STRATEGIC AND OPERATIONAL WEATHER ORGANIZATIONS

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Air Force Weather Wing

Air Force weather delivers worldwide weather information to joint warfighters, unified combatant commands, and national programs through a specialized mission wing (referred to hereafter as the Air Force weather wing), and subordinate weather groups, which act as the primary production centers for the weather characterization function of Air Force weather operations. Due to the extensive processing systems, data storage capacity, and communications requirements needed, the weather characterization function is generally performed by these fixed reachback organizations. The Air Force weather wing is responsible for collecting, compiling, processing, and formatting atmospheric and space weather data and information from commercial, civil, and military sources into a four-dimensional representation of the natural environment. Within subordinate weather groups, combatant command-aligned operational weather squadrons (OWSs) provide characterization weather support to all Air Force and Army installations and activities within their associated combatant commander's area of responsibility. Other weather squadrons provide specialized weather support to include space and climatological weather support. Air Force weather climate support is the authoritative source for Department of Defense (DOD) and other US government agencies and produces specialized climate studies and assessments which are used to optimize military and intelligence operations and planning. Scientific services ensure continuous improvement of weather support provided to the end-user. Deployed forces can request reachback support to take advantage of these mission areas.

Integrated life cycle management functions for Air Force weather systems are conducted by supporting program execution offices within Air Force Material Command and Air Force Space Command. This includes all Research, Development, Test & Evaluation (RDT&E), acquisition and sustainment activities.

The OWSs form the backbone of regionally focused reachback weather operations, providing a variety of weather forecast products (such as terminal aerodrome forecasts, weather watches, warnings, and advisories) and support to Air Force, Army, Air National Guard, Air Force Reserve forces, and other users as directed in their respective operational areas. OWS areas of responsibility are aligned with the Unified Command Plan's geographic combatant commands. OWS products generally focus on characterizing the atmosphere for use by an air operations center, weather squadrons, weather flights, detachments, operating locations, and other units.

Space Weather Support

Space weather support to DOD is provided through a specialized, strategic-level weather squadron and several solar observatory detachments. This weather squadron uses space weather data collected from ground and space-based sensors to provide mission-tailored analyses, forecasts, warnings and strategic level products. Their products are used for mission planning and environmental situational awareness by national agencies, DOD operators, warfighters, the commander, Air Force forces (COMAFFOR); and other military decision-makers.

Weather Flight/Detachment/Operating Location

At the installation level, Air Force weather operations provide direct support to Air Force units, Army units, and Air Force special operations forces (SOF). On Air Force installations, weather forces are normally organized as a weather flight in an operations support squadron. On Army installations, weather personnel are typically assigned to weather squadrons, with subordinate detachments and operating locations. These weather personnel provide the function of exploitation by producing mission-tailored products and integrating into operational units' planning and decision-making processes, thus enabling operators to exploit weather factors for mission execution. Installation weather operations contribute to weather characterization by collecting and disseminating near-real-time weather observations and other local-scale weather data.