

TESTIMONY
OF
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BEFORE
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HOUSE SPACE, SCIENCE, AND TECHNOLOGY COMMITTEE
ENVIRONMENT SUBCOMMITTEE

“From Orbit to Operations: How Weather Satellites Support the National Security Mission”

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Good morning, Chairman Babin, Ranking Member Lofgren, Subcommittee Chairman Franklin, Subcommittee Ranking Member Amo, and distinguished members of this subcommittee. On behalf of Secretary Meink and General Wilsbach, thank you for this opportunity to testify before you. I am Colonel Bryan Mundhenk. I serve as the Chief, Weather Operations Division, Non-Kinetic Operations Directorate for the Air Force Deputy Chief of Staff for Operations. In this position, I lead a team charged with developing strategic plans and integration efforts on behalf of the 4,100-member Air Force weather functional community. I am honored to join my National Oceanic and Atmospheric Administration (NOAA) and U.S. Navy colleagues this morning and to provide an Air Force service perspective on the critical roles NOAA plays in supporting and enabling the security of our nation.

The Air Force weather functional community does not have the public service mandate that NOAA's National Weather Service does. Rather, Air Force weather provides full spectrum environmental support to Air Force, Space Force, Army, and Intelligence Community missions and equities stateside and abroad in accordance with public law and at classification levels necessary to safeguard national security information. This support enables warfighters to exploit environmental effects to create dilemmas for our adversaries while optimizing freedom of action for friendly forces and, ultimately, hones the military instrument of power.

Our ability to sense and make sense of the current and future states of the operating environment relies on data received from and through NOAA. As a World Meteorological Organization Global Information System Center, NOAA operates the hub through which vital data flow via the Global Telecommunication System. This is our primary connection to a vast array of global observations, and these observations comprise the majority of environmental information necessary for American Airmen to deliver tailored support ranging from resource protection to anticipating adversary actions and reactions.

NOAA's operation of space-based environmental monitoring satellites provides data essential to near-real time decision making and to our ability to predict conditions via numerical weather modeling. On behalf of the Department, NOAA operates the aging Defense Meteorological Satellite Program constellation and adjusts scan strategies for the Electro-Optical/Infrared Weather System satellite to support Combatant Commander priorities. NOAA's own satellites contribute to our understanding of data sparse areas like the high latitudes and upper atmosphere, both increasingly important for homeland defense. Moreover, NOAA serves as the fundamental connection to international providers, facilitating the receipt of partner satellite data, including imagery from the Japanese Meteorological Agency which is key to operations in the Indo-Pacific.

NOAA's national security linkages extend beyond providing crucial foundational data and operating environmental observing satellites. For example, NOAA operates the National Hurricane and Central Pacific Hurricane Centers that provide timely, relevant information to empower installation-level decision making and force protection when tropical weather threatens. NOAA contributes to the operations and sustainment of WSR-88D weather radars and launches weather balloons, both sensing weather conditions on which Airmen rely to understand and mitigate risks to mission and to force. NOAA operates the Space Weather Prediction Center, which provides data and models enabling Airmen's understanding of electro-magnetic interference, communication disruptions, and positioning errors. NOAA also produces flood and fire danger assessments for U.S. locations, which shape the risk management and response of installation emergency managers. And as the lead federal agency for the National Hurricane and National Winter Season Operations Plans, NOAA is linked to the Department to best employ the Air Force Reserve's high demand aerial reconnaissance capability.

These interdependencies are not new. Both Air Force weather and the National Weather Service, a NOAA subordinate line office, trace organizational history back to the U.S. Army Signal Service circa 1870. Over the decades, the organizations have evolved into key components of an interagency meteorological enterprise that is a national asset for mitigating risk and ensuring national security. These linkages represent significant cost avoidance through sensing and data handling without duplicative systems. And while we maintain the capacity to ensure continuity of critical capabilities, vital functions performed by NOAA bodies are neither duplicated nor replicable at scale.

Given the wide-ranging data, product, and process dependencies between the organizations, the Air Force considers NOAA's contributions to be critical and foundational to successful Air Force operations and safety not just stateside, but worldwide. Beyond current operations, the research, development, test, and evaluation stewarded by NOAA ultimately enable warfighter decision advantage. The Air Force values collaborative opportunities and open communication, such as that which is made possible by the Interagency Council for Advancing Meteorological Services.

Again, thank you for the opportunity to testify, and I look forward to your questions.