

Bulleted Winter Storm (WSW), Non-Precipitation (NPW), and Fire Weather (RFW) Watch, Warning, and Advisory Product Description Document

Part I – Mission Connection

a. Product Description –

During long duration winter storm, non-precipitation and fire events affecting multiple forecast zones, WSW, NPW and RFW weather watch, warning, advisory products can become very long and time consuming for forecasters to produce. The length of the product can make it difficult for users to quickly scan multiple forecast zones for vital storm information.

In 2008, the GFE focal point at WFO Reno modified the baseline WSW and NPW formatters to produce an experimental bullet formatted product with a format similar to severe thunderstorm and flash flood warnings. This format is easier for users to read and quickly gather vital watch, warning and advisory information and was used by WFO Reno during 2008/2009 winter season. During the 2009/2010 winter season, testing of the bulleted format WSW/NPW was expanded to all of Western and Central Region WFOs plus selected offices in other regions. Additional WFOs (over 100 in all) and RFW products were added in the 2010-2011 winter season. As of AWIPS Build 9.3, fielded in May 2011, the Graphical Hazards Generator (GHG) has been updated with a bulleted formatter for use by all WFOs.

b. Purpose – To produce WSW, NPW and RFW Watch, Warnings and Advisory products that are easy to read and contain the most important storm and impact information during hazardous winter, non-precipitation and fire weather events.

c. Audience – Emergency and Wildland Managers, Media, Department of Transportation and the general public.

d. Presentation Format – Text based.

e. Feedback Method – Comments from over two years of experimental usage at an expanding number of WFOs were generally positive. TV meteorologists in particular commented that the bulleted format was much easier to gather information for their broadcasts.

Technical and policy questions and comments on the bulleted WSW, NPW and RFW statements may be addressed to:

Paul Stokols
National Weather Service
Fire and Public Services Branch
Silver Spring, MD 20910
301-713-1867 x139
Paul.Stokols@noaa.gov

A web survey link can also be found at:

<http://www.weather.gov/survey/nws-survey.php?code=wswnpw>

f. Examples –

Sample WSW:

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URGENT - WINTER WEATHER MESSAGE
NATIONAL WEATHER SERVICE RENO NV
947 AM PDT WED AUG 26 2009

...|*OVERVIEW HEADLINE (MUST EDIT)*|...
.|*OVERVIEW (MUST EDIT)*|.

CAZ071-270100-
/O.NEW.KREV.WW.Y.0002.090826T1900Z-090827T1800Z/
LASSEN-EASTERN PLUMAS-EASTERN SIERRA COUNTIES-
INCLUDING THE CITY OF...SUSANVILLE
947 AM PDT WED AUG 26 2009

...WINTER WEATHER ADVISORY IN EFFECT UNTIL 11 AM PDT THURSDAY...

THE NATIONAL WEATHER SERVICE IN RENO HAS ISSUED A WINTER WEATHER
ADVISORY FOR |* SNOW *|...WHICH IS IN EFFECT UNTIL 11 AM PDT
THURSDAY.

|*
* TIMING BULLET
* TOTAL SNOW ACCUMULATIONS:
* WINDS:
* SNOW LEVELS:
* IMPACTS:
*|

PRECAUTIONARY/PREPAREDNESS ACTIONS...

SNOW IS EXPECTED TO POSE AN INCONVENIENCE TO TRAVELERS. ROADS
WILL BECOME SLICK AND HAZARDOUS...WITH SNOW AND ICE FIRST
DEVELOPING ON BRIDGES AND OVERPASSES. MOTORISTS SHOULD SLOW DOWN
AND USE CAUTION. CHECK OUR WEBSITE AT WEATHER.GOV/RENO OR LISTEN
TO NOAA WEATHER RADIO FOR UPDATES ON THIS SITUATION.

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URGENT - WINTER WEATHER MESSAGE
NATIONAL WEATHER SERVICE RENO NV
1125 AM PDT FRI OCT 3 2008
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...EARLY SEASON STORM TO BRING STRONG WINDS AND HIGH ELEVATION
SNOWFALL...
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.A STRONG PACIFIC STORM SYSTEM WILL PUSH ACROSS NORTHERN AND CENTRAL CALIFORNIA TONIGHT AND SATURDAY. WINDS WILL INCREASE THIS AFTERNOON AHEAD OF THE SYSTEM AND BECOME STRONGER OVERNIGHT. RAIN WILL MOVE INTO THE SIERRA THIS EVENING WITH SNOW ON THE HIGHEST MOUNTAIN PEAKS. SNOW LEVELS WILL FALL SATURDAY MORNING WITH A PERIOD OF HEAVY SNOWFALL AT THE HIGHER ELEVATIONS.

CAZ073-041200-

/O.UPG.KREV.WS.A.0011.081004T0600Z-081005T0600Z/

/O.NEW.KREV.WS.W.0007.081004T0600Z-081005T0000Z/

MONO-

INCLUDING THE CITIES OF...BRIDGEPORT...COLEVILLE...LEE VINING...

MAMMOTH LAKES

1125 AM PDT FRI OCT 3 2008

...WINTER STORM WARNING IN EFFECT FROM 11 PM THIS EVENING TO 5 PM PDT SATURDAY FOR AREAS ABOVE 8000 FEET...

THE NATIONAL WEATHER SERVICE IN RENO HAS ISSUED A WINTER STORM WARNING...WHICH IS IN EFFECT FROM 11 PM THIS EVENING TO 5 PM PDT SATURDAY. THE WINTER STORM WATCH IS NO LONGER IN EFFECT.

* TOTAL SNOW ACCUMULATIONS ABOVE 9000 FEET OF 6 TO 12 INCHES...WITH 4 TO 6 INCHES BETWEEN 8000 FEET AND 9000 FEET.

* SOUTHWEST WINDS WILL INCREASE TO 20 TO 40 MPH WITH GUSTS TO 60 MPH. GUSTS TO 90 MPH ARE POSSIBLE OVER THE SIERRA RIDGES.

* SNOW LEVELS WILL START NEAR 10000 FEET TONIGHT AND DROP TO AROUND 8000 FEET BY LATE SATURDAY AFTERNOON.

* IMPACTS: SIGNIFICANT SNOW ACCUMULATIONS AND STRONG WINDS WILL CREATE DANGEROUS CONDITIONS FOR BACK COUNTRY ACTIVITIES IN THE HIGH SIERRA.

PREPAREDNESS/PRECAUTIONARY ACTIONS...

ALL BACKCOUNTRY ACTIVITIES SHOULD BE SUSPENDED BY THIS AFTERNOON AS CONDITIONS WILL QUICKLY DETERIORATE THIS EVENING AS A WINTER STORM MOVES INTO THE HIGH SIERRA. HEAVY SNOW...HIGH WINDS AND COLD TEMPERATURES WILL PRODUCE VERY DANGEROUS CONDITIONS FOR THOSE IN THE BACKCOUNTRY.

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Sample NPW:

URGENT - WEATHER MESSAGE
NATIONAL WEATHER SERVICE RENO NV
1005 AM PDT WED AUG 26 2009

... |*OVERVIEW HEADLINE (MUST EDIT)*|...

. |*OVERVIEW (MUST EDIT)*|.

NVZ003-270115-
/O.NEW.KREV.HW.A.0001.090827T1400Z-090828T0300Z/
GREATER RENO-CARSON CITY-MINDEN AREA-
INCLUDING THE CITY OF...SPARKS
1005 AM PDT WED AUG 26 2009

...HIGH WIND WATCH IN EFFECT FROM THURSDAY MORNING THROUGH
THURSDAY EVENING...

THE NATIONAL WEATHER SERVICE IN RENO HAS ISSUED A HIGH WIND
WATCH...WHICH IS IN EFFECT FROM THURSDAY MORNING THROUGH THURSDAY
EVENING.

|*

* TIMING BULLET

* WINDS:

* IMPACTS:

* |

PRECAUTIONARY/PREPAREDNESS ACTIONS...

A HIGH WIND WATCH MEANS THERE IS POTENTIAL FOR STRONG DAMAGING
WINDS TO AFFECT THE AREA. CONTINUE TO MONITOR THE LATEST
FORECASTS AT WEATHER.GOV/RENO.

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[HTTP://WEATHER.GOV/RENO](http://weather.gov/reno)

URGENT - WEATHER MESSAGE
NATIONAL WEATHER SERVICE RENO NV
256 PM PST WED JAN 2 2008

...STRONG WINDS ACROSS WESTERN NEVADA ON FRIDAY...

.WINDS WILL INCREASE ON THURSDAY WITH BREEZY CONDITIONS THROUGH THURSDAY NIGHT. A STRONG PACIFIC JET STREAM WILL MOVE INTO THE AREA FRIDAY MORNING BRINGING STRONGER AND POTENTIALLY DAMAGING WINDS TO WESTERN NEVADA. THE WINDS WILL DECREASE FRIDAY EVENING AS HEAVIER PRECIPITATION MOVES INTO THE AREA.

NVZ001-003-031300-
/O.UPG.KREV.HW.A.0001.080104T1200Z-080105T0200Z/
/O.NEW.KREV.HW.W.0001.080104T1200Z-080105T0200Z/
MINERAL AND SOUTHERN LYON COUNTIES-GREATER RENO-CARSON CITY-
MINDEN AREA-
INCLUDING THE CITIES OF...HAWTHORNE...YERINGTON...SMITH VALLEY...
MINA...SCHURZ...SPARKS...VERDI...GARDNERVILLE
256 PM PST WED JAN 2 2008

...HIGH WIND WARNING IN EFFECT FROM 4 AM TO 6 PM PST FRIDAY...

THE NATIONAL WEATHER SERVICE IN RENO HAS ISSUED A HIGH WIND WARNING...WHICH IS IN EFFECT FROM 4 AM TO 6 PM PST FRIDAY. THE HIGH WIND WATCH IS NO LONGER IN EFFECT.

- * WIDESPREAD WIND SPEEDS OF 30 TO 40 MPH WITH GUSTS UP TO 65 MPH WILL OCCUR. DAMAGING GUSTS TO 80 MPH ARE POSSIBLE IN THE FOOTHILLS AND WIND PRONE AREAS.
- * THE STRONGEST AND MOST ERRATIC WINDS WILL AFFECT THE AREA FRIDAY AFTERNOON AS THE COLD FRONT PASSES.
- * DAMAGE TO TREES...POWER LINES AND PROPERTY IS LIKELY WITH WINDS OF THIS MAGNITUDE.
- * REDUCED VISIBILITY DUE TO AREAS OF BLOWING DUST AND STRONG CROSS WINDS WILL CREATE DANGEROUS TRAVEL CONDITIONS ON HIGHWAYS 50...95 AND 395.

PRECAUTIONARY/PREPAREDNESS ACTIONS...

PERSONS PLANNING TRAVEL ACROSS WESTERN NEVADA AND NORTHEAST CALIFORNIA SHOULD CONTINUE TO MONITOR FORECASTS AND STATEMENTS FROM THE NATIONAL WEATHER SERVICE FOR UPDATES.

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Sample RFW:

NVZ450-080000-
/O.NEW.KREV.FW.A.0014.090709T1800Z-090710T0400Z/
WESTERN NEVADA SIERRA FRONT-
1010 AM PDT TUE JUL 7 2009

...FIRE WEATHER WATCH IN EFFECT FROM THURSDAY MORNING THROUGH
THURSDAY EVENING FOR WESTERN NEVADA DUE TO GUSTY WINDS AND LOW
HUMIDITY...

THE NATIONAL WEATHER SERVICE IN RENO HAS ISSUED A FIRE WEATHER
WATCH...WHICH IS IN EFFECT FROM THURSDAY MORNING THROUGH THURSDAY
EVENING.

- * LOCATIONS INCLUDE FIRE WEATHER ZONE 450...THE SIERRA FRONT
FROM THE RENO-SPARKS AREA SOUTHWARD TO MINDEN AND GARNDERVILLE.
- * SOUTHWEST WINDS ARE FORECAST TO INCREASE TO 15 TO 25 MPH...WITH
GUSTS UP TO 40 MPH THURSDAY AFTERNOON.
- * VERY LOW HUMIDITY WILL OCCUR THURSDAY WITH VALUES DROPPING BELOW
10 PERCENT BY LATE THURSDAY MORNING.
- * THESE WINDS ARE FORECAST TO COMBINE WITH A VERY DRY AIR TO
PRODUCE CRITICAL FIRE WEATHER CONDITIONS.

PRECAUTIONARY/PREPAREDNESS ACTIONS...

A FIRE WEATHER WATCH MEANS THAT CRITICAL FIRE CONDITIONS ARE
POSSIBLE. CHECK WEATHER.GOV/RENO FOR UPDATES AND POSSIBLE RED FLAG
WARNINGS.

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Sample RFW:

RED FLAG WARNING
NATIONAL WEATHER SERVICE SALT LAKE CITY UT
215 AM MDT THU JUL 9 2009

UTZ435-437-439-440-091800-
/O.NEW.KSLC.FW.W.0002.090709T1800Z-090710T0400Z/
SOUTHWEST DESERTS AND MOUNTAINS-
SOUTHWEST AND SOUTH CENTRAL MOUNTAINS-UTAHS DIXIE AND ZION CANYON-
SOUTH CENTRAL UTAH-
215 AM MDT THU JUL 9 2009

...RED FLAG WARNING IN EFFECT FROM NOON TODAY TO 10 PM MDT THIS
EVENING FOR GUSTY SOUTHWEST WINDS AND LOW RELATIVELY HUMIDITY
ACROSS SOUTHERN UTAH. THIS WARNING INCLUDES FIRE WEATHER
ZONES 435...437...439 AND 440...

*AFFECTED AREA: THIS WARNING IS FOR SOUTHWEST AND SOUTH CENTRAL UTAH
INCLUDING FIRE WEATHER ZONES 435...437...439 AND 440.

*TIMING: NOON TODAY THROUGH 10 PM MDT THIS EVENING.

*WINDS: SOUTHWEST WINDS OF 15 TO 25 MPH...WITH GUSTS IN EXCESS OF 30
MPH.

*RELATIVE HUMIDITY: EXTREMELY LOW RELATIVE HUMIDITY BETWEEN 5 AND 10 PERCENT.

*IMPACTS: THESE WINDS...COMBINED WITH A VERY DRY AIRMASS IN PLACE
ACROSS THE REGION...WILL RESULT IN CRITICAL FIRE WEATHER CONDITIONS.

PRECAUTIONARY/PREPAREDNESS ACTIONS...

A RED FLAG WARNING MEANS THAT CRITICAL FIRE WEATHER CONDITIONS
ARE EITHER OCCURRING NOW...OR WILL SHORTLY. A COMBINATION OF
STRONG WINDS...LOW RELATIVE HUMIDITY...AND WARM TEMPERATURES WILL
CREATE EXPLOSIVE FIRE GROWTH POTENTIAL

Part II – Technical Description

- a. Format and Science Basis – Using AWIPS Graphical Hazard Editor bulleted template, forecasters can quickly create products focused on the most important information users need during winter storm and non-precipitation weather events.
- b. Availability – These products are event driven and will be issued and updated as needed.

