

CHAPTER 1

RESPONSIBILITIES OF COOPERATING AGENCIES

1.1 General. Cooperation and communication among agencies that provide essential meteorological data, information, and dissemination services is the basis for ensuring that users receive the best possible warnings and forecasts of severe local storms. This coordination is achieved through the activities of the Committee for Environmental Services, Operations and Research Needs (C/ESORN) and the Joint Action Group for Severe Local Storms Operations (JAG/SLSO) in the Office of the Federal Coordinator for Meteorological Services and Supporting Research (OFCM). The Departments represented in this National Severe Local Storms Operations Plan (NSLSOP) have agreed to arrangements to promote the most effective use of their weather-related assets with respect to severe local storm operations. Between major revisions to this plan, changes will be promulgated by a Change Notice. Once received, the changes should be made to the plan and noted in the Change and Review Log on page ii.

1.2 Scope. The procedures and agreements contained herein apply to all of the 50 United States and the US Territories of Puerto Rico, Virgin Islands, American Samoa, and Guam. The plan defines the roles of the individual agencies participating in the severe local storm warning service when more than one agency is involved in the delivery of service in a specific area. When a single agency is involved in any specific area, that agency's procedures should be contained in internal documents and, to the extent possible, be consistent with the NSLSOP practices and procedures.

1.3 Department of Commerce (DOC) Responsibilities. The Department of Commerce (DOC), through the National Oceanic and Atmospheric Administration (NOAA), is charged with the overall responsibility to implement a responsive, effective national severe local storms warning service.

1.3.1 National Weather Service (NWS). The NWS shall provide timely dissemination of forecasts, warnings and all significant information regarding severe local storms to the appropriate agencies, marine and aviation interests, and the general public. Specifically, NWS will provide:

- Basic surface, upper air, buoy, and radar observations from its network of observing sites.
- Additional observations, when required. These observations will be transmitted to any requesting agency by the appropriate communications technologies.

- Basic analyses, forecast charts, and radio facsimile charts through the National Centers for Environmental Prediction (NCEP) Central Operations (NCO), Camp Springs, Maryland.
- Severe Local Storm Outlooks and Watch Bulletins through the NCEP Storm Prediction Center (SPC), Norman, OK.
- Dissemination of severe weather and flash flood warnings and statements issued by Weather Forecast Offices (WFO) throughout the United States.
- Aviation In-flight Weather Advisories issued through the NCEP Aviation Weather Center (AWC) with aviation responsibilities for periods up to 6 hours for aircraft (civilian and military) and amendments as appropriate.
- A concerted effort to collect and relay Pilot Reports (PIREPs) in conjunction with the FAA.
- Appropriate public educational materials concerning the severe local storms/flash flood watch/warning service and development of community preparedness plans in accordance with the Federal Emergency Management Agency (FEMA)/National Oceanic and Atmospheric Administration (NOAA) Memorandum of Understanding Concerning the Coordination of Emergency Responsibilities.
- Point of Contacts from SPC and AWC to coordinate with Air Force Weather Agency (AFWA) on backup.

1.3.2 National Environmental Satellite, Data, and Information Service (NESDIS).

The NESDIS shall:

- Operate satellite systems capable of providing coverage of selected portions of the United States and adjoining coastal areas.
- Receive and respond to requests for coverage of specific areas and times. These requests may come from NCEP, a WFO, or appropriate USAF stations through the NCEP Senior Duty Meteorologist (SDM) in NCO and NESDIS Satellite Analysis Branch (SAB), according to the NESDIS/NWS Satellite Schedule Coordination and Dissemination Procedures (August 2000).
- Provide appropriate satellite data to authorized research facilities.

- Coordinate with the National Aeronautics and Space Administration (NASA) on providing data from its Research and Development (R&D) satellites to NOAA operational units for use on an as-required basis.

1.4 Department of Defense (DOD) Responsibilities.

1.4.1 U. S. Air Force (USAF). The Air Force Weather (AFW) is responsible for weather support to USAF, U.S. Army, Army and Air National Guard, and Air Force and Army Reserve units, and other DOD customers throughout the world. They will provide:

- Basic surface, upper air, and radar observations from its network of stations making such observations.
- Additional observations when required and make all such reports available to civil agencies through existing communications with Federal Aviation Administration (FAA) or, with prior Department of Defense (DOD) approval, directly.
- A concerted effort to collect and relay all PIREPs.
- AFWA will provide mesoscale model backup to NCEP's NCO during emergency situations when requested.
- Through the Global Weather Division, Headquarters, AFWA at Offutt Air Force Base (AFB), Nebraska:
 - ▶ Military Weather Advisories (MWAs) as well as weather warning support to Air Force and Army Guard and Reserve locations. At a future date, AFWA will transition to providing threat assessments to assist Operational Weather Squadrons (OWSs) in preparing regional MWAs.
 - ▶ NWS products for severe weather will be transmitted to CONUS DOD agencies via the USAF communications system.
 - ▶ Immediate backup responsibilities to NCEP's SPC and AWC during emergency situations.
- Through Operational Weather Squadrons (OWSs) at Shaw AFB, SC; Barksdale AFB, LA; Scott AFB, IL; Davis Monthan AFB, AZ; Elmendorf AFB, AK; and Hickam AFB, HI:

- ▶ Regionalized MWAs and Point Weather Warnings (PWWs) for active duty Air Force and Army locations within their areas of responsibility.
- ▶ At a future date, provide all warning support for all Air Force and Army locations within their areas of responsibilities.

1.4.2 U. S. Army (USA). The active component of the Army relies on the appropriate Air Force Operational Weather Squadron (OWS) as their primary weather provider, with back-up from the Air Force Weather Agency (AFWA) or another OWS. The reserve component of the Army currently relies on AFWA for Point Weather Warnings (PWWs) but responsibility will shift to the OWSs at a future date. Within the CONUS, the Army can rely on SPC and NWS severe weather products and NOAA Weather Radio (NWR) for weather warning support when both the supporting OWS and other back-up AFW organizations are incapable of providing support.

1.4.3 U. S. Navy (USN) and U. S. Marine Corps (USMC). The USN and USMC Meteorological and Oceanographic services operate under a local severe local storms warning service monitored by a regionalized command in support of the Department of Navy, vice a centralized severe local storms warning service. Within the conterminous United States and offshore waters, requirements for early warnings of hazardous flying conditions and local destructive phenomena are met by NWS, AFWA, and Fleet Numerical Meteorology and Oceanography Center (FNMOC) products interpreted locally by personnel of the Naval Meteorology and Oceanography Command (NAVMETOC) and the Marine Corps Meteorological and Oceanographic (METOC) Service units. Full use is made of information received from NOAA dissemination sources, as well as other military and civil weather circuits. They will provide:

- Basic surface, upper air, and radar observations, including those taken at sea, from its worldwide network of stations making such observations.
- Additional observations when required and make all such reports available to civil agencies through existing communications with Federal Aviation Administration (FAA) or, with prior Department of Defense (DOD) approval, directly.
- A concerted effort to collect and relay PIREPs.
- Limited backup of NCO through FNMOC.

1.5 Department of Transportation (DOT) Responsibilities.

1.5.1 Federal Aviation Administration (FAA). The FAA shall provide:

- Basic surface weather observations from its network of observing sites.
- Preflight and inflight pilot weather briefings, within designated airspace, which include Airmen's Meteorological Information (AIRMETs), Significant Meteorological Information (SIGMETs), Convective SIGMETs and urgent pilot reports (UUAs), to pilots on a routine basis.
- Dissemination/broadcast of AIRMETs, SIGMETs, Convective SIGMETs, UUAs and other hazardous weather advisories via voice and recorded broadcasts.

1.5.2 Federal Highway Administration (FHWA). The FHWA will:

- Assist in making use of Intelligent Transportation Systems as a means of disseminating severe local storm information.
- Work towards assimilating Road Weather observations into the broader weather observation networks.

1.5.3 U.S. Coast Guard (USCG). The USCG will provide:

- Communications circuits for relay of weather observations to NWS in selected areas.
- Coastal broadcast facilities at selected locations for weather forecasts, watches and warnings.
- Personnel, vessel, and communications support to the National Data Buoy Center (NDBC) for development, deployment, and operation of moored environmental data buoy systems.
- Surface observations to NWS from its coastal facilities and vessels.

1.6 Federal Emergency Management Agency (FEMA) Responsibilities. FEMA will:

- Develop and maintain communications systems in partnership with NWS to ensure that the emergency management community is provided with access to a set of NWS products at no recurring cost.
- Operate an interstate hot line telephone system that connects FEMA Warning Points and WFOs.
- Develop and maintain the Hazard U.S. (HAZUS) flood model, to be issued in 2003, that can estimate risk and damage, both on an annualized loss basis and on a deterministic basis.
- Develop and maintain a HAZUS preview CONUS hurricane model, to be issued in 2003, that can estimate risk and damage, both on annualized loss basis and on a deterministic basis.

1.7 Department of Energy (DOE) Responsibilities. Other than forwarding surface observations to appropriate points of contact during a severe storm, DOE and the National Nuclear Security Administration (NNSA) do not have the capability to provide forecasts or warnings to others. The DOE and NNSA sites/facilities rely on the NWS for forecasts, warnings and all significant information regarding severe local storms.

However, DOE and NNSA may provide resources, assets, personnel and expertise to others following a severe local storm either through the DOE Emergency Assistance Program or through an Energy Emergency response (per DOE Order 15 1. 1 A). These activities may be initiated to support interagency plans, Presidential direction, and State, local, or Tribal agreements of mutual aid.

In the event of a severe storm at a DOE or NNSA site, DOE may activate its Headquarters Emergency Operations Center to receive, coordinate and disseminate emergency information to the White House, other Federal agencies, and other appropriate emergency points of contact. DOE and NNSA have extensive guidance for communication and coordination for those DOE and NNSA sites/facilities that have significant quantities of hazardous substances (radiological and nonradiological). In addition, all DOE and NNSA sites/facilities that have the potential to release hazardous materials sufficient to generate declaration of a general emergency have a consequence assessment capability (plume path maps, dose maps, deposition maps, etc.) so that results can be provided in a timely manner to appropriate State, local, and Tribal Governments, and other agencies.

Additionally, the DOE has internal orders that require its sites to perform an assessment of various hazards (see Table 1-1). This Order also requires plans to handle emergencies including severe storms, seismic, and flood hazards. Table 1-2 is derived from DOE G(uide) 420.1-2 which cites all the natural phenomea hazards to be addressed by DOE facilities. DOE adheres to civilian standards and guidance documents, as well (i.e. Uniform Building Codes for severe weather and American Society for Civil Engineers Standard 7, which contain

requirements for snow, ice, and other weather events). Specific requirements (including criteria and standards) are included in contracts DOE has with each of its sites. In addition to site-wide requirements, some onsite facilities/buildings (e.g., reactors, accelerators, hazardous waste facilities, etc.) will have additional requirements, set forth in their safety documentation.

Table 1-1. DOE order and guidance for addressing natural hazards at DOE facilities.

DOE Order/Standard Number	Objective/Title
DOE Order 420.1	To establish facility safety requirements related to nuclear safety design, criticality, fire protection, and natural hazards mitigation
DOE G 420.1-2	Guide for the Mitigation of Natural Phenomena Hazards (NPHs) for DOE Nuclear Facilities and Non-nuclear Facilities
DOE-STD-1020-94	NPHs Design and Evaluation Criteria for DOE Facilities
DOE-STD-1021-93	NPHs Performance Categorization Guidelines for Structures, Systems, and Components (SSCs)
DOE-STD-1022-94	NPHs Characterization Criteria
DOE-STD-1023-95	NPHs Assessment Criteria
DOE-STD-1064-94	Guideline to Good Practices for Seasonal Facility Preservation at DOE Nuclear Facilities
DOE-STD-3003-2000	Backup Power Sources for DOE Facilities
DOE-HDBK-5504-95	Guidance for Evaluation of Operational Emergency Plans

Table 1-2. Natural phenomena hazards to be addressed per existing model building codes or consensus industry standards where no specific guidance is provided (DOE G 420.1-2).

Primary Natural Phenomena Hazards	Secondary Natural Phenomena Hazards
<p style="text-align: center;"> Earthquakes Volcanic Events Tornadoes Hurricanes High Winds Floods Excessive Rains Excessive Snow Ice Cover Lightning Forest Fires </p>	<p style="text-align: center;"> Drought Fog Frost High Temperatures Low Temperatures Landslides Subsidence Surface Collapse Uplift Storm Surges Waterspouts </p>

Severe weather design requirements are included in DOE Standard 1020-94, which addresses the design and evaluation criteria such that earthquake, wind and flood hazards are treated on a consistent basis. These criteria also employ a graded approach to ensure that the level of conservatism and rigor in design/evaluation is appropriate for facility characteristics such as importance, hazards to people on and off site, and threat to the environment.

1.8 Department of the Interior (DOI) Responsibilities. The U.S. Geological Survey will provide water level and stream flow data on a near-real-time basis needed for the National Weather Service River Forecast Centers to issue flash flood warnings at locations throughout the United States.

1.9 Exchange of Data and Products Between Agencies. There shall be a mutual exchange of relevant data and products on the part of all concerned agencies outlined in Chapter 1. SPC and AFWA are the units responsible for preparing centralized severe weather forecasts. These forecast products will be exchanged between them, since AFWA provides limited backup for SPC. NESDIS, National Severe Storms Laboratory (NSSL), SPC, and AFWA are actively engaged in developing objective severe weather forecasting and analysis techniques. These organizations will engage, whenever possible, in a joint technique development program and will exchange any objective techniques developed.