

Enhanced Product – Addition of the Waterspout tag to Special Marine Warning (SMW) and Marine Weather Statement (MWS) products for all Marine Weather Forecast Offices (WFO), and to align the existing hail and wind tags to be consistent with the format used in Severe Thunderstorm Warnings.

January, 2017

Part 1 – Mission Connection

a. Product Description - Special Marine Warnings (SMW) and followup Marine Weather Statements (MWS) are issued to provide detailed information to the marine community for the protection of life and property. SMW are issued for marine zones to provide advance notice to mariners of potentially hazardous weather conditions. These warnings are issued for both imminent and forecast hazards; and may be based on observed or radar indicated conditions. SMW are issued for short periods, generally 2 hours or less, and for sustained marine thunderstorm winds 34 knots or greater and/or hail of $\frac{3}{4}$ inches or greater and/or waterspouts. SMW are also issued for non-convective short duration winds or frequent gusts of 34 knots or greater.

National Weather Service (NWS) Central Region (CR) offices have been issuing SMWs and follow up MWS with tags for hail and wind operationally since 2010, and with tags for waterspouts experimentally since 2014. Effective Spring of 2017, all marine Weather Forecast Offices (WFOs) in the conterminous United States (CONUS) and Puerto Rico will issue on an operational basis, the SMW and MWS with tags for hail, wind and waterspouts. Marine WFOs in Alaska, Hawaii, Guam, and for WSO Pago Pago will begin using the tags operationally at a later date.

b. Purpose - The purpose of this change is to improve the communication of crucial decision support and risk assessment information to partners and users within the guidelines of governing policy and the existing operational environment. The NWS WFOs provide warnings for the marine zones, and the methodology and format will remain consistent with existing short fused marine and land-based warnings. This change brings the existing hail and wind tags into alignment with consistent formatting within the Severe Thunderstorm Warning product over land-based zones, and to add the tag labeled “WATERSPOUTS...” to help users more quickly identify the risk for waterspouts within the text of the warning product. The warnings will also include streamlined, standardized, concise bullets to convey information about associated impacts, specific hazards expected, and recommended action resulting in an improved public response to take immediate protective action.

c. Audience - The target audience for the product includes: mariners; national, state and local emergency managers; media partners; the private weather enterprise; government and military agencies; and the general public. This change will affect SMW and MWS issued by WFOs with marine responsibility.

d. Presentation Format - Wording concerning impacts, specific hazards and source of information which prompted the warning will be inserted into the text area beneath the third mandatory bullet (immediately following the time, location and motion of the storm). A list of “recommended action” phrases will be selectable in the WarnGen Graphical User Interface (GUI). The selection will be inserted into the mandatory section labeled “PRECAUTIONARY/PREPAREDNESS ACTIONS”. Relevant tags for Waterspouts, Hail and Wind will be automatically appended to the bottom of SMW and follow-up statements (MWS) issued by all participating offices.

e. Feedback Method – The comment period was open from July 7, 2015 through November 30, 2015. No comments were received but this is a small addition to an existing operational product that will bring the tags into conformity with the Severe Thunderstorm Warning product.

Part 2 – Technical Description

a. Format & Science Basis - The enhancement adds up to three additional lines of text to describe three hazards: wind, hail, and waterspout. Hail and wind tags already exist within these operational products; this enhancement will simply take them from being on the same line of text and break them into separate lines of texts as per the example below.

The coded tag lines are appended to the bottom of every SMW and MWS products after the double ampersand (&&) directly below the existing TIME...MOT...LOC line and before the double dollar sign (\$\$). The hazards will be added each on a single line, if applicable, justified to the left margin, in the order as follows:

WATERSPOUT...<descriptor>
HAIL...xxxIN
WIND...xxKTS

Allowable Coded Tag Line Values:

Waterspout Values for SMW and MWS:
WATERSPOUT...OBSERVED
WATERSPOUT...POSSIBLE

The allowable values for hail and wind taglines are coded and defined as follows:

Hail values for SMW/MWS

(Local office flexibility to add other events in 1/4 inch increments with < .75 being the lowest allowable value, other than “no hail”, and > 2.0 being the largest allowable value. Format of these hail tags would be as “x.xx” (i.e., 1.00, 1.25, 1.50, 1.75, 2.00.)

0.00 Equates to no hail
< .75 Equates to hail smaller than 0.75 inches in diameter

- ≥ .75 Equates to hail 0.75" inch or larger, but less than 2 inches in diameter
- ≥ 2.00 Equates to hail 2 inches or larger in diameter and is the highest allowable value

Wind Values for SMW/MWS

(local office flexibility to add 60 for 60 knots)

- < 34 Wind gusts below 34 knots, and lowest allowable value
- 40 40 knot peak wind gust
- 49 40-49 knot peak wind gusts
- 50 50 knot wind gusts (severe)
- 65 65 knot peak wind gust and is the highest allowable value

Additional focus will also be added to the third bullet and a break out will be provided for HAZARD, SOURCE, and IMPACT in that bullet. This additional delineation is similar to land-based short fused warning products and within the language of the current directives.

b. Availability - This enhanced product is available through all distribution channels which currently disseminate SMW and MWS warning products.

c. Additional Information – Example of SMW product

WHUS53 KDTX 011530
SMWDTX
LCZ123-011700-
/O.NEW.KDTX.MA.W.0001.140701T1530Z-140701T1700Z/

BULLETIN - IMMEDIATE BROADCAST REQUESTED
SPECIAL MARINE WARNING
NATIONAL WEATHER SERVICE DETROIT/PONTIAC MI
1130 AM EDT TUE JUL 1 2014

THE NATIONAL WEATHER SERVICE IN DETROIT/PONTIAC HAS ISSUED A

* SPECIAL MARINE WARNING FOR...
ST. CLAIR RIVER...

* UNTIL 100 PM EDT

* AT 1128 AM EDT...A LINE OF SEVERE THUNDERSTORMS...CAPABLE OF PRODUCING
WATERSPOUTS...WAS LOCATED FROM 10 NM NORTHWEST OF NEW BALTIMORE TO
GROSSE POINTE...MOVING EAST AT 40 KNOTS.

HAZARD...A WATERSPOUT...WIND GUSTS TO 40 KNOTS AND LARGE HAIL.

SOURCE...RADAR INDICATED.

IMPACT...OVERTURNED AND CAPSIZED BOATS.

* THE WATERSPOUT WILL BE NEAR...
MARINE CITY AROUND 1000 AM EDT.

PRECAUTIONARY/PREPAREDNESS ACTIONS...

MARINERS CAN EXPECT DANGEROUS WINDS IN EXCESS OF 40 KNOTS...HIGH
WAVES...DANGEROUS LIGHTNING...AND HEAVY RAINS. BOATERS SHOULD SEEK

SAFE HARBOR IMMEDIATELY...UNTIL THESE STORMS PASS.

&&

LAT...LON 4298 8242 4261 8252 4261 8253 4276 8248
4294 8245

TIME...MOT...LOC 1400Z 263DEG 40KT 4284 8289 4244 8291

WATERSPOUT...POSSIBLE

HAIL...>.75IN

WIND...40KTS

\$\$

NAME