

# ADVANCING GLOBAL RADIATION SAFETY FOR TRAVELERS AND ASTRONAUTS

## *THE SPACE WEATHER AVIATION RADIATION CAMPAIGN*



NASA's recent airborne science flights over Greenland are advancing global radiation safety by improving models that predict cosmic radiation exposure for air travelers and astronauts. The Space Weather Aviation Radiation (SWXRAD) campaign gathered rare, high-latitude measurements to validate NASA's Nowcast of Aerospace Ionizing Radiation System (NAIRAS), which informs flight safety and future space mission planning. By collecting data in Earth's least magnetically shielded region, scientists can refine models that protect pilots, passengers, and spacecraft crews from harmful radiation. This research not only enhances aviation safety on Earth but also lays the groundwork for protecting astronauts during lunar and Martian missions.

