

NPR 7120.5 Compliance Matrix

Template Instructions

The Compliance Matrix documents whether and how the program or project complies with the requirements of NPR 7120.5. All of the NPR 7120.5 requirements and the organizations/individual responsible for the action are listed. When a requirement is tailored or determined not to be applicable, the matrix includes the rationale for such a determination. The completed Compliance Matrix is appended to the Formulation Agreement for projects in Formulation and the Program Plan or Project Plan for programs or projects entering or in Implementation. A copy should be forwarded to the Office of the Chief Engineer.

In the middle three columns (MDAA, CD, and PM), the “A” denotes that the requirement is applicable; a blank indicates that the requirement is not applicable. In the next column to the right, the requirements that are not tailorable are marked with an NT. Blanks indicate the requirement is tailorable. When completed, the program or project should fill in the next column to the right, “Comply?” to identify the approach to the requirement by marking “FC” for “fully compliant,” “T” for “tailored,” or “NA” for “not applicable.”

A Word version of the Compliance Matrix can be found on the Program and Project Community of Practice on NEN at:

<https://nen.nasa.gov/web/pm/7120.5d-background>

Para #	Requirement Statement	MDAA	CD	PM	Ones Not Tailor-able	Com-ply?	Rationale for Tailoring, Comments, Decisions, Location of Documentation
1.1.2	NASA Centers shall develop center documentation to implement the requirements of this NPR.		A		NT		
1.1.3	For existing programs and projects, Mission Directorates shall determine the extent to which the requirements of this document are to be applicable to the program/project’s extant phase and to phases yet to be completed and obtain approval for any differences of this policy from the Decision Authority.	A			NT		
2.1.1.c	Regardless of the structure of a program or project meeting the criteria of Section P.2, this NID to NPR 7120.5D shall apply to the full scope of the program or project and all the activities under it.			A	NT		
2.1.3.1	Project categorization defines Agency expectations of project managers by determining both the oversight council and the specific approval requirements. Projects are <i>Category 1, 2, or 3</i> and shall be assigned to a category based initially on: (1) the project life cycle cost (LCC) estimate, the inclusion of significant radioactive material, and whether or not the system being developed is for human space flight; and (2) the priority level, which is related to the importance of the activity to NASA, the extent of	A			NT		

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	international participation (or joint effort with other government agencies), the degree of uncertainty surrounding the application of new or untested technologies, and spacecraft/payload development risk classification (see NPR 8705.4, <i>Risk Classification for NASA Payloads</i>).						
2.1.3.2	When projects are initiated, they are assigned to a NASA Center or implementing organization by the MDAA consistent with direction/guidance from the strategic planning process. They are either assigned directly to a Center by the Mission Directorate or are selected through a competitive process such as an Announcement of Opportunity (AO). ¹ For Category 1 projects, the assignment shall be with the concurrence of the NASA AA.	A			NT		
2.2.1	Programs and projects shall follow the appropriate life cycle to formalize its life cycle phases; life cycle gates and major events, including KDPs; major life cycle reviews; principal documents that govern the conduct of each phase; and the process of recycling through Formulation when program changes warrant such action.			A			
2.2.2	The documents shown on the life cycle figures in the NID to NPR 7120.5D and described in sections 2.2.2.1 through 2.2.2.6 shall be prepared in accordance with the templates in Appendices D through H.			A			
2.2.3	Each program and project shall perform the Life Cycle Reviews (LCRs) identified in their respective figure in the NID to NPR 7120.5D in accordance with NPR 7123.1, applicable Center practices, and the requirements of this document.			A			
2.2.4	The program or project and an independent Standing Review Board (SRB) shall conduct the LCRs in figures 2-2, 2-3 and 2-4 (except for the Mission Concept Review (MCR), Flight Readiness Review (FRR), Mission Readiness Review (MRR), and all post-launch reviews unless requested by the Decision Authority) ² .			A	NT		
2.2.4.1	The Conflict of Interest (COI) procedures detailed in the <i>NASA Standing Review Board Handbook</i> shall be strictly adhered to.	A	A	A	NT		
2.2.4.2	The Independent Program Assessment Office (IPAO), or equivalent, shall document the requirements for the portion of the LCR conducted by the SRB in the Terms of Reference (ToR), for which there is a template in the <i>NASA Standing Review Board Handbook</i> .	A	A	A	NT		
2.2.4.3	The program or project manager, the SRB chair and the center director (or designated Technical Authority representative) shall mutually assess the programs or projects expected readiness for the LCR and report any disagreements to the decision authority for final decision.		A	A	NT		

¹ As part of the process of assigning projects to NASA Centers, the affected program manager may recommend project assignments to the MDAA.

² Other reviews in Figures 2-2, 2-3 and 2-4, e.g., the ASM, SMSR, SAR, and LRR, are generally not conducted by the SRB unless requested by the Decision Authority.

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2.2.5	In preparation for these LCRs, the program or project shall document the results of their Formulation or Implementation activities (described in the NASA Program and Project Management Handbook) prior to the LCR and generate the appropriate documentation per Appendix C tables -1 through C-4 of this NID to NPR 7120.5D, NPR 7123.1, and Center practices as necessary to demonstrate that the program's or project's definition and associated plans are sufficiently mature to execute the follow-on phase(s) with acceptable technical, safety and programmatic risk.			A	NT		
Table C-1 Tightly Coupled Program Milestone Products Maturity Matrix							
Tabl C-1	1. Program Plan [Baseline at SDR]	A	A	A			
Tabl C-1	1.a. Mission Directorate requirements and constraints [Baseline at SRR]	A		A			
Tabl C-1	1.b. Traceability of program-level requirements on projects to the Agency strategic goals and Mission Directorate requirements and constraints [Baseline at SDR]	A		A			
Tabl C-1	1.c. Documentation of driving ground rules and assumptions on the program [Baseline at SDR]	A		A			
Tabl C-1	2. Interagency and international agreements [Baseline at SDR]	A		A			
Tabl C-1	3. ASM minutes	A		A			
Tabl C-1	4. Risk mitigation plans and resources for significant risks			A			
Tabl C-1	5. Documented Cost and Schedule Baselines [Baseline at PDR]			A			
Tabl C-1	6. Documentation of Basis of Estimate (cost and schedule) [Baseline at PDR]			A			
Tabl C-1	7. JCL and supporting documentation [Baseline at PDR]			A	NT		
Tabl C-1	8. Shared Infrastructure, Staffing, and Scarce Material Requirements and Plans [Baseline at SDR]			A			
Tabl C-1	9. Documentation of Performance against plan/baseline, including status/closure of formal actions from previous KDP			A			
Tabl C-1	10. Plans for work to be accomplished during next Life Cycle Phase			A			
Table C-2 Tightly Coupled Program Plan Control Plan Maturity Matrix							

Para #	Requirement Statement	MDAA	CD	PM	Ones Not Tailor-able	Com- ply?	Rationale for Tailoring, Comments, Decisions, Location of Documentation
Tabl C-2	1. Technical, Schedule, and Cost Control Plan [Baseline at SDR]			A			
Tabl C-2	2. Safety and Mission Assurance Plan per NPDs 8730.5 and 8720.1, NPRs 8715.3, 8705.2, 8705.6 and 8735.2, and NASA Stds 8719.13 and 8739.8 [Baseline at SDR]			A			
Tabl C-2	3. Risk Management Plan per NPR 8000.4 [Baseline at SDR]			A			
Tabl C-2	4. Acquisition Plan [Baseline at SDR]			A			
Tabl C-2	5. Technology Development Plan per NPD 7500.2 and NPR 7500.1 [Baseline at SDR]			A			
Tabl C-2	6. Systems Engineering Management Plan [Baseline at SDR]			A			
Tabl C-2	7. PDLM Plan per NPR 7120.9			A			
Tabl C-2	8. Verification and Validation Plan [Baseline at PDR]			A			
Tabl C-2	9. Information Technology Plan per NPDs 2200.1 and 1440.6 and NPRs 2200.2, 1441.1, 2810.1 and 2830.1 [Baseline at SDR]			A			
Tabl C-2	10. Review Plan (Review Plan should be baselined before the first review.) [Baseline at SRR]			A			
Tabl C-2	11. Missions Operations Plan [Baseline at PDR]			A			
Tabl C-2	12. Environmental Management Plan per 8580.1 [Baseline at PDR]			A			
Tabl C-2	13. Integrated Logistics Support Plan per 7500.1 [Baseline at PDR]			A			
Tabl C-2	14. Science Data Management Plan per NPD 2200.1 and NPRs 2200.2, 1441.1 and 8020.12 [Baseline at PDR]			A			
Tabl C-2	15. Configuration Management Plan [Baseline at PDR]			A			
Tabl C-2	16. Security Plan per NPD 1600.2 and NPRs 1600.1, 2810.1 and 1040.1 [Baseline at PDR]			A			
Tabl C-2	17. Threat Summary [Baseline at PDR]			A	NT		
Tabl C-2	18. Export Control Plan per NPR 2190.1 [Baseline at PDR]			A			

Para #	Requirement Statement	MDAA	CD	PM	Ones Not Tailor-able	Com- ply?	Rationale for Tailoring, Comments, Decisions, Location of Documentation
Tabl C-2	19. Education and Public Outreach Plan [Baseline at PDR]			A			
Tabl C-2	20. Lessons Learned Plan per NPD 7120.4 and NPR 7120.6 [Baseline at SDR]			A			
Table C-3 Project Milestone Products Maturity Matrix							
Tabl C-3	Headquarters and Program Products						
Tabl C-3	1. Project Plan [Baseline at PDR]	A	A	A			
Tabl C-3	1.a. Applicable Agency strategic goals [Baseline at MCR]	A		A			
Tabl C-3	1.b. Documentation of program-level requirements and constraints on the project (from the Program Plan) and stakeholder expectations, including mission objectives/goals and mission success criteria [Baseline at SRR]	A		A			
Tabl C-3	1.c. Documentation of driving mission, technical, and programmatic ground rules and assumptions [Baseline at SDR/MDR]	A		A			
Tabl C-3	2. Partnerships and Inter-agency and international agreements [Baseline U.S. agreements SDR/MPR; International agreements at PDR]	A		A			
Tabl C-3	3. ASM minutes	A		A			
Tabl C-3	4. NEPA compliance documentation per NPR 8580.1	A		A			
Tabl C-3	5. Mishap Preparedness and Contingency Plan per NPR 8621.1 [Baseline at MRR/FRR]	A		A			
Tabl C-3	Project Technical Products						
Tabl C-3	1. Concept Documentation [Baseline at MCR]			A			
Tabl C-3	2. Mission, Spacecraft, Ground, and Payload Architectures [Baseline mission and spacecraft architecture, preliminary ground and payload architectures at SRR]			A			
Tabl C-3	3. Project-Level, System and Subsystem Requirements [Baseline Project-level and system-level requirements at SRR; Baseline subsystem requirements at PDR]			A			
Tabl C-3	4. Preliminary Design Documentation [Baseline at PDR]			A			
Tabl C-3	5. Operations Concept [Baseline at PDR]			A			

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Tabl C-3	6. Technology Readiness Assessment Documentation [Baseline at PDR]			A			
Tabl C-3	7. Engineering Development Assessment Documentation			A			
Tabl C-3	8. Heritage Assessment Documentation			A			
Tabl C-3	9. Safety Data Packages per NPRs 8715.3 and 8735.2 [Baseline at CDR]			A			
Tabl C-3	10. Detailed Design Documentation [Baseline at CDR]			A			
Tabl C-3	11. As-built Hardware and Software Documentation [Baseline at FRR/MDR]			A			
Tabl C-3	12. Verification and Validation Report [Baseline at FRR/MDR]			A			
Tabl C-3	13. Operations Handbook [Baseline at ORR]			A			
Tabl C-3	14. Orbital Debris Assessment per NPR 8715.6 [Baseline final at MRR/FRR]			A			
Tabl C-3	15. End of Mission Plans per NPR 8715.6/NASA-STD 8719.14, App B [Baseline at MRR/FRR]			A			
Tabl C-3	16. Decommissioning/Disposal Plan [Baseline at DR]			A			
Tabl C-3	17. Mission Report			A			
Tabl C-3	Project Management, Planning, and Control Products						
Tabl C-3	1. Formulation Agreement [Baseline for Phase A at MCR; Baseline for Phase B at SDR/MDR]	A	A	A			
Tabl C-3	2. Plans for work to be accomplished during next Implementation life cycle phase [Baseline for Phase C at PDR; Baseline for Phase D at SIR]			A			
Tabl C-3	3. Documentation of performance against Formulation Agreement (see #1 above) OR against plans for work to be accomplished during Implementation life cycle phase (see #2 above) including performance against baselines			A			
Tabl C-3	4. Project Baselines [Baseline at PDR]			A			

Para #	Requirement Statement	MDAA	CD	PM	Ones Not Tailor-able	Com- ply?	Rationale for Tailoring, Comments, Decisions, Location of Documentation
Tabl C-3	4.a. Top technical, cost, schedule and safety risks, risk mitigation plans and associated resources			A			
Tabl C-3	4.b. Staffing requirements and plans			A			
Tabl C-3	4.c. Infrastructure requirements and plans, business case analysis for infrastructure Alternative Future Use Questionnaire (Form NF 1739), per NPR 9250.1 [Baseline for NF 1739 Section A at SDR/MDR; Baseline for NF 1739 Section B at PDR]			A			
Tabl C-3	4.d. Schedule			A			
Tabl C-3	4.e. Cost Estimate (Risk-Informed or Schedule-Adjusted Depending on Phase)			A			
Tabl C-3	4.f. Basis of Estimate (cost and schedule)			A			
Tabl C-3	4.g. Confidence Level(s) and supporting documentation			A	NT		
Tabl C-3	4.h. External Cost and Schedule Commitments [Baseline at PDR]	A		A			
Tabl C-3	4.i. CADRe [Baseline at PDR]			A	NT		
Table C-4 Project Control Plan Maturity Matrix							
Tabl C-4	1. Acquisition Plan [Baseline at SRR]			A			
Tabl C-4	2. Technical, Schedule, and Cost Control Plan [Baseline at SDR/MDR]			A			
Tabl C-4	3. Safety and Mission Assurance Plan per NPDs 8730.5 and 8720.1, NPRs 8715.3, 8705.2, 8705.6 and 8735.2, and NASA Stds 8719.13 and 8739.8 [Baseline at SRR]			A			
Tabl C-4	4. Risk Management Plan per NPR 8000.4 [Baseline at SRR]			A			
Tabl C-4	5. Technology Development Plan per NPD 7500.2 and NPR 7500.1 [Baseline at MCR]			A			
Tabl C-4	6. Systems Engineering Management Plan [Baseline at SDR]			A			
Tabl C-4	7. Information Technology Plan per NPDs 2200.1 and 1440.6 and NPRs 2200.2, 1441.1, 2800.1, 2810.1 and 2830.1 [Baseline at SDR/MDR]			A			

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Tabl C-4	8. Software Management Plan per NPR 7150.8 and NASA Std 8739.8 [Baseline at SDR/MDR]			A			
Tabl C-4	9. Verification and Validation Plan [Baseline at PDR]			A			
Tabl C-4	10. Review Plan [Baseline at SRR]			A			
Tabl C-4	11. Mission Operations Plan [Baseline at PDR]			A			
Tabl C-4	12. Environmental Management Plan per NPR 8580.1 [Baseline at SDR/MRR]			A			
Tabl C-4	13. Integrated Logistics Support Plan per NPR 7500.1 [Baseline at PDR]			A			
Tabl C-4	14. Science Data Management Plan per NPD 200.2 and NPRs 2200.1 and 1441.1 [Baseline at SIR]			A			
Tabl C-4	15. Integration Plan [Baseline at PDR]			A			
Tabl C-4	16. Configuration Management [Baseline at SRR]			A			
Tabl C-4	17. Security Plan per NPD 1600.2 and NPRs 1600.1 and 1040.1 [Baseline at PDR]			A			
Tabl C-4	18. Project Protection Plan [Baseline at PDR]			A			
Tabl C-4	19. Export Control Plan per NPR 2190.1 [Baseline at PDR]			A			
Tabl C-4	20. Lessons Learned Plan per NPD 7120.4 and NPR 7120.6 [Baseline at PDR]			A			
Tabl C-4	21. Human Certification Rating Package per NPR 8705.2 [Baseline at SDR/MDR]			A			
Tabl C-4	22. Planetary Protection Plan per NPD 8020.7 and NPR 8020.12 [Baseline at PDR]			A			
Tabl C-4	23. Nuclear Safety Launch Approval Plan per NPR 8715.3 [Baseline at SDR/MDR]			A			
Tabl C-4	24. Range Safety Risk Management Plan per NPR 8715.5 [Baseline at SIR]			A			
2.2.7	Programs at the discretion of the MDAA and projects in phases C and D (and project modifications, enhancements, or upgrades during Phase E) with a life cycle cost estimated to be greater than \$20 million shall perform earned value management	A		A	NT		

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	(EVM) with an EVM system that complies with the guidelines in ANSI/EIA-748, Standard for Earned Value Management Systems.						
2.2.10	Each program and project shall develop an NPR 7120.5E Compliance Matrix in accordance with the template that demonstrates how the program or project is complying with the requirements of this document. Each program and project shall complete a Compliance Matrix for this NID to NPR 7120.5D and attach it to the Program or Project Plan.			A	NT		
2.3.1	Each program and project shall have a Decision Authority who is the Agency's responsible individual who determines whether and how the program or project proceeds through the life cycle and the key program or project cost, schedule, and content parameters that govern the remaining life cycle activities.	A			NT		
2.3.2	Each program and project shall have a governing PMC.	A			NT		
2.3.3	The Center Director (or designee) shall oversee programs and projects usually through the Center Management Council (CMC), which monitors and evaluates all program and project work (regardless of category) executed at that Center.		A		NT		
2.3.4	Following each LCR, the independent SRB and the program or project shall brief the applicable management councils on the results of the LCR to support the councils' assessments.	A	A	A	NT		
2.4.1	After reviewing the supporting material and completing discussions with all parties, the Decision Authority determines whether and how the program or project proceeds into the next phase and approves any additional actions. These decisions shall be summarized and recorded in the Decision Memorandum signed at the conclusion of the governing PMC and, once signed, appended to the Program Plan (if a program), the Project Plan, or the project Formulation Agreement as appropriate.	A			NT		
2.4.1.1	The Decision Memorandum shall describe the constraints and parameters within which the Agency, the program manager, and the project manager will operate; the extent to which changes in plans may be made without additional approval; and any additional actions that came out of the KDP.	A		A	NT		
2.4.1.3	During Formulation, the Decision Memorandum shall establish a target life cycle cost range (and schedule range, if applicable) as well as a Management Agreement addressing the schedule and resources required to complete Formulation.	A		A	NT		
2.4.1.5	All projects shall document the Agency's life cycle cost estimate and other parameters in the Decision Memorandum for the Implementation (KDP C), and this becomes the Agency Baseline Commitment (ABC).	A		A	NT		
2.4.1.5.1	Tightly coupled programs also shall document their life cycle cost estimate in their Decision Memorandum and ABC at KDP I.	A		A	NT		
2.4.1.6	Programs or projects shall be rebaselined when: (1) the estimated development cost exceeds the Agency Baseline Commitment development cost by 30 percent or more and Congress has reauthorized the project; or (2) events external to the Agency make a	A		A	NT		

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	rebaseline appropriate; or (3) the NASA Associate Administrator judges that the program or project scope defined in the Agency Baseline Commitment has been changed or the tightly coupled program or project has been interrupted. ABCs for projects are not rebaselined to reflect cost or schedule growth that does not meet one or more of these requirements.						
2.4.2	All programs and projects develop cost estimates and planned schedules for the work to be performed in the current and following life cycle phases (see Appendix C tables). As part of developing these estimates, the program or project shall document the basis of estimate.			A	NT		
2.4.3	Tightly coupled programs, single-project programs, and projects with an estimated life cycle cost greater than \$250 million shall develop probabilistic analyses of cost and/or schedule estimates to obtain a quantitative measure of the likelihood that the estimate will be met in accordance with the following requirements.			A	NT		
2.4.3.1	Tightly coupled programs, single-project programs, and projects with an estimated life cycle cost over \$250 million shall provide a range of cost and a range for schedule at KDP 0/KDP B with a confidence level established by a probabilistic analysis and based on identified resources by fiscal year.			A	NT		
2.4.3.2	At KDP 1/KDP C, tightly coupled programs, single-project programs, and projects with an estimated life cycle cost greater than \$250 million shall generate a cost-loaded schedule and a probability calculation that meet cost, schedule, and a JCL.			A	NT		
2.4.4	Mission Directorates shall plan and budget tightly coupled programs, single-project programs, and projects with an estimated life cycle cost greater than \$250 million based on a 70 percent joint cost and schedule confidence level or as approved by the Decision Authority.	A			NT		
2.4.4.1	Mission Directorates shall ensure funding for tightly coupled programs, single-project programs, and projects with an estimated life cycle cost greater than \$250 million are consistent with the Management Agreement and in no case less than the equivalent of a 50 percent joint confidence level.	A			NT		
2.4.5	Loosely coupled and uncoupled programs are not required to develop program cost and schedule confidence levels. These programs shall provide analysis that provides a status of the program's risk posture that is presented as each new project reaches KDP B and C or when a project's ABC is rebaselined.			A	NT		
3.3.1	Programs and projects shall follow the Technical Authority process established in Section 3.3 of this NID to NPR 7120.5.	A	A	A	NT		
3.4.1	Programs and projects shall follow the dissenting opinion process in NPD 1000.0, paragraph 3.4.2.2.3.	A	A	A	NT		
3.5.1	The evaluation and disposition of requests for tailoring prescribed requirements (including Agency-level requirements and standards) shall comply with the following (refer to the NASA Program and Project Management Handbook for additional	A	A	A	NT		

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	<p>information regarding the tailoring process):</p> <p>a. The organization at the level that established the requirement approves the request for tailoring of that requirement unless this authority has been formally delegated elsewhere. The organization approving the tailoring disposition consults with the other organizations that were involved in the establishment of the specific requirement and obtains the concurrence of those organizations having a substantive interest.</p> <p>b. The involved management at the next higher level is informed in a timely manner of the request for tailoring of a prescribed requirement.</p>						
3.5.2	A request for a permanent change to a prescribed requirement in an Agency or Center document that is applicable to all programs and projects shall be submitted as a “change request” to the office responsible for the document unless formally delegated elsewhere.	A	A	A	NT		
3.5.3	A Center negotiating Reimbursable Space Flight Work for another agency shall propose NPR 7120.5 as the basis by which it will perform the space flight work.		A	A	NT		
3.5.4	Each project shall perform and document an assessment to determine an approach that maximizes the use of the International System of Units (SI) (or metric system of measurement).			A	NT		