### Schedule Repository Frequently Asked Questions (FAQs)

By NASA HQ – The Strategic Investments Division

### **Table of Contents**

C	ommonly used Acronyms:	2
e	eneral Schedule Repository Questions	3
	What is the Schedule Repository?	3
	Where did this requirement come from?	3
	What is the NASA Corrective Action Plan?	3
	The Corrective Action Plan sounds great, is it posted anywhere where I can read it?	3
	How is the EVM data schedule data request different from this data request?	3
	What projects are subject to this data call?	3
	Is there a required format for the schedule data submission?	3
	When and how often are you collecting the data?	3
	At what point in the life cycle does a program/project need to start/stop submitting schedules?	4
	My 7120.8 project has "no performance reporting" requirements. Is the Schedule Repository to be considered a new requirement levied on my project?	
	My project is a 7120.8 project that has a lot of research with no defined deliverables, integrated tests, or demonstrations. Do I still need to submit a schedule, or is my project exempt from this requirement?	4
	My project is part of a larger, multi-Center effort, but my project is above the \$50M threshold and managed from my Center. Do I have to submit my project's schedule separately from the larger project?	4
	My project is just one project of several that falls under the uncoupled/loosely-coupled requirements of NPR 7120.5, but my project exceeds the \$50M threshold. Do I have to submit my project's schedule separately from the larger project?	om
	My project is an AO project? Do AO missions still need to submit?	4
	What level of schedule information is required to be submitted?	4
	Is there a specific day that schedules are due?	
	On months that schedules are due, are you asking for that month's schedule or the previous one?	5
	My project is in the middle of a replan and the schedule file is "incomplete". Do I need to submit additional documentation with the schedule submission to provide context?	
	Where will the schedule files be housed?	5
	Who owns the data within the database?	5
	Who gets access to this data?	5
	My project is concerned about "competitive sensitive" data contained in the IMS. What workaround options exist for excluding this data?	
	One of my project's contractors is concerned about intellectual property contained in the IMS. What workaround options exist for excluding this data?	5
	Will GAO or the OIG have access to this data?	5

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How will the Schedule Repository data be used? What are the expected benefits?	5
Is HQ using this data to do assessments?	6
I would like to waive or tailor this data requirement? How do we do this?	6
Is this effort being coordinated with my Center? If so, whom do I contact?	6
I am the POC identified by my Center for collecting and submitting schedules. How d	lo I submit schedules?6
This Schedule Repository sounds awesome. Where can I learn more?	6
Schedule Repository Memo:	7

### **Commonly used Acronyms:**

APMC	Agency Program Management Council
CAP	Corrective Action Plan
EVM	Earned Value Management
GAO	Government Accountability Office
IMS	Integrated Master Schedule
LCC	Life Cycle Cost
POC	Points of Contact
SID	Strategic Investments Division

### **General Schedule Repository Questions**

### What is the Schedule Repository?

The Schedule Repository is an Agency initiative to create a centralized collection of NASA program and project schedules and schedule data.

### Where did this requirement come from?

At the December 2018 Agency Program Management Council (APMC), NASA senior leadership approved a collection of specific initiatives and areas of emphasis to strengthen the Agency's cutting-edge program and project management efforts across the board and improve transparency for NASA's stakeholders. These initiatives, which included the Schedule Repository, are documented within the 2018 NASA Corrective Action Plan (CAP). The CAP was sponsored and signed by the NASA Associate Administrator. Specifics of the Schedule Repository initiative have been codified in an implementation memo from the NASA CFO. This can be referenced in this document under Schedule Repository memo.

### What is the NASA Corrective Action Plan?

This Corrective Action Plan (CAP) encompasses a collection of specific initiatives and areas of emphasis that NASA commits to pursuing as it matures Agency program and project management policies and processes, as well as related surveillance of contractors through appropriate insight and oversight. NASA developed this CAP in response to recent challenges in cost and schedule growth experienced by several of the Agency's highest profile missions, as well as the continued inclusion of NASA's acquisition practices in the Government Accountability Office's (GAO) biennial High Risk Report. The CAP is also in support of the Agency's steadfast commitment to good governance and effective stewardship of the resources entrusted to it. The overall goal of the CAP is to strengthen the Agency's cutting-edge program and project management efforts across the board and to improve transparency for NASA's stakeholders.

### The Corrective Action Plan sounds great, is it posted anywhere where I can read it?

Yes, the NASA CAP is posted to web. Please refer to the following site: www.nasa.gov/sites/default/files/atoms/files/nasa high risk corrective action plan 2018.pdf.

### How is the EVM data schedule data request different from this data request?

The EVM data request has its own set of guidelines that may or may not overlap with the Schedule Repository data request, depending on the type of program or project. For programs/projects that require EVM, the EVM data request is set to a monthly cadence and includes the same, or similar, schedule data that would be required on a quarterly basis for the Schedule Repository. However, the Schedule Repository is farther reaching, applicable to single-project programs and projects with Life Cycle Cost (LCC) of \$50 or greater. In addition, the Schedule Repository applies to projects that adhere to NPR 7120.8, as well as NPR 7120.5.

### What projects are subject to this data call?

All NPR 7120.5E projects and single-project programs with a Life Cycle Cost (LCC) of \$50 Million dollars or greater. All 7120.8 projects with an LCC of \$50 Million dollars or greater.

### Is there a required format for the schedule data submission?

Schedule data are to be provided in their native scheduling tool formats (e.g., MS Project (.mpp) files and/or Primavera P6 (.xer) files).

### When and how often are you collecting the data?

Data will be collected on a quarterly basis, starting in July 2019 for June-statused schedules. Thus, schedules will be required for June, September, December, and March to be delivered in July, October, January, and April, respectively.

## At what point in the life cycle does a program/project need to start/stop submitting schedules?

For 7120.5 programs and projects, quarterly IMS submissions are required starting after completion of System Requirements Review (SRR) through completion of Launch Readiness Review (LRD). For NPR 7120.8 projects with no SRR or LRD, IMS submissions are required starting after Project Approval for Implementation through completion of Closeout activities.

### My 7120.8 project has "no performance reporting" requirements. Is the Schedule Repository to be considered a new requirement levied on my project?

No. If your 7120.8 project specifically has "no performance reporting" requirements (e.g., per JPL contract language), then your project is exempt from the Schedule Repository data collection requirement.

# My project is a 7120.8 project that has a lot of research with no defined deliverables, integrated tests, or demonstrations. Do I still need to submit a schedule, or is my project exempt from this requirement?

It really depends. It is recommended to contact SID (Points of Contacts in footer of this document) to discuss whether your project should be waived from this requirement. If the above statement is true, then this requirement is not levied on your project; however, for some 7120.8 projects, there may be sub-projects that have defined deliverables for tests or demonstrations that also meet the \$50M LCC. These projects meet the criteria for the Schedule Repository requirement.

# My project is part of a larger, multi-Center effort, but my project is above the \$50M threshold and managed from my Center. Do I have to submit my project's schedule separately from the larger project?

This is dependent on the project. Some projects are delivering a fully-integrated and detailed IMS from the "lead Center"; however, other multi-Center projects have decided to deliver a summarized IMS from the lead Center along with supporting Centers through the respective Centers managing the supporting elements of the project. If you have questions on how or whether your schedules are being submitted, please contact <u>hq-scope@nasa.gov</u> for assistance.

### My project is just one project of several that falls under the uncoupled/looselycoupled requirements of NPR 7120.5, but my project exceeds the \$50M threshold. Do I have to submit my project's schedule separately from the larger project?

This is dependent on the project. Some projects are delivering a fully-integrated and detailed IMS at the project level; however, other projects have decided to deliver a summarized IMS from the project office, along with sub-project schedules at the subproject/contractor level. If you have questions on how or whether your schedules are being submitted, please contact <u>hq-scope@nasa.gov</u> for assistance.

### My project is an AO project? Do AO missions still need to submit?

For two-step AO process, where down-selection serves as KDP-B, schedules are required after down selection.

### What level of schedule information is required to be submitted?

A fully detailed program/project IMS or a summarized version of the program/project IMS with lower-level detailed schedules. Please direct your project-unique questions to the Points of Contact listed in this document's footer.

### Is there a specific day that schedules are due?

No. We are giving projects the entire month to submit the prior month's month-end schedule. We will be working through Center POCs for noncompliance at end of the month (e.g., for July submission of the June month-end schedule, projects have until the end of July to submit).

### On months that schedules are due, are you asking for that month's schedule or the previous one?

On months that schedules are due, the prior month's schedule will be submitted. Data collection will occur in July, October, January, and April; thus, the collected data will reflect schedules from June, September, December, and March.

## My project is in the middle of a replan and the schedule file is "incomplete". Do I need to submit additional documentation with the schedule submission to provide context?

If/when a schedule file is either unavailable or incomplete, documentation explaining the partial submission or lack of submission should be provided.

### Where will the schedule files be housed?

The Schedule Repository will be housed on the ONCE Database, https://oncedata.hq.nasa.gov

### Who owns the data within the database?

While in development, the programs and projects own the data within the database. After LRD (7120.5) or Closeout (7120.8) NASA HQ/OCFO/SID owns the data within the database.

### Who gets access to this data?

Data will not be broadly accessible, without project permission, before LRD or delivery. Data access control will be conducted by NASA SID. After LRD, schedule data will be made available to the broader NASA schedule management community. If you have concerns with uniquely proprietary data being available to the larger community even after LRD, please contact POCs in this document's footer. We are actively working on more detailed data protection plans.

### My project is concerned about "competitive sensitive" data contained in the IMS. What workaround options exist for excluding this data?

If you have concerns with uniquely proprietary data being available to the larger community even after LRD, please contact POCs in this document's footer. We are actively working on more detailed data protection plans.

### One of my project's contractors is concerned about intellectual property contained in the IMS. What workaround options exist for excluding this data?

All projects in development will only be visible by NASA SID or the project. The project will have the ability to control access. After LRD, the underlining data is planned to be made more available to the general NASA schedule and Joint Confidence Level communities. NASA SID will be working with the Centers and projects to make sure all data access rights are consistent with the underlying data protection rights. With that said, if a contractor wants to have direct conversations with NASA SID, please contact the POCs listed in the footer.

### Will GAO or the OIG have access to this data?

No. NASA SID will not provide any Schedule Repository data or access to the data set to external entities. With that said, if the project is already providing data to an external entity and they want to utilize the Schedule Repository as a means for providing that data, then NASA SID will work with that project for proper permissions.

### How will the Schedule Repository data be used? What are the expected benefits?

The data collected in the Schedule Repository is expected to be used by the Schedule Management community for quick and convenient access to historical and analogous schedules to aid in the planning and development of schedules for future missions. The Schedule Repository is NOT being used to perform schedule performance data on specific projects. With that said, general systemic tendencies observed from the data set will be used to help improve and codify NASA best practices. Again, this initiative will NOT be used as an evaluation platform on individual projects.

### Is HQ using this data to do assessments?

HQ will NOT be using this data to do assessments on specific programs/projects during said P/p's lifecycle. HQ may do meta-analysis to help inform updates to Schedule Management guidance and training. For instance, the data housed in the Schedule Repository will allow fine-tuning of best practices guidance for schedule planning, development, assessment, analysis, maintenance, and control. It may also help the Agency understand how and at what point in the lifecycle project schedules typically experience issues.

### I would like to waive or tailor this data requirement? How do we do this?

We are currently working on template documentation for any type of waiver or tailoring decision. As of now, please contact the POCs listed on the footer of this document to work any potential waiving or tailoring request. As the process matures, we will be updating this documentation as well as other documentation to best inform community. Below are some reasons for waiving and tailoring that may be acceptable.

- **Tailoring when data becomes available to larger community:** Some projects have post LRD sensitivities. If so, we are working this these unique projects to mitigate potential issues.
- Tailoring data access rights after LRD.
- **Tailoring data submission date to best align with a milestone/rebaseline:** In general, the quarterly cadence is static, but we are willing to work with projects to determine best time to submit data around milestone reviews.
- Waiving requirement due to lack of defined deliverables within the project schedule: This may be the case for some 7120.8 projects.

### Is this effort being coordinated with my Center? If so, whom do I contact?

This effort is being coordinated through the NASA Center points of contact (POCs) from the Project Planning and Control (PP&C) Working Group and supported by the Schedule Community of Practice (SCoPe) POCs.

AFRC – Josh Martin (PP&C)/Patti Daws (SCoPe) ARC – Yvonne Simonson (PP&C and SCoPe) GRC – Larry Sivic (PP&C)/Bob Sefcik (SCoPe) GSFC – Rich Ryan (PP&C)/Jeff Slade (SCoPe) JSC – Cathy Claunch (PP&C)/Steve Wilson (SCoPe) KSC – Sandeep Wilkhu (PP&C)/Ron Horvath (SCoPe) LaRC – Don Shick (PP&C)/Ken Parkinson (SCoPe) MSFC – Cindy Stemple (PP&C)/Stefanie Terrell (SCoPe) SSC – TBD (PP&C)/Rena Perwien (SCoPe) JPL - Because JPL is also a part of NASA's Schedule Com

JPL - Because JPL is also a part of NASA's Schedule Community, for JPL programs/projects, this effort is being coordinated through Daniel Graham.

### I am the POC identified by my Center for collecting and submitting schedules. How do I submit schedules?

You can submit schedules by emailing <u>hq-scope@mail.nasa.gov</u>. Please encrypt the files before sending. If the file size is too large to send through email, please use NASA's Large File Transfer service, <u>https://transfer.ndc.nasa.gov</u>

### This Schedule Repository sounds awesome. Where can I learn more?

For more information about the Schedule Repository or other Agency Schedule Management initiatives, please contact Michele King, <u>Michele.t.king@nasa.gov</u> or visit the Schedule Community of Practice (SCoPe) website at <u>https://community.max.gov/x/9rjRYg</u>. If you do not already have access to OMBMax, please contact POCs in footer for access.

### **Schedule Repository Memo:**

NASA

National Aeronautics and Space Administration Headquarters Washington, DC 20546-0001

June 4, 2019

#### Reply to Attn of: Office of the Chief Financial Office

To: NASA Centers, Suppliers & Partners

From: Office of the Chief Financial Officer (OCFO)

Subject: Agency Policy Guidance to Enhance Earned Value Management (EVM) and Create a Schedule Repository

At the December 2018 Agency Program Management Council (APMC), NASA senior leadership approved a collection of specific initiatives and areas of emphasis to strengthen the Agency's cutting-edge program and project management efforts across the board and improve transparency for NASA's stakeholders. These initiatives are prompted by recent challenges in cost and schedule growth experienced by several of the Agency's highest profile missions; continued inclusion of NASA's acquisition practices in the GAO's biennial High Risk Report; and NASA's steadfast commitment to good governance and stewardship of entrusted resources.

One specific area of emphasis approved for implementation is to improve and strengthen the EVM discipline, and work to foster a culture at NASA where EVM is accepted by programs and projects and embraced by managers and employees. Another area focused on the implementation of a pilot initiative to develop a repository of schedules and schedule data from NASA projects.

Working groups comprised of relevant experts from across the Agency were formed to develop corrective action plans (CAP) for each initiative. The following policies resulting from the working group efforts will assist NASA programs and projects with implementing the initiatives to enhance EVM implementation and build a schedule repository.

#### EVM Policies:

 Roll out EVM Capability to remaining Centers as identified and approved by the EVM steering committee (SC).

2. Improve EVM flow-down for contracts by following the guidance in the NASA EVM Contract Requirements Checklist located at <a href="https://www.nasa.gov/evm/regulations">https://www.nasa.gov/evm/regulations</a>.

3. Require EVM reporting at the Baseline Performance Review (BPR). At a minimum, EVM metrics should include the schedule performance index (SPI) and cost performance index (CPI) for current month, cumulative and three-, six- and twelve-month indices. In addition, independent estimates at completion (EAC) using EVM metrics should be reported.

4. Enhance in-house and contracted EVM surveillance. An annual EVM surveillance plan will be developed to assess overall compliance with the EIA-748 for total project, including in-house work. For contracts, ensure that EVMS surveillance is delegated to DCMA. All projects should perform monthly EVM data anomaly assessments. Recurring EVM data anomalies should be reported to Mission Directorates and OCFO/SID, and require corrective action plans for resolution of any material issues.

Use NASA resources to conduct EVM surveillance on major suppliers such as JPL, APL, SwRI, etc. where DCMA does not have an existing presence.

6. Require monthly EVM reports, integrated program management report (IPMR) or the contract performance report (CPR) submittals to a central repository to enable additional independent analysis beginning July I, 2019. Empower is NASA's central repository for EVM data in XML format. Other formats are acceptable in the interim until Empower XML files are available and should be posted to the EVM central repository using instructions on the NASA EVM website at <a href="https://nasa.gov/cvm">https://nasa.gov/cvm</a>.

a. Formats 1-4 shall be submitted in XML format and human readable formats such as Microsoft Word, Excel or PDF file.

b. Formats 5-7 shall be submitted in contractor or project's native format.

#### Schedule Repository Policies:

 Require submission of Program/project integrated master schedules in native scheduling tool formats (e.g., MS Project .mpp files and/or Primavera P6 files), including a fully integrated IMS or summary IMS with lower-level detailed schedules beginning July 1, 2019. Responsible Programs/projects include:

 All NPR 7120.5E projects and single project programs over Life Cycle Cost (LCC) of \$50Million dollars shall submit quarterly.

b. All 7120.8 projects over LCC of \$50 Million dollars shall submit quarterly.

c. All projects below the \$50 million threshold are not required to submit.

 IMS submissions are required starting after completion of System Requirements Review (SRR) through completion of Launch Readiness Review (LRD)

a. For two-step AO process, where down-selection serves as KDP-B, schedules are required after down selection.

 NASA HQ CFO will provide resources for data archiving. Data access control will be conducted by NASA HQ CFO. Data will not be broadly accessible, without project permission, before LRD. After LRD, schedule data will be made available to larger NASA scheduling community.

 All schedule submissions will be collected by emailing schedule native files to hgscope@mail.nasa.gov. The Schedule Community of Practice (SCoPe) Lead will transfer data to the Schedule Repository location as collected. NASA is committed to pursuing these policy initiatives and continues to mature program and project management policies and processes, as well as related surveillance of contractors through appropriate insight and oversight. The goal of these efforts is threefold: first, to improve the use of EVM as a tool to measure and predict total cost and accomplishment of schedule and delivery, secondly, to provide the schedule management community with access to a collection of program and project schedules for completed and current missions that will aid in advancing best practices and the planning and development of schedules for future missions, and lastly, to move the Agency toward removal from the GAO's High Risk List by enabling NASA programs and projects to identify and address issues and take corrective actions.

Senior management support is key to accomplishing the goals for the EVM and Schedule Repository CAP efforts, and I ask that you support my team as they work to implement the initiatives outlined in this policy letter.

For questions on EVM implementation described above or the general EVM CAP, please contact the NASA EVM Program Executive, Mr. Jerald Kerby at 256-544-3243 or jerald.g.kerby@nasa.gov. Additional supporting guidance can also be found on the NASA EVM website at <u>https://nasa.gov/evm</u>. For questions on the Schedule Repository implementation described above or the general Schedule Repository CAP, please contact the Agency SCoPE Lead, Ms. Michele King at 757-864-5488 or <u>michele.t.king@nasa.gov</u>.

Sincerely,

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Jeff DeWit, NASA Chief Financial Officer