

NATIONAL WEATHER SERVICE INSTRUCTION 10-314
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Operations and Services
Marine, Tropical, and Tsunami Services Branch NWSPD 10-3

MARINE WEATHER STATEMENTS

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

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SUMMARY OF REVISIONS: This directive supersedes NWSI 10-314, Marine Weather Statements, dated February 20, 2017. This Instruction includes the following changes:

1. Changed OPR
2. Figure 1 and 2 updated for mixed case
3. Updated examples in Appendix A for mixed case

Signed

5/15/19

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Director,
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Date

MARINE WEATHER STATEMENTS
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1 Introduction. This procedural instruction provides detailed information on the Marine Weather Statement (MWS) product issued by National Weather Service (NWS) Weather Forecast Offices (WFOs) and Weather Service Office (WSO) Pago Pago to cancel a Special Marine Warning (SMW) or provide the public with follow-up information to SMWs (reference NWS Instruction (NWSI) 10-313, *Special Marine Warnings*). This instruction also provides information on general purpose usage of the MWS (see section 2.2.2).

2 Marine Weather Statement (product category MWS)

2.1 Mission Connection. MWSs are used in two distinct ways: 1) To provide the public with detailed marine weather information describing non-severe, but potentially hazardous, conditions and information for a variety of conditions not covered by warnings or routine forecasts. 2) MWSs also provide follow-up information to a SMW including cancellation of all or part of the SMW.

2.2 Issuance Guidelines

2.2.1 Creation Software. WFOs use the Advanced Weather Interactive Processing System (AWIPS) WarnGen application to issue MWSs to cancel, update, or expire SMWs, or for non-severe convective events. In addition, WFOs may use the AWIPS Interactive Forecast Preparation System (IFPS) Graphical Hazards Generation (GHG) application to create MWSs for long term events and short term non-severe events.

2.2.2 Issuance Criteria. WFOs and WSO Pago Pago will issue MWSs to provide notification when a SMW will expire or has expired, to cancel all or portions of an SMW, or to provide updates to the SMW. The MWS will use the Valid Time Event Code (VTEC) phenomena and significance code, MA.W when issued to follow-up the SMW.

Each NWS office having coastal waters or Great Lakes forecast responsibility (reference NWSI 10-302, *Marine and Coastal Services Area of Responsibility*) will issue MWSs as necessary. MWSs are not issued for the offshore or high seas areas.

Non-Severe, Short-term Wind Events: Forecasters may issue MWSs to describe short duration, non-severe, but potentially hazardous conditions, in which sustained winds or gusts to 33 knots (KT) are expected for 2 hours or less. WFOs use WarnGen to generate MWS for sustained winds or gusts to 33 KT.

Non-Severe, Long-term Events: Forecasters may issue MWSs to provide details on significant conditions that affect marine operations prevailing for periods exceeding 2 hours. For example: dense fog, hazardous materials spills; volcanic impacts, trends for increasing and / or decreasing wind and wave/seas conditions; or to advise for the potential development of warning conditions. Headlines for events may be manually inserted to describe the conditions associated with non-severe long-term events. For hazardous weather events see NWSI 10-315, *Marine Weather Message*.

Forecasters may issue MWSs during coastal or lakeshore flood events to provide information specifically relating to mariners. WFOs may also issue MWSs to alert mariners of significant weather features expected in the 3 to 5 day forecast period.

Funnel Clouds. Offices should issue MWSs to report funnel clouds either forecast by the office or reported to the office by external sources. If supporting data is sufficient and confidence is high, offices may wish to consider issuance of a Special Marine Warning (reference NWSI 10-313).

Tsunami Events. WFOs may issue MWSs during tsunami events to provide information specifically relating to mariners, e.g., strong currents in bays and harbors.

Marine Debris. WFOs may issue MWSs for marine debris including from tsunamis.

Ice Changes. WFOs should issue MWSs to inform mariners of weather events likely to impact the formation or destruction of sea ice or Great Lake ice.

Freezing Spray Advisories. Forecasters may issue a MWS to direct users to the MWW for a Freezing Spray Advisory. This option is intended for areas where freezing spray is a rare event.

Ashfall Advisories. In Alaska Region, and Pacific Region offices where marine VTEC is not used, issue the MWS for Ashfall Advisories or to describe heightened states of volcanic unrest.

2.2.3 Issuance Time. The MWS is a non-scheduled, event-driven product issued by WFOs and WSO Pago Pago.

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

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

2.2.6 Product Expiration Time. The product expiration time is not more than 15 minutes after the warning or expiration time of SMWs; and not more than 12 hours after the time of issuance for other events described in the issuance criteria section.

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

2.3.1 Mass News Disseminator (MND) Broadcast Line. None.

2.3.2 MND Header. The MWS MND Header is “Marine Weather Statement”.

2.3.3 Content. Offices should use headlines to highlight important information related to the issuance of MWSs. MWSs will follow the format described in section 2.3.4.

2.3.4 Format. The format of the MWS (VTEC version) can be seen in Figure 1. The format of the MWS (non-VTEC version) can be seen in Figure 2. The MWS (both versions) is a 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, Extensible Markup Language, Wireless Markup Language and HyperText Markup Language.

```
(WMO HEADER)(UTC ISSUANCE DATE TIME)
(AWIPS ID)

Marine Weather Statement
National Weather Service (City)(State)
Time AM/PM TIME_ZONE Day_of_week Mon DD YYYY

(AREAL UGC CODE[S])-(EXPIRATION TIME)-
(VTEC STRING)
Time AM/PM TIME_ZONE Day_of_week Mon DD YYYY

...HEADLINE...

Narrative text.

&& (optional)

LAT...LON
TIME...MOT...LOC

(Marine Weather Statements may include special tags after the && to provide better definition,
similar to other short term statements).
$$
Forecaster Name (Optional)
```

Figure 1. MWS Format VTEC Version

```
(WMO HEADER)(UTC ISSUANCE DATE TIME)
(AWIPS ID

Marine Weather Statement
National Weather Service (City)(STATE)
Time AM/PM TIME_ZONE Day_of_week Mon DD YYYY
)

(AREAL UGC CODE[S])-(EXPIRATION TIME)-
(Marine Zone Names [If MWS is created by GHG])
Time AM/PM TIME_ZONE Day_of_week Mon DD YYYY
...HEADLINE (If Needed)...

Narrative text.

LAT...LON
TIME...MOT...LOC

[If MWS is created by WarnGen, list of latitude / longitude points outlining the forecaster-drawn
polygon in WarnGen and time, movement, and location of event being tracked]

$$
Forecaster name (Optional)
```

Figure 2. MWS Format non-VTEC Version

2.4 Updates, Amendments and Corrections. The MWS should be updated or corrected as needed.

APPENDIX A – Examples of the Marine Weather Statement

1 The MWS issued for Non-Severe Short Term Wind Events

FZUS71 KAKQ 251953
MWSAKQ

Marine Weather Statement
National Weather Service Wakefield VA
353 PM EDT Wed Apr 25 2018

ANZ632-634-636>638-654-252045-
353 PM EDT Wed Apr 25 2018

...STRONG THUNDERSTORMS APPROACHING THE WATERS...

The areas affected include...
Chesapeake Bay from New Point Comfort to Little Creek VA...
entrance to the Chesapeake Bay including the Chesapeake Bay Bridge
Tunnel...
James River from Jamestown to the Hampton Roads Bridge Tunnel...
York River...

Coastal Waters from Parramore Island to Cape Charles Light VA out
20 NM...

At 353 PM EDT, Doppler radar indicated strong thunderstorms, capable
of producing winds to around 30 knots and small hail. These
thunderstorms were located along a line extending from Dominion Pier
to near Chesapeake Bay Bridge Tunnel, moving northeast at 25 knots.

PRECAUTIONARY/PREPAREDNESS ACTIONS...

Mariners can expect gusty winds to around 30 knots, locally higher
waves, and lightning strikes. Boaters should seek safe harbor
immediately until these storms pass.

&&

LAT...LON 3712 7648 3708 7647 3703 7641 3709 7634
3712 7637 3711 7644 3715 7646 3733 7635
3732 7627 3731 7627 3729 7589 3708 7593
3689 7604 3693 7655 3695 7657 3695 7659

\$\$

2 The MWS issued for Non-Severe Long Term Events

FZUS76 KLOX 151141
MWSLOX

Marine Weather Statement
National Weather Service Los Angeles/Oxnard CA
341 AM PST Mon Jan 15 2018

PZZ650-655-673-676-151945-
East Santa Barbara Channel from Pt. Conception to Pt. Mugu CA
including Santa Cruz Island-
Inner waters from Point Mugu to San Mateo Pt. CA including Santa
Catalina and Anacapa Islands-
Waters from Pt. Sal to Santa Cruz Island CA and westward 60 nm
including San Miguel and Santa Rosa Islands-
Outer waters from Santa Cruz Island to San Clemente Island to
60 NM offshore including San Nicolas and Santa Barbara Islands-
341 AM PST Mon Jan 15 2018

...AREAS OF DENSE FOG ACROSS THE COASTAL WATERS THROUGH THIS
AFTERNOON...

Mariners should be prepared for abrupt visibility changes down to
one nautical mile or less. Reduce speeds and be on the lookout for
exposed rocks and other vessels, including large ships in the
shipping lanes. Use radar or GPS navigation if available, and
consider remaining in harbor if such equipment is unavailable.

\$\$

3 MWSs created by WarnGen used to update a Special Marine Warning (SMW), cancel a SMW, cancel part of a SMW, and expire a SMW

MWS used to update a SMW:

FZUS74 KLCH 270716
MWSLCH

Marine Weather Statement
National Weather Service Lake Charles LA
216 AM CDT Thu Sep 27 2018

GMZ472-270745-
/O.CON.KLCH.MA.W.0078.000000T0000Z-180927T0745Z/
216 AM CDT Thu SEP 27 2018

...A SPECIAL MARINE WARNING REMAINS IN EFFECT UNTIL 245 AM CDT...

For the following areas...
Waters from Intracoastal City to Cameron LA from 20 to 60 NM...

At 216 AM CDT, strong thunderstorms were located along a line extending from near West Cameron 248 to near East Cameron 157 to near West Cameron 269, moving east at 10 knots.

HAZARD...Wind gusts 34 knots or greater.

SOURCE...Radar indicated.

IMPACT...Small craft could be damaged in briefly higher winds and suddenly higher waves.

Locations impacted include...
West Cameron 269, West Cameron 368 and West Cameron 248.

LAT...LON 2891 9334 2895 9315 2914 9310 2915 9295
2889 9292 2878 9314
TIME...MOT...LOC 0716Z 273DEG 10KT 2909 9302 2891 9297 2885 9307

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

\$\$

MWS used to cancel a SMW:

FZUS71 KPHI 231751
MWSPHI

Marine Weather Statement
National Weather Service Mount Holly NJ
1251 PM EST Tue Jan 23 2018

ANZ455-473-475-231801-
/O.CAN.KPHI.MA.W.0006.000000T0000Z-180123T1815Z/
1251 PM EST Tue Jan 23 2018

...THE SPECIAL MARINE WARNING IS CANCELLED...

The affected areas were...
Coastal waters from Cape Henlopen to Fenwick Island DE out 20 nm...
Waters from Cape May NJ to Fenwick Island DE out 20 to 40 nm...
Waters from Great Egg Inlet NJ to Cape May NJ out 20 to 40 nm...

The thunderstorms have moved out of the area, therefore the special marine warning has been cancelled.

LAT...LON 3842 7492 3903 7422 3892 7381 3876 7400
3870 7415 3861 7417 3851 7426 3842 7426
3826 7444
TIME...MOT...LOC 1746Z 250DEG 54KT 3916 7336 3865 7405

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MWS used to cancel part of a SMW:

FZUS73 KGRR 030320
MWSGRR

Marine Weather Statement
National Weather Service Grand Rapids MI
1120 PM EDT Wed May 2 2018

LMZ848-870-030329-
/O.CAN.KGRR.MA.W.0005.000000T0000Z-180503T0400Z/
1120 PM EDT Wed May 2 2018

...THE SPECIAL MARINE WARNING IS CANCELLED...

The affected areas were...

Nearshore and Open Waters from Whitehall to Pentwater MI...

The thunderstorms have moved out of the warned area and no longer pose a significant threat to boaters.

LAT...LON 4246 8699 4324 8634 4309 8626 4292 8621
4270 8621 4241 8629 4244 8636

TIME...MOT...LOC 0319Z 308DEG 45KT 4318 8629 4278 8651

\$\$

LMZ845>847-872-874-876-030400-
/O.CON.KGRR.MA.W.0005.000000T0000Z-180503T0400Z/
1120 PM EDT Wed May 2 2018

...A SPECIAL MARINE WARNING REMAINS IN EFFECT UNTIL MIDNIGHT EDT...

For the following areas...

Nearshore and Open Waters from South Haven to Whitehall MI...

At 1119 PM EDT, strong thunderstorms were located along a line extending from near the Muskegon Light to 13 nm west of The Holland Light, moving southeast at 45 knots.

HAZARD...Wind gusts to nearly 50 knots.

SOURCE...Radar indicated.

IMPACT...Hazardous conditions above deck in briefly higher winds and suddenly higher waves.

Locations impacted include...

The Grand Haven Light, Port Sheldon, the Holland Light, the Muskegon Light.

PRECAUTIONARY/PREPAREDNESS ACTIONS...

Move to safe harbor immediately as gusty winds and high waves are expected.

&&

LAT...LON 4246 8699 4324 8634 4309 8626 4292 8621
4270 8621 4241 8629 4244 8636

TIME...MOT...LOC 0319Z 308DEG 45KT 4318 8629 4278 8651

HAIL...0.00IN
WIND...49KTS

\$\$

MWS used to expire the SMW:

FZUS73 KDLH 252022
MWSDLH

Marine Weather Statement
National Weather Service Duluth MN
322 PM CDT Fri May 25 2018

LSZ142-143-162-252045-
/O.CON.KDLH.MA.W.0001.000000T0000Z-180525T2045Z/
322 PM CDT Fri May 25 2018

...A SPECIAL MARINE WARNING REMAINS IN EFFECT UNTIL 345 PM CDT...

For the following areas...

Lake Superior west of a line from Saxon Harbor WI to Grand Portage MN
beyond 5NM...
Silver Bay Harbor to Two Harbors MN...
Taconite Harbor to Silver Bay Harbor MN...

At 322 PM CDT, Doppler radar indicated a strong thunderstorm,
capable of producing winds to 40 knots and penny size hail, located near Split Rock Lighthouse,
moving east at 25 knots.

At 319 PM CDT, dime size hail was reported at Gooseberry Falls State
Park on the Lake Superior shoreline.

Locations impacted include...

Beaver Bay, Split Rock Lighthouse, Split Rock Bay, Twin Points Safe
Harbor, and Castle Danger.

PRECAUTIONARY/PREPAREDNESS ACTIONS...

Mariners can expect wind gusts to 40 knots, small hail, high waves,
dangerous lightning, and heavy rains. Boaters should seek safe harbor
immediately until this storm passes.

&&

LAT...LON 4711 9153 4715 9149 4731 9126 4734 9107
4721 9106 4705 9124
TIME...MOT...LOC 2020Z 271DEG 18KT 4716 9138

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MWS issued for volcanic impacts:

FZAK78 PAFC 040733
MWSAFC

Marine Weather Statement
National Weather Service Anchorage AK
1023 PM AKST Tue Jan 3 2017

PKZ170-040930-
1023 PM AKST Tue Jan 3 2017

...BOGOSLOF VOLCANO HAS ERUPTED...

The areas affected include...
Cape Sarichef to Nikolski Bering Side...

At 920 PM AKST...Seismic activity and satellite imagery indicated that Bogoslof volcano, located at 53.9 N 168.0 W or 53 NM west of Unalaska was erupting, with light volcanic ashfall. The light volcanic ashfall will remain over mainly open waters.

Mariners could be affected by a limited hazard extent, such as less than 1/4 inch of ashfall, pumice rafts, or some floating debris. Mariners traveling in the vicinity of Bogoslof volcano are advised to use caution.

Please report any observations of ash to the Alaska Volcano Observatory at 907-786-7497.

PRECAUTIONARY/PREPAREDNESS ACTIONS...

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.

&&

LAT...LON 5386 16752 5381 16842 5464 16867 5516 16731
5458 16703

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MWS issued for Ashfall Advisory:

Note: Where the MWW is issued Ashfall Warnings are carried in the MWW (see NWSI 10-315).

FZAK78 PAFC 171943
MWSAFC

MARINE WEATHER STATEMENT
NATIONAL WEATHER SERVICE ANCHORAGE AK
1041 AM AKST Fri Feb 17 2017

PKZ170-172015-
1041 AM AKST Fri Feb 17 2017

...ASHFALL ADVISORY IN EFFECT FOR TRACE OR DUSTING OF VOLCANIC ASH...

The areas affected include...
Cape Sarichef to Nikoski Bering Side...

At 1041 AM AKST, seismic activity and satellite imagery indicated that Bogoslof volcano was erupting, with trace or dusting of volcanic ash, reducing visibility to near 5 NM.

An ashfall advisory means that the volcano is undergoing a minor eruption and there is the potential that mariners could be affected by a limited hazard extent...such as less than 1/4 inch of ashfall, pumice rafts, or some floating debris.

PRECAUTIONARY/PREPAREDNESS ACTIONS...

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.

&&

LAT...LON 5391 16757 5374 16776 5374 16856 5419 16991
5488 16819

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