

NATIONAL WEATHER SERVICE INSTRUCTION 10-305

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Operations and Services

Marine and Coastal Weather Services, NWSPD 10-3

MARINE ZONE CHANGE PROCESS

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

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SUMMARY OF REVISIONS: This directive supersedes NWSI 10-305, *Marine Zone Change Process*, dated November 10, 2014. Changes made to reflect the NWS Headquarters reorganization effective April 1, 2015. Additional changes include:

1. Added paragraph to subsection 3.1.d to include minor changes to marine zone boundaries and 30 day minimum notice.
2. Defined a target effective date based on minimum lead time and NWS headquarters testing of new shapefiles.
3. Reduced the minimum 120 day lead time to a 30 or 75 day lead time to be consistent with NWSI 10-1805.
4. Changed implementation restriction from 3 times a year to quarterly to be consistent with Fire and Public weather services instructions.
5. Introduced a new zone change process that allows time for requesting WFOs and centers to better coordinate the development and testing of the new shapefiles with NWS HQ offices.
6. Updated the tables to reflect the new marine zone change process.

Signed

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Date

Marine Zone Change Process

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1 Introduction

This procedural instruction describes the process for requesting, coordinating, and implementing changes to marine zone maps and marine zone listings filed in the National Weather Service (NWS) Directives System (NDS).

2 Types of Marine Zone Map and Marine Zone Listing Changes

Three different types of marine zone map and marine zone listing changes are described below:

2.1 Corrections for Errors on Marine Zone Maps and in Marine Zone Listings

These changes are necessary to correct errors, or any errors of omission, found on marine zone maps and in marine zone listings in NWS Instruction (NWSI) 10-302, [*Marine and Coastal Services Areas of Responsibility*](#).

2.2 Changes to Marine Zone Boundaries

Changes to marine zone boundaries involve the movement of current marine zone boundaries, the creation of new marine zones, or the deletion of existing marine zones.

2.3 Changes to Marine Zone Names and Codes

Changes to marine zone names and codes result from the correction of errors or other justifiable needs to modify a marine zone name or code.

3 Change Request Procedures and Levels of Approval

3.1 Weather Forecast Office (WFO) Responsibility

To encourage early collaboration, WFOs should send a preliminary notification of a change request by email to their regional marine program managers 15-30 days prior to submitting the formal change request. The regional marine program manager or division chief should then notify the Marine, Tropical, and Tsunami Services (AFS26) Branch Chief in the Analyze, Forecast and Support Office (AFSO) at NWS Headquarters as soon as possible. See Table 1 for a summary of the marine zone change process.

Each WFO is responsible to initiate the change request for all coastal or Great Lakes marine zones in its area of responsibility. In addition, a WFO issuing offshore and/or high seas forecasts is responsible to initiate the change request for all offshore and/or high seas marine zones in its area of responsibility. Submit the change request via e-mail to the responsible regional division in accordance with the following guidance. The division chief, or their designate, will submit the request to the AFS26 Branch Chief.

The change request will contain as appropriate:

- a. A detailed description of any errors found on marine zone maps and in marine zone listings, and proposed corrections.

- b. A written justification for any change to marine zone boundaries. If necessary for clarification, include a clearly labeled map depicting the changes to marine zone boundaries.
- c. A written justification for any change to marine zone names and code. If necessary for clarification, include a clearly labeled map depicting the names and codes. Assign a unique zone number to all newly created zones. Also include a list of WFO actions in response to all possible impacts of the proposed marine zone changes. See Table 2.
- d. A draft service or technical change message conforming to format and instructions in NWSI 10-1805, [*National Public Information Statements and Service Change Notices*](#). A NWS Service Change Notice, approved and issued by the AFS26 Branch Chief, is required for changes to marine zone boundaries or marine zone names and codes. These changes require at least 75 days of public notification prior to the effective date. See Table 1 for how to compute the target effective date. Implementations are restricted to quarterly; occurring during the first full week of January, April, July, and October.

The next step is to support work on the new shapefile(s) between the NWS Office of Dissemination (DIS) and the requesting WFO (30 days).

The AFSO Digital and Graphical Information Support Branch (AFS13) then coordinates testing of the new shapefile(s) by the Meteorological Development Laboratory (MDL) within the NWS Office of Science and Technology Integration (STI) and the NWS Information Dissemination Service (NIDS) within DIS (30 days).

This all occurs prior to the required 75 day notice. See Table 1 for the minimum required timeline for meeting these implementation dates.

Minor changes to marine zone boundaries that do not affect text products (i.e., no changes to zones names or UGCs) and only require users to download required shapefile(s) only require a 30 day notice. The requesting region and AFS26 Branch Chief must approve these changes. The effective dates of these changes can be set for any time but should be coordinated with the AFS Severe, Fire, Public, and Winter Weather Services Branch (AFS21).

3.2 NWS Regional Headquarters Responsibility

NWS regional headquarters are the points of contact for all change requests received from their respective coastal and Great Lakes WFOs, and WFOs with offshore and high seas responsibilities. The regional Meteorological Services Division (MSD) Chief is responsible for reviewing requests (e.g., ensuring sound reasoning and adequate justification) and verifying any errors. The division chief, or their designate, forwards the requests to the AFS26 Branch Chief.

3.3 NWS National Centers for Environmental Prediction (NCEP) Center Responsibility

To encourage early collaboration, the national center branch chief should send an early notification of change by email to the AFS26 Branch Chief 15-30 days prior to submitting the formal change request. See Table 3 for a summary of the marine zone change process and the minimum required deadlines for meeting these implementation dates. Each national center issuing offshore and high seas forecasts (Ocean Prediction Center [OPC] or National Hurricane

Center [NHC]) is responsible to initiate the change request for all offshore and high seas marine zones in its area of responsibility. The national center branch chief submits the change request via e-mail to the AFS26 Branch Chief. See the content in section 3.1 and Table 4 for what the change request should contain. In the change request, the national center branch chief includes a list of actions in response to all the possible impacts of proposed marine zone changes.

4 NWS Headquarters Roles and Responsibilities

The NWS Headquarters offices that are involved with the marine zone change process include: AFSO, DIS, STI, Office of Central Processing (CP), and the Office of the Chief Financial Officer (CFO).

4.1 Analyze, Forecast, and Support Office (AFSO)

AFSO has the responsibility to ensure maps and zone listings are updated as necessary. AFSO is also the final approving authority for all marine zone related changes and effective dates, and subsequent updates to NWSI 10-302, *Marine and Coastal Services Area of Responsibility*. Approval is granted in coordination with the AFS26 Branch Chief. AFSO should acknowledge marine zone change requests from regional headquarters and national centers within 15 business days of receipt. The AFS26 Branch Chief, or designee, is the NWS Headquarters focal point for the overall marine zone change process, and coordinates with appropriate offices within NWS Headquarters, regional headquarters, national centers (includes OPC and NHC), the NWS Tsunami Warning Centers (TWCs), and designated WFO or national center Points-of-Contact (POC). Specifically, the AFS26 Branch Chief, or designee, is responsible for the following:

- a. Coordinating the details of all marine zone related changes with other NWS Headquarters elements;
- b. Ensuring that any changes made by other NWS Headquarters elements are timely, accurate, and correctly formatted;
- c. Maintaining accurate records for all marine zone maps and listing changes;
- d. Approving and processing the Service Change Notice submitted by the appropriate regional headquarters or national centers, and ensuring these issuances are distributed to NWS users, including the TWCs, within the specified time frame;
- e. Ensuring that all updates to NWSI 10-302, *Marine and Coastal Services Areas of Responsibility* are posted and are as up-to-date as feasible; and
- f. Ensuring updated shapefile(s) are sent to DIS/ Geographic Information System (GIS) team and are assigned a WFO or national center POC.

4.2 Office of Dissemination (DIS)/Geographic Information System Team (GIS)

DIS/GIS Team has the responsibility to work with the WFO or national center POC to modify GIS map shapefiles. This process may involve WFO or national center POC, DIS, and CP. DIS and CP will conduct testing on each iteration to prevent AWIPS ingestion or display issues. Once the WFO or national center POC is satisfied, DIS will notify MDL and NIDS that the shapefile(s) are available for testing. Upon successful completion of MDL and NIDS testing, the revised shapefile(s) are posted to the Advanced Weather Interactive Processing System (AWIPS)

Map Database Catalog for public access, placed on MDL's Virtual Laboratory, and converted to a border point file. DIS transmits a notice via AWIPSINFO (an email list server) indicating that the revised marine zone map has been posted to the AWIPS Map Database Catalog, and transmits a "notification of change" e-mail to the AFS26 Branch Chief or designate.

4.3 Central Processing (CP)

CP collaborates with DIS to validate the new shapefile(s) to verify they will not cause AWIPS ingestion or display issues. This validation is accomplished during the iterative process between DIS and the WFO or national center POC.

4.4 Meteorological Development Laboratory (MDL)/NWS Information Dissemination Service (NIDS)

MDL and then NIDS validate the new shapefile(s) with their systems, and ensure the effective date stays viable.

4.5 Management Information Retrieval System (MIRS)

MIRS maintains database of marine zone maps and listings for public access.

4.6 Management and Organization Division of the Chief Financial Office (CFO2)

The CFO focal point is responsible for updating NWSI 10-302, *Marine and Coastal Services Areas of Responsibility* on the NDS website. The CFO focal point should contact the AFS26 Branch Chief, or designate, in AFSO when the website update is complete.

5 Emergency Marine Zone Changes

Emergency needs for marine zone changes will be considered on a case-by-case basis. An example of an emergency need is a major technology change where the zone change has to occur with the technology change and there is a moving target date. Requests for emergency marine zone changes will be forwarded to the AFS26 Branch Chief. Coordination among the affected WFOs, centers, regions, and AFS26 should begin as early as possible. The AFS26 Branch Chief will approve or disapprove the request.

Table 1: Marine Zone Change Process for WFOs, Regions, and National Centers

Shapefile(s)	Service Change Notice (SCN)
AFS26 Responsibilities:	
<p>1. Receive WFO or national center marine zone change requests. WFO marine zone change requests come to AFS26 through the region and are approved by the regional MSD Chief. The AFS26 Branch Chief must approve the request before the next steps can occur.</p>	
<p>2. Obtain name of a WFO or national center Point-of-Contact (POC).</p>	
<p>3. Determine a target effective date.</p> <p>a. Refer to NWSI 10-1805, <i>National Service Change and Technical Implementation Notices</i> for the Service Change Notice (SCN) required minimum lead time...either 30 or 75 days. Consult with AFS13 as necessary. This requirement may be waived by the AFS13 Branch Chief.</p> <p>b. Add two work weeks (depending on the complexity of the requested change) for DIS/GIS Team and the WFO or national center to interact with the shapefile(s) to verify their correctness. Ensure DIS/GIS Team is available to work the change. This includes AWIPS testing for each iteration by the DIS/GIS – CP Test Team.</p> <p>c. Add a minimum of 5 working days for MDL validation.</p> <p>d. Add a minimum of 5 working days for NIDS validation.</p> <p>e. For marine zone changes, implementations are restricted to quarterly; occurring during the first full week of January, April, July, and October. This requirement may be waived by the AFS26 Branch Chief.</p> <p>f. Marine zone changes for Eastern Region (ER) and Southern Region (SR) which impact the National Hurricane Center’s Tropical Cyclone Watch/Warning products (TCVs) will not be implemented during hurricane season (June 1st through November 30th). This requirement may be waived by the AFS26 Branch Chief.</p>	

<p>4. Contact the WFO or national center POC to:</p> <p>a. Confirm target effective date.</p> <p>b. Ensure updated shapefile(s) is sent to DIS/GIS Team.</p> <p>c. Ask for a draft Service Change Notice (SCN) and COMPLETED SCN checklist.</p>	
<p>5. AFS26 along with AFS13 monitor the shapefile(s) iteration between DIS/GIS Team and the WFO or national center POC to ensure the target effective date stays viable.</p>	
<p>6. Review the SCN for accuracy and format.</p>	
<p>7. Notify AFS13 that the shapefile(s) and SCN are correct.</p>	
<p>AFS13 Responsibilities:</p>	
<p>8. AFS13 along with AFS26 monitor the shapefile(s) iteration between DIS/GIS Team and the WFO or national center POC to ensure the target effective date remains viable.</p>	<p>1. Work with the WFO or national center POC to finalize the SCN.</p>
<p>9. Notify DIS/GIS Team that the shapefile(s) and SCN are correct.</p>	<p>2. Ensure issuance of the SCN (nws.hq.afs.notify@noaa.gov). The SCN cannot be released until the DIS/GIS Team posts them on the geodata website with the file name reflecting the target effective date (see step 11 in DIS/GIS column).</p>
	<p>3. Forward copies of the issued SCN to NIDS.support@noaa.gov and MIRS@noaa.gov so they can prepare for the zone changes when the effective date arrives.</p>
<p>DIS/GIS Team Responsibilities:</p>	
<p>10. Notify MDL and ask for their shapefile validation within 5 working days. Monitor MDL progress to ensure the target effective date remains viable.</p>	

<p>11. Once MDL verifies the shapefile(s) notify NIDS of their need to validate the shapefile(s) within 5 working days. Monitor NIDS progress to ensure the target effective date remains viable.</p>	
<p>12. Once NIDS validates the shapefile(s), the DIS/GIS Team posts them on the geodata website with the file name reflecting the target effective date.</p>	

Table 2: Impacts of WFO-Requested Marine Zone Change Impacts on AFS26, WFOs, and Regions

Impact of Proposed Marine Zone Change	Minimum Required Actions (other impacts should be addressed in the WFO’s request for change)
<p>1. NOAA Weather Radio Broadcast.</p>	<p>WFO addresses the change expected in length of the broadcast cycle or possible impact to change of transmitter.</p>
<p>2. U.S. Coast Guard (USCG) broadcast of NWS marine forecasts over USCG radio frequencies.</p>	<p>WFO presents summary of notification provided to the USCG sector in the WFO Area of Responsibility, and feedback received, on how this change affects USCG broadcast of weather and safety information.</p>
<p>3. Mariners at large.</p>	<p>WFO presents summary of notification provided to the recreational and commercial mariners in the WFO Area of Responsibility, and collects their feedback on how this change affects their activities and operations.</p>
<p>4. Will the proposed change remove portion of inland waters from the marine zones?</p>	<p>If so, WFO takes action to include those affected areas into other marine zones or land zones.</p>
<p>5. Coordinate with Storm Prediction Center (SPC). The SPC marine zone database is synchronous with the WFO marine zone databases to ensure consistency between SPC and WFO products.</p>	<p>Region coordinates with marine zone focal point at SPC to ensure SPC has made the change(s) to their marine zone database immediately following the implementation date.</p>

<p>6. Coordinate with NHC and OPC. Which of their Offshore Marine Zones line up against the changed WFO Coastal Marine Zones? Are NHC breakpoint associations impacted?</p>	<p>AFS26 coordinates with NHC and OPC to ensure they made any necessary changes to their marine zone databases. Also notify NHC so changes can be made to WFOs breakpoint associations if applicable.</p>
<p>7. Emergency Alert System (EAS) / Specific Area Message Encoding (SAME). Commercial broadcasters have to program their EAS boxes for any marine zone / UGC changes. Owners of SAME equipped NWR receivers have to program the marine zones by the pseudo Federal Information Processing Standards (FIPS) codes which are based on the UGCs.</p>	<p>WFO / Region includes a draft service or technical change message conforming to format and instructions in NWSI 10-1805 for AFS26 approval.</p>
<p>8. Web sites containing marine zones show the changed zones by the effective date.</p>	<p>See Table 1.</p>
<p>9. User preparation for zone change(s); need for advance notification.</p>	<p>WFO / Region includes a draft service or technical change message conforming to format and instructions in NWSI 10-1805 for AFS26 approval.</p>
<p>10. Neighboring WFOs that provide service backup will have the new maps in their AWIPS databases</p>	<p>WFO / Region coordinates changes with backup WFOs to ensure they have the new maps in their AWIPS databases.</p>
<p>11. Tsunami Warning Centers (TWCs). The TWCs marine zone databases are synchronous with the WFO marine zone databases to ensure TWC products contain the correct marine zones.</p>	<p>AFS26 coordinates with appropriate TWC to ensure TWC has made the change(s) to their marine zone.</p>

Table 3: Impacts of National Center-Requested Marine Zone Change on AFS26 and National Centers

Impact of proposed marine zone change	National Center Actions (other impacts issues should be identified in the national center’s request for change)
1. USCG broadcast of NWS marine forecasts over USCG radio frequencies.	Present summary of notification provided to the USCG sector in the National Center Area of Responsibility, and feedback received, on how this change affects USCG broadcast of weather and safety information.
2. Mariners at large.	Present summary of notification provided to the recreational and commercial mariners in the National Center Area of Responsibility, and feedback received, on how this change affects their activities and operations.
3. User preparation for zone change(s); need for advance notification.	National Center includes a draft Service Change Notice (SCN) conforming to format and instructions in NWSI 10-1805 for AFS26 approval.
4. Web sites containing marine zones show the changed zones by the effective date.	AFSO coordinates with NWS webmasters (see Table 3). AFSO releases SCN to notify impacted non-NWS web masters.
5. Coastal WFOs. Which of their Coastal Marine Zones line up against the changed Offshore Marine Zones?	Coordinates with impacted coastal WFOs to ensure they made any necessary changes to their marine zone databases immediately following the implementation date.
6. National Center(s) or WFO(s) that provide service backup will have the new maps in their AWIPS databases.	National Center coordinates changes with backup national center(s) or WFO(s) to ensure they have the new maps in their databases.