

# DEPARTMENT OF HOMELAND SECURITY WEATHER PROGRAMS

The Department of Homeland Security (DHS) has three primary missions: Prevent terrorist attacks within the United States, reduce America's vulnerability to terrorism, and minimize the damage from potential attacks and natural disasters. The department's first priority is to protect the nation against further terrorist attacks. Component agencies will analyze threats and intelligence, guard our borders and airports, protect our critical infrastructure, and coordinate the response of our nation for future emergencies. Besides providing a better-coordinated defense of the homeland, DHS is also dedicated to protecting the rights of American citizens and enhancing public services, such as natural disaster assistance and citizenship services, by dedicating offices to these important missions. DHS has five major divisions, called "Directorates": Border and Transportation Security (BTS); Emergency Preparedness and Response (EPR); Science and Technology (S&T); Information Analysis and Infrastructure Protection (IAIP); Management. Besides the five DHS directorates, several other critical agencies were folded into the new department or created when it was formed: Federal Emergency Management Agency, U.S. Coast Guard; U.S. Secret Service; Bureau of Citizenship and Immigration Services; Office of State and Local Government Coordination; Office of Private Sector Liaison; and the Office of Inspector General.



DHS has the primary responsibility for ensuring that emergency response professionals are prepared for any situation in the event of a terrorist attack, natural disaster, or other large-scale emergency. This entails providing a coordinated, comprehensive Federal response to any large-scale crisis and mounting a swift and effective recovery effort. DHS will also prioritize the important issue of citizen preparedness, and educating America's families on how best to prepare their homes for a disaster and tips for citizens on how to respond in a crisis will be given special attention at DHS.

## **FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA)**

FEMA's mission is to "reduce the loss of life and property and protect the Nation from all hazards, including natural disasters, acts of terrorism, and other man-made disasters, by leading and supporting the Nation in a risk-based, comprehensive emergency management system of preparedness, protection, response, recovery, and mitigation." In carrying out its role, FEMA works with the federal scientific community and agencies to ensure that appropriate risk information – for hazards, vulnerabilities and consequences -- is used to execute this mission. As administrator of the National Flood Insurance Program (NFIP), FEMA publishes Flood Insurance Rate Maps

for all flood-prone communities, which serve as the official demarcation for flood risk. FEMA administers the National Hurricane Program that among many things develops hurricane evacuation studies including inundation maps based on surge model simulation results from the National Weather Service's National Hurricane Center. These studies are used by state and local hurricane emergency management planners and decision-makers to develop their hurricane evacuation plans.

FEMA's main interest with OFCM is identifying, developing and/or utilizing the most appropriate meteorological information to calibrate its preparedness, response and recovery activities to build and deploy emergency management capability, and to design and implement mitigation measures which reduce the consequences from emergencies and disasters. These interests extend to national standards for geographic information systems (GIS) used for delivery of meteorological products and services by other agencies. FEMA also actively supports the OFCM-sponsored Working Group for Post-Storm Data Acquisition (WG/PSDA) and the WG/PSDA's efforts to develop a current National Plan for Post-Storm Data Acquisition to coordinate and support the collection of perishable data after major storms. These data have applications in post-disaster mitigation activities, the NFIP flood hazard analysis, the FEMA National Hurricane Program hurricane evacu-

ation studies, and other FEMA risk analysis activities, such as the Multi-Hazard Loss Estimation Methodology (HAZUS). The National Hurricane Program division is the principal FEMA contact point for most meteorology-related matters while the Risk Analysis Division is the primary contact for flood risk analysis.

## **UNITED STATES COAST GUARD (USCG)**

Although no U.S. Coast Guard (USCG) cutters or shore units are solely dedicated to meteorology, they collectively perform a variety of functions in support of the national meteorology program. USCG ocean-going cutters and coastal stations provide weather observations to the National Weather Service (NWS). Coast Guard communications stations broadcast NWS marine forecasts, weather warnings, and weather facsimile charts and, also, collect weather observations from commercial shipping for the NWS.

USCG conducts the International Ice Patrol (IIP) under the provisions of the International Convention for Safety of Life at Sea (SOLAS). The IIP uses sensor-equipped aircraft to patrol the Grand Banks of Newfoundland to locate and track icebergs which pose a hazard to North Atlantic shipping. Direct observations are supplemented and extrapolated using a numerical iceberg drift and deterioration model. IIP determines the geographic limits of the iceberg hazard and, twice daily, broadcasts iceberg warning bulletins and ice facsimile charts which define the

limits of the iceberg threat during the iceberg season (spring and summer). IIP annually archives data on all confirmed and suspected icebergs, and forwards these data to the National Snow and Ice Data Center. These data can be accessed via the IIP web page [www.uscg.mil/lantarea/iip/home.html](http://www.uscg.mil/lantarea/iip/home.html). Archived data contains all iceberg sighting data along with the last model-predicted position of each berg.

The Coast Guard participates with the Navy and NOAA in conducting the National Ice Center, a multi-agency operational center that produces analyses and forecasts of Arctic, Antarctic, Great Lakes, and coastal ice conditions.

The Coast Guard also collaborates with NOAA in operating the National Data Buoy Center (NDBC) which deploys and maintains NOAA's automated network of environmental monitoring platforms in the deep ocean and coastal regions. Five Coast Guard personnel fill key technical and logistics support positions within NDBC. Coast Guard cutters support the deployment and retrieval of data buoys, and provide periodic maintenance visits to both buoys and coastal stations, expending approximately 180 cutter days annually. Coast Guard aircraft, small boats, and shore facilities also provide NDBC support.

Meteorological activities are coordinated by the Ice Operations Division of the Marine Transportation Division at Coast Guard Headquarters. Field management of Coast Guard meteorological support services is accomplished at the Coast Guard Area and District levels.