



THE STATE
of **ALASKA**
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Steve Berendzen, Refuge Manager
Yukon Flats National Wildlife Refuge
US Fish and Wildlife Service
101 12th Avenue, Room 264
Fairbanks, AK 99701

Dear Mr. Berendzen:

The State of Alaska reviewed the draft compatibility determination (CD) for Rocket and Payload Impact and Recovery within the Yukon Flats National Wildlife Refuge. The proposed CD evaluates the impacts of the Poker Flat Research Range (PFRR) sounding rockets recovery and removal project on refuge lands and identifies stipulations under which the use may be conducted to ensure its compatibility with refuge purposes. The following comments represent the consolidated views of the State's resource agencies.

The National Aeronautics and Space Administration (NASA), in cooperation with the University of Alaska, Fairbanks (UAF) Geophysical Institute, have been launching sounding rockets from PFRR since 1969. As noted in the CD, in 2013, NASA finalized an Environmental Impact Statement (EIS) to evaluate the continuation of this activity. To briefly summarize the scientific importance of the rocket program at PFRR, the EIS noted the following in its purpose and need for the proposed action.

NASA's purpose for action is to ensure the continued safe and cost-effective sounding rocket-based scientific investigations at PFRR in Alaska. Sounding rockets launched from PFRR support the advancement of scientific knowledge of the Sun-Earth connection, the upper atmosphere, and global climate change.

The proposed action is needed to ensure that NASA and the global science community have a launch capability based in the United States (U.S.) to conduct experiments to aid in the understanding of the phenomena affecting the past, present, and future of the Earth and the Sun-Earth connection. Sounding rockets permit the only means to study the lower atmosphere (40-80 kilometers [25-50 miles]) and the middle ionosphere (80-150 kilometers [50-93 miles]) with direct measurements, and the only means to explore the upper ionosphere (150-1,500 kilometers [93-930 miles]) with vertical trajectories on relatively slowly moving platforms. These are essential regions of the Earth's environment and must be measured to understand how the Earth and space interact.

The northern location of PFRR is strategic for launching NASA sounding rockets for scientific research in auroral space physics and Earth science. PFRR is the only high-latitude, auroral-zone rocket launching facility in the U.S. where a sounding rocket can readily study the aurora borealis and the Sun-Earth connection. (Page 1-13 – 1-14)

In discussing the selected alternative (Alternative 1), the final EIS also states:

Under Alternative 1, NASA and UAF would employ enhanced efforts to locate new and existing spent stages and payloads within the PFRR flight corridor. Attempts would be made to recover all newly expended stages and payloads predicted to land on Federal, state, or private lands. Spent stages and payloads that are located would be recovered if it is determined that the recovery operation can be performed safely while causing minimal environmental damage. As such, some items or parts thereof could be left in the field if the landowners agree that attempted recovery could cause more damage to the environment than leaving it in place. A key component of this alternative is the development of a formal rocket hardware Recovery Plan.

For past sounding rocket program operations at PFRR, most spent rocket stages and payloads have not been recovered. Consistent with the philosophy that would be employed for new rocket motors and payloads, hardware that is located from past operations would be recovered if it could be done safely and in an environmentally responsible manner. (Page 2-56)

We concur with the Service's draft determination that this long-established use would continue to have minor impacts on refuge resources and that the use would not materially interfere with or detract from the Refuge's purposes or the Refuge System mission, especially given the direct benefits of the research.

The CD's stipulations include a requirement to provide the Refuge Manager with an Annual Launch Plan prior to beginning activities. The proposed CD for the same project affecting the Arctic National Wildlife Refuge similarly requires an Annual Launch Plan with slightly different requirements and 30-day prior notice. To simplify the process for PFRR, we recommend applying consistent stipulations, wherever possible.

Thank you for this opportunity to comment. Please contact me at (907) 269-7529 if you have any questions.

Sincerely,



Susan Magee
ANILCA Program Coordinator