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NATIONAL WEATHER SERVICE INSTRUCTION 10-105
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Operations and Services
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NATIONAL WEATHER SERVICE ZONE CHANGE PROCESS

NOTICE: This publication is available at: https://www.weather.gov/directives/.

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SUMMARY OF REVISIONS: This directive supersedes NWS Instruction 10-105, "National Weather Service Zone Change Process", dated July 8, 2022. This is an administrative update made only to fix broken links in sections 4.1.1.1b; 4.1.1.2; 4.1.1.3; Appendix C, Part D, subpart d; Appendix C, Part E, subpart b; and Appendix E, Part 1, subparts a. and b. No content changes were made with this update, and the effective date was not affected.

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June 24, 2022

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Date

National Weather Service Zone Change Process

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1 Introduction

This procedural instruction describes the public, marine, and fire weather zone change processes within the National Oceanic and Atmospheric Administration's (NOAA's) National Weather Service (NWS) Directives System (NDS).

Zone changes are an important aspect of Weather Forecast Office (WFO) responsibility. Zone changes are sometimes necessary to better align zones for climatology, at partner request, and/or to change the structure of zones to better reflect the unique terrain, elevation, and weather differences for a more precise and consistent forecast. Zone changes allow offices to create zone-based forecast products that more accurately reflect expected conditions and will allow better consistency between point forecasts and forecast weather hazards. For example, a zone change could divide a large county into distinct climatological sections for improved forecast

products. These zones may often experience different weather conditions given certain weather scenarios (e.g., tropical cyclones, freeze/frost, and fog).

2 Approval Process for Zone Changes

In general, requests for zone changes are submitted by the NWS field offices to the respective regional Meteorological Services Division (MSD) Chief(s) (or regional equivalent) and/or regional point of contact (POC) for review. The change(s) requested are verified by the MSD Chief(s) (or regional equivalent) and/or regional POC and forwards the request to the appropriate Analyze, Forecast and Support Office (AFSO) branch (see section 4.1.1 below) for coordination of the zone change process to ensure timely and proper execution. The appropriate AFSO Branch Chief provides the final approvals to requests upon the recommendation of the designated AFSO focal point.

Note: For National Centers (NCs), the Tropical Analysis and Forecast Branch (TAFB) of the National Hurricane Center, and the Ocean Prediction Center (OPC), can also submit zone change requests. Such requests are sent directly to the AFSO Marine Weather Services program manager for coordination and shepherding through the zone change process.

3 Types of Zone Changes

There are five types of zone changes described below.

3.1 Realignment/Reconfiguration

Realignment and reconfiguration changes involve the movement, creation or deletion of current public, marine or fire weather zone boundaries.

3.2 Zone/WFO Name, Code or Identifier Changes

Changes to zones resulting from any justifiable need to modify a WFO name or identifier; zone name; or zone number. Note that NWS zone changes may also result in changes to County Warning Area (CWA), River Forecast Center (RFC) and/or Hydrologic Service Area (HSA) boundaries and these changes will also be implemented as part of the zone change process.

3.3 Implementation of U.S. Census Bureau-codified County and City Changes

These changes are initially implemented by the U.S. Census Bureau and subsequently must be effected across NWS products and systems to ensure consistent communications with the weather and alerting enterprises and the public. Examples of these changes include county name changes, county boundary changes, county Federal Information Processing Series (FIPS) code changes, city status changes from an independent city to county annexation, and county or city name changes. Note the word “county” is inclusive of other Census-recognized county-equivalents such as parish, borough, independent city, and census area.

3.4 Partial County Changes

Partial county changes for NOAA Weather Radio All Hazards (NWR) and the Emergency Alert System (EAS), to include the implementation of partial county alerting or changes in existing partial county boundaries.

3.5 Corrective Action Requests

Errors found on public, marine or fire weather zone maps and in zone listings will be submitted to the NWS regional headquarters (hereafter referred to as "regions") at any time and will not follow the process in this document. Once requests are received, the regions will notify the AFSO POC and the Office of Dissemination (DIS), who will work with AFSO to determine if, when, and how action should be taken.

4 Roles and Responsibilities

4.1 NWS Headquarters Offices

The NWS Headquarters (NWSHQ) offices involved with the zone change process are AFSO, the Office of Central Processing (CP), DIS, the National Centers for Environmental Prediction (NCEP) Central Operations (NCO) and the Office of Science and Technology Integration (STI).

4.1.1 Analyze, Forecast and Support Office (AFSO)

AFSO is the point of contact for all change requests received or requested from the regions for any public, marine, fire weather zones, and/or county and city changes. AFSO coordinates those changes (and subsequent actions) with DIS, NCO, CP and other applicable offices listed above. AFSO will update the regions through the process. The following AFSO Branches have the responsibility to ensure zone maps and zone listings are updated as necessary and are the final approving authorities for all zone changes following the process defined in this Directive.

4.1.1.1 Severe, Fire, Public and Winter Services Branch (AFS21): Public and Fire Weather Zone Changes

AFS21 is responsible for coordinating public and fire weather zone changes twice per year. Approval is gained through the AFS21 Branch Chief upon the recommendation of the designated services program manager. The national Public Weather Services and national Fire Weather Services program managers are the NWS Headquarters (NWSHQ) focal points for public and fire weather zone changes. The services program managers coordinate with several offices within NWSHQ, regions, and depending upon the required changes, may correspond directly with involved WFOs. Specifically, the services program managers are responsible for the following:

a. Coordinating the details of all public and fire weather zone-related changes with the regions.

b. Coordinating the drafting and review of submitted Service Change Notices (SCNs), and making sure these notices are distributed to NWS users within the time frame as specified in NWS Instruction (NWSI) 10-1805, *National Public Information Statements and Service Change Notices*.

c. Ensuring the documented processes detailed in the appendices of this policy document are followed.

4.1.1.2 Marine, Tropical and Tsunami Services Branch (AFS26): Marine Zone Changes

AFS26 is responsible for coordinating marine zone changes twice per year. Approval is gained through the AFS26 Branch Chief upon the recommendation of the Marine Weather Services program manager. The Marine Weather Services program manager is the NWSHQ focal point for the overall marine zone change process, and coordinates with appropriate offices within NWSHQ, regions, OPC, TAFB, the NWS Tsunami Warning Centers (TWCs), and designated WFO POCs. Specifically, the Marine Weather Services program manager is responsible for the following:

a. Coordinating the details of all marine-related changes twice per year with the regions/TAFB/OPC.

b. Coordinating drafting and reviewing the submitted SCNs, and ensuring these notices are distributed to NWS users within the time frame as specified in NWSI 10-1805.

c. Ensuring the documented processes laid out in the appendices of this document are followed.

4.1.1.3 AFSO Digital and Graphical Information Support Branch (AFS13) Zone Change Support

AFS13 is responsible for:

a. Coordinating the details of all U.S. Census-Bureau codified county and city changes and all Partial County changes and WFO name and/or identifier changes.

b. Coordinating with AFS21 and AFS26 to document all proposed changes and coordinate with other NWSHQ offices to have them follow their parts of the process as detailed in the appendices/charts.

c. Processing and disseminating all zone change SCNs - ensuring technical accuracy, correct syntax, and format; determining appropriate user notification lead time as specified in NWSI 10-1805; approving final draft, and, issuing SCNs after submission by the POC to nws.hq.afs.notify@noaa.gov for dissemination.

See Appendix A for a comprehensive checklist of AFSO responsibilities during the zone change process.

4.1.2 Office of Central Processing (CP)

CP is responsible for assessing and testing Advanced Weather Interactive Processing System (AWIPS) impacts of zone changes and relaying information on any potential issues to AFSO. In addition, CP is responsible for coordinating any necessary system modifications to ensure AWIPS interfaces and linkages reflect the most current zone configurations. CP is also responsible for tasking individuals with specific assignments to implement the required zone map and/or zone listing changes. CP collaborates with DIS to validate new shapefile(s) and make certain they will not cause AWIPS ingestion or display issues. This validation is accomplished during the iterative process between DIS and the WFO POC. CP also advises WFOs on making local configuration changes that may be required for NWR.

4.1.3 Office of Dissemination (DIS)

AFSO coordinates with DIS, who has the responsibility to work with the WFO POC to modify Geographic Information System (GIS) map shapefiles. This process may involve the WFO POC, AFSO, NCO and CP. If necessary, DIS and CP will conduct testing on each iteration to prevent AWIPS ingestion or display issues. Once the WFO or NC POC reviews and then concurs with the change, DIS will notify NCO that the shapefile(s) are available for testing. If an error in the shapefile is found during testing, DIS should be notified using the Zone Change Implementation Day Coordination Google chat room (preferred) or email. Upon successful completion of testing, the revised shapefile(s) is/are posted to the AWIPS Map Database Catalog for public access, placed on the Meteorological Development Laboratory's (MDL's) Virtual Laboratory (VLab), and converted to a border point file/files. DIS informs field offices that the revised zone maps have been posted to the AWIPS Map Database Catalog and emails the appropriate AFSO Branch Chief or designee and afs.zonechange@noaa.gov. DIS also maintains records of all current zone maps and listing changes, which are available via SCNs.

4.1.4 National Centers for Environmental Prediction (NCEP) Central Operations (NCO)

NCO's Software Development Branch (SDB) validates the new shapefile(s) within their managed applications systems and ensures the effective date stays viable. NCO's Implementation and Data Services (IDSB) Onboarding team implements updates to applications within the NWS Integrated Dissemination Program (IDP) utilizing zone or other geographic changes. NCO will notify the appropriate stakeholders once their review is complete.

4.1.5 Office of Science and Technology Integration (STI)

STI ensures applications utilizing zone or other geographic changes are updated based on the changes and provides notifications to stakeholders once completed. STI also maintains VLab pages where DIS manages the AWIPS Map Database Catalog.

5 Regional Headquarters' (Regions) Responsibility

The NWS regions are the POCs for all change requests received from their respective NWS field offices. The MSD Chief (or regional equivalent) and/or the regional POC reviews requests (e.g., ensuring sound reasoning and adequate justification) and coordinates their submission to AFS21 for public and fire weather zones, AFS26 for marine zones, and AFS13 for U.S. Census Bureau-codified County and City changes and partial county changes. All requests should be reviewed by the regional POC and approved requests passed on to NWSHQ, with coordination between WFOs and regions continuing through the process. This includes submitting the Zone Change Package(s) (containing all required documents needed), as defined in this directive, to the appropriate AFSO services program managers by emailing afs.zonechange@noaa.gov.

If regional POCs and/or (MSD Chief (or equivalent)) receive advance notice of zone changes (before the official request from AFSO), they will share that information with the applicable AFSO services program manager. In the case of U.S. Census Bureau-codified county and/or city changes, the AFS13 Dissemination Services Manager will be informed by the regional POC and coordinate with the national Public Weather services program manager. If the zone change necessitates a change to the HSA, notification should also be provided to the AFSO Water

Resources Services program manager. Proposed changes to zones where tropical hazards can be issued should be shared with the AFSO Tropical Services program manager via tropical.program@noaa.gov. To ensure the zone change is communicated to all parties that need to be involved through AFSO, the regional POC will send an email to afs.zonechange@noaa.gov.

Please see Appendix B for a comprehensive checklist of the regions' responsibilities during the zone change process.

5.1 Zone Changes that Cross CWA and/or Regional Boundaries

These changes are coordinated and approved by all affected WFOs and regions. Therefore, the Meteorologists-in-Charge of the affected WFOs will be listed as POCs within the SCN documentation. Please see Appendix E for references and examples of zones crossing boundaries.

6 Weather Forecast Office (WFO) Responsibilities

To encourage early collaboration, WFOs should send a preliminary notification of a change request by email to their regional Public, Marine or Fire Weather Services program managers 15 to 30 days prior to submitting the formal change request. The regional POC will brief the MSD Chief, and as soon as the proposed change is approved, the regional POC should notify the AFS21 Public and Fire Weather Services program managers and the AFS26 Marine Weather Services program manager for zone changes as appropriate. The regional POC should notify the AFS13 dissemination services manager on county and city changes.

WFOs are responsible to initiate zone change requests for any public, marine, and/or fire weather zones in its area of responsibility and supply the comprehensive Zone Change Package, as defined in this document, to the appropriate regional program managers.

Please see Appendix C for a comprehensive checklist of WFO responsibilities during the zone change process.

7 Change Request Procedures and Levels of Approval

Appendices A through C in this document outline the process for submitting zone changes for the public, marine, and fire weather programs. Appendix D provides an overall timeline for the zone change process.

Zone changes will be implemented twice per year - in March and September. Public/marine zone and/or boundary changes for tropical offices of Eastern Region (ER), Pacific Region (PR), Southern Region (SR) or Western Region (WR) impacting adjacent marine zones and NHC's Tropical Cyclone Watch/Warning products (TCVs), will ONLY be implemented in March because zone changes cannot be implemented during hurricane season (June 1 through November 30). Exceptions to the above implementation guidelines may be made based upon operational necessity and with the approval of the AFS21/AFS26 Branch Chief.

Appendix A: Analyze, Forecast and Support Office (AFSO) Responsibilities for a Zone/County Change Process

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1 Initial Request from AFSO to Regions/TAFB/OPC.

The AFSO POC will announce the call for zone change requests to their respective Service Program Teams (SPTs).

A. This will be led by the applicable AFSO Public, Fire and Marine Services program manager(s). The action for the AFSO POC is due in early August or early February.
B. Include the deadline for regional submissions, which is the end of April and the end of October.
C. Keep in mind there is only one time a year to make changes for tropical offices (March implementation), because zone changes cannot be implemented during hurricane season (June 1 through November 30).
D. If a zone change leads to an HSA change, notification should also be provided by the AFSO POC to the Regional Water Resources Services program manager.
E. If a zone change affects a zone that can issue tropical hazards, the AFSO POC should provide notification to the AFSO Tropical Services program manager.

1.1 Review Zone Change Package(s).

Zone change proposals will be documented via a Zone Change Package, which contains all required documents needed.

The Zone Change Packages received from the regions/TAFB/OPC will be reviewed by the AFSO POCs depending on which program areas the zone change impacts. U.S. Census Bureau-codified county and city changes and partial county changes are the responsibility of the AFS13 Dissemination Services Manager and coordinated with the AFS21 Public Weather Services program manager for awareness. Final approval should be obtained through the respective AFSO Branch Chief.

2 Actions After AFSO Approval.

A. AFSO POCs inform regional POCs via email by November 15 / May 15.

B. AFSO POCs inform NWSHQ entities. Software modifications are prepared in AWIPS, NC AWIPS (N-AWIPS), Interactive NWS (iNWS), Integrated Real-time Impacts and Services (IRIS), Common Access Protocol (CAP) Handler, weather.gov, NextGen IT Web Services (NGITWS), NWSChat, Alerts.weather.gov, SPOT, RIDGE2 and verification (Stats-on-Demand). Therefore, the system POCs need to be notified of the zone changes. The AFSO POC will share the Zone Change Packages by November 15 / May 15. The entities needing to be notified of changes are:

a. CP
b. DIS
c. STI
d. Other national service program managers
e. NCs/NCO SDB
f. Regions
g. Regional Operations Centers (ROCs)
h. National Centers (Storm Prediction Center (SPC) and NHC; if a marine zone is changing along an offshore boundary, TAFB or OPC need to be notified as appropriate)
i. TWCs; as appropriate
j. Office of the Chief Operating Officer (OCOO)/Performance and Evaluation Branch (PEB)
k. AFSO Tropical Services program manager to manage the zone changes for the Tropical Cyclone Wind Hazard Recommender and the Storm Surge Edit Area.

C. Once AFSO has informed the regional POCs of the approval or needed changes to the zone change requests:

a. The implementation date and time will be coordinated with the regions/centers along with Critical Weather Day (CWD) alternative date(s).
    1. The alternative implementation date will be scheduled for within one week, if possible, from the initial effective date.
    2. If the alternative implementation date is not feasible due to a CWD, then on the next non-CWD (Tuesday-Thursday), the files will be implemented.
b. The implementation date should NOT occur on the working day prior to any holiday.

D. Shapefiles:

The AFSO POC will ensure that new unique zone numbers are used for newly-created zones. Regional POCs will be included in DIS coordination with WFOs to test zone and HSA shapefiles:

a. If the regional POCs have not been notified by DIS by mid-November and mid-May, they will contact DIS.

The AFSO POC will compare the draft SCN, and DIS will review the shapefile(s) to

ensure the fidelity of the data and the documentation.

E. Check on Status.
In late-May / late-November: AFSO will check with NWSHQ entities to ensure work is taking place on all data systems for the upcoming implementation date.

F. SCN Dissemination and Subsequent Actions.
   a. Around mid-June/mid-December, the AFSO National Notification Coordinator will officially disseminate the SCN. The AFSO POC then sends the SCN link to regional POCs and to all entities listed above.
   b. Software modifications are then prepared for AWIPS, N-AWIPS, iNWS, IRIS, CAP Handler, weather.gov, NGITWS, NWSChat, Alerts.weather.gov, RIDGE2, SPOT and verification (Stats-on-Demand).
   c. Once all zone change specifics are finalized, DIS will update the shapefile(s) for the zone-based polygons used by Federal Emergency Management Agency (FEMA) Integrated Public Alert and Warning System (IPAWS) for Weather Emergency Alerts (WEA) and by weather.gov (e.g., storm surge warning, hurricane warning) and post the updated shapefile(s) to the AWIPS Map Database Catalog.
   d. Ensure the appropriate offices and staff are added to the Zone Change Implementation Day Coordination Google chat room for shapefile discussion and Go/No Go coordination.
   e. Ensure applicable WFO representatives are added to Google Calendar invite for the Go/No Go Conference call (see H below).

G. Actions 24-48 Hours Before Planned Implementation.
The AFSO POC will reach out within AFSO, Regions, ROCs, NCO, NCO Senior Duty Meteorologist (SDM; sdm@noaa.gov, 301-683-1500), NWS Operations Center (NWSOC), etc. for readiness in preparation for a "Go/No-Go" conference call. The regional POCs will contact WFOs to determine if there is a need for a delay.

H. Turn-Key Date.
On the turn-key date of early September and early March:
   a. The AFSO POC will lead a "Go/No-Go" conference call on the morning of or day before the implementation date to determine if there are any weather issues that will delay the implementation. Also to be discussed is if there is a CWD in effect or planned.
   b. DIS, NCO, NCO SDM, Regions, affected WFOs/NCs and AFSO will be on the call.
   c. If the implementation is moved to the alternate date, AFSO will:
      1. Contact NCs, Regional POCs, and NOC.
      2. Issue a SCN notifying users of the postponement of the zone changes to the alternate date.

I. Implementing Change(s).
AFSO facilitates changes with all affected organizations, each of whom will implement

change(s) no later than the specified time and date, or on the first available non-CWD.

a. AWIPS zones updated.
b. Weather.gov, NGITWS, NWSChat, Alerts.weather.gov, SPOT changes rolled out.
c. Updated IRIS (iNWS and CAP Handler) implemented on IDP.
d. N-AWIPS zones updated. NOTE: NCs do not implement zone changes on the official implementation date. The dates for N-AWIPS changes are scheduled.
e. WEA Polygon files.
f. Storm surge edit area (limited inland to the category 5 Maximum of the Maximum (MOM) possible inundation area) updated if the zone is within the hazard area shown on the National Storm Surge Hazard Map.
g. The zone-based polygons used to prevent multiple WEAs for counties with multiple zones (typhoon and hurricane warnings):
    1. Tsunami WEA polygon files
    2. Zone-based warning WEA polygons
    3. Storm surge warning WEA polygons
    4. TWC systems.

J. Actions After Implementation.

a. The AFSO POC confirms with the NWS regions the completion and preliminary assessment of success.
b. If any issues arise, the regional/center POCs will copy (cc:) the appropriate AFSO POC on all emails to technical POCs to keep them abreast.
c. The OCOO PEB will track which version of the shapefiles to use for forecast verification process.

Appendix B: Regional Responsibilities for a Zone/County Change Process

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1 Initial Request from NWS Regions to WFOs.

After AFSO sends the NWS regions a second call for zone change requests in September-October or March-April, the regional POC will send WFOs a call-out email for zone change requests. This will be led by the applicable regional Public, Fire, and Marine Weather Services program manager(s) usually in early September or early March. It will include the deadline for WFO submissions, mid-April and mid-October, to provide regions time to review before forwarding to AFSO program leads.

Note: There is only one time a year to make changes for tropical offices (March implementation) because zone changes should not occur during hurricane season.

2 Review Zone Change Package(s) (Submitted to AFSO).

The Zone Change Package will contain all the documents needed for zone change proposals. The WFOs will prepare the package in collaboration with the regional POC(s). If the MSD Chief and/or regional POC support the proposals, the regional POC will submit the approved Zone Change Packages to AFSO for review.

The Zone Change Package must include all of the following (see examples of everything below at WFO Responsibilities for a Zone/County Change Process):

A. **Written Justification Letter.** The Written Justification Letter is a written proposal stating the reasons for the change and what is being changed. The regional POCs will ensure all of the items listed here are referenced in the Justification Memo.

B. **Shapefile(s).** High quality map(s) / image(s) of the proposed zone change(s). If an office does not have GIS expertise, they may provide a description of the change and work with the DIS shapefile editor to finalize the changes.

C. **Webpage.** A working URL to a webpage that describes before and after proposed zone changes.

D. **Draft SCN**.

3 Regional Actions after AFSO Approval.

A. Once AFSO has informed the regional POC of approval or of needed changes to the request, the expected implementation date will be coordinated. The regional POC will inform:
   a. The requesting WFO(s).
   b. Give a courtesy notification to backup offices.
   c. Regional AWIPS program manager.
   d. Other regional program managers.

B. Coordinate Changes.
The regional POC:
   a. Will coordinate with the WFO to help assign unique zone numbers to newly created zones.
   b. Will coordinate on zone changes for zones that issue tropical hazards with the AFSO Tropical Services Program to ensure the Tropical Cyclone Wind Hazard Recommender and Storm Surge Edit Areas (if the zone is within the hazard area shown on the National Storm Surge Hazard Map) are updated as necessary.
   c. The regional POC will be included in DIS coordination with WFOs to test zone shapefiles.
      1. If the regional POC has not been notified by DIS by mid-November and mid-May, they will contact DIS.
   d. The regional POC will be informed by AFSO once per month on progress (including when SCN is disseminated nationally). The regional POC is responsible for setting up the conference calls/emails on the updates. This can be done through a spreadsheet with dates and names of who has the action and what it is; it could be shared throughout the entire process.
   e. The regional POC will check progress with WFOs (requesting office and backup office) on preparations for WFO systems at least six (6) weeks before the planned implementation.

C. 24 Hours Before Planned Implementation.
The regional POC will contact WFOs and NCO SDM the day before the implementation date to determine if there is a need for a delay in preparation for a "Go/No-Go" conference call.

D. Turn-Key Date.
On the turn-key date of early September and early March, the regions will join a "Go/No-Go" conference call led by AFSO on the morning of the implementation date or on the day before the scheduled implementation date.

If the implementation is moved to the alternative date, the regions will contact:
   a. Affected offices
   b. Their backup offices
   c. Regional program managers

d. Local ROC for their awareness

E. Regional Actions After Implementation.

a. The regional POC confirms the WFOs' completion and preliminary assessment of success.

b. Ensure all web-based applications are transitioned smoothly; this includes regionally created maps and web applications.

c. Check if the WFO(s) discover(s) issues with webpages such as Watch/Warning/Advisory (WWA) map, Point and Click, Zone Forecast Product (ZFP), SPOT Forecast webpage (if applicable), etc. If there are any issues, the regional POCs will contact the correct technical POCs (e.g., NCO, DIS, iNWS representative) and cc: the AFSO POC to resolve issues. Note: Do not email NCO OPS to open a trouble ticket, as the issue will not get the visibility it needs to be resolved.

Appendix C: Weather Forecast Office (WFO) Responsibilities for a Zone/County Change Process

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WFO Responsibility

WFOs are responsible to initiate zone change requests for any public, fire, and/or marine zones in its area of responsibility and supply a Zone Change Package, as defined in this document, to regional program managers.

A. Dates.

Zone requests should be submitted by WFOs to the appropriate regional program manager (Public, Marine, or Fire Weather Services program manager, Dissemination Services Manager) during the following periods:

a. From early March to mid-April (for September implementation - non-tropical offices only), and
b. From early September to mid-October (for March implementation).

If HSA changes are required in association with these zone requests, notification should also be provided to the Regional Water Resources Services program manager.

B. Considerations.

Before submitting a zone change request, WFOs need to ensure the following:

a. Purpose: Carefully consider why you want to split, move, or add zones. Sometimes, the request is initiated by customers, and if internal to the NWS, you must coordinate with your customers on the impacts of the changes (see details below).
b. Early consideration: The zone change process can take a lot of time due to coordination and planning with staff and partners. Therefore, it's recommended to start working on any zone changes six (6) months before the due dates to regional headquarters.
c. Time of Year: Zone changes are conducted twice a year (early March/early September implementation). This means there is only one time a year to make changes for tropical weather offices (March implementation), because zone

changes should not occur during hurricane season.
Offices should consider the time of year of the implementation date. For example, changes for winter updates should be made during the September implementation date, or changes for hurricane or severe weather seasons should be made during the March implementation date.

d. National Weather Service Employees Organization (NWSEO): As a courtesy, go over the map and description of your proposed changes with the local NWSEO representative, to see if they have any questions. NOTE: If boundaries change across CWA borders, other impacted offices will need to inform their local NWSEO representatives also.

C. Notification of Impending Requests.
WFOs should notify the applicable regional Public, Marine, or Fire Weather Services program manager, Dissemination Services Manager (here and after referred to as 'regional POC') of any intended zone change requests (deadline for submission are regionally determined, but at least 15 to 30 days prior to the official request which is announced as early as February/August, but usually March/September by regional POCs).

D. Prepare Zone Change Package.
The Zone Change Package will contain all of the documents needed for zone change proposals prepared by the submitting WFO(s). The Zone Change Package will be submitted to the regional POC and/or the MSD Chief (or equivalent).

The Zone Change Package must include all of the following. See examples of everything below in WFO Responsibilities for a Zone/County Change Process):

a. **Written Justification Letter.** The Written Justification Letter is a written proposal stating the reasons for the change and what is being changed. There are numerous items that MUST be included in the Justification Letter or it will not be approved. Find the items here that must be addressed in the Justification Letter.

b. **Shapefiles**. High-Quality maps/images of the proposed zone change(s). If an office does not have GIS expertise, they may provide a description of the change and work with the DIS shapefile editor to finalize the changes.

c. **Webpage.** A working URL to a webpage that describes before and after proposed zone changes.

d. **Draft SCN**. See NWS Instruction (NWSI) 10-1805, *National Public Information Statements and Service Change Notices*, for formatting, timelines and other information.

E. Assigning Zone Numbers.

a. ***Do not reuse zone numbers***. If there are any changes made to a zone(s), the zone ***must*** have a new zone number(s) assigned to ensure this new area and subsequent weather-related records (e.g., forecast verification) and shapefile attributes are differentiated from information associated with the old zone. Regions will collaborate with the affected WFO(s) to uniquely rename and renumber the affected zone(s). Ensure the new/unique zone number does not appear in another

program if the shapes between the two programs are not the same. For example, if an existing PUBLIC zone is split to create a new zone, ensure both have new numbers assigned that are not already in use in the FIRE WEATHER program if the shapes (between the programs) are not the same. A WFO's fire agency's Geographic Area Coordination Center (GACC) will be able to assist in assigning new fire weather zone numbers. See Appendix E for Zone Split example.

b. If an office wants to keep an original zone number, an explanation MUST be added to the justification letter of the Zone Change Package for approval. The letter needs to provide reasons why an office wants to keep the original zone number (usually this is because the zone shape was barely changed), verify that partners have been consulted on the zone number staying the same and express no concerns, and acknowledge that external partners who use NWS zones may not be aware of the zone change.

For a list of public and fire weather zone numbers in use, please see: https://www.weather.gov/pimar/. For a list of marine zones, see: https://www.weather.gov/media/directives/010_pdfs/pd01003002curr.pdf.

F. WFO Actions after Regional Submission.

a. Regional headquarters informs of approval or denial, or what the WFO needs to amend in the Zone Change Package to be approved.

b. NWS DIS will contact the WFO to test new shapefiles (usually within a month), confirming changes made are correct, keeping regional POC and AFSO informed via email. This includes HSA shapefiles as needed.

c. WFOs to review WFO Responsibilities for a Zone/County Change Process document for actions needed.

d. Plan for staffing needs on the implementation date (for example, make certain a NWR, GFE, AWIPS Subject Matter Expert (SME) is on-site during the implementation).

e. Plan for staffing needs on alternate implementation date if needed. WFOs need to be aware that this alternative date may need to be staffed as well, in case a CWD is in place on the scheduled implementation date.

G. SCN Local Dissemination.

WFOs will NOT send out the SCN locally until after it has been posted to the National Service Change Notices and Public Statements website by NWSHQ. The regional POC will inform the WFO when that has been completed. The WFO can then disseminate the SCN locally and/or put it on their webpage. After the SCN is sent locally, WFOs will send the SCN link to their backup offices.

H. 24 Hours Before Planned Implementation.

a. The regional POC will contact WFOs and NCO SDM to determine the need for delay of implementation due to significant weather, and/or hazards. The regional POC will also contact WFOs if a delay in implementation is due to a CWD or is planned.

b. WFOs will remind backup offices of the zone changes and date of implementation (in case it changed due to a CWD).

I. Turn-Key Date.

On the turn-key date of early September and early March:

a. Morning Coordination: The AFSO POC will lead a "Go/No-Go" conference call on the morning of the implementation date, or the day prior to implementation, to determine if there are any weather issues that will delay the implementation. Part of this discussion will include whether a CWD is in effect or planned. DIS, NCO, NCO SDM, Regions, impacted WFOs and AFSO will be on the call.

b. Do NOT implement zone changes until after coordination and a "Go" decision have been reached.

J. Actions After Implementation.

a. Ensure all web-based applications are transitioned smoothly. If there are issues, contact the regional POC who will then contact appropriate contacts at NWSHQ (e.g., NCO, DIS, iNWS representative) to resolve. Note: Do not email NCO to open a trouble ticket as the issue will not get the visibility it needs to be resolved, so go to your regional POC instead who can contact certain NWSHQ contacts directly.

b. WFOs will evaluate the various edit areas affected by a zone change and make changes to the edit areas as needed after the new shapefiles are implemented.

Appendix D: Zone Change Process Timeline

March Release	September Release	Action(s)	Responsible Parties
August	February	The NWSHQ AFSO POC calls for zone updates to NWS Regions, OPC and TAFB through the SPTs.	AFSO through the SPT lead with email to: afs.zonechange@noaa.gov
September - October	March - April	- NWSHQ AFSO POC issues a second call for zone updates to NWS regions and OPC/TAFB through SPTs. - WFOs/OPC/TAFB provide the regional/AFSO POC with the Zone Change Package. - Regions forward Zone Change Packages of regionally approved proposals to AFSO POCs.	WFOs; Regions; NCs; AFSO POCs
November	May	- AFSO reviews and approves valid requests and informs CP, DIS, STI, NCEP (SPC and NHC; if a marine zone is changing along an offshore boundary, TAFB or OPC need to be notified as appropriate, Tropical Program if the public zone can issue tropical hazards), and OCOO PEB of changes. Software modifications are prepared in AWIPS, N-AWIPS, IRIS, iNWS, CAP Handler, weather.gov, NGITWS, NWSChat, Alerts.weather.gov, SPOT, RIDGE2 and verification (Stats-on-Demand). - WFOs/OPC/TAFB coordinate with DIS to produce accurate shapefiles and send them to DIS. - AFSO coordinates with CP to initiate patch options for AWIPS and N-AWIPS. - DIS-WFO coordinated testing of shapefiles on NOAA VLab. - DIS coordinates with NCO on impending changes for IDP Software: IRIS, CAP Handler, iNWS, NGITWS, weather.gov, NWSChat, Alerts.weather.gov, SPOT, RIDGE2.	AFSO WFO; DIS DIS; NCO AFSO; COO PEB; STI; DIS

		- AFSO coordinates with OCOO PEB on Stats-on-Demand to ensure verification requirements are considered; DIS, STI.	
Mid-December	Mid-June	- CP, DIS, STI, NCEP decide the exact turn-key date. All NWS organizations implement NLT at the specified time and date, or on the first available non-CWD. - Confirm date with regional POC(s) and NC. - AFSO issues SCN at least 75 days before the effective date. - Updated shapefiles are delivered to and tested at operational offices and centers.	AFSO; CP; DIS; STI; NCEP
24-48 hours before scheduled implementation		- Regional POC will contact WFOs/NCs the day before the implementation date to determine if there is a need for a delay in preparation for a "Go/No-Go" call. - AFSO, Regions, ROCs, DIS, National Centers (NCs), NCO, NCO SDM report readiness levels to AFSO POC.	AFSO (lead); Regions; NCs DIS, NCO, WFOs
Implementation Date early March	Implementation Date early September	- Morning Coordination: a. The AFSO POC will lead a "Go/No-Go" conference call on the morning of or day before the implementation date to determine if there are any weather issues that will delay the implementation. Also to be discussed is if there is a CWD in effect or planned. b. DIS, NCO, NCO SDM, Regions, impacted WFOs/NCs and AFSO will be on the call. - The following updates are then made: a. AWIPS zones updated. b. Weather.gov, NGITWS, NWSChat, Alerts.weather.gov, SPOT changes rolled out. c. Updated IRIS, iNWS and CAP Handler, RIDGE2 implemented on IDP. d. N-AWIPS zones updated. i. NOTE: NCs do not implement zone changes on the official	NCO; AFSO; Regions; NCs; WFOs

		implementation date. The dates for N-AWIPS changes are scheduled. e. WEA Polygon files (including Tsunami) i. The zone-based polygons are used to prevent multiple WEAs for counties with multiple zones (typhoon and hurricane warnings). f. Storm surge edit area (limited inland to the category 5 MOM possible inundation area) updated if the zone is within the hazard area shown on the National Storm Surge Hazard Map. g. TWC systems updated.	

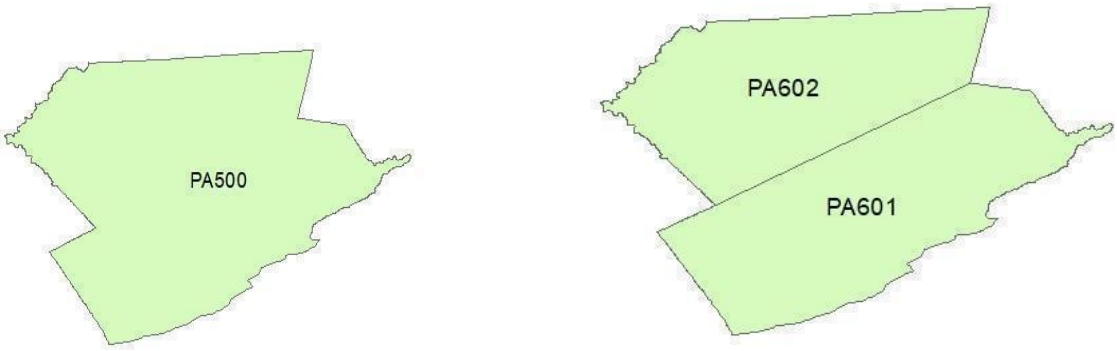
Appendix E: References and Zone Split Scenarios

1 References

a. For a list of public and fire weather zone numbers in use, please see: https://www.weather.gov/pimar/. For a list of marine zones, see: https://www.weather.gov/media/directives/010_pdfs/pd01003002curr.pdf.

b. Guidance on drafting a SCN: Directive 10-1805.

2 Zone Split Example



Scenario 1: Current public and fire weather zone PA500 is being split into two zones for each program. PA500 is the same shape in the public zone file and the fire weather zone file.

Solution 1: Use new numbers for the new zones, PA601 and PA602. Ensure these numbers are not being used currently. In this case, since the resultant shapes are the same, PA601 and PA602 can be used for both the public zone file and fire weather zone file.

Scenario 2: Current public zone PA500 is being split into two zones for the public zone program **ONLY**. PA500 is the same shape in the public zone file and the fire weather zone file.

Solution 2: Use new numbers, PA601 and PA602, for the new public zones. Ensure these numbers are not used currently in either the public zone file and fire weather zone file. No changes should occur to the fire zone file.

Scenario 3: Current public zone PA500 is being split into two zones for the public zone program ONLY. PA500 **IS NOT** the same shape in the public zone file and the fire weather zone file. (This is different from the first two scenarios.).

Solution 3: Use new numbers for the new public zones, PA601 and PA602. Ensure these numbers are not used currently in the public zone file or fire weather zone file. No changes should occur to the fire weather zone file.

Appendix F: Acronym List

AFS13	AFSO Digital and Graphical Information Support Branch
AFS21	AFSO Severe, Fire, Public and Winter Weather Services Branch
AFS26	AFSO Marine, Tropical and Tsunami Services Branch
AFSO	Analyze, Forecast and Support Office
AWIPS	Advanced Weather Interactive Processing System
AWIPS2	Advanced Weather Interactive Processing System, version 2
BMH	Broadcast Message Handler
CAP	Common Access Protocol
CR	National Weather Service Central Region
CP	Office of Central Processing
CPHC	Central Pacific Hurricane Center
CWA	County Warning Area
CWD	Critical Weather Day
CWF	Coastal Waters Forecast
DIS	Office of Dissemination
ER	National Weather Service Eastern Region
FEMA	Federal Emergency Management Agency
FIPS	Federal Information Processing Standards
GACC	Geographic Area Coordination Center
GFE	Graphical Forecast Editor
GIS	Geographic Information System
HSA	Hydrologic Service Area
IDP	National Weather Service Integrated Dissemination Program
iNWS	Interactive National Weather Service
IPAWS	Integrated Public Alert and Warning System
IT	Information Technology
MDL	Meteorological Development Laboratory
MOM	Maximum of the Maximum (related to Storm Surge)
MSD	Meteorological Services Division
N-AWIPS	National Centers Advanced Weather Interactive Processing System
NCEP	National Centers for Environmental Prediction
NCO	National Centers for Environmental Prediction Central Operations
NCs	National Centers
NDS	National Weather Service Directives System
NFDRS	National Fire Danger Rating System
NHC	National Hurricane Center (part of NCEP)
NGITWS	NOAA Integrated Dissemination Program NextGen IT Web Services
NOAA	National Oceanic and Atmospheric Administration
NWR	NOAA Weather Radio All Hazards
NWRWAVES	NOAA Weather Radio with All Hazards VTEC Enhanced Software
NWS	National Weather Service
NWSEO	National Weather Service Employees Organization
NWSHQ	National Weather Service Headquarters
NWSI	National Weather Service Instruction

NWSOC	National Weather Service Operations Center
OCOO	Office of the Chief Operations Officer
OPC	Ocean Prediction Center (part of NCEP)
PEB	Performance and Evaluation Branch (part of OCOO)
POC	Point of Contact
RFC	River Forecast Center
RIDGE	Radar Integrated Display with Geospatial Elements
ROC	Regional Operations Center
SCN	Service Change Notice
SDB	Software Development Branch (NCEP Central Operations)
SDM	Senior Duty Meteorologist (part of NCO)
SME	Subject Matter Expert
SPC	Storm Prediction Center (part of NCEP)
SPT	Service Program Team
SR	National Weather Service Southern Region
STI	Office of Science and Technology Integration
TAFB	National Hurricane Center/Tropical Analysis and Forecast Branch
TCV	Tropical Cyclone Watch/Warning Product
TWC	Tsunami Warning Center
URL	Uniform Resource Locator
VLab	Virtual Laboratory
WEA	Wireless Emergency Alert
WFO	Weather Forecast Office
WFO ALY	Weather Forecast Office Albany, NY
WFO CRP	Weather Forecast Office Corpus Christi, TX
WFO LIX	Weather Forecast Office New Orleans/Baton Rouge, LA
WFO LZK	Weather Forecast Office Little Rock, AR
WFO MTR	Weather Forecast Office San Francisco Bay Area/Monterey, CA
WFO MLB	Weather Forecast Office Melbourne, FL
WR	National Weather Service Western Region
WWA	Watch/Warning/Advisory
ZFP	Zone Forecast Product