

November 4, 2008

Office of the Chief Engineer

TO: OGC Laura Burns, OCFO Enzie Ebron, OP Leigh Pomponio

FROM: Office of the Chief Engineer/Chief Engineer

SUBJECT: NASA Interim Directive (NID) for NPR 7123.1A

ATTACHMENT: Replacement Section G.2 and Table G-2 P/SDR

The purpose of this NID is to correct errors in the document, update information including an IG action to address human capital transition, and to synchronize the document with other policy.

This NID applies to NASA Headquarters and NASA Centers, including Component Facilities.

This NID shall be in effect for 1 year from the date of this memorandum. Specific changes are as follows:

Location in 7123	NID Change		
	From	To	Rationale
Table of Contents	G.2 Program Approval Review	G.2 Program/System Definition Review	Correct TOC
Section G.2 and Table G-2 P/SDR	Remove old description.	Replace with new description.	Revise the definition to more accurately reflect the objectives of the review.
Table G-7: PDR #1 Entrance Criteria	“Successful completion of the SDR or SRR and/or MDR and responses made to all SDR or SRR and/or MDR RFAs and RIDs, or a timely closure plan exists for those remaining open.”	“Successful completion of the SDR or MDR and responses made to all SDR or MDR RFAs and RIDs, or a timely closure plan exists for those remaining open.”	Correct the criteria for successful completion of the PDR review based on the description of the review cycle in 7120.5D.
Table G-18: Decommissioning Review		Add #10 Success Criteria: “Plans for transition of personnel have been defined and approved.”	Criteria added to consider personnel shifts when programs and projects end.
Appendix B:	(1) From:	(1) To: “Mission	Correct acronym and

Location in 7123	NID Change		
	From	To	Rationale
Acronyms	“Mission Design Review”	Definition Review” (2) Add: PCA-Program Commitment Agreement	add acronym.

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G.2 Program/System Definition Review

The P/SDR applies to all NASA space flight programs to ensure the readiness of these programs to enter an approved Program Commitment Agreement (PCA). The approved PCA permits programs to transition from the program formulation phase to the program implementation phase. A Program Approval Review (PAR) is conducted as part of the P/SDR to provide Agency management with an independent assessment of the readiness of the program to proceed into implementation.

The P/SDR examines the proposed program architecture and the flow down to the functional elements of the system. The proposed program's objectives and the concept for meeting those objectives are evaluated. Key technologies and other risks are identified and assessed. The baseline Program Plan, budgets, and schedules are presented.

The technical team provides the technical content to support the P/SDR.

Table G-2 – P/SDR Entrance and Success Criteria

Program/System Definition Review	
Entrance Criteria	Success Criteria
<ol style="list-style-type: none"> 1. A Program/System Requirements Review has been satisfactorily completed. 2. A program plan has been prepared that includes the following: <ol style="list-style-type: none"> a. how the program will be managed; b. a list of specific projects; c. the high-level program requirements (including risk criteria); d. performance, safety, and programmatic requirements correlated to Agency and directorate strategic objectives; e. description of the systems to be developed (hardware and software), legacy systems, system interfaces, and facilities; and f. identification of major constraints affecting system development (e.g., cost, launch window, required launch vehicle, mission planetary environment, engine design, international partners, and technology drivers). 3. Program level SEMP which includes project technical approaches and management plans to implement the allocated program requirements including constituent launch, flight, and ground systems, and operations and logistics concepts. 4. Independent Cost Analyses (ICAs) and Independent Cost Estimates (ICEs) 5. Management plan for resources other than budget. 6. Documentation for obtaining the program commitment agreement that includes the following: 	<ol style="list-style-type: none"> 1. An approved program plan and management approach. 2. Approved SEMP and technical approach. 3. Estimated costs are adequate. 4. Documentation for obtaining the Program Commitment Agreement is approved. 5. An approved draft program control plan. 6. Agreement that the program is aligned with the Agency needs, goals and objectives. 7. The technical approach is adequate. 8. The schedule is adequate and consistent with cost, risk and mission goals. 9. Resources other than budget are adequate and available.

<ul style="list-style-type: none">a. the feasibility of the program mission solution with a cost estimate within acceptable cost range,b. project plans adequate for project formulation initiation,c. identified and prioritized program concept evaluation criteria to be used in project evaluations,d. estimates of required annual funding levels,e. credible program cost and schedule allocation estimates to projects,f. acceptable risk and mitigation strategies (supported by a technical risk assessment),g. organizational structures and defined work assignments,h. defined program acquisition strategies,i. interfaces to other programs and partners,j. a draft plan for program implementation, andk. a defined program management system. <p>7. A draft program control plan that includes:</p> <ul style="list-style-type: none">a. how the program plans to control program requirements, technical design, schedule, and cost to achieve its high-level requirements;b. how the requirements, technical design, schedule, and cost of the program will be controlled;c. how the program will utilize its technical, schedule, and cost reserves to control the baseline;d. how the program plans to report technical, schedule, and cost status to the MDAA, including frequency and the level of detail; ande. how the program will address technical waivers and how dissenting opinions will be handled. <p>8. For each project, a top-level description has been documented.</p>	
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