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APPLICABLE TO NWSI 10-503
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Operations and Services
Public Weather Services, NWSPD 10-5
WFO Public Weather Forecast Products Specification, NWSI 10-503

GUIDELINES FOR INCLUSION OF ADDITIONAL SECTIONS WITHIN THE AREA
FORECAST DISCUSSION PRODUCT

NOTICE: This publication is available at: <http://www.nws.noaa.gov/directives/>.

OPR: W/CR1x11 (J. Zeltwanger)
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Certified by: W/CR1 (K. Runk)

SUMMARY OF REVISIONS: This supplement supersedes CRS 05-2007 dated May 15, 2007.

- Changed OPR from G. Schmeling to J. Zeltwanger, and Certifying official to K. Runk from J. Michael Looney.
- Modifies instruction title to include other AFD sections in addition to aviation and marine.
- Encourages more frequent updates to the entire AFD product.
- Specifies .AVIATION... AFD issuance requirements.
- Adds guidance for inclusion of TAF confidence, alternate scenarios, airport specific sections, and outlooks.
- Adds guidance for a .HYDRO... section in the AFD.

/signed/
Lynn Maximuk
Director, NWS Central Region

August 23, 2011
Date

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1. Purpose: This Supplement provides additional guidance to that contained in Section 2 and associated Appendix of NWSI 10-503. All instructions contained in NWSI 10-503 remain valid. This supplement establishes the requirement to include an .AVIATION... section in the AFD product. In addition, this supplement provides guidance for the inclusion of a .MARINE... section in the AFD for WFOs Marquette, Chicago, and Detroit. It also provides guidance for inclusion and content of .HYDROLOGY... sections.

2. Central Region Policy: AFDs issued by Central Region offices will include an .AVIATION... section that will provide a brief meteorological explanation of the reasoning behind the aviation forecasts issued by that office. The .AVIATION... section in the AFD will be updated, at a minimum, four (4) times per day to communicate information about the routine TAF issuances of 00Z, 06Z, 12Z and 18Z. For offices that conduct more frequent update cycles to TAFs, the .AVIATION... section should be updated whenever a significant change is made that will impact normal aviation operations. WFOs should work with Center Weather Service Unit (CWSU) forecasters and aviation partners to understand what weather impacts aviation operations.

AFDs issued by Central Region offices with open lake responsibility will include a .MARINE... section that will include a brief meteorological explanation of the reasoning behind the marine forecasts issued by that office.

Central Region offices with Near Shore responsibility have the option of including a .MARINE... section in their AFD. When hydrologic impacts are expected, Central Region offices should append a .HYDROLOGY... section to the AFD.

3. Philosophy, Content and Guidelines: The AFD is a highly visible and frequently used product where forecaster expertise is sought. In addition to the two (2) scheduled issuances outlined in 10-503, it is recommended that forecasters update the AFD, utilizing the .UPDATE section, when a significant change to the forecast occurs in the short term. Each scheduled shift will address the need for an update per customer needs.

Coordination with local partners is also encouraged to determine whether a legitimate need exists for supplemental scheduled updates. For instance, many local television markets have expressed a desire for a brief update in time for their evening broadcast, outlining any significant changes in forecast thinking since the afternoon issuance. The content of such an update would be restricted to a brief segment inserted at the top of the previous scheduled discussion. See the Central Region Sharepoint site for an example: <http://sharepoint.crh.noaa.gov/crhq/isd/Documents/AFDexamples>

The content and terminology of the aviation, marine, and hydrology sections in the AFD, outlined below, should meet the needs of the majority of the users in the forecast area who receive the AFD. It is the responsibility of each WFO to determine the primary users of its AFD product.

The meteorological explanation for each section should be brief, succinct and in plain language. Most acronyms should be avoided unless already commonly used by the target audience. Long, involved, complex explanations in the aviation, hydrology and marine sections are strongly discouraged. The number of sentences in these sections, even in complex and/or changing weather conditions, should be limited. Since a general narrative discussion is already provided in each AFD issued, any explanation in these sections should consist of information that adds to, or enhances, the narrative discussion, and is focused on the issues directly affecting that specific service sector.

3.1 .AVIATION... Section: Typical users include, but are not be limited to, Flight Service Station (FSS) personnel, dispatchers and other air carrier personnel, Center Weather Service Unit (CWSU) personnel, Aviation Weather Center (AWC) personnel, FAA air traffic controllers, commercial airline industry, airport management authorities, General Aviation (GA) pilots, staff of adjacent WFOs, and military units. There will always be an explanation of weather in the Aviation section of each AFD issued. The explanation and terms used should be geared toward the users. Collaboration between the WFO and CWSU that serve major aviation hubs is encouraged.

Part of the appeal of the AFD is forecaster insight. The forecaster should include a level of confidence in the aviation forecast. When confidence in a forecast is uncertain, plausible alternate scenarios should be included. This allows the reader to get an idea of what else could happen, which in turn helps with planning. For example, if the timing of an operationally significant wind shift that could impact runway configuration is in question, provide an alternate scenario or scenarios for planning purposes.

At higher traffic and larger hub airports, it is helpful to address issues specific to each location. The AFD should include separate sections specific to each major airport in order to focus on any operationally significant weather events for that location.

A “heads-up” outlook is also useful for future planning purposes. Although not required, inclusion should be considered based on user input and desired information. Outlooks will not be long and detailed but instead highlight significant weather events that could impact aviation operations. For example, if there is a winter storm on the horizon, verbiage such as “HEAVY SNOW AND/OR FREEZING PRECIPITATION POSSIBLE MONDAY” can be a useful notification to changing weather conditions.

Examples of .AVIATION...sections can be found on the Central Region Sharepoint site: http://sharepoint.crh.noaa.gov/crhq/isd/Documents/AFDexamples/aviation_afd_examples.pdf

3.2 . MARINE... Section: Typical users of the marine section of the AFD are the U.S. Coast Guard (USCG), owners and operators of tugs, barges, boats, ships, marinas, shipping companies, recreational boaters and staff of adjacent WFOs. CR Great Lake offices may include local effects, such as rip currents if deemed appropriate. Forecasters should pay particular attention to upcoming major marine events that would cause the issuance of gale or storm warnings and highlight in their discussion. Other more short term hazards such as small craft advisory conditions, dense fog and freezing spray should also be emphasized.

3.3 .HYDROLOGY... Section: The .HYDROLOGY topic divider is optional, and should be included when appropriate, such as when hydrologic impacts are included in the Hazardous Weather Outlook, following the general guidelines below. The .HYDROLOGY topic divider will be placed in order of significance with other topic dividers as specified in [NWSI 10-503](#) and other sections of this supplement. The text is free-format; however, bullets can be used if desired. Examples can be found here: http://sharepoint.crh.noaa.gov/crhq/isd/Documents/AFDexamples/aviation_afd_examples.pdf.

If the HYDROLOGY...section is updated at a different time than other sections of the AFD, include the time issued per Example 4, directly below the topic divider.

3.3.1 General Guidelines for Inclusion and Content of the .HYDROLOGY... section: The .HYDROLOGY... section should highlight or emphasize hydrometeorological information that will cause a significant hydrologic response in the CWA. The focus should be on flooding, low water or other hydrologic conditions significant to the area. Information to consider includes, but is not limited, to the following:

- Areas/Rivers of concern
- General overview of hydrometeorological conditions
 - Brief, no need to repeat meteorological reasoning from above; concentrate on the hydrologic aspects
 - Impact of Quantitative Precipitation Forecasts (QPF)
- Overview of significant changes to hydrologic/flood forecasts
- Level of confidence (e.g., low, medium, high due to uncertainty in X, where X could be the amount and location of QPF)
- General forecast flood categories/magnitude of impacts expected
- Concise description of areal or river long-term watches/warnings/advisories in the Watch/Warning/Advisory Block

Avoid:

- Any specific river crest or forecast numbers which could become outdated or require an update in time with additional statements or warnings
- Too much detail about meteorological components which would be part of the main discussion sections of the AFD

Do not include:

- Information for internal use only, that is not meant for public release

Examples of .HYDROLOGY...sections can be found on the Central Region Sharepoint site: http://sharepoint.crh.noaa.gov/crhq/isd/Documents/AFDexamples/hydro_afd_examples.pdf