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NASA Policy Directive

NPD 8610.24CEffective Date: May 12, 2005
Expiration Date: May 12, 2025**COMPLIANCE IS MANDATORY FOR NASA EMPLOYEES**[Printable Format \(PDF\)](#)

Subject: Launch Services Program Pre-Launch Readiness Reviews-Revalidated December 17, 2020

Responsible Office: Space Operations MD

Change History

NPD 8610.24C, Launch Services Program Pre-Launch Readiness Reviews

Chg#	Date	Description/Comments
1	07/09/2013	Update by changing references for old office designation Space Operations Mission Directorate (SOMD) to Human Exploration and Operations Mission Directorate (HEOMD) and references to Assistant Associate Administrator (AAA) for Launch Services to Director for the Launch Services Office (LSO).
2	08/17/2015	Update with 1400 compliance, update Applicability and Authority, organization titles, clarification of responsibilities, and update Attachment A: References.

1. POLICY

a. It is NASA's policy to be accountable for program mission success, which includes launch success. In order to meet these responsibilities for launch success when NASA missions utilize commercial launch services, NASA management assesses and certifies the flight readiness of the launch vehicle, readiness of payload support hardware/software, and readiness of the launch site infrastructure prior to launch through a structured prelaunch review process. NASA seeks to encourage broad participation in the prelaunch review process to maximize mission success. This directive standardizes the Launch Services Program (LSP) prelaunch review process for all NASA acquired/managed launch services missions deemed necessary to fulfill Human Exploration and Operations Mission Directorate (HEOMD) responsibilities for assuring launch system flight readiness certification for NASA payloads/missions and fulfills the requirements of NPR 7120.5D for the launch phase of the mission.

b. The following LSP prelaunch reviews will be conducted for each NASA-owned or NASA-sponsored mission for which NASA has acquired and/or manages the launch services:

(1) Launch Vehicle Readiness Review (LVRR): The LVRR is held approximately 30 to 60 days prior to launch, depending on the requirements of the launch flow, to certify the readiness to proceed with spacecraft/launch vehicle integration activities and is typically held prior to the spacecraft readiness review, which is called the Mission Readiness Review (MRR) or the spacecraft Flight Readiness Review (SC-FRR). The LVRR is chaired by the LSP Manager who reviews any launch vehicle anomalies/issues associated with the mission identified.

(2) Flight Readiness Review (FRR): The FRR is held at the launch site between 3 to 12 days prior to launch, depending on the requirements of the launch flow, to update the mission status, close out actions from the previously held LVRR and customer MRR (or the SC-FRR), and certify the readiness to proceed with initiation of the final launch preparation activities. The FRR is chaired by the NASA Launch Manager (NLM) and is held approximately 3 days before launch at the launch site.

(3) Launch Readiness Review (LRR): The LRR is held at the launch site no later than 1 day prior to launch, to update the mission status, close out actions from the previously held FRR, and authorize approval to proceed into launch countdown. The Certificate of Flight Readiness (CoFR) is signed at the conclusion of LRR

(4) Final Commit-to-Launch Poll: The Final Commit-to-Launch Poll is conducted approximately 5-minutes before launch to confirm NASA readiness to launch. This poll is conducted by the NLM approximately 5-minutes before launch. A "Go" statement is required from all parties polled to enter into the terminal count. Mandatory launch constraints cannot be waived after start of the terminal launch countdown.

c. The LSP and spacecraft project offices may conduct other reviews as appropriate and necessary in preparation for launch. These may include, but are not limited to, Mission Requirements Reviews, Critical Design Reviews, Design Certification Reviews, Preship Reviews, Ground Operations Reviews, Project Manager's Reviews, and other appropriate safety reviews.

d. The mission spacecraft will typically undergo a parallel prelaunch review process that includes the spacecraft and ground system elements as well as status of the launch service. The Spacecraft MRR (or SC-FRR) is typically held after the LVRR.

2. APPLICABILITY

a. This language applies to Jet Propulsion Laboratory, a Federally Funded Research and Development Center, other contractors, recipients of grants, and cooperative agreements only to the extent specified or referenced in the applicable contracts, grants, or cooperative agreements.

b. In this directive, all mandatory actions (i.e., requirements) are denoted by statements containing the term "shall." The terms: "may" or "can" denote discretionary privilege or permission, "should" denotes a good practice and is recommended, but not required, "will" denotes expected outcome, and "are/is" denotes descriptive material.

3. AUTHORITY

The National Aeronautics and Space Act of 1958, 51 U.S.C. § 20113(a), as amended.

4. APPLICABLE DOCUMENTS

a. NPR 7120.5 "NASA Space Flight Program and Project Management Requirements."

b. NPR 8621.1, "NASA Procedural Requirements for Mishap and Close Call Reporting, Investigating, and Recordkeeping."

5. RESPONSIBILITY

a. The Associate Administrator for HEOMD is responsible for certification of launch vehicle flight readiness for NASA missions, and delegates this authority to the HEOMD Director for Launch Services. The HEOMD Director for Launch Services, in turn, delegates the authority for signing the CoFR to the LSP Manager. The HEOMD Director for Launch Services shall:

(1) Represent HEOMD at all pre-launch reviews.

(2) Chair the LRR, or officially delegate the chair to the LSP Manager.

b. The LSP Manager, reporting to the HEOMD Director for Launch Services, shall:

(1) Chair the LVRR and review any launch vehicle anomalies/issues associated with the mission identified.

(2) Coordinate participation at the LVRR of the spacecraft customer, LSP members, LSP Independent Technical Authorities (ITAs) (i.e. Safety and Mission Assurance and Engineering), launch service contractor representatives, and other organizations within NASA, as appropriate.

(3) Sign the CoFR for each NASA LSP managed launch service at the conclusion of LRR.

c. The NASA Spacecraft Mission Director shall:

(1) Coordinate participation of spacecraft, payload instruments, and ground operations at the MRR (SC-FRR).

(2) Providing the spacecraft "Go/No-Go" to the NLM for the Final Commit-to-Launch Poll.

d. The LSP NASA Launch Manager (NLM) shall:

(1) Chair the FRR.

(2) Coordinate participation of the spacecraft customer, LSP, LSP ITAs, launch service contractor representatives, range safety, weather, tracking and data, public affairs representatives, and other organizations within NASA, as appropriate, at the FRR and the LRR.

(3) Assure appropriate representatives sign the CoFR at the conclusion of the LRR. In addition to the LSP Manager, signatories to the CoFR shall include the NASA Spacecraft Mission Director, the NLM, the launch services contractor representative, the LSP ITAs, and a range official.

(4) At NLM discretion, establish a NASA launch crew position or team as an advisory function to provide an independent assessment of the launch countdown process.

(5) Develop and coordinate a pre-mishap plan previously called a Contingency Action Plan (CAP) prior to the LRR, which addresses the immediate launch-site reaction plan associated with a launch vehicle anomaly and requisite data impoundment process. The plan is coordinated with the NASA Spacecraft Mission Director in accordance with NPR 8621.1.

(6) Conduct the Final Commit-to-Launch Poll. The NLM provides the final launch "Go" commitment to the launch services contractor Launch Director or appropriate launch crew member. This final poll will include receiving a "Go" or "Ready" statement from the NASA Spacecraft Mission Director, the LSP ITAs, and other NASA organizations involved in the countdown as determined by the NLM, prior to entering into the terminal count.

6. DELEGATION OF AUTHORITY

None.

7. MEASUREMENT/VERIFICATION

a. A record of all LSP prelaunch reviews, action items disposition, and the original COFR will be maintained by the LSP.

b. The LSP will document lessons learned and corrective actions taken on the launch process after each mission.

8. CANCELLATION

NPD 8610.24B, Launch Vehicle Program Pre-Launch Readiness Reviews, dated May 12, 2005.

REVALIDATED 8/17/15 w/Change 2, ORIGINAL SIGNED BY:

/s/ Frederick D. Gregory
Acting Administrator

ATTACHMENT A: (TEXT)

REFERENCES:

A.1 51 U.S.C. Section 50101, National and Commercial Space Programs as amended.

A.2 51 U.S.C. Section 50131, National and Commercial Space Programs, as amended.

A.3 51 U.S.C. Section 50132, National and Commercial Space Programs, as amended.

A.4 NPD 8610.23, "Technical Oversight of Expendable Launch Vehicle (ELV) Launch Services."

A.5 NPD 8610.7, "Launch Services Risk Mitigation Policy for NASA-Owned, NASA-Sponsored Payloads."

(URL for Graphic)

None.

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