New Horizons Mission

Emergency Response Preparations

The New Horizons mission, scheduled for launch in January 2006, is an exciting undertaking for NASA and the nation. New Horizons is designed to help us understand worlds at the edge of our solar system by making the first reconnaissance of Pluto and Charon – a "double planet." The mission would then visit one or more objects in the Kuiper Belt region beyond Neptune.

Electrical power for the New Horizons spacecraft will come from a radioisotope thermoelectric generator (RTG), which produces electricity from the heat emitted by plutonium-238. These generators have been used on many previous NASA missions. NASA and the Department of Energy (DOE) are committed to protecting the public and the environment under both normal operations and from any accident that might potentially release the radioactive materials in the RTG.

NASA and DOE do not expect the safety of the public to be threatened by the launch of the New Horizons mission even if an accident should occur. We are taking proactive steps to provide technical resources, trained personnel, and timely communication of information. NASA and the agencies of the local, State, and Federal government responsible for emergency response have collectively developed a strategy and plan for responding to an accident involving the New Horizons spacecraft.

In the unlikely event of an accident, the emergency response activities will always be directed toward protecting the health and safety of the public and on-site personnel from potential hazards. Once protective measures have been taken, NASA, DOE, and other Federal agencies would execute recovery plans to locate and recover radioactive materials if necessary.

A launch accident would not necessarily produce a radiation hazard, so the critical first action in responding to any situation will be collecting accurate information about whether any radiation hazard actually exists. Prior to launch, 16 mobile field teams comprising radiation safety and detection specialists from the Federal agencies and the State of Florida will be in the area surrounding the launch site, both inside and outside the Kennedy Space Center/Cape Canaveral Air Force Station boundary. Each of these teams will carry state-of-the-art, specialized instrumentation for air sampling and contamination detection. Additionally, automated air monitoring stations will be in place before launch to continuously monitor the air to detect any release of radioactive material following a launch accident.

A Radiological Control Center (RADCC) onsite and an offsite control center will be staffed with radiation detection and assessment experts from Federal, State and local agencies to evaluate the measurements being made by the mobile field teams, and the automated air monitoring stations. The purpose of the two control centers is to evaluate the field measurement information to assess whether a release of radioactive material has occurred, to characterize quickly the extent of any radiological release, and make recommendations to the State and County, and launch site managers, regarding any protective actions that might be required.

Key in preparing to respond to a launch accident is to have trained professionals ready to provide appropriate assistance. Although it is unlikely there will be a launch accident with a release of radioactive material and exposure of the public, specific training is being provided to medical personnel at local hospitals on how to treat individuals possibly exposed to radioactive materials. This training for health professionals in the area is being provided as a prudent and proactive measure.

Finally, it is essential to clearly communicate the information to the public. NASA and DOE will be meeting with local officials and the media to provide background information and answer questions regarding the New Horizons mission. If a launch accident were to occur, NASA would work with County and State Emergency Management Centers and the media to ensure that the public is immediately informed of the situation and any recommended protective actions.

NASA and DOE will have in place the technical resources, trained personnel, and timely communication procedures so that the public and local officials have access to the most current and highest quality information available.

For More Information

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