Meteorologist (Warning Coordination Meteorologist) 13

GS-1340-13

I. INTRODUCTION

This position is that of a Warning Coordination Meteorologist at the National Weather Service (NWS), Weather Forecast Office (WFO). The incumbent serves as the principal interface between the WFO and the users of WFO products and services in leading the effort to insure their evaluation, adjustment, and improvement. The incumbent is fully responsible for planning, coordinating, and carrying out the WFO area-wide public awareness program designed to educate the public to ensure the mitigation of death, injury and property damage or loss caused by severe natural hydrometeorological events. The incumbent also leads and coordinates WFO staff efforts and provides direction, guidance, instructions, and assistance to the staff in the conduct of weather service operations.

II. MAJOR DUTIES AND RESPONSIBILITIES

1. Conducts area-wide evaluations of WFO products and services:

- Reviews WFO-produced products and services for adherence to established policy. Interfaces with all users of WFO products and services (e.g., the public, the media, users in the aviation, marine, agricultural communities, and forestry, land, and water management interests) to evaluate the adequacy and usefulness of the services provided.

- Collaborates with the WFO Meteorologist-in-Charge (MIC) and state/local agencies in developing, proposing, and implementing plans to develop, modify, or tailor products and services with the goal of service improvement or increased product usefulness.

- As designated, serves as the NWS user representative for the state of SEE ATTACHED . Works with state government agencies having weather or weather-related interests in developing plans for promoting more effective utilization of NWS products and services throughout the entire state.

2. Conducts a WFO area-wide preparedness program.

- Identifies priority community preparedness objectives and develops area-wide warning projects to meet those objectives. In coordination with the MIC, establishes schedules for preparedness work accomplishment, including scheduling other WFO staff.

- Reviews WFO area-wide warning efforts and determines the adequacy of WFO preparedness activities. Frequently coordinates with the WCM's at surrounding WFO's to ensure uniformity of effort, collaboration, cost-effectiveness, and compatibility in overlapping areas.

- Coordinates meteorological and hydrologic preparedness operations with the WFO Service Hydrologist, with specific emphasis on the effectiveness of warning applications.

- Ensures the maintenance and accuracy of severe weather call lists, appropriate office severe weather policy or procedures, and other severe weather or dissemination methodologies or strategies. Conducts WFO drills and proficiency checks.

- Develops WFO plans and procedures to address community emergency action needs for dealing with such hazardous atmospheric events as oil spills, toxic chemical leaks, etc.

- Prepares the WFO Monthly Storm Data report, analyzing and synthesizing information from the media, emergency management and public safety officials, etc.

- Serves as technical advisor and resource for the MIC on preparedness measures. Interfaces with regional and national headquarters on broad preparedness activities.

- As required, leads or serves as a full member of Weather and Flood Disaster Survey Teams. As necessary, conducts smaller-scale or informal surveys on the effects and public response to WFO severe or flood weather warnings for weather events of lesser magnitude than those requiring full disaster survey teams.

3. Conducts a WFO area-wide preparedness planning and citizen education effort with and through various local and state agencies and organizations.

- Works closely with local, county, and state emergency management agencies and other related agencies concerned with disasters to ensure a planned, coordinated, and effective preparedness effort in the WFO area.

- Conducts an ambitious public education program to promote individual recognition of the threat of severe storms, floods, flash floods, winter storms, high winds, dust storms, marine hazards, and other dangerous natural hydrometeorological phenomena, and to advise on and promote the exercise of appropriate recommended individual-specific actions for the protection of life and property.

- Addresses conventions, conferences, and meetings of emergency management agencies and community groups; appears on local radio or television as the NWS spokesperson and expert on severe weather-related actions and local natural disaster hazards.

- Interacts with representatives of local cities and towns to encourage the development of local preparedness plans, evacuations plans, etc., to assist the community in the event of a natural disaster. Advises and works with community leaders in the establishment of severe storm spotter networks and reporting networks. Ensures that storm spotter training is accomplished. Speaks at schools and other community institutions or organizations in need of on-site disaster preparedness planning.

- Encourages the establishment of local flood warning systems in local communities prone to floods and flash floods. Explains the technical assistance provided by the NWS to communities and the numerous benefits to local action decision-making where such real-time cooperative programs have been established.

- Encourages, promotes, and assists in the planning and conduct of community drills to test and exercise local disaster plans and WFO-local government interaction.

4. Performs the function of Senior Forecaster on shift duty approximately 25% of the time.

- During an assigned shift, the incumbent is responsible for the quality and timeliness of all warning, forecast, and service products prepared and issued by the WFO operational staff. Reviews, develops, and/or approves public, aviation and other weather forecasts, information and products prepared by shift staff before issuance.

- Exercises judgment on behalf of the Meteorologist-in-Charge (MIC) as to the need for additional staff during the shift or in preparation for the upcoming shift. Handles general office administrative matters which may occur on shift. Exercises call-back authority and authorizes expenditures of funds for overtime for additional or augmenting WFO staff, as appropriate.

- Supervises and/or provides hydrologic service products for assigned WFO area, including forecasts and warnings of floods and river stage for the public and numerous users dealing with water resources and/or land management, transportation, emergency management, river and flood plain control, etc.

5. Leads or participates in the conduct of local staff hydrometeorological studies and developmental projects designed to capitalize on or incorporate the benefits of new science/technology/local techniques towards enhancing WFO preparedness objectives.

6. Routinely collaborates with the MIC in assessing subordinate staff performance. Formulates and/or provides input to performance ratings of subordinate staff and recommends recognition as appropriate.

7. When designated, acts for the MIC during his/her absence, with full technical, managerial, and administrative responsibility for WFO programs, products, and services.

III. FACTOR LEVELS

Factor 1 – Knowledge Required by the Position

Mastery of theoretical meteorology, including the dynamics of the atmosphere, mesoscale meteorology, and the application of computer methods of numerical weather analysis and prediction.

Mastery of applied meteorology, equivalent to several years of forecasting experience in the more challenging of forecast situations or environments.

Knowledge of the principles and theories of hydrology and the hydrologic characteristics of rivers, streams, and drainage basins in the forecast area sufficient to enable incumbent to perform the hydrologic service program duties assigned to the WFO.

Advanced knowledge of applied research methods and data management techniques to enable the incumbent to participate in local development efforts and to incorporate the latest advances into the WFO preparedness, forecast, and warning programs.

Exceptional skill and ability in the communication and application of highly technical meteorological and hydrologic concepts to non-technical people.

Proven skill in public speaking and in writing. Proven ability in applying tact and diplomacy to difficult public contact situations.

A basic understanding of the psychology of human response to emergency situations, especially relating to severe weather phenomena and official warnings calling for governmental and citizen action.

A basic understanding of the functions of the national, state, and local agencies concerned with disaster preparedness.

A highly advanced level of knowledge of aviation meteorology for the production of specialized aviation forecasts and advisories for the aviation community, for guidance of National Weather Service and FAA pilot briefers, and for special users, such as balloonists, soaring clubs, crop dusters, meteorological staffs at FAA ARTCC (CWSU), etc.

(If appropriate) Advanced knowledge of marine meteorology and/or tropical meteorology with special emphasis on hurricanes and/or coastal flooding.

Advanced knowledge of meteorological principles pertaining to other assigned special programs, such as agricultural, and fire weather, to provide forecast products and expert advise and guidance/performance to specialized users.

In-depth knowledge of NWS operational procedures and instructions, and real-time guidance products pertinent to the production of weather forecasts and services, river and flood forecasts, and other special purpose products.

Thorough knowledge of operational characteristics of complex electronic and electro-mechanical equipment utilized in data acquisition, communications, and service programs assigned to the WFO. This includes the meteorological skills necessary to properly utilize sophisticated Doppler weather surveillance radar equipment and to interpret and apply its output in a real-time operational environment.

Factor 2 – Supervisory Controls

The incumbent operates under the general guidance/supervision of the MIC. However, the incumbent plans and acccomplishes most tasks in an independent fashion, with wide latitude for the exercise of professional judgment and delegated authorities. The work can mostly be reviewed only after the fact for its effectiveness and/or consistency with all of the efforts of the WFO and surrounding NWS offices.

Factor 3 - Guidelines

Existing guidelines provide only a broad framework for conducting assigned functions. Such guidelines are operational procedures which define matters such as overall NWS preparedness efforts. Operational activity guidelines provide definition of format of forecasts, forecast and warning language which will be universally accepted and understood, conditions for warnings versus advisories, etc. Numerical and graphic guidance are applicable only in terms of assessing synoptic scale weather systems.

The incumbent's professional expertise is the primary tool for accomplishing the work. He/she is expected to be frequently faced with new and unusual and non-standard situations, where the application of sound judgment is essential. Opportunities for new preparedness and services development activities abound. The incumbent is expected to exercise judgement in leadership tasks.

Factor 4 - Complexity

While some standard procedures and techniques are available to accomplish the variety of complex tasks, the work requires a high order of in-depth planning and analysis. Each community has problems which differ greatly

from the next. Each effort requires that new and effective personal interrelationships be established and maintained. Most important is the requirement for the incumbent to develop new approaches to meet major objectives. In order to do this, the incumbent must combine a professional knowledge of meteorology and hydrology, applied research and data management techniques, with warning and forecast methods and human psychology in order to lead local preparedness activities and participate in joint research efforts and local operational products/techniques development.

Diverse community activities demand diverse applications of meteorology. The incumbent should have a good understanding of the working procedures, needs, jargon, and problems of various types of users in order to explain how NWS products could be used most effectively and clarify misunderstandings regarding NWS products and services. The meteorological and hydrologic requirements of the pilot, farmer, building contractor, lawyer, mariner, news media, shipper, and government official differ; and versatility is needed to respond promptly and effectively to service requests.

Factor 5 – Scope and Effect

Accurate, useful, effective, and timely forecasts and warnings are essential to the safety of the public and can prevent the loss of life and property in extreme events such as tornadoes and flash floods. Products issued by the WFO provide day-to-day guidance to the public and specialized users, and can have a significant impact on the area's economy.

The quality of the incumbent's performance in service evaluation, preparedness, and operational leadership activities and forecast techniques development has ah direct and major impact on the effectiveness and enhancement of NWS programs in the WFO area and on the ability of local community leaders and citizens served to forestall or mitigate significant weather threats of damage and/or injury to life and property.

Factor 6 – Personal Contacts

Intra-agency contacts are: (1) with employees in the WFO, (2) with employees at nearby NWS offices, (3) with regional or headquarters staff, (4) with meteorologists at National Centers (Hurricane, Severe Storm, NMC), and (5) with RFC hydrologists.

External contacts include state and local officials with decision or planning responsibilities or authority for dealing with community response to weather threats and natural disasters. This may include elected officials such as mayors, governors, agency heads, etc.

Contacts with other agencies include the FAA, FEMA, State emergency management, environmental and air pollution agencies, NASA, Corps of Engineers, agricultural agencies, community action, other special purpose groups and cooperative storm spotters, the Coast Guard, the EPA, and the Forest Service.

Contacts are made with the general public, citizens groups, civic organizations, the mass news media, and other specialized users.

Factor 7 – Purpose of Contacts

To provide weather and hydrologic information to the general public and to warn the public and "action agencies" of the imminent threat of natural disasters of a meteorological or hydrological nature.

Intra-agency contacts are to coordinate products, services and preparedness plans with neighboring offices and to collaborate on service improvement projects.

Contacts with state and local officials are (1) to assist and advise them in their preparedness planning efforts, drills, evacuation plans, etc., (2) to advise the public courses of action to be taken in the event of severe weather events in order to institute precaution for the safeguarding of life and property, and (3) to implement disaster preparedness action plans for the safeguarding of life and property because of the threat of natural disasters, such as tropical storms, tornadoes, floods, flash floods, severe storms, affecting areas served by the WFO.

Press, radio and TV contacts are (1) to coordinate the routine dissemination of public and marine forecasts, and (2) to implement the Emergency Broadcast System (EBS) in the event of natural disasters such as tornadoes or flash floods. Though much of the incumbent's general public contact is through the mass media, the public and specialized users may contact the WFO directly for general and specialized advice on existing and forecast weather conditions.

Contacts with other agencies are to provide specialized support for aviation (FAA), fire weather (USFS, BLM, or State Forestry) air pollution (EPA and state agencies), and others, as well as in collaboration on joint projects.

Factor 8 – Physical Demands

The work is generally sedentary, although there carrying of bulky projectors and other informational materials is occasionally required, along with some light travel. Routine duties require meeting tight deadlines.

Additionally, rotating shift work is occasionally required with the WFO in operation 24 hours a day, seven days a week. During periods of threatening weather or rapidly changing weather conditions, the increase in workload and the necessity for rapid dissemination of weather warnings and updates requires periods of acute mental alertness and produces considerable mental stress. Adverse weather conditions often require the incumbent to work hours longer than the usual shift, adding to mental and physical stress.

Factor 9 – Work Environment

The work environment most closely resembles that of an office with added specialized equipment.

FAIR LABOR STANDARDS ACT (FLSA)

The determination has been made that the duties of this position reflect professional responsibilities; therefore, this position is EXEMPT under the Fair Labor Standards Act.
