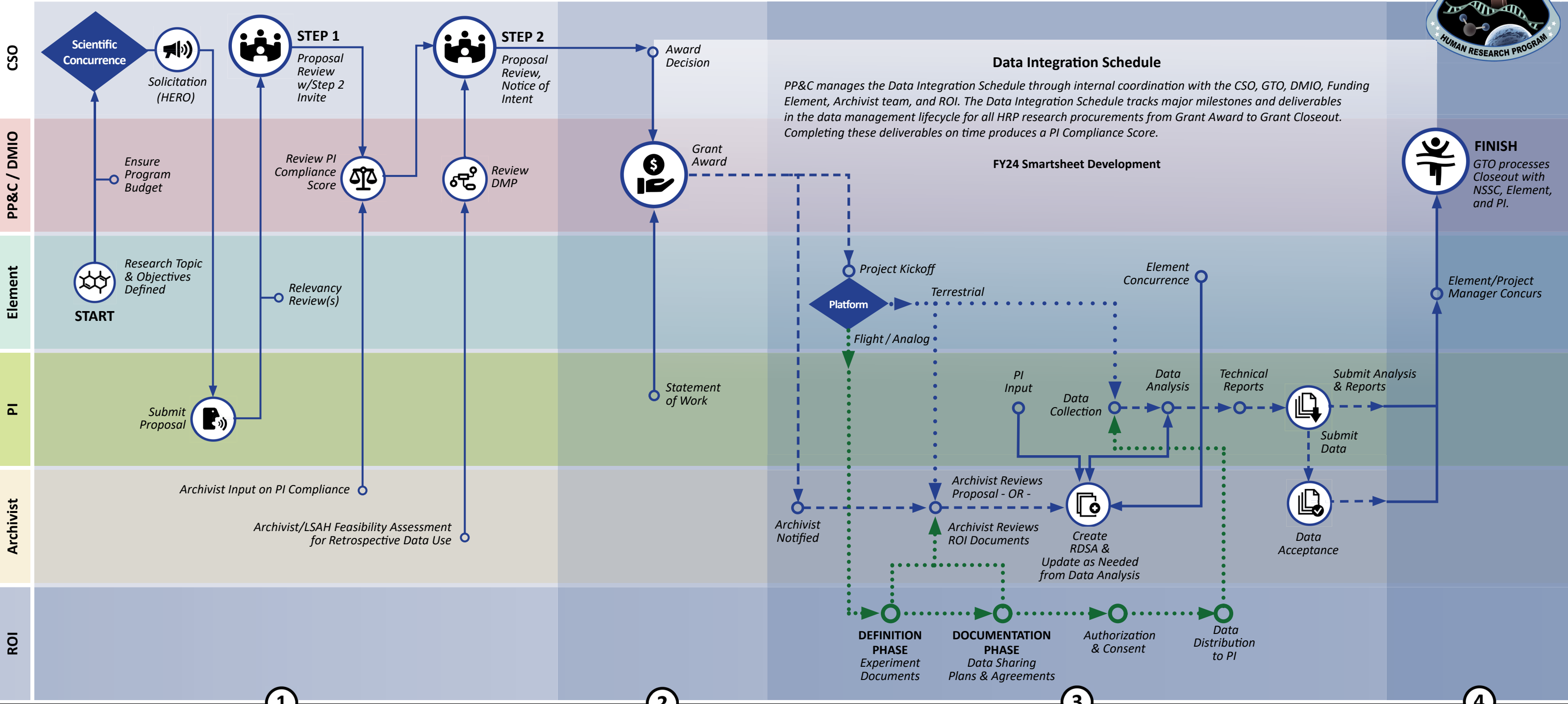


The Grant Lifecycle for Solicited Procurements & Data Integration Schedule

This is a highly simplified overview showing the end-to-end phased process for a research procurement as it advances through the grant lifecycle. The cross functional responsibilities illustrated below represent specific tasks and milestones within the Pre-Award, Award, Post-Award, and Closeout phases. It's important to understand how work connects to milestones and everyone can see how their work contributes to business goals in real-time. For detailed information, refer to the [JSC Internal HRP Data Management Plan](#) or contact the [HRP Grants Technical Officer: jsc-sa-grants@mail.nasa.gov](mailto:jsc-sa-grants@mail.nasa.gov).



Data Integration Schedule
PP&C manages the Data Integration Schedule through internal coordination with the CSO, GTO, DMIO, Funding Element, Archivist team, and ROI. The Data Integration Schedule tracks major milestones and deliverables in the data management lifecycle for all HRP research procurements from Grant Award to Grant Closeout. Completing these deliverables on time produces a PI Compliance Score.

FY24 Smartsheet Development

Pre-Award Phase

The Pre-Award Phase represents the beginning of the grant lifecycle, which includes announcing opportunities, submitting proposals, and reviewing proposals. Funding opportunities are distributed via the NASA [Human Exploration Research Opportunities \(HERO\)](#). Federal awards are subject to a merit review of the proposal. Applicants are subject to a merit review based on past performance. The Chief Scientist Office (CSO) selects the recipient most likely to be successful delivering results based on program objectives.

Award Phase

The Award Phase begins after the CSO completes the proposal review process. Awards are based on pre-award reviews of the proposal. By signing the grant agreement, the recipient is legally obligated to complete the grant terms and conditions.

Post-Award Phase

The Post Award Phase covers a significant amount of work spanning the duration of the award dates and includes (1) conducting the research and (2) reporting progress while tracking milestones identified in the Data Integration Schedule. HRP research procurements have several stakeholder groups supporting the milestone tasks including the HRP Grants Technical Officer (GTO), DMIO, Element/Project Managers, LSDA Archivists, and ROI. The NSSC Grant Officer is also available to assist and ensure our organization complies with the grant terms and conditions. The HRP team's job is to faithfully and diligently carry out the grant's SOW.

Closeout Phase

The Closeout Phase is the process NASA, HRP and HHPC use to determine all administrative actions and work completed by the award recipient meets federal requirements.

The Grant Lifecycle for Solicited Procurements & Data Integration Schedule

The HRP Grant Lifecycle

The Human Research Program (HRP) Grant Lifecycle is based upon information from several government authoritative sources including the public [Grants and Cooperative Agreements \(GCAM\)](#) and JSC internal [HRP Data Management Plan](#). The HRP Program Planning & Control (PP&C) Office and the Data Management Integration Office (DMIO) work closely to organize information from these sources into a cohesive HRP grant process for solicited procurements that is communicated to the organization.

Hundreds of civil servants and contractors are employed across several NASA Centers to support the grants lifecycle and research activities: the Chief Scientist Office (CSO), the PP&C Office, the Grants Technical Officer (GTO) and Grants team, the DMIO, the funding Element(s), the LSDA Archivist team, and the Research Operations & Integration (ROI) Element.

The grant lifecycle follows a linear process that includes creating the funding opportunity, applying for funding, making award decisions, and successfully implementing the award followed by closeout. The grant lifecycle activities and research deliverables are grouped into four distinct phases: Pre-Award, Award, Post-Award, and Closeout. It's important to understand how work in these phases connects to milestones and everyone can see how their work contributes to business goals in real-time.

The Four Phases

Phase 1: Pre-Award

Funding Opportunity Announcement and Application Review

The Human Exploration Research Opportunities (HERO) announcement is released annually to solicit research that will fall into one or more categories corresponding to HRP's five Elements: Space Radiation, Human Health Countermeasures, Exploration Medical Capability, Human Factors and Behavioral Performance, and Research Operations and Integration. This covers all aspects of research to provide human health and performance countermeasures, knowledge, technologies, and tools to enable safe, reliable, and productive human space exploration. An eligible PI submits their proposal as stipulated in the solicitation.

Step 1 Proposal Review: Executive or summarized proposals are submitted via the NASA Solicitation and Proposal Integrated Review and Evaluation System (NSPIRES) and are reviewed by HRP management and NASA Research & Education Support Services (NRESS) using a Dual Anonymous Peer Review (DAPR) process. Step 1 is completed with the notification to decline the proposal or an invitation to submit a full proposal during Step 2.

Step 2 Proposal Review: Invited investigators submit full proposals according to DAPR guidelines containing more detailed content including Data Management, Detailed Objectives, Budgets, Deliverables, Publications Plans, etc. Upon recommendation from the NRESS mediated scientific

merit review panel, the HRP Elements review the top scoring proposals for relevancy to HRP and the Chief Scientist will make a final decision to Accept or Reject for funding.

Phase 2: Award Award Decisions and Announcements

When the review process has been completed, the CSO notifies the applicants, Elements, and HRP Offices of the decisions to award (Notice of Intent) or decline through NSPIRES. The Grants Technical Officer (GTO) begins finalizing the legal framework for the funding agreement with each recipient of a 'Notice of Intent' to award. Following a signed agreement with the recipient, PP&C disburses the funds.

Phase 3: Post-Award A Schedule with Tasks and Milestones

At the Period of Performance (POP) start, the grant lists the series of activities as tasks and milestones in the Data Integration Schedule which is a collaboration between the GTO, funding Element(s), Archivist, DMIO, and ROI. The stakeholders monitor and report progress on the milestones as the research progresses towards closure. These milestones include Experiment Documents, Data Sharing Agreements and Plans, Research Data Submission Agreements (RDSA), Data Analysis and Submission, Cataloguing, and Archiving. In addition to meeting these milestones, award recipients and the PI conduct two primary types of reporting to the HRP organization on a regular basis: financial reporting and annual performance reporting. These annual re-

ports provide information about the overall financial status and performance of the research project.

Phase 4: Award Closeout The Grant Process Ends

The active research is completed. The NSSC Grants Officer (GO) and HRP GTO determine all applicable administrative actions and all work required of the Federal award have been completed by the award recipient. Following expiration or termination of an award's period of performance (POP), the recipient is notified that closeout activities must be completed within 120 days. All final reports, payment requests, and deliverables are complete and reconciled. Concurrence on deliverables is coordinated with the Element or Project Manager, PI, and the LSDA Archivist. Check out the training guide "[Completing the Award Closeout Activities](#)".

The Data Integration Schedule

Each of the four phases have steps to complete and like any project, a grant has a start and a finish with tasks and milestones tracked in a schedule. A specific schedule, the Data Integration Schedule, has been developed to track the Post-Award and Closeout activities. The PP&C Office manages the Data Integration Schedule through internal coordination between the GTO, DMIO, the funding Element(s), and LSDA Archivist team. If the grant is for flight or analog research, the ROI Element has tasks to complete in this schedule. At a minimum, several milestones are tracked with due dates: those for RDSA creation,

Data Integration Schedule - Task & Milestones			44%
Grants Office	Active Research Kickoff	Complete	100%
ROI	Data Sharing	Complete	100%
ROI	ROI Definition Phase Milestones	Complete	100%
Element	Element notifies LSDA Archivist to Start RDSA	Complete	100%
LSDA/ALSDA	Experiment Assigned	Complete	100%
LSDA/ALSDA	RDSA Completed		29%
LSDA/ALSDA	Archivist Drafts RDSA	Complete	100%
LSDA/ALSDA	Archivist Team Reviews Internally	Complete	100%
LSDA/ALSDA	Archivist sends Draft RDSA to PI requesting redlines or signature	In Progress	0%
LSDA/ALSDA	Archivist prepares, sends Final RDSA to PI requesting signature	Not Started	0%
LSDA/ALSDA	PI Returns Signed DSA to Archivist	Not Started	0%
LSDA/ALSDA	Archivist sends RDSA to Element POC requesting signature	Not Started	0%
LSDA/ALSDA	Archivist Signs, RDSA Posted to SharePoint	Not Started	0%
LSDA/ALSDA	Final Data Submittal Reminders		0%
LSDA/ALSDA	Send RDSA Data Submittal Reminder	Not Started	0%
LSDA/ALSDA	Archivist Receives Data	Not Started	0%
LSDA/ALSDA	Data Received Acceptance Process		0%
LSDA/ALSDA	Archivist Accepts Data	Not Started	0%

Annual Progress Reports, Data Submittal, Processing, and Archiving per RDSA instructions, and steps for Grant Closeout.

Important to Remember: the Data Integration Schedule tracks major milestones and deliverables for all HRP research procurements. (See HRP DMP, Section 6.0 and Table 8.2). The Data Integration Schedule provides views of upcoming milestones, provides a data status for every task and PI, and produces a PI compliance score. Check out the training guide "[PI Compliance](#)".

Managing Grants as Projects

The PP&C Office is assessing a project management system, Smartsheet, to manage grants from Pre-Award to Closeout. Starting with the Post-Award Phase, grant milestones are shared using dashboards with metrics and reports that will be updated with NSSC, Grants Office, Archivist, and Element activities real-time. Smartsheet was selected to pilot the Grants Lifecycle and Data Integration Schedule as a self-service collaborative tool for grant stakeholders to manage their respective tasks. Dashboards with the milestone metrics roll up to the Element and Program level dashboards, providing real-time visibility into critical data points and a centralized location for grant information. The PP&C Office will soon be sharing their FY24 Smartsheet Rollout Plan with the organization.

For questions about this document, contact the HRP Data Management Integration Office (DMIO): jsc-hrp-data-management@mail.nasa.gov.

Acronyms

DAPR	Dual Anonymous Peer review Process
DMIO	Data Management Integration Office
EM	Element Manager
GCAM	Grant and Cooperative Agreement Manual
GO	Grants Officer (NSSC)
GTO	Grants Technical Officer (HRP)
HERO	Human Exploration Research Opportunities
LSDA	Life Sciences Data Archive
PP&C	Program, Planning & Control
NRESS	NASA Research & Education Support Services
NSSC	NASA Shared Services Center
POP	Period of Performance
RDSA	Research Data Submission Agreement
ROI	Research Operations & Integration

GRANT LIFECYCLE MAJOR MILESTONES

- HERO Announcement
- Proposal Submission
- Step 1 Proposal Review
- Step 2 Proposal Review
- Notice of Intent Sent

1

Pre-Award Phase

- Award Decision Announced
- Program and Element Funding Confirmed
- Legal Framework Finalized
- Grant Award Signed
- Funds Dispersed to Recipient
- Period of Performance (POP) Start Date

2

Award Phase

- Experiment Documents
- RDSA Created
- Data Collection & Analysis
- Data Submission
- Data Catalogue and Archive
- Performance Reports Submitted (Annually)
- Compliance Score

3

Post-Award Phase

- Final Performance Report
- Financial Reports
- Technical Deliverables called out in Proposal
- New Technology Reports (NTR)
- Equipment Inventory Report
- Performance Validation
- Research Closeout

4

Closeout Phase