

**ENVIRONMENTAL ASSESSMENT (EA)
for the
Coqui II Sounding Rocket Campaign**

DATE: February 1998

PROJECT TITLE: Coqui II Sounding Rocket Campaign

PURPOSE AND NEED FOR THE ACTION:

The National Aeronautics and Space Administration (NASA) proposes to further the science of the 1992 El Coqui study into solar-terrestrial research by conducting another sounding rocket campaign, Coqui II from the site established for the original El Coqui campaign. Solar-terrestrial research studies the influence of changes in the Sun on (1) the solar wind; (2) the Earth's magnetosphere, ionosphere, and atmosphere; and (3) on weather and climate. This research has long been a major element of NASA's Goddard Space Flight Center sounding rocket program of space science. Understanding the solar-terrestrial connection is critical to understanding both natural and human-induced changes in the Earth's atmosphere and oceans which, in turn, alter weather and climate and otherwise affect the environment in which we live. NASA proposes to launch from the Commonwealth of Puerto Rico for continuation of this research due to its location at an ideal latitude for scientific measurements, as well as the unique opportunity to coordinate these launches with operations of the Arecibo Ionospheric Radar and Heater Facilities located to the west of the launch site. This permits complimentary data gathering, enhancing the scientific results.

DESCRIPTION OF THE PROPOSED ACTION:

The Coqui II campaign involves the launch of eleven sounding rockets from the north coast of the Commonwealth of Puerto Rico at Tortuguero Park (former Vega Baja Airdome). The sounding rockets for Coqui II will be solid fueled, unguided rockets that are of the type used for scientific research.

Temporary launch support facilities will be re-established at the Tortuguero site used for El Coqui. Modifications to the existing site, as is, include brush clearing of the previously cleared areas, construction of one concrete foundation (20 feet X 66 feet), and installation of commercial power.

ESTIMATED DURATION OF THE PROPOSED ACTION:

Launch activities will occur during the period of February 1998 through April 1998.

DETERMINATION OF ENVIRONMENTAL DOCUMENTATION:

Campaign information presented in the *Technical Information Document for the 1998 Coqui II Sounding Rocket Campaign, the Commonwealth of Puerto Rico* (hereinafter the "TID") provides technical information on the campaign. The proposed activity will be accomplished with similar

techniques and procedures as the prior launch campaign conducted in Tortuguero Park (former Vega Baja Airdome). NASA has reviewed the technical information document and determined it to be accurate. NASA hereby incorporates the TID by reference in this EA.

In July 1997, a biological assessment was conducted and prepared as an addendum to the *Biological Assessment of the Proposed Launch Site for El Coqui, 1991*. The biologists performing the assessment concluded there is no evidence that threatened or endangered flora or fauna species are resident at the site. The assessors expressed concern that the present launchings are planned during the dry season, which may affect fire risk. The potential for wildfires as a result of rocket launches is addressed by NASA ground safety requirements. NASA's sounding rocket launch experience includes launches under dry and draught conditions.

This activity is analogous to the previous Puerto Rican Sounding Rocket campaign conducted from the Tortuguero Park location. The environmental considerations of this project are identical in nature and conduct to the activities covered in the Environmental Assessment (EA) for the El Coqui Sounding Rocket Campaign dated 1991 (hereinafter the "1991 EA"). NASA has reviewed the 1991 EA and determined that it represents an accurate and adequate analysis of the scope and level of associated environmental impacts when augmented by the TID and 1997 biological assessment. The 1991 EA addressed alternatives to the proposed action as well as environmental consequences of the preferred alternative and is incorporated by reference into this EA. The environmental concerns considered, but were not necessarily limited to: air and water quality, waste water disposal, noise, solid waste management, toxins, transportation of hazardous materials, pesticides, historical resources, radar emittance, potable water quality, health and safety, and flora and fauna. The 1991 EA resulted in the Finding of No Significant Impact (FONSI). In addition, the 1998 Coqui II project is within the scope of the NASA Sounding Rocket Program, which has been conducting launches worldwide since 1959 at temporary, semi-permanent, and permanent ranges.

The temporary launch range is immediately adjacent to and extends over the Atlantic Ocean. The impact of ground activities is limited to the immediate vicinity of the temporary range. These activities are all located within the site of the Tortuguero Park (former Vega Baja Airdome). This campaign does not have substantial environmental impacts beyond the site boundaries. Therefore, there are no disproportionately high and adverse human health or environmental effects on minority populations and low-income populations.

NASA has coordinated all aspects of the proposed activities with appropriate governmental bodies in Puerto Rico. This coordination included obtaining all applicable permits.



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