

***NATIONAL WEATHER SERVICE INSTRUCTION 10-314
MAY 10, 2023***

Operations and Services

Marine and Coastal Weather Services, NWSPD 10-3

MARINE WEATHER STATEMENTS

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

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Updated examples in Appendix A.

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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 (i.e. freezing spray) anticipated 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 – Marine Weather Statement Examples

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

FZUS71 KAKQ 061931
MWSAKQ

Marine Weather Statement
National Weather Service Wakefield VA
331 PM EDT Tue Sep 6 2022

ANZ633-656-676-062030-
331 PM EDT Tue Sep 6 2022

...A STRONG THUNDERSTORM APPROACHING THE WATERS...

The areas affected include...

Coastal Waters from Cape Charles Light to the VA/NC Border out 20
NM...

Waters from Cape Charles Light to the VA/NC Border out 20 NM...
Currituck Sound...

At 331 PM EDT, Doppler radar indicated a strong thunderstorm, capable
of producing winds to around 30 knots. This thunderstorm was located
over Sandbridge, moving east at 20 knots.

The strong thunderstorm will be near...

10 Nm East Of Virginia Beach Oceanfront around 350 PM EDT.
Fish Hook around 430 PM EDT.

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 this storm passes.

&&

LAT...LON 3657 7546 3665 7603 3669 7601 3673 7603
3675 7599 3682 7601 3680 7604 3680 7605
3687 7603 3691 7548

\$\$

2 The MWS issued for Non-Severe Long Term Events

FZUS76 KLOX 181544
MWSLOX

Marine Weather Statement
National Weather Service Los Angeles/Oxnard CA
844 AM PDT Thu Aug 18 2022

PZZ645-650-655-670-673-676-190500-
Point Piedras Blancas to Point Sal westward out to 10 NM-
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-
Point Piedras Blancas to Point Sal from 10 to 60 NM-
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-
844 AM PDT Thu Aug 18 2022

....AREAS OF DENSE FOG WILL AFFECT THE COASTAL WATERS
THROUGH FRIDAY MORNING...

Areas of dense fog will affect much of the coastal waters
through Friday morning with worst conditions through this morning
and again tonight through Friday morning. 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 an SMW:

FZHW70 PHFO 191934
MWSHFO

Marine Weather Statement
National Weather Service Honolulu HI
934 AM HST Mon Dec 19 2022

PHZ113>115-192015-
/O.CON.PHFO.MA.W.0066.000000T0000Z-221219T2015Z/
934 AM HST Mon Dec 19 2022

...A SPECIAL MARINE WARNING REMAINS IN EFFECT UNTIL 1015 AM HST...

For the following areas...
Kauai Channel...
Oahu Leeward Waters...
Oahu Windward Waters...

At 934 AM HST, a severe thunderstorm capable of producing waterspouts, winds over 50 knots, and ping pong ball size hail was located 10 nm west of FAD Buoy CO, or 21 nm west of Kaena State Park, moving east at 50 knots.

HAZARD...Waterspouts, wind gusts in excess of 50 knots, and large hail.

SOURCE...Radar indicated.

IMPACT...Boats could suffer significant structural damage in high winds and hail. Small craft could capsize in suddenly higher waves.

Locations impacted include...
Kaena Point, FAD Buoy II, FAD Buoy V, FAD Buoy R and FAD Buoy CO.

PRECAUTIONARY/PREPAREDNESS ACTIONS...

Prepare for gusty winds, steep and fast-building seas, and blinding downpours. Stay low or go below, and make sure all on board are wearing life jackets.

Boaters should seek safe harbor immediately until this storm passes. wind gusts in excess of 50 knots, large hail, high waves, dangerous lightning, and heavy rain are possible with this storm.

Thunderstorms can produce sudden waterspouts. Waterspouts can easily

overturn boats and create locally hazardous seas. Seek safe harbor immediately.

&&

A Severe Thunderstorm Watch remains in effect until 200 PM HST for Hawaii.

LAT...LON 2175 15804 2169 15803 2159 15813 2157 15827
2154 15823 2146 15822 2141 15887 2204 15868
TIME...MOT...LOC 1934Z 257DEG 49KT 2153 15863

WATERSPOUT...POSSIBLE
HAIL...>.75IN
WIND...50KTS

\$\$

MWS used to cancel an SMW:

KLCH 191216
MWSLCH

Marine Weather Statement
National Weather Service Lake Charles LA
716 AM CDT Fri Aug 19 2022

GMZ450-470-191226-
/O.CAN.KLCH.MA.W.0074.000000T0000Z-220819T1230Z/
716 AM CDT Fri Aug 19 2022

...THE SPECIAL MARINE WARNING IS CANCELED...

The affected areas were...
Coastal waters from Cameron LA to High Island TX out 20 NM...
Waters from Cameron LA to High Island TX from 20 to 60 NM...

The thunderstorms have weakened and no longer pose a significant threat to boaters.

LAT...LON 2957 9434 2959 9428 2973 9345 2935 9341
2911 9422 2944 9435
TIME...MOT...LOC 1214Z 229DEG 9KT 2953 9362 2941 9422

\$\$

MWS used to cancel part of an SMW:

FZUS73 KGRR 201641

MWSGRR

Marine Weather Statement
National Weather Service Grand Rapids MI
1241 PM EDT Tue Sep 20 2022

LMZ846-874-201651-
/O.CAN.KGRR.MA.W.0041.000000T0000Z-220920T1730Z/
1241 PM EDT Tue Sep 20 2022

...THE SPECIAL MARINE WARNING IS CANCELED...

The affected areas were...
Nearshore and Open Waters from Holland to Grand Haven MI...

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

LAT...LON 4246 8625 4231 8633 4248 8680 4268 8676
 4268 8645 4269 8621
TIME...MOT...LOC 1641Z 320DEG 30KT 4242 8628 4232 8649

\$\$

LMZ844-845-876-878-201730-
/O.CON.KGRR.MA.W.0041.000000T0000Z-220920T1730Z/
1241 PM EDT Tue Sep 20 2022

...A SPECIAL MARINE WARNING REMAINS IN EFFECT UNTIL 130 PM EDT...

For the following areas...
Nearshore and Open Waters from St Joseph to Holland MI...

At 1241 PM EDT, severe thunderstorms were located along a line
extending from South Haven Light to 12 nm north of St. Joseph Light,
moving southeast at 30 knots.

HAZARD...Wind gusts to 50 knots and large hail.

SOURCE...Radar indicated.

IMPACT...Small craft could be damaged in briefly higher winds and
suddenly higher waves. Large hail could result in
structural damage.

Locations impacted include...
South Haven Light and Saugatuck Pier Heads.

PRECAUTIONARY/PREPAREDNESS ACTIONS...

Move to safe harbor until hazardous weather passes.

&&

LAT...LON 4246 8625 4231 8633 4248 8680 4268 8676
4268 8645 4269 8621
TIME...MOT...LOC 1641Z 320DEG 30KT 4242 8628 4232 8649

HAIL...>.75IN
WIND...50KTS

\$\$

MWS used to expire an SMW:

FZUS72 KKEY 131858
MWSKEY

Marine Weather Statement

National Weather Service Key West FL
158 PM EST Fri Jan 13 2023

GMZ031>033-035-131902-
/O.EXP.KKEY.MA.W.0001.000000T0000Z-230113T1900Z/
158 PM EST Fri Jan 13 2023

...THE SPECIAL MARINE WARNING WILL EXPIRE AT 200 PM EST...

The affected areas were...

Bay and Gulf Side from Craig Key to Halfmoon Shoal out to 5
fathoms...

Florida Bay including Barnes Sound, Blackwater Sound, and Buttonwood
Sound...

Gulf Waters from East Cape Sable to Chokoloskee 20 to 60 nm out and
beyond 5 fathoms...

The storm has weakened and no longer poses a significant threat to
boaters.

LAT...LON 2485 8159 2503 8160 2508 8098 2481 8098
TIME...MOT...LOC 1852Z 269DEG 31KT 2495 8117

\$\$

MWS issued for volcanic impacts:

FZAK78 PAFC 102150
MWSAFC

Marine Weather Statement
National Weather Service Anchorage AK

150 PM AKDT Tue May 10 2022

PKZ177-111000-
Adak to Kiska-
150 PM AKDT Tue May 10 2022

...TRACE AMOUNTS OF ASHFALL POSSIBLE NEAR SEMISOPOCHNOI...

Low level eruption activity is occurring at the Semisopochnoi volcano (approximately 140 nm west of Adak). Volcanic ash has been detected in satellite imagery and on nearby webcams. Trace amounts of ashfall are possible from the crater to areas west of the volcano as ash is transported by 15 kt easterly winds. We will continue to monitor and will keep you well advised.

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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

\$\$