event of conflict between an Applicable Document and the content of this document, the JPSS Algorithm ERB has the final authority for conflict resolution.

| Document Number | Title |
|-----------------|--|
| 474-00001-01 | Joint Polar Satellite System (JPSS) Common Data Format Control Book – External Volume I - Overview |
| 474-00001-05 | Joint Polar Satellite System (JPSS) Common Data Format Control Book – External (CDFCB-X) Volume V – Metadata Formats |

2.3 Information Document

| Document Number | Title |
|-----------------|---|
| 470-00041 | Joint Polar Satellite System (JPSS) Program Lexicon |

3 Related OAD(s)

The following OADs are related to Joint Polar Satellite System (JPSS) Algorithm Specification Volume III: Operational Algorithm Description (OAD) for the VIIRS RDR/SDR:

474-00090 Joint Polar Satellite System (JPSS) Operational Algorithm Description (OAD)
Document for VIIRS Geolocation (GEO) Sensor Data Record (SDR) and Calibration (CAL)
SDR Software

- Section 2.1 Verified RDR
- Section 2.2 GEO
- Section 2.3 Cal
- Section 2.4 Solar Diffuser
- Section 2.5 Bright Pixel