

## NEPA RECORD OF ENVIRONMENTAL CONSIDERATION (REC)

*Complete this form if you answered "yes" or "unknown" on any JF 1138 entries and if requested to do so by the Environmental Office's NEPA Manager or Designee.*

### PART I: Description of Proposed Action

*To be completed by Initiator or Design / Construction Manager **prior** to approval of funding.*

<b>Project/Program Name: NASA Multi-Purpose Crew Vehicle Exploration Flight Test 1</b>		
<b>Project Number: GF-01-12</b>	<b>Project Start Date:</b>	<b>2014</b>
<b>Project FY: 2014</b>	<b>Completion Date:</b>	<b>2014</b>
<b>Location/Building No: Pad 37, Cape Canaveral AFS</b>	<b>Duration:</b>	<b>TBD</b>
	<b>Estimated Cost:</b>	<b>TBD</b>
<b>Initiator (civil service or contractor) Name: Joseph Voor/GF111</b>	<b>Phone No:</b>	<b>(281) 483-6806</b>
	<b>Email:</b>	<b>joseph.b.voor@nasa.gov</b>
<b>NASA-JSC Project/Program Manager Name: Don Reed/GF111</b>	<b>Phone No:</b>	<b>(281) 483-4454</b>
	<b>Email:</b>	<b>donald.e.reed@nasa.gov</b>
<b>NASA-JSC NEPA Manager Name: David Hickens</b>	<b>Phone No:</b>	<b>(281) 483-3120</b>
	<b>Email:</b>	<b><a href="mailto:David.hickens-1@nasa.gov">David.hickens-1@nasa.gov</a></b>

1. Describe the proposed project or program (proposed action):

**This JF1119 amends and updates the original JF1119 created for this project on 10 Dec. 2012. The amendment was needed to incorporate U.S. Navy information not available when the original document was completed.**

**NASA's prime contractor for the Multi-Purpose Crew Vehicle (MPCV) contract, Lockheed Martin (LM) Space Systems, has contracted with United Launch Alliance (ULA) to launch a single un-crewed MPCV test vehicle for Exploration Flight Test 1 (EFT-1). EFT-1 will be launched from Launch Complex 37 at Cape Canaveral Air Force Station (CCAFS) on a Delta IV Heavy Launch vehicle. The test vehicle will consist of a Service Module (SM), Crew Module (CM) and Launch Abort System (LAS). The test flight will perform two orbits of the earth and land near the coast of Baja California, Mexico. The CM will be recovered and transported to the San Diego Naval Base by a US Navy Ship. Once at the Naval Base in San Diego, the NASA Ground Systems Development and Operations (GSDO) program will be responsible for configuring the CM for transport and transporting it back to Kennedy Space Center (KSC), Florida, where LM will de-service and refurbish it. Residual fuel and ammonia will remain in the CM and will be handled appropriately during recovery operations and preparation for transport. Based on historical information, the landing, recovery and transportation can be managed with no environmental impact. The Delta IV, SM and LAS will not be recovered. Other impacts from the ground processing and launch of this vehicle were addressed in the Constellation Environmental Impact Statement (EIS) with modified Record of Decision (RoD) and the Evolved Expendable Launch Vehicle (EELV) EIS. This proposed action is**

**a continuation of existing actions that were previously determined to have no significant impacts.**

2. Describe the purpose and need for the proposed action and any alternatives that were considered (i.e., the no-action alternative):

**In recognition of the strategic importance of an effective national commercial space industry, the U.S. Congress passed the Commercial Space Act (Public Law 98-575) in 1984. This law promotes the investment in and development of private commercial space launch capabilities. The Commercial Space Act allows U.S. firms to obtain licenses from the U.S. Department of Transportation to launch commercial expendable vehicles and payloads from government facilities. The purpose of EFT-1 is to demonstrate a successful test flight prior to future manned launch flights. The goal of the mission is to demonstrate an unmanned low earth orbit system test flight of the MPCV.**

**The no action alternative would consist of not launching EFT-1, since Delta IV is the only launch booster with the minimum lift capability needed to launch the MPCV. Not launching this mandatory test flight would severely impact the future of the manned spaceflight program by delaying it until the Space Launch System (SLS) currently under development is designed, built and tested. The proposed date for the initial test flight for SLS is currently 2017 and data gained from EFT-1 would not be available until sometime after that date. EFT-1 data is critical for completing the final design as well as to obtaining final human rating of the MPCV through NASA.**

**This REC is based on NASA's consideration of environmental impacts of this project based on the factors for payloads being launched at facilities addressed in the Final Environmental Impact Statement (FEIS) for the Evolved Expendable Launch Vehicle (EELV) dated 2000, in which NASA was a cooperating agency, and the Final Constellation Programmatic Environmental Impact Statement dated 2008 (CPEIS), and the Modified Record of Decision for NASA's Post Shuttle Human Space Flight Program.**

3. Attach a location map and a sketch/drawing for the proposed action, as applicable.

*When completed, submit this form by email to [JSC-Environmental-Office@mail.nasa.gov](mailto:JSC-Environmental-Office@mail.nasa.gov) for processing*

*If you need assistance completing this form, contact the Environmental Info Line at (281) 483-6207.*

## **PART II: Determination of NEPA Applicability**

*To be completed by the Environmental Office's NEPA Manager or designee*

1. The proposed action meets one or more of the following criteria for a Categorical Exclusion (CE) as defined by NASA regulations (14 CFR 305) (*Check the appropriate category, if any.*)
  - Research and development activities in
    - (a) Space science, other than specific spacecraft development and flight projects
    - (b) Space and terrestrial applications, other than specific spacecraft development and flight projects
    - (c) Aeronautics and space technology and energy technology applications, other than experimental projects that have the potential for substantial environmental impacts
    - (d) Space transportation systems engineering and scientific and technical support operations, routine transportation operations, advanced studies
    - (e) Enhanced space tracking and data systems
  - Facility planning and design (funding)
  - Minor construction of new facilities, including rehabilitation, modification, and repair
  - Continuing operations of a NASA installation at a level-of-effort, or altered operations, provided the alterations induce only social and/or economic effects but no, or minimal, natural or physical environmental effects
  - Internal modifications or equipment additions (e.g., computer facilities and relocating interior walls) to small structures or buildings
  - Ordinary maintenance or replacement of equipment or small structures (e.g., utility pole structures, microwave facilities, and valves)
  - Testing work (e.g., test borings or coring and water test wells)
  - Storage of non-hazardous materials (i.e., those that are not ammunition, explosives, pyrotechnics, radioactive, or other hazardous or toxic materials)
  - Routine repair and maintenance of buildings, roads, airfields, grounds, and equipment that do not increase or alter existing functions
2. The proposed action is covered under an existing Environmental Assessment (EA) or Environmental Impact Statement (EIS)? If so, complete the following:

Name and Date of EA or EIS:

**FEIS for the Evolved Expendable Launch Vehicle (EELV), 2000**

**<http://www.fas.org/spp/military/program/launch/eelv-eis2000/index.html>**

**Final Constellation Programmatic EIS, 2008**

**[http://www.nasa.gov/sites/default/files/207909main\\_Cx\\_PEIS\\_final.pdf](http://www.nasa.gov/sites/default/files/207909main_Cx_PEIS_final.pdf)**

**Modified RoD for NASA's Post-Shuttle Human Space Flight Program, 2011**

**[http://www.nasa.gov/sites/default/files/files/576209main\\_CxP%20ROD%20wSignatures%207-29-11.pdf#UjIlkXfld8E](http://www.nasa.gov/sites/default/files/files/576209main_CxP%20ROD%20wSignatures%207-29-11.pdf#UjIlkXfld8E)**

**NEPA Coverage for Orion MPCV and SLS**

**[http://www.nasa.gov/directorates/heo/library/nepa/orion\\_sls.html#UjIgFHfld8H](http://www.nasa.gov/directorates/heo/library/nepa/orion_sls.html#UjIgFHfld8H)**

3. Describe any unique or extraordinary circumstances that have been considered during this evaluation of NEPA applicability.

*Evaluate whether the proposed action may be controversial or may require coordination with other federal, state, or local agencies (e.g.: the action may require filing of a preconstruction notice or obtaining a permit)*

N/A

- 4 Describe any mitigation measures that are required to be incorporated into this project.

*Implementation of mitigation measures must be documented  
(e.g., implement best management practices for sedimentation and erosion control)*

N/A

### **PART III: Review and Approval**

*To be completed by the NASA Project Manager and Environmental Office's NEPA Manager  
(Approval may not be delegated to contractor employees)*

Based on the information above, the proposed action (*check A or B*)

**A. will not require a NEPA document because the proposed action is:**

1. adequately covered in an existing EA, or EIS, or is adequately covered within the facility's current Environmental Resources Document

OR:

2. qualifies for a Categorical Exclusion ***and*** has no significant human or environmental impact, based on a review of unique and extraordinary circumstances as documented above.

**B. will require a NEPA document**

1. will require and Environmental Assessment (i.e., there is a high likelihood of a Finding of No Significant Impact)

OR:

2. will require an Environmental Impact Statement (i.e., the project is likely to be controversial or it is unlikely that the action will result in a finding of No Significant Impact).

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#### **Jointly Approved By:**

Name: **Don Reed** Concur:  Yes  No  
(NASA-JSC Program/Project Manager)

Name: **David Hickens** Concur:  Yes  No  
(NASA-JSC Environmental Office)

*When approved, submit this form by email to [JSC-Environmental-Office@mail.nasa.gov](mailto:JSC-Environmental-Office@mail.nasa.gov) for distribution to the stakeholders list in Part I of the form.*