

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

AGENCY: National Aeronautics and Space Administration (NASA)

ACTION: Finding of No Significant Impact (FONSI)

SUMMARY: Pursuant to the National Environmental Policy Act of 1969 (NEPA), as amended, the Council on Environmental Quality's Regulations for Implementing the Procedural Provisions of NEPA, and NASA's NEPA policy and procedures, NASA has made a Finding of No Significant Impact (FONSI) for the Dragonfly mission, which would use radioisotope power systems (RPS). NASA is the lead federal agency for this action, with the U.S. Department of Energy and the U.S. Space Force serving as cooperating agencies. NASA has prepared a Final Environmental Assessment (EA) for the Dragonfly mission. The purpose of this notice is to inform NASA decision makers, regulating agencies, and the public about the decision made for the EA.

DATE: Effective upon signature.

ADDRESSES: The Final EA, which serves as the basis for this FONSI, may be viewed at <https://www.nasa.gov/content/public-reviews>. Hard copies of the Final EA are also available for review at the following locations:

1. Central Brevard Library and Reference Center, 308 Forrest Ave., Cocoa, Florida
2. Cocoa Beach Public Library, 550 N Brevard Ave., Cocoa Beach, Florida
3. Melbourne Library, 540 E Fee Ave., Melbourne, Florida
4. Merritt Island Public Library, 1195 N Courtenay Pkwy., Merritt Island, Florida
5. Port St John Public Library, 6500 Carole Ave., Cocoa, Florida
6. Titusville Public Library, 2121 S Hopkins Ave., Titusville, Florida
7. Satellite Beach Public Library, 751 Jamaica Blvd., Satellite Beach, Florida

FOR FURTHER INFORMATION, CONTACT: NASA Environmental Management Division, Tina Norwood, NASA NEPA Manager, Suite 5B11, 300 E Street SW, Washington, DC 20546 or send email to tina.norwood@nasa.gov.

SUPPLEMENTARY INFORMATION:

Public and Agency Involvement

NASA solicited public and agency review and comment during a 30-day public comment period on the Draft EA through the following methods:

1. Publishing Notices of Availability of the Draft EA in two local newspapers, including the *Florida Today* and *Orlando Sentinel*.
2. Making the Draft EA available for review at seven public libraries.
3. Publishing the Draft EA on the NASA NEPA Public Reviews webpage at <https://www.nasa.gov/content/public-reviews>.
4. Coordinating with federal agencies, including the U.S. Fish and Wildlife Service (USFWS), Florida State Historic Preservation Office (SHPO), and Florida Clearinghouse.
5. Having hard copies of the Draft EA and Final EA available upon request by emailing hq-draftdragonflyeacmts@mail.nasa.gov.

The comments and responses to comments on the Draft EA are provided in Appendix 1.5B of the Final EA.

Purpose and Need

NASA needs to fulfill the congressional mandate to carry out the New Frontiers Program objective. The Dragonfly mission would satisfy this mandate by exploring Titan in partnership with the Johns Hopkins University Applied Physics Laboratory (APL). Additionally, Titan has been identified as a high priority for the planetary science community because it is an ocean world and the only moon in our solar system with a dense atmosphere. Titan is potentially the most Earth-like world in our solar system, which makes it an ideal location for studying prebiotic chemistry and habitability as well as search for potential biosignatures for extraterrestrial life.

Proposed Action

The Dragonfly spacecraft would explore the surface of Saturn's largest moon, Titan. The spacecraft would launch from either the U.S. Space Force's Cape Canaveral Space Force Station or NASA's Kennedy Space Center, Brevard County, Florida, no earlier than 2027. The Dragonfly spacecraft's electrical power and heat, both during interplanetary transit and while operating on Titan, would be provided by a radioisotope power system/multi-mission radioisotope thermoelectric generator, possibly supplemented by heat producing radioisotope heater units.

Alternatives

In addition to the Proposed Action, NASA considered the implementation of a No Action Alternative. However, the No Action Alternative does not satisfy the purpose and need of the Proposed Action, as it would discontinue preparations for the Dragonfly mission and the spacecraft would not be launched. This scenario would require NASA to satisfy the objective of the congressionally mandated New Frontiers Program in another way. Therefore, NASA did not select this alternative.

Environmental Impacts

The EA evaluated the potential environmental effects associated with nuclear radiation, land use, water resources, biological resources, hazardous materials, and cultural resources. The EA's analysis supports a conclusion that the Proposed Action would not result in, or contribute to, significant impacts on any of these resources. NASA has reviewed the Final EA and has concluded that the Final EA represents an accurate and adequate analysis of the scope and level of associated environmental impacts. NASA hereby incorporates the Final EA by reference in this FONSI. Based on the Final EA, NASA has determined that the environmental impacts associated with the Proposed Action would not individually or cumulatively have an impact on the quality of the natural or human environment. Therefore, no Environmental Impact Statement is required.

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NASA Science Mission Directorate