National Aeronautics and Space Administration



Open Science Requirements in ROSES-2023 & Evaluating the OSDMP Guidance for ROSES Peer Reviewers

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Open Science and Data Management Plans (OSDMP)

- Required for most ROSES program elements, starting in 2023
- Describes how proposed work will comply with SMD's open science requirements (details on next slide)
- Replaces requirement for Data Management Plan
- OSDMP includes plans for sharing data, software, and publications, as well as other open science activities
- Included in evaluation of proposal's intrinsic merit (unless otherwise specified)
- Reasonable costs associated with open science are allowable. The costs for the activities described in the OSDMP should be included in the proposal budget.



See <u>SMD Open-Source Science Guidance</u> & <u>ROSES OSDMP page</u> for more.

Open Science Requirements in ROSES-2023

These requirements were incorporated into <u>ROSES-2023 Summary of Solicitations</u> to align with <u>SPD-41a</u>: Scientific Information Policy for the Science Mission Directorate

1) As-accepted manuscript versions of publications that derive from ROSES-2023 awards must be publicly available at the time of publication (<u>publication guidance</u>)

2) Data and software developed using ROSES funding in support of a peer-reviewed publication shall be made publicly available at the time of publication (<u>data guidance</u>; <u>software guidance</u>)

3) Scientifically useful data and software developed during the award that was not already published must be made publicly available by the end of the award

4) PIs and Co-Is must provide their digital persistent identifier (e.g., ORCID) via NSPIRES (PID guidance)



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5) Unless otherwise stated, proposals must include an "Open Science and Data Management Plan" (<u>OSDMP guidance</u>)

OSDMP Format and Components

- Solicitations may provide a <u>template</u>
- Generally limited to 2 pages
- Typically separate from the S/T/M section (but see solicitation for possible exceptions)
- OSDMP is anonymized for program elements using <u>Dual-Anonymous Peer</u> <u>Review (DAPR)</u>
- Minimum Components
 - Data Management Plan
 - Software Management Plan



Open Science Plan (sharing publications; other open science activities)

Example of an OSDMP Evaluation Checklist (part 1)

General Considerations

- □ Within page limit (typically 2 pages)
- □ Follows template provided by solicitation, if applicable
- □ Anonymized, if DAPR

Data Management Plan

- Expected data types, formats, volumes, and standards
- Method for archiving data and providing public access
- Timeline for sharing data (no later than time of peer-reviewed publication, or by end of performance period)



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Data types exempt from sharing requirements

Example of an OSDMP Evaluation Checklist (part 2)

Software Management Plan

- □ Expected software types
- Method for archiving and providing public access (for ROSES-23 and ROSES-24, this can be considered a strength but not a weakness)
- Timeline for sharing software (no later than time of peer-reviewed publication, or by end of performance period)
- □ Software exempt from sharing requirements

Open Science Plan

- Types of publications to be produced and methods for providing public access
- □ Other open science activities, if applicable

Examples of possible OSDMP Strengths and Weakness

Strengths

- Publications will be shared as preprints on a community-appropriate preprint server (e.g., arXiv)
- Contributing to an existing open-source project

Weakness

- Data will be shared upon request
- Publishing in a predatory or vanity journal

Neutral

- Choice of programming language used or use of commercial software
- Impact factor of journal to which manuscripts will be submitted

Resources for ROSES Panelists

- SMD Open-Source Science Guidance: available in <u>PDF</u> and on <u>GitHub</u>
- <u>ROSES OSDMP page</u>
- SMD Scientific Information Policy FAQ

 For feedback on these slides or the Open-Source Science Guidance, contact the SMD Office of the Chief Science Data Officer at <u>HQ-SMD-SPD41@mail.nasa.gov</u>.

