

**NATIONAL WEATHER SERVICE INSTRUCTION 10-313
FEBRUARY 16, 2017**

**Operations and Services
Marine, Tropical, and Tsunami Services Branch, NWSPD 10-3
SPECIAL MARINE WARNINGS**

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

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SUMMARY OF REVISIONS: This directive supersedes NWSI 10-313, “*Special Marine Warnings*,” dated October 24, 2014. Changes made to reflect the NWS Headquarters reorganization effective April 1, 2015. This directive includes the following changes:

1. Changed title of section 2.3.4 from Call to Action (CTA) Statement to Precautionary/Preparedness Actions.
2. Updated examples in Appendix A.

Signed

2/2/2017

Andrew D. Stern
Director
Analyze, Forecast and Support Office

Date

**SPECIAL MARINE WARNINGS
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1 Introduction. This procedural instruction provides detailed information on a product Weather Forecast Offices (WFOs) and Weather Service Office (WSO) Pago Pago issue concerning ongoing or imminent marine weather hazards. The Special Marine Warning (SMW) product provides the marine community with vital information to protect life and property.

2 Special Marine Warning (product category SMW; Valid Time Event Code (VTEC) Significance / Phenomena MA.W)

2.1 Mission Connection. The SMW product is used to provide specific details that aid in the protection of life and property. WFO forecasters and WSO Pago Pago forecasters issue polygon-based special marine warnings within their marine areas of responsibility for their coastal marine zones or Great Lakes marine zones to provide advanced notice to mariners of potentially hazardous weather conditions. SMWs are not issued for Offshore or High Seas areas, except in designated areas along the East Coast.

2.2 Issuance Guidelines

2.2.1 Creation Software. WFOs use the Advanced Weather Interactive Processing System (AWIPS) WarnGen Application to issue the SMW product. WSO Pago Pago issues the SMW with regionally approved software.

2.2.2 Issuance Criteria. WFOs and WSO Pago Pago should issue the SMW product for short-duration (2 hours or less) sustained marine thunderstorm winds or associated frequent gusts of 34 knots (KT) or greater; and / or hail 3/4 inch or more in diameter; and / or waterspouts. Forecasters should also issue the SMW for sustained non-convective short duration winds or associated frequent gusts of 34 KT or greater (gale force or stronger).

- a. Where VTEC is not used in the Alaska and Pacific Regions, issue the SMW for Ashfall warnings.

2.2.3 Issuance Time. The SMW product is non-scheduled and event-driven.

2.2.4 Valid Time. The SMW product is valid from the time of issuance until the expiration time.

2.2.5 Universal Geographic Code (UGC). The SMW product will contain marine-based zone UGC codes.

2.2.6 Product Expiration Time. The product expiration time should not exceed 2 hours beyond issuance time. A new SMW should be issued if the event is expected to continue past two hours beyond issuance time.

a. Where SMW is used for Ashfall Warnings. The product expiration time should not exceed 6 hours beyond issuance time. A new SMW should be issued if the event is expected to continue past six hours beyond issuance time.

2.3 Technical Description. The SMW product will follow the format and content described in this section.

2.3.1 Mass News Disseminator (MND) Broadcast Line. The SMW product should include the broadcast line “BULLETIN - EAS ACTIVATION REQUESTED”. If a state does not require Emergency Alert System (EAS) activation for the SMW product, the broadcast line will read “BULLETIN - IMMEDIATE BROADCAST REQUESTED”. The term “BULLETIN” is used when information is sufficiently urgent to warrant breaking into a normal broadcast.

2.3.2 MND Header. The SMW MND Header is “SPECIAL MARINE WARNING”.

2.3.3 Content. The SMW product will be issued in standard bullet format, as outlined in NWS Instruction (NWSI) 10-1701, [Text Product Formats and Codes](#).

Storm motion and wind speed should be expressed in KT.

SMWs may be issued while a Small Craft Advisory (any type), Gale, Storm or Hurricane Force Wind Warning (not associated with a tropical cyclone warning) is in effect. When a tropical cyclone warning is in effect, SMWs should only be issued for waterspouts.

For events impacting both land and water, separate warnings will be issued. SMWs will not include any portion of adjacent land areas.

2.3.4 Precautionary/Preparedness Actions. If a Tornado Watch is in effect for the area, the Tornado Watch number may be included in this section of the SMW product. Where SMWs are issued for Ashfall Warnings, mariners are encouraged to report ashfall and other volcanic impact encounters.

2.3.5 Format. The format of the SMW can be seen in Figure 1. The SMW is a non-segmented product. Please reference NWSI 10-1702, [Universal Geographic Code \(UGC\)](#), for additional information on product segmentation. For detailed VTEC information, please reference NWSI 10-1703, [Valid Time Event Code \(VTEC\)](#). For more detailed product format information consult NWSI 10-1701, [Text Product Formats and Codes](#).

This product is available in industry standard encoding and languages, and may include, but not be limited to, American Standard Code for Information Interchange (ASCII), Extensible Markup Language (XML), Wireless Markup Language (WML) and HyperText Markup Language (HTML).

(WMO HEADER) (UTC ISSUANCE DATE TIME)
 (AWIPS ID)
 (AREAL UGC CODE[S])-(EXPIRATION TIME)-
 (VTEC STRING)

BULLETIN - IMMEDIATE BROADCAST REQUESTED
 SPECIAL MARINE WARNING
 NATIONAL WEATHER SERVICE (CITY)(STATE)
 (ISSUANCE TIME) AM/PM (LOCAL TIME ZONE)(DAY)(DATE)

THE NATIONAL WEATHER SERVICE IN (WFO LOCATION) HAS ISSUED A

*SPECIAL MARINE WARNING FOR...(MARINE FORECAST AREA AFFECTED) (when multiple zones are covered, may list only the location points at the far end of the combined zones, and eliminate the intermediate points) (should list the zones in the numerical order of the UGC codes)

*UNTIL (ENDING EFFECTIVE TIME)

*AT (TIME)...(DESCRIPTION OF STORM EVENT, MOVEMENT)

HAZARD...

SOURCE...

IMPACT...

*LOCATIONS, may reference marine and coastal land points, etc.)

PRECAUTIONARY/PREPAREDNESS ACTIONS...

&&

LAT...LON
 TIME...MOT...LOC
 [Mandatory list of latitude / longitude points outlining the forecaster drawn polygon in WarnGen and time, location, and movement of event being tracked. Special Marine Warnings may include special tags after the && to provide better definition, similar to other short term warnings.]
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Figure 1. Special Marine Warning (SMW) Format

2.4 Updates, Amendments and Corrections. Updates and amendments are not applicable. WFOs and WSO Pago Pago will reissue a SMW for significant grammatical errors, or format errors in marine zones already covered by a warning. WFOs and WSOs will issue a Marine Weather Statement, as described in NWSI 10-314, to provide the public with follow-up information or to cancel all or part of an SMW.

APPENDIX A – Examples of Special Marine Warnings

WHUS53 KMKX 160127
SMWMKX
LMZ644-645-671-673-160230-
/O.NEW.KMKX.MA.W.0018.160616T0127Z-160616T0230Z/

BULLETIN - IMMEDIATE BROADCAST REQUESTED
SPECIAL MARINE WARNING
NATIONAL WEATHER SERVICE MILWAUKEE/SULLIVAN WI
827 PM CDT WED JUN 15 2016

THE NATIONAL WEATHER SERVICE IN MILWAUKEE/SULLIVAN HAS ISSUED A

* SPECIAL MARINE WARNING FOR...
LAKE MICHIGAN NEARSHORE AND OPEN WATERS TO MID LAKE FROM PORT
WASHINGTON WI TO WIND POINT WI...

* UNTIL 930 PM CDT

* AT 827 PM CDT...A SEVERE THUNDERSTORM CAPABLE OF PRODUCING
WATERSPOUTS...LOCATED NEAR FOX POINT...MOVING EAST AT 40 KNOTS.

HAZARD...WATERSPOUTS AND LARGE HAIL.

SOURCE...RADAR INDICATED.

IMPACT...WATERSPOUTS CAN EASILY OVERTURN BOATS AND CREATE
LOCALLY HAZARDOUS SEAS. LARGE HAIL COULD RESULT IN
STRUCTURAL DAMAGE.

* THE SEVERE THUNDERSTORM WILL REMAIN OVER MAINLY OPEN WATERS.

PRECAUTIONARY/PREPAREDNESS ACTIONS...

AS THIS THUNDERSTORM MOVES OVER THE WATER...BOATERS CAN EXPECT
GUSTY WINDS AND HIGH WAVES. MOVE TO SAFE HARBOR OR STAY CLOSE TO
SHORE UNTIL THE STORM PASSES.

&&

LAT...LON 4327 8788 4327 8713 4280 8707 4305 8788
4307 8786 4313 8790 4318 8788 4323 8791
TIME...MOT...LOC 0127Z 291DEG 38KT 4316 8783

WATERSPOUT...POSSIBLE

HAIL...>.75IN
WIND...<34KTS

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WHUS54 KHGX 122204
SMWHGX
GMZ335-122245-
/O.NEW.KHGX.MA.W.0136.160612T2204Z-160612T2245Z/

BULLETIN - IMMEDIATE BROADCAST REQUESTED
SPECIAL MARINE WARNING
NATIONAL WEATHER SERVICE HOUSTON/GALVESTON TX
504 PM CDT SUN JUN 12 2016

THE NATIONAL WEATHER SERVICE IN LEAGUE CITY HAS ISSUED A

* SPECIAL MARINE WARNING FOR...
GALVESTON BAY...

* UNTIL 545 PM CDT

* AT 504 PM CDT...A SEVERE THUNDERSTORM CAPABLE OF PRODUCING
WATERSPOUTS WAS LOCATED OVER NORTHEASTERN GALVESTON
BAY...MOVING EAST AT 15 KNOTS.

HAZARD...WATERSPOUTS AND WIND GUSTS 34 KNOTS OR GREATER.

SOURCE...RADAR INDICATED.

IMPACT...WATERSPOUTS CAN EASILY OVERTURN BOATS AND CREATE
LOCALLY HAZARDOUS SEAS. SMALL CRAFT COULD BE DAMAGED IN
BRIEFLY HIGHER WINDS AND SUDDENLY HIGHER WAVES.

* LOCATIONS IMPACTED INCLUDE...
GALVESTON BAY...TRINITY BAY...NORTHWESTERN EAST GALVESTON
BAY...EAGLE POINT AND SMITH POINT.

PRECAUTIONARY/PREPAREDNESS ACTIONS...

THUNDERSTORMS CAN PRODUCE SUDDEN WATERSPOUTS. WATERSPOUTS CAN
EASILY OVERTURN BOATS AND CREATE LOCALLY HAZARDOUS SEAS. SEEK
SAFE HARBOR IMMEDIATELY.

FREQUENT LIGHTNING IS OCCURRING WITH THIS STORM. IF CAUGHT ON THE

OPEN WATER STAY BELOW DECK IF POSSIBLE...KEEP AWAY FROM
UNGROUNDING METAL OBJECTS.

&&

LAT...LON 2974 9467 2965 9468 2954 9474 2957 9463
2952 9461 2941 9491 2943 9491 2946 9497
2949 9495 2950 9499 2955 9504 2960 9500
2964 9503 2968 9502 2971 9495 2970 9491
2967 9491 2968 9489 2977 9482 2980 9472
TIME...MOT...LOC 2204Z 260DEG 13KT 2955 9488

WATERSPOUT...POSSIBLE
HAIL...0.00IN
WIND...>34KTS

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Note: Where Marine Weather Message (MWW) is issued, Ashfall Warnings are carried in the
MWW (see NWSI 10-315)

WHAK58 PAFC 301440
SMWAFC
PKZ176-302040-

BULLETIN - IMMEDIATE BROADCAST REQUESTED
SPECIAL MARINE WARNING
NATIONAL WEATHER SERVICE ANCHORAGE AK
640 AM ADT FRI MAR 30 2007

...THE NATIONAL WEATHER SERVICE IN ANCHORAGE HAS ISSUED AN ASHFALL
WARNING FOR VOLCANIC ASH AND OTHER HAZARDS IN THE WESTERN
ALEUTIANS...

A SUBMARINE ERUPTION OF SEMISOPOCHNOI VOLCANO IS IN PROGRESS.

THE ALASKA VOLCANO OBSERVATORY REPORTS STRONG SEISMICITY
INDICATIVE OF AN EXPLOSIVE ERUPTION AT SEMISOPOCHNOI ISLAND IN THE
WESTERN ALEUTIANS. SATELLITE ANALYSIS INDICATES A VENT JUST
OFFSHORE OF SUGARLOAF HEAD ON THE SOUTH POINT OF THE ISLAND.
ASHFALL IS OCCURRING SOUTH AND SOUTHEAST OF THE ISLAND. VESSELS
SHOULD AVOID THE IMMEDIATE AREA AND BE ALERT FOR FLOATING PUMICE.

AN ASHFALL WARNING MEANS THAT THE VOLCANO IS UNDERGOING A MAJOR
ERUPTION. IT IS VERY LIKELY THAT MARINERS WILL BE AFFECTED BY
VOLCANIC HAZARDS IN THE WARNING AREAS SUCH AS SIGNIFICANT

DEBRIS...ASHFALL 1/4 INCH OR GREATER...LAVA...OR LAHAR AND DEBRIS FLOWS.

ADDITIONAL INFORMATION IS AVAILABLE AT / USE LOWER CASE LETTERS / WWW.AVO.ALASKA.EDU.

ASH IS AN EYE AND RESPIRATORY IRRITANT AND IS ABRASIVE. THOSE WITH RESPIRATORY SENSITIVITIES SHOULD TAKE EXTRA PRECAUTIONS TO MINIMIZE EXPOSURE. PROTECT ELECTRONICS AND COVER AIR INTAKES IF ASHFALL IS EXPECTED OR CONFIRMED. REMOVE ASH FROM SURFACES WITH WATER IF POSSIBLE TO PREVENT EXCESSIVE ACCUMULATION.

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