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SERVICE ASSESSMENTS

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SUMMARY OF REVISIONS: This directive supercedes Weather Service Operations Manual (WSOM) Chapter J-02, "Significant Hydrometeorological Events, Post-Storm Data Acquisition and Service Assessments" Issuance 98-5, dated September 28, 1998.

signed by December 23, 2002

Gregory A. Mandt Date
Director, Office of Climate,
Water, and Weather Services

Service Assessments

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1. Introduction. A service assessment is conducted after significant hydrometeorological events that meet criteria specified in section 2. Service assessments report on NWS performance during a significant event and are completed within 90 days of the start of the assessment. A service assessment is neither a meteorological/hydrological study nor a catalog of charts and tables detailing the history of an event. Rather, it serves as a learning tool where: (a) best case operations procedures and practices are identified, and (b) service deficiencies are noted.

2. Decision Process and Guidelines for Conducting Service Assessments. The Office of Climate, Water, and Weather Services (OCWWS) and the regional director(s) affected by the significant hydrometeorological event determine whether a service assessment is required, with final approval by the Assistant Administrator (AA) for Weather Services.

The following guidelines will be used to determine if a service assessment is necessary:

- significant impact on the economy of a large area or population;
- significant number of fatalities;
- significant number of injuries requiring hospitalization;
- extensive national public interest or media coverage; or
- unusual level of scrutiny of NWS operations (performance of systems, or adequacy of warnings, watches, and forecasts) by the media, emergency management community, or elected officials.

Once a decision to conduct a service assessment is made and team members are identified, OCWWS prepares an approval memorandum for the AA for Weather Services signature. The memorandum will include information on the event, names of team members, and proposed timetable for assessment activities.

3. Recruitment of Service Assessment Team Candidates. OCWWS and the regions will maintain a list of candidates to serve on service assessment teams. This list should include NWS personnel and specialists from outside the NWS. Examples are professionals in the areas of epidemiology, structural engineering, sociology, etc.

4. Relationship Between Service Assessment Team and Post-Storm Data Acquisition (PSDA) Quick Response Team (QRT). If an event does not warrant a service assessment, but a need exists to document the event's effects (e.g., a rare or unusual event), the NWS or any other member agency of the Working Group for PSDA (WG/PSDA) may request deployment of a PSDA QRT. The QRT can document damage to structures or areas affected by flooding.

If an NWS service assessment team is convened, and a PSDA QRT is operating, NWS PSDA QRT members will work with the service assessment team to provide ground and aerial survey information as an aid in the **storm** intensity rating process.

5. Responsibility for Forming and Supporting Service Assessment Teams. Service assessment teams will be formed by the regional director(s) of the affected region(s) in consultation with OCWWS. The NWS Director approves the team members. Logistical support for the assessment team is the responsibility of the affected region(s) with support from OCWWS. OCWWS funds service assessment team activities.

5.1 Service Assessment Team Composition and Qualifications.

Team Leader. The team leader will be from outside the affected region(s). He/she will have demonstrated leadership and project management skills and be impartial with respect to the assessment's objectives. Normally, the team leader is an NWS employee. In exceptional situations (e.g., when NWS leadership of the assessment team might be viewed as a conflict of interest), the team leader may be selected from outside the NWS.

Team members will include:

- a subject matter expert for the type of event in question;
- at least one person with experience in field operations and current expertise related to the event;
- a Public Affairs Officer;
- an OCWWS facilitator (to help coordinate the process and provide guidance for report format and content); and
- a member from outside the NWS, preferably with expertise related to the event

The Team may also include:

- other outside experts, such as a social scientist, epidemiologist, etc.;
- additional NWS members as needed, depending upon the magnitude of the event, workload, or in a training capacity, less experienced individuals may be mentored by senior team members.

Service assessment teams will have a limited number of team members from affected regions as detailed below. There will be a maximum of:

- two team members from the affected region for one-region events;
- three team members from the affected regions for two-region events; and
- three team members from the affected regions for three-region events.

5.2 Service Assessment Team Authority and Responsibilities. A service assessment team documents and evaluates the adequacy of those aspects of NWS performance relevant to the event. When assessing performance and noting facts, findings, and recommendations, it is imperative to assess the overall level of NWS performance. This includes observations, NCEP performance (numerical models), NCEP Service Centers guidance, statistical guidance (if appropriate), River Forecast Center (RFC) models and guidance, systems, communications, infrastructure issues, internal and external coordination, Weather Forecast Office (WFO) products and services, dissemination, response, training, and management procedures.

Team Leader. The team leader is responsible for completing the service assessment process. The team leader is the final authority on team activities and report content; however, the team leader will strive for team consensus. Release of preliminary information will be limited to special situations. The team leader has sole discretion on the release of this information outside of the team. The team leader will make these determinations in consultation with the team members, if practical, and with the advice of OCWWS and the appropriate regional directors.

Team Members. Team members report to the team leader and devote full time and resources to the team while onsite and until released by the team leader. This is normally upon completion of the first draft of the service assessment report. Team members are also expected to restrict release of information to non-team members according to the consensus of the team and at the direction of the team leader.

6. Activation. The service assessment process is activated by the NWS Director's signature on an approval memorandum. The assessment process normally begins when early recovery efforts in the affected area are sufficiently advanced so team members can visit the area and interact with local officials, NWS personnel, and the media. This is typically 2 to 3 days after an event but may range up to several weeks in the case of long duration events, such as riverine floods. The assessment process may begin earlier if the team leader determines a need exists to survey damage before the clean-up process reaches a point where valuable information may be lost. (Note: Normally, a PSDA QRT will provide perishable data and information to the service assessment team.)

6.1 Itinerary and Logistics. The affected region(s), with support from OCWWS, will notify team members, make necessary travel arrangements to the local meeting site, and meet logistical needs.

The team leader will work with the affected region(s) and local NWS offices to develop the travel itinerary.

OCWWS and the affected region(s) will ensure that the necessary equipment (e.g., a laptop PC with necessary software; NOAA/NWS magnetic car door signs; supporting forms and checklists, etc.) is available for use by the team.

6.2 Pre-assessment Activities.

6.2.1. Team Leader. Upon arrival at the pre-arranged meeting location, the team leader should convene a meeting of team members to:

- outline objectives and work procedures;
- assign tasks;
- create sub-teams, as necessary; and
- assess the need for an initial press conference and establish media strategies.

6.2.2 Local WFOs. After coordination with the team leader, the local WFOs should accomplish the following tasks, as needed:

- make copies of all relevant public products, forecast discussions, and logs;
- arrange interviews with local emergency management officials, media, elected officials, and cooperating agencies;
- recommend suitable hotel accommodations;
- arrange for meeting space;
- arrange aircraft overflights (if necessary); and
- refrain from releasing detailed information, such as probable maximum wind speeds, or assessment of NWS services, until after coordination with team leader. In the case of tornadoes, see NWSI 10-1604 for instructions on release of preliminary information.

6.3 On-site Assessment Activities. Team members gather information as assigned and report daily findings to team leader.

Team leader conducts meetings, as necessary, to:

- assess progress;
- modify or develop new assignments for the next day;
- gather information for daily status messages to the Regional Director(s) of the affected region(s) and OCWWS;
- identify information to be released; and
- begin assembling information into first draft of survey report.

While the team is in the field, they should budget time to prepare a first draft of the service assessment report before team members return home.

Team members will have responsibilities until the final report is released. They may be asked to refine various sections of the report, assist in developing appropriate briefing materials, and conduct briefings.

7. Tracking of Service Assessments and Service Assessment Report Recommendations.

7.1 Service Assessment Report Database. OCWWS tracks all on-going service assessments and maintains a database to monitor progress. The database includes:

- Event name;
- Event date(s);

- Assessment start date;
- Due date (normally 90 days after the start of the service assessment, coincides with NWS Director briefing);
- Projected submission date (if extension required);
- Current status of the assessment;
- Date signed by the NWS Director;
- Team leader; and
- Number of days from start to signing.

7.2 Service Assessment Report Recommendation Tracking and Reporting. OCWWS and the regions will track ongoing recommendations and maintain a database of recommendations from all service assessment reports. OCWWS and the regions will ensure the information contained in their respective databases is identical and up-to-date. For each service assessment, the database will include:

- Event name;
- Event date(s);
- Recommendation number;
- Recommendation status (open or closed);
- Recommendation due date;
- Recommendation projected date (if due date is not met);
- Comments (latest progress, final action, or reason the due date was not met).

In addition, for each service assessment, the total number of recommendations closed, open, and behind schedule will be listed or calculated for the current month and the preceding 2 months. Regions will promptly forward recommendation progress updates to OCWWS.

7.3 Reporting. OCWWS will brief the Corporate Board monthly on the status of all service assessments. Briefings will include:

- a summary of recommendations that were closed since the last quarterly briefing;
- a review of recommendations that remain open; and

- details on recommendations that are behind schedule.

7.4 Service Assessment Report. Information on the report, composition, review, preparation of the final draft, briefing of the NWS director, coordination and dissemination of the final report, and assignment of the recommendations are detailed in Appendix A.

APPENDIX A - Service Assessment Report

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1. Service Assessment Report. The service assessment report is a comprehensive, formal document that contains information concerning:

- the nature, intensity, and impact of the event;
- the performance of the NWS prior to and during the event, focusing on the full range of products and services;
- the response to NWS warnings and forecasts by those affected by the event; and
- a concise summary of the most relevant facts, findings, and recommendations as defined in section 2.1.

The report will contain factual information with supporting evidence. Editorial comments will not be included; however, brief comments, such as “the team found NWS performance to be excellent,” or “several service issues were identified and are detailed in the Facts, Findings, and Recommendations section,” are permitted. Drafts materials for service assessments are pre-decisional documents. All draft materials will be marked "FOIA Exempt - Not for Public Release." (FOIA refers to the Freedom of Information Act.) Also, every page of all draft documents will include "draft" as a watermark that is prominently visible across the page.

Normally within 90 days from the start of the service assessment, the report should be in final draft form and ready for signature by the NWS Director.

2. Service Assessment Report Composition. Service assessment reports will contain a section on facts, findings and recommendations, a summary and appendices and supporting information, as required. The format will include:

- Cover
- Title Page
- Preface
- Table of Contents
- Explanation of Acronyms
- Service Assessment Summary
- Facts, Findings, and Recommendations
  - Observations
  - NCEP Guidance, Products, and Services
  - Statistical Guidance (if appropriate)
  - RFC Models and Guidance (if appropriate)
  - Local Office Warning and Forecast Service Systems
  - Communications and Infrastructure Issues
  - Internal and External Coordination
  - Dissemination
  - Response
  - Training
  - Management Procedures
  - Supporting Activities (if appropriate)
- Appendices
  - Definition of F-scale (if appropriate)
  - Post-Storm Data Acquisition Analysis Map
  - Narrative Summary
  - Other (if appropriate)

2.1 Service Assessment Summary. The summary concisely describes activities before and during the event to give a clear understanding of what occurred. It should be well written and exclude jargon and technical language. When a person completes reading the summary, he/she should have a good understanding of the event and the NWS response. It should provide an overview of the impact of the event, highlight NWS effectiveness in warning and forecasting the event, note significant NWS accomplishments and/or shortcomings, detail the need for immediate actions, and discuss public response to the event, and any feedback from local officials, emergency managers, the public, and the media. The nature and complexity of each event will dictate the length of the summary, but five pages should normally suffice.

2.2 Facts, Findings, and Recommendations. The report will contain facts, findings, and recommendations. They are defined as:

- FACT -- A statement that describes something important learned from the assessment for which no action is necessary. Facts are not numbered and are not associated with a recommendation.

  Example:
  FACT: A total of 24 severe thunderstorm warnings, with an average lead time of 22 minutes, was issued by the Cleveland WFO during the event.

- FINDING -- A statement that describes something important learned from the assessment for which an action is necessary. Findings are numbered in ascending order and are associated with a specific recommendation.

  Example:
  Finding 1: There is no SKYWARN spotter network in Comanche County.

  Findings should provide a clear understanding of the issue. Avoid unnecessary details, unrelated information, editorializing, and repetition.

  Poor Example: "Outlooks were generally consistent in timing."

  Good Example: "Except for the first one, outlooks were consistent in timing."

- RECOMMENDATION -- A specific course of action that is clear, specific, achievable, and trackable, that is a direct result of the related finding. Each recommendation is numbered and assigned the same number as the associated finding.

  Example:
  Recommendation 1: The WFO in River City should prepare a specific plan to work with emergency management, municipal law enforcement, and amateur radio associations to develop a SKYWARN spotter network in Commanche county.

Each recommendation should detail the action to be taken and must be linked to the associated finding. No other information or statements should be included. Guidelines for writing recommendations are:

- Be specific and recommend close-ended actions. For example, avoid "WFO River City should continue to work with emergency managers to publicize the value of NOAA Weather Radio."

- Use a minimum number of words. Avoid adjectives when possible and the use of adverbs (i.e., mostly, possibly, generally, etc.).

Each finding will discuss one issue that leads to one recommendation.

Facts, findings, and recommendations will be grouped into sections as follows:

- Observations: data collection, availability, equipment reliability;.
- NCEP Products and Services: model performance, manually-prepared guidance, NCEP Service Center products and performance, service, etc.;
- Statistically-based Guidance (if appropriate);
- RFC Models and Guidance: RFC flash flood guidance, hydrologic model guidance, service, etc.;
- Local Office(s) Warnings/Forecasts: outlooks, warnings, forecasts, statements;
- Systems: performance, reliability, etc.;
- Communications and Other Infrastructure Issues: performance, reliability, etc.;
- Internal and External Coordination: intra- and interoffice coordination, briefings, phone calls, contact with media, emergency management/public safety officials, and elected officials, pre-event outreach and preparedness activities);
- Dissemination: NOAA Weather Radio, AFOS/AWIPS, NWWS, NAWAS, and other local systems;
- Response: customer response to warning/forecast products, post-storm feedback;
- Training: internal, external, adequacy, etc.; and
- Management Procedures: station duty manual, office procedures, drills, work, and staffing priorities, etc.

2.3 Appendices and Supporting Information. The team leader will determine how extensive the appendices and supporting information should be. The following material will be included in each report.

- Preface: a brief statement from the NWS Director;
- Table of contents;
- Explanation of acronyms;
- F-scale/Saffir-Simpson scale definitions (if appropriate);
- Photographs, maps, and tables which clarify or enhance the impact of the report;
- Relevant information if a PSDA QRT was fielded; and
- River gauging information (if appropriate).

Extensive lists of products issued (office logs, observations, detailed analyses, weather maps, etc. should be omitted unless needed to emphasize a fact or finding, or there is some other compelling reason for their inclusion.

3. Service Assessment Report Review. The team leader will provide a copy of the draft report for review to OCWWS, regional director(s) of the appropriate region(s), and the NCEP Director. The team leader will consider provided comments but has final authority on report content. A copy of the report should be provided to NCEP Service Centers and the MICs/ Hydrologists in Charge (HICs) involved in the event. NCEP Service Center director(s) and local field office managers will limit feedback to the accuracy of the factual data. The report will be clearly marked "FOIA Exempt - Not for Public release" on the cover and "draft" on each page (section 1). All personnel will take reasonable precautions with the report and associated materials to prevent premature release of information.

4. Preparation of Final Draft. The team leader will ensure the final draft of the report is ready for briefing and signature normally within 90 days of the start of the service assessment. The final draft will be submitted to OCWWS for formatting and preparation for briefing/ signature. The team leader will receive all follow-up information and additional data and revise the draft to ensure accuracy. All drafts should be shared only among team members.

5. Briefing for the NWS Director. The NWS Director will be briefed on all service assessments unless otherwise indicated by the NWS Director. The briefing will be attended by:

- team leader;
- OCWWS/OSO/OSD/MB Office Directors, or designees;
- NCEP Director, or designee;
- Regional Director(s) of the affected region(s), or designees;
- NOAA Legislative Affairs;
- NOAA General Counsel;
- NOAA Public Affairs;
- NCEP Service Center Director(s) as appropriate, or designees, at discretion of the NCEP Director;
- affected MIC/HIC(s) as appropriate, at discretion of the regional director(s);
- NWS Employees Organization Representative; and
- others (as determined by NWS Director/OCWWS).

The travel expenses will be borne by OCWWS. Copies of the report (marked "FOIA Exempt - Not for Public Release" on the cover and "draft" on each page) will be provided to attendees one week before the briefing.

5.1. Briefing Process. The team leader will summarize the event, assess the services, and provide findings and recommendations. OCWWS will record pertinent comments.

5.2. Decision Memorandum. A Decision Memorandum signed by the NWS Director details any facts, findings, recommendations, or other information in the report with which NWS disagrees, and will include supporting material. The Decision Memorandum may be included, as appropriate, as part of the final report.

5.3. Signature. The final report may be released when signed by the NWS Director.

6. Coordination and Dissemination of Service Assessment Final Report. NOAA Public Affairs, NOAA Legislative Affairs, the team leader, OCWWS, and the appropriate regions will determine what briefings are required in coordination with the release of the report. Once the delivery date of the report is known:

- NOAA Legislative Affairs (NWS) will work with the team leader, OCWWS and the appropriate region(s) to arrange briefings for appropriate members of Congress. If a briefing is not necessary, appropriate faxes announcing release of the report and a contact for additional information will be sent to appropriate members of Congress. The briefing or faxes will normally occur the day before release of the report to the general public;

- NOAA Public Affairs (NWS) will work with the team leader, OCWWS and the appropriate region(s) to arrange for media briefings. If a briefing is unnecessary, appropriate press release(s) will be issued. The briefing or press release will normally occur after Congressional notification; and

- At least 2 days before release of the service assessment report, the NOAA Administrator will be notified (memorandum or briefing).

Memorandum. A memorandum will be prepared by the team leader with support from OCWWS and will include a:

- summary, including the Senators and Congressmen that will be briefed/notified, overview of public briefings, general public release, and expected reaction to the report; and

- discussion, including a brief description of the event and its impact, highlights of NWS actions, and a summary listing of the most significant findings. Also, if potential adverse reaction or controversial issues might arise, those issues and a suggested response will be included.

Briefing. This normally will occur when findings reveal significant issues or problems about which the NOAA Administrator should be aware.

On the official release date, the report will be entered on (or linked to) the NWS, OCWWS, regional office, and local office(s) Internet home pages, as appropriate.

Printed reports distributed before the official release of the report will have a sticker attached to the front cover titled "FOIA Exempt - Not for Public Release until ...." The date on the sticker will reflect the official release date.

OCWWS will be responsible for funding and printing of service assessment reports. OCWWS will also fund costs connected with media, Congressional, and NOAA briefings.

7. Assignment of Service Assessment Report Recommendations. The Regional Director(s) of the affected region(s), in coordination with OCWWS, will assign the report recommendations to the appropriate NWS office. The NWS position (adopt or reject) and the expected close-out date will be included. The office assigned the recommendation will notify the regional director and OCWWS if the assignment was incorrect or if a different close-out date is needed. Also, the action office will provide the regional director and OCWWS with monthly progress reports on assigned recommendations.

APPENDIX B - Glossary of Terms

Significant Hydrometeorological Events - Significant hydrometeorological events are those that directly result in at least one fatality, numerous injuries requiring hospitalization, extensive property damage, or widespread media interest. However, heat episodes with fewer than 5 fatalities and multiple lightning fatalities fewer than 3 are not considered significant hydrometeorological events.

Significant NWS-related Events - NWS-related significant events include, but are not limited to, situations where there are one or more employee fatalities or injuries occurring in the line of duty; major damage to an NWS facility; civil disturbances affecting NWS employees or installations; results of terrorist acts requiring provision of weather services; toxic spills or nuclear incidents requiring the provision of hydrometeorological services; wild fires, tsunamis, avalanches, and volcanic eruptions, requiring the provision of services from the NWS; and weather-related marine and aviation accidents as defined in Directive 10-20, Forensic Services.