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WFO SEVERE WEATHER PRODUCTS SPECIFICATION

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

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Certified by: W/AFS21 (M. Hawkins)

SUMMARY OF REVISIONS: This directive supersedes NWSI 10-511, “*WFO Severe Weather Products Specification*” dated October 9, 2017. The following changes were made to this instruction:

- 1) Converted the text from “Uppercase” to “Letter Case” in the appropriate portions of following products: Severe Thunderstorm Warning (SVR), Tornado Warning (TOR), and Severe Weather Statement (SVS).
- 2) Converted the legacy product text format to the Impact-Based Warning (IBW) format in the appropriate sections of following products: Severe Thunderstorm Warning (SVR), Tornado Warning (TOR), and Severe Weather Statement (SVS).
- 3) Additions and clarifications to product “Content” sections, including refinements to referencing mileage markers, inclusion of named public venues, pathcasts, inclusion of Tornado Watch information in SVRs and SVSs, and further guidance on the criteria for SVS issuance.
- 4) Refined guidance in the 3.3.4.1 Tornado Emergency section, referenced also in Section 4.3.4.1.
- 5) Replaced previous examples and added new examples for each of the Impact-Based Warning (IBW) products: Severe Thunderstorm Warning (SVR), Tornado Warning (TOR), and Severe Weather Statement (SVS).

Signed
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8/6/2018
Date

WFO Severe Weather Products Specification

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1. **Introduction.** This procedural instruction describes the severe weather products issued by Weather Forecast Offices (WFOs), provides guidelines associated with these products, specifies detailed content as needed, and outlines the format for each product type.

2. **Severe Thunderstorm Warning (product category SVR).**

2.1 **Mission Connection.** Severe Thunderstorm Warnings (SVR) are issued to protect lives and property. WFO forecasters issue SVRs to provide the public, media, and emergency managers with advance notice of the combination of damaging wind gusts, large hail, and possible tornado development.

2.2 **Issuance Guidelines.**

2.2.1 **Creation Software.** WFOs will use WarnGen to issue SVRs.

2.2.2 **Issuance Criteria.** WFOs should issue SVRs when there is radar or satellite indication and/or reliable reports of wind gusts equal to or in excess of 50 knots (58 miles per hour (mph)) and/or hail size of one inch (U.S. quarter-size) diameter or larger. WFOs may issue SVRs for a convective squall with little or no lightning that otherwise meets or exceeds hail and/or wind warning criterion. A SVR may also be issued for potential tornados/landspouts within thunderstorms that also are forecasted to meet or exceed the minimum damaging wind gust and/or large hail criterion.

2.2.3 **Issuance Time.** SVRs are non-scheduled, event-driven products.

2.2.4 **Valid Time.** Valid times should be within 30 to 60 minutes of issuance. For thunderstorms that are expected to remain severe beyond the valid time of the original warning, WFOs should issue a new warning.

2.2.5 **Product Expiration Time.** The product expiration time is the end of warning valid time.

2.3 **Technical Description.** SVRs will follow the Impact-Based Warning (IBW) format and content described in this section.

2.3.1 **Universal Geographic Code (UGC) Type.** County (Zone for Alaska and parts of Pacific Region).

2.3.2 **Mass News Disseminator (MND) Broadcast Line.** For states that require Emergency Alert System (EAS) activation, SVRs should include the broadcast line: "BULLETIN - EAS ACTIVATION REQUESTED." If a state does not require EAS activation for SVRs, 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.

2.3.3 **MND Header.** The SVR MND header is "Severe Thunderstorm Warning".

2.3.4 Content. The following guidelines apply to the issuance of SVRs by WFOs:

a. Writing Style:

- 1) SVRs will be in Letter Case with the exception of section headers and coded tag lines designed to be in Uppercase.
- 2) SVRs will follow a standard bullet style format, with the third bullet providing sub-category information that distinguishes the hazard, source of information, and potential impacts.
- 3) Locations used to identify the threatened areas should be larger towns and other familiar landmarks.
- 4) Names of states and counties (or parts of counties) should be spelled out.
- 5) Concise call-to-action (CTA) statements should be included.
- 6) The WFO designated on-duty shift leader/supervisor may discontinue call-to-action statements in warnings during widespread severe weather outbreaks.
- 7) Mileage markers may be used as reference points when a storm is occurring or forecast to move over a major highway but limited to five reference points or less.
- 8) Named stadiums, arenas, or venues can be included in the locations section, as long as the residing city name is included as a separate location entry.

b. Inclusion of Reports of Severe Events or Damage:

- 1) Recent credible reports of severe hail, winds gusts, and/or damage due to hail or high winds should be included.

c. Pathcasts:

- 1) In general, warnings may contain 'pathcasts' (specific forecasts of location and arrival time) provided the forecaster has very high confidence in the movement (direction and speed) of the hazardous weather.
- 2) Any 'pathcast' issued should use terms of uncertainty appropriate to the state of the science (e.g. 'the severe thunderstorm will be near [location] around [time]').
- 3) Warnings that contain 'pathcast' information should be followed by frequent (approximately every 15 minutes) Severe Weather Statements (SVS). This ensures that users receive the most recent information concerning the location and movement of the hazardous weather.

d. Number and Divisions of Counties/Parishes:

- 1) WFOs should limit the number of counties/parishes in a SVR to 12 or less.
- 2) If separating a county/parish into divisions, WFOs should use no more than a nine part division (i.e. northeast, east central, etc.) in coordination with state and local emergency managers and other partners.

e. Severe Thunderstorm Moves Over Water:

- 1) If a severe thunderstorm moves over coastal waters, a Special Marine Warning (SMW) will be issued (see NWSI 10-313 for details on SMWs and issuance criteria).

- f. Combining Warnings:
 - 1) WFOs should keep Severe Thunderstorm and Flash Flood Warnings separate.
- g. Tornado Watch Information:
 - 1) When a Tornado Watch is in effect for the warned area, WFOs should add this selection in the “PRECAUTIONARY/PREPAREDNESS ACTIONS” section, along with the additional pertinent CTA statements.
 - 2) The format for this information may either read as a generic statement (e.g. “A tornado watch remains in effect for the warned area.”), or the more explicit statement (e.g. “A tornado watch remains in effect until 10 pm EDT for Southeastern Alabama.”).
 - 3) This consideration is only valid for SVRs and their updates, through the SVS.

2.3.5 Format. The SVR format will contain this information in the following order, through the Impact-Based Warning (IBW) format (see Figure 1):

First Bullet – Type of warning; and warning location(s);

Second Bullet – Expiration time of warning;

Third Bullet – Time; notation of “severe thunderstorm(s)” and the physical distance (in miles) from the closest location; storm motion. If edits of more than 10 mph or more than 45 degrees are required for the storm motion, the forecaster should adjust the track in WarnGen, rather than manually edit the text, in order to keep in agreement with TIME...MOT...LOC line.

HAZARD (IBW Sub-Section 1)...Basis for warning (including recent credible reports if available); forecast or observed thunderstorm wind gusts and maximum hail sizes.

SOURCE (IBW Sub-Section 2)...Select one of these accepted source types (radar, trained weather spotters, law enforcement, emergency management, or public).

IMPACT (IBW Sub-Section 3)...This section contains predetermined statements that are based on the selected wind speed and/or hail size attribute. Default and designated alternative impact statements are as follows in Table 1:

Table 1: Impact Statements for Severe Thunderstorm Warnings

Severe Thunderstorm Attribute	Impact Statement(s)
	[1] Sentence 1. 2) Sentence 2. ... n) Sentence n. n = last sentence] Use all numbered statements in the order they appear.
Wind – 60 mph	1) Expect damage to roofs, siding, and trees. * 1) Tree and power line damage is likely. * 2) Expect damage to some roofs, siding, carports, and fences. (this alternative option should include both statements)
Wind – 70 mph	1) Expect considerable tree damage. 2) Damage is likely to mobile homes, roofs, and outbuildings.

	<ul style="list-style-type: none"> * 1) Expect considerable tree and power line damage. * 2) Damage is likely to mobile homes, roofs, screen enclosures, carports, and outbuildings.
Wind – 80 mph	<ul style="list-style-type: none"> 1) Flying debris will be dangerous to those caught without shelter. 2) Mobile homes will be heavily damaged. 3) Expect considerable damage to roofs, windows, and vehicles. 4) Extensive tree damage and power outages are likely.
	<ul style="list-style-type: none"> * 1) Flying debris will be dangerous to those caught without shelter. * 2) Mobile homes will likely be heavily damaged. * 3) Considerable damage to roofs, windows, and vehicles is likely. * 4) Expect considerable tree and power line damage.
Wind – 90 mph	<ul style="list-style-type: none"> 1) You are in a life threatening situation. 2) Flying debris may be deadly to those caught without shelter. 3) Mobile homes will be heavily damaged or destroyed. 4) Homes and businesses will have substantial roof and window damage. 5) Expect extensive tree damage and power outages.
	<ul style="list-style-type: none"> * 1) You are in a life threatening situation. * 2) Flying debris may be deadly to those caught without shelter. * 3) Mobile homes will be heavily damaged or destroyed. * 4) Homes and businesses will likely have substantial roof and window damage. * 5) Expect extensive tree damage and power line damage with widespread power outages.
Wind – 100 mph	<ul style="list-style-type: none"> 1) You are in a life threatening situation. 2) Flying debris may be deadly to those caught without shelter. 3) Mobile homes will be destroyed. 4) Expect considerable damage to homes and businesses. 5) Expect extensive tree damage and power outages.
	<ul style="list-style-type: none"> * 1) You are in a life threatening situation. * 2) Flying debris may be deadly to those caught without shelter. * 3) Mobile homes will be heavily damaged or destroyed. * 4) Homes and businesses will likely have substantial roof and window damage. * 5) Expect extensive tree damage and power line damage with widespread power outages.
Hail – Up to Half Dollar/Walnut Size (1.25")	1) Damage to vehicles is expected.
	* 1) Damage to vehicles is likely.
Hail – Ping Pong Ball Size (1.50") to Tennis Ball Size (2.50")	<ul style="list-style-type: none"> 1) People and animals outdoors will be injured. 2) Expect damage to roofs, siding, windows, and vehicles.
	<ul style="list-style-type: none"> * 1) People and animals outdoors will likely be injured. * 2) Expect damage to roofs, siding, screen enclosures, windows,

	and vehicles.
Hail – Baseball Size (2.75 Inches)	1) People and animals outdoors will be severely injured. 2) Expect shattered windows, extensive damage to roofs, siding, and vehicles.
	* 1) Severe injuries are likely with hail this size. * 2) Expect shattered windows, extensive damage to roofs, siding, screen enclosures, and vehicles.

* Note: Alternative impact statements may be utilized per Regional discretion.

Fourth Bullet – Locations to be impacted during the warning (see Figure 1);

PRECAUTIONARY/PREPAREDNESS ACTIONS – One or two short, concise, action-oriented CTA statements should be included. If CTAs are included under the PRECAUTIONARY/PREPAREDNESS ACTIONS, then two ampersands (&&) are required as a dissemination marker after the last CTA (see NWSI 10-1701, Section 5.5 for details on CTAs and markers). Credible reports of hail size and wind gusts should go in the basis statement (first IBW sub-section “HAZARD”, under the third bullet) instead of the precautionary/preparedness actions. If a Tornado Watch is in effect for the warned area, the SVR will have a notation for this in this section.

LAT...LON – The warning area polygon as described by a series of latitude/longitude coordinates in decimal degrees with precision to hundredths (2 decimal places). The polygon will contain as few as three and as many as twenty vertices.

TIME...MOT...LOC – The tracking information gives the location and movement of the event being tracked. Examples of such events could include the leading edge of a gust front or the leading edge of a hail core. The format (see Figure 1) includes the time of the observed event in Coordinated Universal Time (UTC), followed by a three digit direction of movement in degrees (direction the event is moving from), followed by speed of movement in knots, and finally the location of the event as a single latitude/longitude coordinate, or in the case of a line, two or more latitude/longitude coordinates.

IBW Coded Tag Lines – This section details the required and optional IBW coded tag lines according to each hazard type. These outputs are linked to options made within the WarnGen product generation application and are not editable in the warning text. All tag lines and information wording will be in Uppercase. The choices for IBW coded tag choices are as follows:

TORNADO . . . POSSIBLE

(Optional; only one choice for this tag [POSSIBLE]. Select only if the severe thunderstorm is suspected to have the potential to produce a tornado/landspout but forecaster confidence does not warrant a Tornado Warning at the issuance time of the SVR). If this option is chosen, there must also be at least one of the other SVR criterion (wind and/or hail) selected.

HAIL . . . X.XXIN

(Required; X.XXIN = value of maximum expected/reported hail size, in inches, from above in the “HAZARD” warning basis section; can be 0.00IN if no hail is expected or

a lower value of hail size than the minimum SVR criteria, e.g. <.75IN, if the minimum SVR wind criterion is met).

WIND...XXMPH

(Required; XXMPH = value of maximum wind speed, in miles per hour (mph), from above in the “HAZARD” warning basis section, to the nearest 10mph; can be 00MPH if no thunderstorm wind gusts are expected or it can be a lower value than the minimum SVR thunderstorm wind gust criteria, e.g. <50MPH, if the minimum SVR hail size criterion is met).

IBW Tag Order – If chosen, “TORNADO...POSSIBLE” will be first in all cases. Otherwise, hail will be first, then wind. This section also pertains to the updates to a SVR, under the Severe Weather Statement (SVS).

```
WUaa5i cccc ddhhmm
SVRccc
STC001-002-ddhhmm-
/k.aaa.cccc.pp.s.####.yymmddThhnnZB-yymmddThhnnZE/
```

```
BULLETIN - EAS ACTIVATION (or IMMEDIATE BROADCAST) REQUESTED
Severe Thunderstorm Warning (...CORRECTED as required)
National Weather Service City State
time am/pm time_zone day mon dd yyyy
```

The National Weather Service in City has issued a

- * Severe Thunderstorm Warning for...
 - Portion County one in section State...(List warned counties)
 - Portion County two in section State...(Number of counties will match number of counties in UGC Line)
- * Until hhmm AM/PM time_zone (Expiration time of warning)
- * At hhmm am/pm time_zone, warning basis, forward speed and direction.

HAZARD...Warning basis elements (wind speed and/or hail size).

SOURCE...(Choose one) Radar indicated, Trained weather spotters, Law enforcement, Emergency management, or Public.

IMPACT...Statements will populate based on the selected severe hazards in Table 1.

- * Locations impacted include...
 - Location #1, Location #2, Location #n. (n = variable number of locations).

PRECAUTIONARY/PREPAREDNESS ACTIONS...

(Call-to-Action statements).

```

(Tornado watch information, if valid for the warned area).

&&

LAT...LON (Required list of latitude/longitude coordinate pairs
          outlining the forecaster-drawn warning area)
TIME...MOT...LOC hhnnZ xxxDEG xxKT xxxx xxxx (lat/lon couplet(s))

TORNADO...POSSIBLE (will only appear if selected)
HAIL...X.XXIN (X.XX = value of maximum expected hail size, in
              diameter, from the "HAZARD" warning basis section)
WIND...XXMPH (XX = value of maximum expected wind speed from the
              "HAZARD" warning basis section to the nearest 10mph)

$$
FORECASTER NAME/NUMBER (OPTIONAL)

```

Figure 1. Severe Thunderstorm Warning Format

2.4 Updates, Amendments and Corrections. Updates and amendments are not applicable. WFOs will correct SVRs for significant grammatical errors, format or dissemination code errors. Corrected warnings will have the same time in the MND Header and the same Event Tracking Number (ETN) in the Valid Time Event Code (VTEC) line as the original warning. WFOs should issue Severe Weather Statements (SVS) to inform users of erroneous counties removed from original warnings (either in the Federal Information Processing Standards (FIPS)/Zone UGC code or in the body of the warning).

3. **Tornado Warning (product category TOR).**

3.1 Mission Connection. Tornado Warnings (TOR) are issued to protect lives and property. WFO forecasters issue TORs to provide the public, media, and emergency managers with advance notice of tornadoes.

3.2 Issuance Guidelines.

3.2.1 Creation Software. WFOs will use WarnGen to issue TORs.

3.2.2 Issuance Criteria. WFOs should issue TORs when there is radar indication and/or reliable reports of a tornado or developing tornado.

3.2.3 Issuance Time. TORs are non-scheduled, event-driven products.

3.2.4 Valid Time. Valid times should be 15 to 45 minutes from issuance. For a tornado expected to continue beyond the valid time of the original warning, WFOs should issue a new warning.

3.2.5 Product Expiration Time. The product expiration time is the end of warning valid time.

3.3 Technical Description. TORs will follow the Impact-Based Warning (IBW) format and content described in this section.

3.3.1 UGC Type. County (Zone for Alaska Region and parts of Pacific Region).

3.3.2 MND Broadcast Line. TORs will include the broadcast line “BULLETIN - EAS ACTIVATION REQUESTED.” The term “BULLETIN” is used when information is sufficiently urgent to warrant breaking into a normal broadcast.

3.3.3 MND Header. The TOR MND header is “Tornado Warning”.

3.3.4 Content. The following guidelines apply to the issuance of TORs by WFOs:

a. Writing Style:

- 1) TORs will be in Letter Case with the exception of section headers and coded tag lines designed to be in Uppercase.
- 2) TORs will follow a standard bullet style format, with the third bullet providing sub-category information that distinguishes the hazard, source of information, and potential impacts.
- 3) Locations used to identify the threatened areas should be larger towns and other familiar landmarks.
- 4) Names of states and counties (or parts of counties) should be spelled out.
- 5) Concise call-to-action (CTA) statements should be included.
- 6) The WFO designated on-duty shift leader/supervisor may discontinue CTA statements in warnings during widespread severe weather outbreaks.
- 7) Mileage markers may be used as reference points when a storm is occurring or

- forecast to move over a major highway but limited to five reference points or less.
- 8) Named stadiums, arenas, or venues can be included in the locations section, as long the residing city name is included as a separate location entry.
- b. Inclusion of Tornado or Tornado Damage Reports (3rd bullet):
 - 1) Recent credible reports of a tornado, possible tornado, and/or recent credible reports of damage from a tornado or possible tornado should be included.
 - c. Pathcasts:
 - 1) In general, warnings may contain ‘pathcasts’ (specific forecasts of location and arrival time) provided the forecaster has very high confidence in the movement (direction and speed) of the hazardous weather.
 - 2) Any ‘pathcast’ issued should use terms of uncertainty appropriate to the state of the science (e.g., ‘the severe thunderstorm will be near [location] around [time]’).
 - 3) Warnings that contain ‘pathcast’ information should be followed by frequent (approximately every 15 minutes) Severe Weather Statements (SVS). This ensures that users receive the most recent information concerning the location and movement of the hazardous weather.
 - d. Number and Divisions of Counties/Parishes:
 - 1) WFOs should limit the number of counties/parishes in a TOR to 12 or less.
 - 2) If separating a county/parish into divisions, WFOs should use no more than a nine part division (i.e. northeast, east central, etc.) in coordination with state and local emergency managers and other partners.
 - e. Tornado Moves Over Water
 - 1) If a tornado moves over coastal waters, a Special Marine Warning (SMW) will be issued (see NWSI 10-313 for details on SMWs and issuance criteria).
 - f. Combining Warnings
 - 1) WFOs should keep Tornado and Flash Flood Warnings separate.

3.3.4.1 Tornado Emergency. In exceedingly rare situations, when a severe threat to human life and catastrophic damage from a tornado is imminent or ongoing, WFOs have the option to insert the headline in a Tornado Warning (TOR) “...TORNADO EMERGENCY FOR [IMPACTED LOCATIONS]...” with concurrence of the designated on-duty shift leader/supervisor. The headline will be on a separate line directly following the date/time line in the MND Header and before the first line that begins “THE NATIONAL WEATHER SERVICE IN XXX HAS ISSUED A”, where “XXX” is the WFO location. The headline will be preceded and followed by a three dot ellipsis. “TORNADO EMERGENCY FOR [IMPACTED LOCATIONS]” is duplicated without ellipses in the last line of the third bullet, e.g., the basis statement of the warning. The “IMPACTED LOCATIONS” should be cities, towns or well-known landmarks, and may include “AND SURROUNDING AREAS”. The TORNADO EMERGENCY will also contain an IBW coded tag line of “TORNADO DAMAGE THREAT...CATASTROPHIC” (see Section 3.3.5, Table 2).

Use of “TORNADO EMERGENCY” terminology is appropriate for the tornadic situation if all of the following criteria are met:

- a. Severe threat to human life is imminent or ongoing
- b. Catastrophic damage is imminent or ongoing
- c. Visual (1) or Radar (2)
 - (1) Reliable sources visually confirm tornado
 - (2) Radar imagery (e.g., debris ball signature) strongly suggests the existence of a damaging tornado.

3.3.5 Format. The TOR format will contain this information in the following order, through the Impact-Based Warning (IBW) format (see Figure 2):

First Bullet - Type of warning; warning location(s);

Second Bullet - Expiration time of warning;

Third Bullet - Time, basis for warning, storm motion. If edits of more than 10 mph or more than 45 degrees are required, the forecaster should adjust the track in WarnGen, rather than manually edit the text, in order to keep in agreement with TIME...MOT...LOC line.

HAZARD (IBW Sub-Section 1)...Basis for warning (including recent credible reports, if available). Tornado will be mentioned first, then the forecast or observed thunderstorm wind gusts and/or maximum hail size, if the tornado is radar indicated. If the tornado is observed and maximum expected hail size is below criteria (e.g. 0.75 inches), then hail does not need to be included in this section but will appear in the IBW coded tag line. If the tornado is observed and hail meets or exceeds criteria, then it will be included in this section and the IBW coded tag line.

SOURCE (IBW Sub-Section 2)...Select one of these accepted source types (radar, trained weather spotters, law enforcement, emergency management, or public).

IMPACT (IBW Sub-Section 3)...This section contains predetermined statements that are based on the selected attribute. Default and designated alternative impact statements are as follows in Table 2:

Table 2: Impact Statements for Tornado Warnings

Tornado Impact Attribute	Impact Statement(s) [1) Sentence 1. 2) Sentence 2. ... n) Sentence n. n = last sentence] Use all numbered statements in the order they appear.
Landspout / Weak Tornado	1) Expect damage to mobile homes, roofs, and vehicles.
	* 1) Expect damage to mobile homes, roofs, screen enclosures, carports, vehicles and trees along the path of the tornado.
“Base” (default)	1). Flying debris will be dangerous to those caught without shelter.

	2) Mobile homes will be damaged or destroyed. 3) Damage to roofs, windows and vehicles will occur. 4) Tree damage is likely.
CONSIDERABLE	1) You are in a life-threatening situation. 2) Flying debris may be deadly to those caught without shelter. 3) Mobile homes will be destroyed. 4) Considerable damage to homes, businesses, and vehicles is likely and complete destruction is possible.
CATASTROPHIC	1) You are in a life-threatening situation. 2) Flying debris may be deadly to those caught without shelter. 3) Mobile homes will be destroyed. 4) Considerable damage to homes, businesses, and vehicles is likely and complete destruction is possible.

* Note: Alternative impact statements may be utilized per Regional discretion for Landspout / Weak Tornado only. The other statements are standard nationwide.

Fourth Bullet – Locations to be impacted during the warning (see Figure 2);

PRECAUTIONARY/PREPAREDNESS ACTIONS – One or two short, concise, action-oriented CTA statements should be included, starting with this Uppercase text phrase, “TAKE COVER NOW!”. If CTAs are included under the PRECAUTIONARY/PREPAREDNESS ACTIONS, then two ampersands (&&) are required as a dissemination marker after the last CTA (see NWSI 10-1701, Section 5.5 for details on CTAs and markers). Credible reports of tornadoes and associated damage should go in the basis statement (first IBW sub-section “HAZARD”, under the third bullet) instead of the precautionary/preparedness actions.

LAT...LON – The warning area polygon as described by a series of latitude/longitude coordinates in decimal degrees with precision to hundredths (2 decimal places). The polygon will contain as few as three and as many as twenty vertices.

TIME...MOT...LOC – The tracking information gives the location and movement of the event being tracked. Examples of such events could include the low-level mesocyclone, or a report of the tornado location. The format includes the time of the observed event in UTC, followed by a three digit direction of movement in degrees (direction the event is moving from), followed by speed of movement in knots, and finally the location of the event as a single latitude/longitude coordinate.

IBW Coded Tag Lines – This section details the required and optional IBW coded tag lines according to each hazard type. These outputs are linked to options made within the WarnGen product generation application and are not editable in the warning text. All tag lines and information wording will be in Uppercase.

TORNADO... [RADAR INDICATED; OBSERVED]

Required first line, based on selection from the “HAZARD” IBW sub-section.

TORNADO DAMAGE THREAT... [CONSIDERABLE; CATASTROPHIC]

Will only appear for the selection of either of these two options (CONSIDERABLE;

CATASTROPHIC). The selection of CONSIDERABLE can associated with either RADAR INDICATED or OBSERVED in the above tag and “Damaging tornado” will be placed in the HAZARD section, as the warning basis. The selection of CATASTROPHIC will assign OBSERVED in the above tag and “Deadly tornado” will be placed in the HAZARD section, as the warning basis. With either the tags, CONSIDERABLE or CATASTROPHIC, the phrase “This is a PARTICULARLY DANGEROUS SITUATION. TAKE COVER NOW!” will also be placed in the third bullet, above the “HAZARD” section.

HAIL...X.XXIN

(Required; X.XXIN = value of maximum expected/reported hail size, in inches, from above in the “HAZARD” warning basis section; can be 0.00IN if no hail is expected or a lower value of hail size than the minimum SVR criteria, e.g. <.75IN).

WIND...XXMPH

(Optional; XXMPH = value of maximum wind speed, in miles per hour (mph), from above in the “HAZARD” warning basis section, to the nearest 10mph; can be 00MPH if no thunderstorm wind gusts are expected or it can be a lower value than the minimum SVR thunderstorm wind gust criteria, e.g. <50MPH).

```
WFaa5i cccc ddhhmm
TORccc
STC001-002-ddhhmm-
/k.aaa.cccc.pp.s.####.yymmddThhnnZB-yymmddThhnnZE/
```

```
BULLETIN - EAS ACTIVATION REQUESTED
Tornado Warning (... CORRECTED as required)
National Weather Service City State
time am/pm time_zone day mon dd yyyy
```

The National Weather Service in City has issued a

* Tornado Warning for...
 Portion County one in section State...(List warned counties)
 Portion County two in section State...(Number of Counties will match number of counties in UGC Line)

* Until hhmm AM/PM time_zone (Expiration time of warning)

* At hhmm am/pm time_zone, warning basis, forward speed and direction.

HAZARD...Warning basis statement (Tornado and; Damaging Tornado and; largest expected hail size - if chosen).

SOURCE...(Choose one) Radar indicated, Trained weather spotters, Law enforcement, Emergency management, or Public.

IMPACT...Statements will populate based on the selected severe hazards in Table 2.

* Locations impacted include...

```

Location #1, Location #2, Location #n. (n = variable number of
locations).

PRECAUTIONARY/PREPAREDNESS ACTIONS...

(Call-to-Action statements).

&&

LAT...LON (Required list of latitude/longitude coordinate pairs
outlining the forecaster-drawn warning area)
TIME...MOT...LOC hhnnZ xxxDEG xxKT xxxx xxxx (lat/lon couplet(s))

TORNADO...RADAR INDICATED; OBSERVED
TORNADO DAMAGE THREAT...CONSIDERABLE; CATASTROPHIC
HAIL...X.XXIN (X.XX = value of maximum expected hail size, in
diameter, from the "HAZARD" warning basis section)
WIND...XXMPH (XX = value of maximum expected wind speed from the
"HAZARD" warning basis section to the nearest 10mph)

$$
FORECASTER NAME/NUMBER (OPTIONAL)

```

Figure 2. Tornado Warning Format

3.4 Updates, Amendments and Corrections. Updates and amendments are not applicable. WFOs will correct TORs for significant grammatical errors, format or dissemination code errors. Corrected warnings will have the same time in the MND Header and the same ETN in the VTEC line as the original warning. WFOs should issue Severe Weather Statements (SVS) to inform users of erroneous counties removed from original warnings (either in the FIPS/Zone UGC code or in the body of the warning).

4. **Severe Weather Statement (product category SVS).**

4.1 **Mission Connection.** Severe Weather Statements (SVS) provide the public and emergency managers with updated information for specific Severe Thunderstorm (SVR) and Tornado (TOR) Warnings. Updated information includes reports of observed severe weather. They also inform the public, media, and emergency managers when all or portions of a warning have been canceled or have expired.

4.2 **Issuance Guidelines.**

4.2.1 **Creation Software.** WFOs will use WarnGen to issue SVSs.

4.2.2 **Issuance Criteria.** The following guidelines apply to the issuance of SVSs by WFOs:

- a. Cancellations – WFOs should issue a SVS to provide notice a SVR or TOR has been cancelled for all or portions of the warning polygon.
- b. Updates – WFOs should issue SVSs at least once during the valid time of a SVR or TOR. During significant severe thunderstorm and tornado events WFOs should issue more frequent SVS updates to keep the public informed of the progression of dangerous storms. This includes substantive changes to storm intensity and/or potential impacts (e.g. increase in hail size from quarter-sized to golf ball sized; decrease in estimated wind gusts from 80 mph to 60 mph, radar-indicated tornado to a tornado confirmed by a visual report from a credible source), if the reports/observations are received within the valid time of the warning.
- c. Corrections – WFOs should issue a SVS to notify users of erroneous counties included in the original SVR or TOR (either in the FIPS/Zone UGC code or in the body of the warning) have been removed.
- d. Expirations – WFOs may issue a SVS to provide notice that a SVR or TOR has expired.

4.2.3 **Issuance Time.** SVSs are non-scheduled, event-driven products.

4.2.4 **Valid Time.** The valid time will be from the time of issuance to the warning expiration or cancellation time.

4.2.5 **Product Expiration Time.** The product expiration time is no more than 15 minutes after the warning expiration or cancellation time.

4.3 **Technical Description.** SVSs will follow the Impact-Based Warning (IBW) format and content described in this section.

4.3.1 **UGC Type.** County (Zone for Alaska Region and parts of Pacific Region).

4.3.2 MND Broadcast Line. None.

4.3.3 MND Header. The SVS MND header is “Severe Weather Statement”.

4.3.4 Content. The following Guidelines apply to the issuance of SVSs by WFOs.

a. Purpose:

- 1) WFOs should issue SVSs to address the status of severe weather warnings.
- 2) WFOs will not use SVSs to expand in area or extend the valid time of TORs and SVRs.
- 3) If the threat of severe weather clears a significant portion of the SVR or TOR during the warning period, forecasters should update the latitude and longitude pairs of the polygon within the warned county or counties.

b. Writing Style:

- 1) SVSs will be in Letter Case with the exception of section headers and coded tag lines designed to be in Uppercase.
- 2) The SVS will be in the IBW format for the section following the storm characteristics information (e.g. impact(s), timing, location, movement).
- 3) Locations used to identify the threatened areas should be larger towns and other familiar landmarks.
- 4) Names of states and counties (or parts of counties) should be spelled out.
- 5) Concise call-to-action (CTA) statements should be included.
- 6) The WFO designated on-duty shift leader/supervisor may discontinue call-to-action statements in warnings during widespread severe weather outbreaks.
- 7) Mileage markers may be used as reference points when a storm is occurring or forecast to move over a major highway but limited to five reference points or less.
- 8) Named stadiums, arenas, or venues can be included in the locations section, as long the residing city name is included as a separate location entry.

c. Reports of Severe Events or Damage:

- 1) Recent credible reports of a tornado, severe hail, or damaging wind should be included.
- 2) Recent credible reports of damage from tornadoes, severe hail, or high wind should be included.

d. Pathcasts:

- 1) In general, the SVS may contain ‘pathcasts’ (specific forecasts of location and arrival time) provided the forecaster has very high confidence in the direction and speed of the movement of the hazardous weather.
- 2) Any ‘pathcast’ issued should use terms of uncertainty appropriate to the state of the science (e.g., ‘the tornadic storm will be near [location] around [time]’).
- 3) In addition, SVSs with ‘pathcast’ information should be frequently updated (approximately every 15 minutes). This ensures that users receive the most recent information concerning the location and movement of the hazardous weather.

4.3.4.1 Tornado Emergency. In exceedingly rare situations, when a severe threat to human life and catastrophic damage from a tornado is imminent or ongoing, WFOs have the option to insert this headline "...TORNADO EMERGENCY FOR [IMPACTED LOCATIONS]..." in an update to a Tornado Warning, through the SVS, per the guidelines in Section 3.3.4.1. Additionally, a TORNADO EMERGENCY will also contain an IBW coded tag line of "TORNADO DAMAGE THREAT...CATASTROPHIC" (see Section 3.3.5, Table 2).

4.3.5 Format. (See Figure 3).

```

WWUS5i cccc ddhhmm
SVSccc

Severe Weather Statement
National Weather Service City State
time am/pm time_zone day mon dd yyyy

STC001-ddhhmm-
/k.CAN.cccc.pp.s.####.yyymmddThhnnZB-yyymmddThhnnZE/
County A -
time am/pm time_zone day mon dd yyyy

...SEVERE THUNDERSTORM or TORNADO WARNING HAS BEEN CANCELLED FOR
PORTION COUNTY A...

LAT...LON (Required list of latitude/longitude coordinate pairs
outlining the area no longer under the warning area)
TIME...MOT...LOC hhnnZ xxxDEG xxKT xxxx xxxx (lat/lon coordinate(s))

$$

STC003-ddhhmm-
/k.CON.cccc.pp.s.####.yyymmddThhnnZB-yyymmddThhnnZE/
County B -
time am/pm time_zone day mon dd yyyy

...SEVERE THUNDERSTORM or TORNADO WARNING REMAINS IN EFFECT UNTIL
hhmm am/pm time_zone FOR COUNTY B...

* At hhmm am/pm time_zone, warning basis, forward speed and
direction.

HAZARD...Severe thunderstorm-based hazard(s) (hail and/or wind) or
tornado.

SOURCE...(Choose one) Radar indicated, Trained weather spotters,
Law enforcement, Emergency management, or Public.

IMPACT...Statements will populate based on the selected severe
hazards in Table 1.

```

```

* Locations impacted include...
  Location #1, Location #2, Location #n. (n = variable number of
  locations).

PRECAUTIONARY/PREPAREDNESS ACTIONS...

(Call-to-Action statements).

(Tornado watch information for Severe Thunderstorm Warnings only, if
valid for the warned area).

&&

LAT...LON (Required list of latitude/longitude coordinate pairs
  outlining the warning area, modified to remove those areas no
  longer under the warning)
TIME...MOT...LOC hhnnZ xxxDEG xxKT xxxx xxxx (lat/lon couplet(s))

(for a Tornado Warning)
TORNADO...RADAR INDICATED; OBSERVED
TORNADO DAMAGE THREAT...CONSIDERABLE; CATASTROPHIC
HAIL...X.XXIN (X.XX = value of maximum expected hail size, in
diameter, from the "HAZARD" warning basis section)
WIND...XXMPH (XX = value of maximum expected wind speed from the
"HAZARD" warning basis section to the nearest 10mph)

(for a Severe Thunderstorm Warning)
TORNADO...POSSIBLE (will only appear if selected)
HAIL...X.XXIN (X.XX = value of maximum expected hail size, in
diameter, from the "HAZARD" warning basis section)
WIND...XXMPH (XX = value of maximum expected wind speed from the
"HAZARD" warning basis section to the nearest 10mph)

$$

FORECASTER NAME/NUMBER (OPTIONAL)

```

Figure 3. Severe Weather Statement (SVS) Format

4.3.5.1 Event Tracking Number (ETN). The VTEC ETN (####) in the SVS will match the corresponding active SVR or TOR for updates and cancellations (See Figure 3).

4.4 Updates, Amendments and Corrections. Updates and amendments to the corresponding warning polygon should be provided as necessary through subsequent SVSs. WFOs will correct statements for format and grammatical errors as required.

5. **Watch County Notification Message (product category WCN).**

5.1 **Mission Connection.** WFOs will issue Watch County Notification Messages (WCN) to provide NOAA/NWS' Storm Prediction Center (SPC), emergency managers, the media, and the public with a list of counties, parishes, independent cities, and marine zones in a convective watch area within their geographic area of responsibility.

5.2 **Issuance Guidelines.**

5.2.1 **Creation Software.** WFOs should use the Graphical Hazards Generation Editor (GHG) software to create WCNs.

5.2.2 **Issuance Criteria.** Affected contiguous United States (CONUS) WFOs will issue initial WCNs after SPC issues the initial Watch Outline Update Message (WOU). WFOs in tropical areas outside the CONUS (OCONUS) will issue WCNs without a WOU from SPC and based on the potential of damaging winds, severe hail, and/or tornadoes. WFOs will issue updated WCNs to cancel, extend the valid time, or extend in area portions of one or more convective watches in their geographic area of responsibility.

5.2.3 **Issuance Time.** WCNs are non-scheduled, event-driven products.

5.2.4 **Valid Time.** WCNs are valid until the watch expiration time.

5.2.5 **Product Expiration Time.** The expiration time is the same as the convective watch end time found in the initial WOU. WFOs may extend the convective watch expiration time in a WCN update after collaboration with SPC and the other WFOs in the watch area. Timely collaboration on a watch extended in time is particularly important so other WFOs in the watch area have the opportunity to cancel the watch from their counties.

5.3 **Technical Description.** WCNs will follow the format and content described in this section.

5.3.1 **UGC Type.** County.

5.3.2 **MND Header.** The WCN MND header is "WATCH COUNTY NOTIFICATION FOR WATCH nnnn", where "nnnn" is the watch number. The watch number will be for the watch with the earliest issuance time if more than one watch is in effect for a WFO's geographical area of responsibility.

5.3.3 **Content.** WFOs and SPC are partners in the convective watch process. In the spirit of partnership, WFOs and SPC work toward a consensus convective watch area and duration before, during, and at the end of convective watches. This partnership is defined as collaboration. OCONUS WFOs are not required to collaborate with SPC.

The list of counties, parishes, independent cities and marine zones in the initial WCN within CONUS will match the list of counties, parishes, independent cities, and marine zones in the

initial WOU issued by SPC for their geographic area of responsibility. The marine zones refer to adjacent coastal waters out to 20 nautical miles (nm) for the Atlantic and Pacific Oceans, and Gulf of Mexico. All marine zones are included in convective watches for the Great Lakes.

- a. Active Watches – WFOs will issue updated WCNs to continue, cancel or extend in time or area portions of one or more active convective watches in their geographic area of responsibility.
- b. New Watches – WFOs will also issue updated WCNs to include new watches issued within their geographic area of responsibility while existing watches remain in effect.
- c. Watch Extensions – CONUS WFOs will collaborate with SPC and affected WFOs on counties, parishes, independent cities or marine zones added to the initial watch area, or extensions to the expiration time of the initial convective watch area.
- d. Watch Replacements – CONUS WFOs will collaborate with SPC and adjacent WFOs when counties, parishes, independent cities or marine zones are transferred from an existing convective watch to a new convective watch (e.g. watch replacement).
- e. Watch Editing Consistency – WFOs should ensure modifications to the convective watch area are consistent with modifications made by adjacent WFOs.
- f. WCN Issuance Times – WCNs should be issued by H+55 so that changes will be reflected in the WOU issued by SPC after the top of the hour.
- g. Watch Cancellation/Expiration – The final WCN for a particular convective watch will cancel or allow expiration of all remaining counties, parishes, independent cities and/or marine zones in the watch for their geographic area of responsibility.

5.3.4 Format. (See Figure 4)

WWUS6i cccc ddhhmm
WCNccc

WATCH COUNTY NOTIFICATION FOR WATCH nnnn (*or nnnn/nnnn if more than one watch is in effect*)

NATIONAL WEATHER SERVICE CITY STATE
time am/pm time_zone day mon dd yyyy

STC001-003-ddhhmm-
/k.aaa.cccc.pp.s.####.yyymmddThhnnZ_B-yyymmddThhnnZ_E/

THE NATIONAL WEATHER SERVICE HAS CANCELLED SEVERE THUNDERSTORM (OR TORNADO WATCH) nnnn FOR THE FOLLOWING AREAS (*If Cancellation Segment*)

THE NATIONAL WEATHER SERVICE HAS ISSUED SEVERE THUNDERSTORM (OR TORNADO) WATCH nnnn UNTIL time am/pm time_zone WHICH REPLACES A PORTION OF SEVERE THUNDERSTORM (OR TORNADO) WATCH nnnn. THE NEW WATCH IS VALID FOR THE FOLLOWING AREAS (*If Replacement Segment*)

THE NATIONAL WEATHER SERVICE HAS ISSUED SEVERE THUNDERSTORM (OR TORNADO) WATCH nnnn UNTIL time am/pm time_zone. SEVERE THUNDERSTORM (OR TORNADO) WATCH nnnn WILL BE ALLOWED TO EXPIRE (OR HAS EXPIRED). THE NEW WATCH IS VALID FOR THE FOLLOWING AREAS (*If Replacement for Expired Segment*)

THE NATIONAL WEATHER SERVICE HAS ISSUED SEVERE THUNDERSTORM (OR TORNADO) WATCH nnnn IN EFFECT UNTIL time am/pm time_zone FOR THE FOLLOWING AREAS (*If New Segment*)

THE NATIONAL WEATHER SERVICE HAS EXTENDED SEVERE THUNDERSTORM (OR TORNADO) WATCH nnnn TO INCLUDE THE FOLLOWING AREAS UNTIL time am/pm time_zone (*If Extension in Area Segment*)

SEVERE THUNDERSTORM (OR TORNADO) WATCH NUMBER nnnn...PREVIOUSLY IN EFFECT UNTIL time am/pm time_zone...IS NOW IN EFFECT UNTIL time am/pm time_zone FOR THE FOLLOWING AREAS (*If Extension in Time Segment*)

SEVERE THUNDERSTORM (OR TORNADO) WATCH nnnn REMAINS VALID UNTIL time am/pm time_zone FOR THE FOLLOWING AREAS (*If Continuation Segment*)

THE NATIONAL WEATHER SERVICE WILL ALLOW SEVERE THUNDERSTORM (OR TORNADO) WATCH nnnn TO EXPIRE AT time am/pm time_zone FOR THE FOLLOWING AREAS (*If Expiration Segment - issued prior to watch end time*)

THE NATIONAL WEATHER SERVICE HAS ALLOWED SEVERE THUNDERSTORM (OR TORNADO) WATCH nnnn TO EXPIRE FOR THE FOLLOWING AREAS. (*If Expiration Segment - issued after the watch end time*)

```
SEVERE THUNDERSTORM (OR TORNADO) WATCH nnnn WILL BE ALLOWED TO EXPIRE  
(OR HAS EXPIRED). THE NEW WATCH IS VALID FOR THE FOLLOWING AREAS  
(If Replacement for Expired Segment)  
  
IN STATE 1 THIS WATCH INCLUDES (or CANCELS or ALLOWS TO EXPIRE) n  
COUNTIES  
  
LIST OF COUNTIES IN STATE 1 (OR PORTION OF STATE 1)  
  
IN STATE 1 THIS WATCH INCLUDES (or CANCELS or ALLOWS TO EXPIRE) n  
INDEPENDENT CITIES  
  
LIST OF INDEPENDENT CITIES IN STATE 1  
  
THIS WATCH INCLUDES (or THIS CANCELS or ALLOWS TO EXPIRE) THE  
FOLLOWING ADJACENT COASTAL WATERS  
  
LIST OF MARINE ZONES  
  
OTHER CITIES IN STATES 1 (OPTIONAL)  
  
$$ (END OF SEGMENT)
```

Figure 4. Watch County Notification (WCN) Message Format

5.3.4.1 Event Tracking Number. The VTEC ETN (####) will match the SPC watch number designated in the WOU, except for WCNs issued by WFOs in Pacific Region and Puerto Rico.

5.4 Updates, Amendments and Corrections. WFOs will update WCNs when counties, parishes, independent cities, or marine zones are canceled or added from the watch or the watch valid time is extended. WFOs will correct WCNs for format and grammatical errors.

APPENDIX A - Examples

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1. **Introduction.** This appendix provides the public with examples for each of the IBW categories for each of the WFO products.
2. **Severe Thunderstorm Warning (SVR).**
 - a. **IBW Tag: "Base" (example SPC Tornado Watch information included)**

WUUS53 KLSX 070333
SVRLSX
MOC103-111-127-137-173-205-070430-
/O.NEW.KLSX.SV.W.0029.170307T0333Z-170307T0430Z/

BULLETIN - IMMEDIATE BROADCAST REQUESTED
Severe Thunderstorm Warning
National Weather Service St Louis MO
933 PM CST MON MAR 6 2017

The National Weather Service in St Louis has issued a

- * Severe Thunderstorm Warning for...
 - Knox County in northeastern Missouri...
 - Ralls County in northeastern Missouri...
 - Marion County in northeastern Missouri...
 - Shelby County in northeastern Missouri...
 - Lewis County in northeastern Missouri...
 - Monroe County in northeastern Missouri...
- * Until 1030 PM CST.
- * At 932 PM CST, severe thunderstorms were located along a line extending from near Memphis to 9 miles northwest of Huntsville, moving east at 55 mph.
 - HAZARD...60 mph wind gusts and quarter size hail.
 - SOURCE...Radar indicated.
 - IMPACT...Hail damage to vehicles is expected. Expect wind damage to roofs, siding, and trees.
- * Locations impacted include...
 - Hannibal, Palmyra, Monroe City, Canton, Shelbina, Paris, Edina, Santa Fe, Warren, New London, La Grange, Clarence, Perry, La Belle, Madison, Shelbyville, Lewistown, Center, Ewing and Rensselaer.

This also includes Wakonda State Park, Union Covered Bridge Historic Site, and Mark Twain Lake Recreational Area.

PRECAUTIONARY/PREPAREDNESS ACTIONS...

For your protection move to an interior room on the lowest floor of a

building.

A tornado watch remains in effect until 400 AM CST for west central Illinois and northeastern Missouri.

&&

LAT...LON 4030 9195 4026 9193 4025 9150 4003 9150
3993 9142 3988 9145 3984 9144 3980 9137
3973 9137 3969 9133 3960 9118 3945 9146
3932 9144 3935 9231 3995 9229 3996 9234
4030 9235

TIME...MOT...LOC 0332Z 266DEG 48KT 4047 9227 3956 9264

HAIL...1.00IN

WIND...60MPH

\$\$

Wind threshold (only)

WUUS53 KJKL 060128

SVRJJKL

KYC065-109-129-197-237-060200-

/O.NEW.KJKL.SV.W.0030.170406T0128Z-170406T0200Z/

BULLETIN - IMMEDIATE BROADCAST REQUESTED

Severe Thunderstorm Warning

National Weather Service JACKSON KY

928 PM EDT WED APR 5 2017

The National Weather Service in Jackson KY has issued a

- * Severe Thunderstorm Warning for...
Southeastern Powell County in east central Kentucky...
Estill County in east central Kentucky...
North central Jackson County in southeastern Kentucky...
Northern Lee County in southeastern Kentucky...
Southwestern Wolfe County in southeastern Kentucky...

* Until 1000 PM EDT

* At 928 PM EDT, a severe thunderstorm was located over Station Camp, or near Irvine, moving northeast at 45 mph.

HAZARD...70 mph wind gusts and penny size hail.

SOURCE...Radar indicated.

IMPACT...Expect considerable tree damage. Damage is likely to

mobile homes, roofs, and outbuildings.

* Locations impacted include...

Irvine, Fincastle, Ravenna, Pilot, Torrent, Leeco, Rice Station,
Kings Station, Pinnacle, Pine Ridge, Calloway Crossing, Patsey,
Wisemantown, Weedon, Drip Rock, Natural Bridge S.P., Blanton Flats,
Knowlton, Haystack and Alumbaugh.

PRECAUTIONARY/PREPAREDNESS ACTIONS...

For your protection move to an interior room on the lowest floor of a building.

A tornado watch remains in effect until 1000 PM EDT for southeastern and east central Kentucky.

&&

LAT...LON 3785 8367 3784 8367 3783 8364 3763 8354
3753 8411 3756 8412 3757 8409 3765 8413
3767 8409 3768 8410 3769 8409 3786 8368
TIME...MOT...LOC 0128Z 241DEG 40KT 3764 8400

HAIL...0.75IN
WIND...70MPH

\$\$

Hail threshold (only)

WUUS53 KMKX 232224
SVRMKX
WIC049-232330-
/O.NEW.KMKX.SV.W.0017.170323T2224Z-170323T2330Z/

BULLETIN - IMMEDIATE BROADCAST REQUESTED
Severe Thunderstorm Warning
National Weather Service Milwaukee/Sullivan WI
524 PM CDT THU MAR 23 2017

The National Weather Service in Milwaukee/Sullivan has issued a

* Severe Thunderstorm Warning for...

Iowa County in south central Wisconsin...

* Until 630 PM CDT

* At 524 PM CDT, a severe thunderstorm was located near Lancaster, moving east at 50 mph.

HAZARD...Ping pong ball size hail.

SOURCE...Radar indicated.

IMPACT...People and animals outdoors will be injured. Expect damage to roofs, siding, windows, and vehicles.

* Locations impacted include...

Dodgeville, Mineral Point, Blanchardville, Barneveld, Highland, Ridgeway, Linden, Cobb, Rewey, Hollandale, Governor Dodge St Park, Edmund, Blue Mound St Park, Blackhawk Lake Rec Area and London.

PRECAUTIONARY/PREPAREDNESS ACTIONS...

For your protection move to an interior room on the lowest floor of a building.

This storm is producing large hail. SEEK SHELTER NOW inside a sturdy structure and stay away from windows!

&&

LAT...LON 4309 9043 4316 8984 4281 8984 4281 9043
TIME...MOT...LOC 2224Z 268DEG 42KT 4289 9067

HAIL...1.50IN
WIND...<50MPH

\$\$

b. IBW Tag: "Tornado...Possible"

WUUS54 KOUN 212341
SVROUN
OKC015-031-051-220030-
/O.NEW.KOUN.SV.W.0903.171021T2341Z-171022T0030Z/

BULLETIN - IMMEDIATE BROADCAST REQUESTED
Severe Thunderstorm Warning
National Weather Service Norman OK
641 PM CDT SAT OCT 21 2017

The National Weather Service in Norman has issued a

* Severe Thunderstorm Warning for...
North central Comanche County in southwestern Oklahoma...
West central Grady County in central Oklahoma...
Southern Caddo County in southwestern Oklahoma...

* Until 730 PM CDT

* At 641 PM CDT, a severe thunderstorm was located near Boone, moving northeast at 35 mph.

This is a very dangerous storm.

HAZARD...Baseball size hail and 70 mph wind gusts.

SOURCE...Radar indicated.

IMPACT...People and animals outdoors will be severely injured.
Expect shattered windows, extensive damage to roofs,
siding, and vehicles.

* Locations impacted include...
Anadarko, Elgin, Apache, Fletcher, Cyril, Verden, Cement, Medicine
Park, Meers, Lake Lawtonka, Boone, Lake Ellsworth, Ninnekah,
Stecker, Laverty and eastern Wichita Mountains Wildlife Refuge.

This includes Interstate 44 between mile markers 54 and 74.

PRECAUTIONARY/PREPAREDNESS ACTIONS...

Remain alert for a possible tornado! Tornadoes can develop quickly
from severe thunderstorms.

This is a dangerous storm. Prepare immediately for large destructive
hail capable of producing significant damage. People outside should
move to shelter inside a strong building, and stay away from windows.

&&

LAT...LON 3471 9849 3479 9861 3492 9860 3518 9828
3509 9808 3491 9796
TIME...MOT...LOC 2341Z 232DEG 29KT 3484 9846

TORNADO...POSSIBLE
HAIL...2.75IN
WIND...70MPH

\$\$

“Tornado...Possible” with Wind threshold (only)

WUUS54 KHUN 100627
SVRHUN
ALC049-071-100730-
/O.NEW.KHUN.SV.W.0029.170310T0627Z-170310T0730Z/

BULLETIN - IMMEDIATE BROADCAST REQUESTED
Severe Thunderstorm Warning
National Weather Service Huntsville AL

1227 AM CST FRI MAR 10 2017

The National Weather Service in Huntsville Alabama has issued a

* Severe Thunderstorm Warning for...
Jackson County in northeastern Alabama...
Northern DeKalb County in northeastern Alabama...

* Until 130 AM CST

* At 1227 AM CST, severe thunderstorms were located along a line extending from near Sewanee to Triana, moving southeast at 40 mph.

HAZARD...60 mph wind gusts and penny size hail.

SOURCE...Radar indicated.

IMPACT...Expect considerable tree damage. Damage is likely to mobile homes, roofs, and outbuildings.

* Locations impacted include...
Scottsboro, Fort Payne, Rainsville, Bridgeport, Little River Canyon National Preserve, Henagar, Stevenson, Sylvania, Fyffe and Hollywood.

PRECAUTIONARY/PREPAREDNESS ACTIONS...

For your protection move to an interior room on the lowest floor of a building.

&&

LAT...LON 3448 8558 3444 8558 3437 8563 3435 8568
3451 8610 3453 8611 3454 8615 3460 8616
3460 8632 3499 8586 3498 8561 3453 8551

TIME...MOT...LOC 0627Z 292DEG 46KT 3514 8585 3461 8674

TORNADO...POSSIBLE

HAIL...<.75IN

WIND...60MPH

\$\$

3. Tornado Warning (TOR)

a. IBW Tag: "Base"

Radar indicated; no visual confirmation

WFUS54 KLIX 071714

TORLIX
LAC071-071745-
/O.NEW.KLIX.TO.W.0039.170207T1714Z-170207T1745Z/

BULLETIN - EAS ACTIVATION REQUESTED
Tornado Warning
National Weather Service New Orleans LA
1114 AM CST TUE FEB 7 2017

The National Weather Service in New Orleans has issued a

- * Tornado Warning for...
Orleans Parish in southeastern Louisiana...
- * Until 1145 AM CST
- * At 1113 AM CST, a severe thunderstorm capable of producing a
tornado was located near Arabi, or near Chalmette, moving east at
20 mph.

HAZARD...Tornado and half dollar size hail.

SOURCE...Radar indicated rotation.

IMPACT...Flying debris will be dangerous to those caught without
shelter. Mobile homes will be damaged or destroyed.
Damage to roofs, windows, and vehicles will occur. Tree
damage is likely.

- * Locations impacted include...
New Orleans, East New Orleans and Lakefront Airport.

PRECAUTIONARY/PREPAREDNESS ACTIONS...

TAKE COVER NOW! Move to a basement or an interior room on the lowest
floor of a sturdy building. Avoid windows. If you are outdoors or in
a vehicle, move to the closest substantial shelter and protect
yourself from flying debris.

To report severe weather contact your nearest law enforcement agency.
They will send your report to the National Weather Service office in
New Orleans.

&&

LAT...LON 2996 9005 3004 9008 3016 8985 3013 8982
3019 8976 3001 8970 3000 8970 3001 8980
2997 8985 3000 8986 2999 8986 2999 8988
3000 8989 3000 8991 2998 8994 2999 8997
2999 8999 2996 9001
TIME...MOT...LOC 1713Z 254DEG 19KT 3002 9000

TORNADO...RADAR INDICATED
HAIL...1.25IN

\$\$

Visual confirmation

WFUS53 KMPX 132359
TORMPX
MNC041-121-149-140045-
/O.NEW.KMPX.TO.W.0019.170613T2359Z-170614T0045Z/

BULLETIN - EAS ACTIVATION REQUESTED
Tornado Warning
National Weather Service Twin Cities/Chanhassen MN
659 PM CDT TUE JUN 13 2017

The National Weather Service in The Twin Cities has issued a

- * Tornado Warning for...
Southwestern Douglas County in west central Minnesota...
Northwestern Pope County in west central Minnesota...
Northeastern Stevens County in west central Minnesota...
- * Until 745 PM CDT
- * At 659 PM CDT, a confirmed tornado was located near Cyrus, or near Morris, moving north at 35 mph.

HAZARD...Damaging tornado and hail up to two inches in diameter.

SOURCE...Weather spotters confirmed tornado.

IMPACT...Flying debris will be dangerous to those caught without shelter. Mobile homes will be damaged or destroyed. Damage to roofs, windows, and vehicles will occur. Tree damage is likely.

- * The tornado will be near...
Kensington around 725 PM CDT.

Other locations impacted by this tornadic thunderstorm include Farwell and Holmes City.

This includes the following highways...
Interstate 94 in Minnesota near mile marker 97.
U.S. Highway 59 between mile markers 165 and 177.

PRECAUTIONARY/PREPAREDNESS ACTIONS...

To repeat, a tornado is on the ground. TAKE COVER NOW! Move to a basement or an interior room on the lowest floor of a sturdy building. Avoid windows. If you are outdoors, in a mobile home, or in a vehicle, move to the closest substantial shelter and protect yourself from flying debris.

&&

LAT...LON 4576 9588 4576 9576 4591 9576 4588 9548
4553 9572 4557 9590
TIME...MOT...LOC 2359Z 197DEG 31KT 4560 9581

TORNADO...OBSERVED
HAIL...2.00IN

\$\$

b. IBW Tag: "Considerable"

Radar indicated; no visual confirmation

WFUS54 KSHV 022102
TORSHV
LAC021-059-022145-
/O.NEW.KSHV.TO.W.0048.170402T2102Z-170402T2145Z/

BULLETIN - EAS ACTIVATION REQUESTED
Tornado Warning
National Weather Service Shreveport LA
402 PM CDT SUN APR 2 2017

The National Weather Service in Shreveport has issued a

- * Tornado Warning for...
Southern Caldwell Parish in north central Louisiana...
Northeastern La Salle Parish in north central Louisiana...
- * Until 445 PM CDT
- * At 401 PM CDT, a large and extremely dangerous tornado was located near Midway, or 22 miles northeast of Pineville, moving northeast at 40 mph.

This is a PARTICULARLY DANGEROUS SITUATION. TAKE COVER NOW!

HAZARD...Damaging tornado.

SOURCE...Radar indicated rotation.

IMPACT...You are in a life-threatening situation. Flying debris

may be deadly to those caught without shelter. Mobile homes will be destroyed. Considerable damage to homes, businesses, and vehicles is likely and complete destruction is possible.

- * The tornado will be near...
Jena around 410 PM CDT.
Midway around 415 PM CDT.

Other locations impacted by this tornadic thunderstorm include Nebo.

PRECAUTIONARY/PREPAREDNESS ACTIONS...

To repeat, a large, extremely dangerous and potentially deadly tornado is developing. To protect your life, TAKE COVER NOW! Move to a basement or an interior room on the lowest floor of a sturdy building. Avoid windows. If you are outdoors, in a mobile home, or in a vehicle, move to the closest substantial shelter and protect yourself from flying debris.

&&

LAT...LON 3172 9201 3166 9204 3155 9215 3160 9228
3193 9212 3192 9201
TIME...MOT...LOC 2101Z 209DEG 35KT 3160 9219

TORNADO...RADAR INDICATED
TORNADO DAMAGE THREAT...CONSIDERABLE
HAIL...1.75IN

\$\$

Visual confirmation

WFUS53 KIWX 051854
TORIWX
INC075-051930-
/O.NEW.KIWX.TO.W.0029.171105T1854Z-171105T1930Z/

BULLETIN - EAS ACTIVATION REQUESTED
Tornado Warning
National Weather Service Northern Indiana
154 PM EST SUN NOV 5 2017

The National Weather Service in Northern Indiana has issued a

- * Tornado Warning for...
Central Jay County in east central Indiana...
- * Until 230 PM EST

* At 152 PM EST, a confirmed large and extremely dangerous tornado was located near Center, west northwest of Portland, moving east at 40 mph. Reports of some tree damage in the Dunkirk area.

This is a PARTICULARLY DANGEROUS SITUATION. TAKE COVER NOW!

HAZARD...Damaging tornado.

SOURCE...Radar confirmed tornado.

IMPACT...You are in a life-threatening situation. Flying debris may be deadly to those caught without shelter. Mobile homes will be destroyed. Considerable damage to homes, businesses, and vehicles is likely and complete destruction is possible.

* The tornado will be near...
Portland around 200 PM EST.

Other locations impacted by this tornadic thunderstorm include Bryant, Westchester, College Corner, Center, Liber, Trinity, Blaine, New Corydon, Brice and Bellfountain.

PRECAUTIONARY/PREPAREDNESS ACTIONS...

To repeat, a large, extremely dangerous and potentially deadly tornado is on the ground. To protect your life, TAKE COVER NOW! Move to a basement or an interior room on the lowest floor of a sturdy building. Avoid windows. If you are outdoors, in a mobile home, or in a vehicle, move to the closest substantial shelter and protect yourself from flying debris.

Heavy rainfall may hide this tornado. Do not wait to see or hear the tornado. TAKE COVER NOW!

&&

LAT...LON 4046 8517 4057 8494 4057 8480 4042 8480
4038 8514
TIME...MOT...LOC 1852Z 247DEG 34KT 4044 8508

TORNADO...OBSERVED
TORNADO DAMAGE THREAT...CONSIDERABLE
HAIL...1.00IN

\$\$

c. **IBW Tag: "Catastrophic" (Tornado Emergency)**

Radar indicated; no visual confirmation

WFUS52 KFFC 051654
TORFFC
GAC261-051745-
/O.NEW.KFFC.TO.W.0041.170405T1654Z-170405T1745Z/

BULLETIN - EAS ACTIVATION REQUESTED
Tornado Warning
National Weather Service PEACHTREE CITY GA
1254 PM EDT WED APR 5 2017

...TORNADO EMERGENCY FOR SUMTER...

The National Weather Service in PEACHTREE CITY has issued a

- * Tornado Warning for...
Sumter County in west central Georgia...
- * Until 145 PM EDT
- * At 1252 PM EDT, a confirmed large and destructive tornado was observed over Weston, or 7 miles southwest of Preston, moving east at 30 mph.

TORNADO EMERGENCY for SUMTER COUNTY. This is a PARTICULARLY DANGEROUS SITUATION. TAKE COVER NOW!

HAZARD...Deadly tornado.

SOURCE...Emergency management confirmed tornado and a history of producing damage from a half mile to one mile wide.

IMPACT...You are in a life-threatening situation. Flying debris may be deadly to those caught without shelter. Mobile homes will be destroyed. Considerable damage to homes, businesses, and vehicles is likely and complete destruction is possible.

- * Locations impacted include...
Americus, Plains, New Era and Maddox.

PRECAUTIONARY/PREPAREDNESS ACTIONS...

To repeat, a large, extremely dangerous and potentially deadly tornado is on the ground. To protect your life, TAKE COVER NOW! Move to an interior room on the lowest floor of a sturdy building. Avoid windows. If in a mobile home, a vehicle or outdoors, move to the closest substantial shelter and protect yourself from flying debris.

A large and extremely dangerous tornado is on the ground. Take

NWSI 10-511 AUGUST 20, 2018

immediate tornado precautions. This is an emergency situation.

&&

LAT...LON 3196 8444 3204 8444 3204 8443 3213 8443
3217 8431 3217 8429 3216 8428 3216 8418
3217 8418 3217 8414 3202 8413 3194 8441
TIME...MOT...LOC 1652Z 252DEG 25KT 3197 8460

TORNADO...OBSERVED
TORNADO DAMAGE THREAT...CATASTROPHIC
HAIL...1.50IN

\$\$

4. Severe Weather Statement (SVS).

a. IBW Tag: "Base" SVR

WWUS53 KOAX 170036
SVSOAX

Severe Weather Statement
National Weather Service Omaha/Valley Nebraska
736 PM CDT FRI JUN 16 2017

IAC085-129-155-NEC025-055-153-155-177-170100-
/O.CON.KOAX.SV.W.0155.000000T0000Z-170617T0100Z/
Mills IA-Pottawattamie IA-Harrison IA-Sarpy NE-Washington NE-
Douglas NE-Saunders NE-Cass NE-
736 PM CDT FRI JUN 16 2017

...A SEVERE THUNDERSTORM WARNING REMAINS IN EFFECT UNTIL 800 PM CDT
FOR NORTHWESTERN MILLS...WESTERN POTTAWATTAMIE...SOUTHWESTERN
HARRISON...SARPY...SOUTHEASTERN WASHINGTON...DOUGLAS...SOUTHERN
SAUNDERS AND NORTHERN CASS COUNTIES...

At 736 PM CDT, severe thunderstorms were located along a line
extending from 4 miles southwest of Missouri Valley to 8 miles
southwest of Fort Calhoun to 3 miles south of Waterloo to near Wahoo,
moving southeast at 40 mph.

These are very dangerous storms.

HAZARD...80 mph wind gusts and quarter size hail.

SOURCE...Radar indicated.

IMPACT...Flying debris will be dangerous to those caught without
shelter. Mobile homes will be heavily damaged. Expect
considerable damage to roofs, windows, and vehicles.
Extensive tree damage and power outages are likely.

Locations impacted include...

Omaha, Council Bluffs, Bellevue, Papillion, La Vista, Blair, Ralston,
Wahoo, Gretna, Missouri Valley, Ashland, Valley, Springfield, Yutan,
Underwood, Fort Calhoun, Waterloo, Mead, Cedar Creek and Kennard.

This includes the following highways...

- Highway 275 in Nebraska near mile marker 167.
- Highway 30 in Iowa between mile markers 1 and 5.
- Interstate 29 between mile markers 39 and 79.
- Interstate 80 in Iowa between mile markers 1 and 23.
- Interstate 80 in Nebraska between mile markers 428 and 454.

PRECAUTIONARY/PREPAREDNESS ACTIONS...

For your protection move to an interior room on the lowest floor of a building.

&&

LAT...LON 4140 9543 4115 9573 4103 9590 4101 9640
4129 9683 4132 9643 4143 9626 4163 9602
TIME...MOT...LOC 0036Z 305DEG 34KT 4151 9595 4136 9612 4124 9629 4123
9660

HAIL...1.00IN
WIND...80MPH

\$\$

b. IBW Tag: "Base" SVR with partial cancellation

WWUS55 KBYZ 182259
SVSBYZ

Severe Weather Statement
National Weather Service Billings MT
459 PM MDT TUE JUL 18 2017

MTC075-182308-
/O.CAN.KBYZ.SV.W.0022.000000T0000Z-170718T2330Z/
Powder River MT-
459 PM MDT TUE JUL 18 2017

...THE SEVERE THUNDERSTORM WARNING FOR EASTERN POWDER RIVER COUNTY IS
CANCELLED...

The severe thunderstorm which prompted the warning has moved out of
the warned area. Therefore, the warning has been cancelled.

LAT...LON 4512 10454 4551 10499 4569 10498 4580 10482
4566 10404 4556 10404
TIME...MOT...LOC 2258Z 305DEG 46KT 4559 10469

\$\$

MTC011-182330-
/O.CON.KBYZ.SV.W.0022.000000T0000Z-170718T2330Z/
Carter MT-
459 PM MDT TUE JUL 18 2017

...A SEVERE THUNDERSTORM WARNING REMAINS IN EFFECT UNTIL 530 PM MDT
FOR CENTRAL CARTER COUNTY...

NWSI 10-511 AUGUST 20, 2018

At 458 PM MDT, a severe thunderstorm was located 11 miles northwest of Ridgeway, or 21 miles south of Ekalaka, moving southeast at 35 mph.

HAZARD...60 mph wind gusts and half dollar size hail.

SOURCE...Radar indicated.

IMPACT...Hail damage to vehicles is expected. Expect wind damage to roofs, siding, and trees.

Locations impacted include...
Ridgeway and Belltower.

PRECAUTIONARY/PREPAREDNESS ACTIONS...

For your protection move to an interior room on the lowest floor of a building.

&&

LAT...LON 4512 10454 4551 10499 4569 10498 4580 10482
4566 10404 4556 10404
TIME...MOT...LOC 2258Z 305DEG 46KT 4559 10469

HAIL...1.25IN
WIND...60MPH

\$\$

c. IBW Tag: "Base" TOR

WWUS54 KAMA 282301
SVSAMA

Severe Weather Statement
National Weather Service Amarillo TX
601 PM CDT TUE MAR 28 2017

TXC087-483-282330-
/O.CON.KAMA.TO.W.0002.000000T0000Z-170328T2330Z/
Wheeler TX-Collingsworth TX-
601 PM CDT TUE MAR 28 2017

...A TORNADO WARNING REMAINS IN EFFECT UNTIL 630 PM CDT FOR SOUTH CENTRAL WHEELER AND CENTRAL COLLINGSWORTH COUNTIES...

At 601 PM CDT, a confirmed tornado was located 6 miles northwest of Wellington, moving northeast at 35 mph.

HAZARD...Damaging tornado and golf ball size hail.

SOURCE...Weather spotters confirmed tornado.

IMPACT...Flying debris will be dangerous to those caught without shelter. Mobile homes will be damaged or destroyed. Damage to roofs, windows, and vehicles will occur. Tree damage is likely.

Locations impacted include...
Wellington, Shamrock, Lutie, Quail and Samnorwood.

PRECAUTIONARY/PREPAREDNESS ACTIONS...

To repeat, a tornado is on the ground. TAKE COVER NOW! Move to a basement or an interior room on the lowest floor of a sturdy building. Avoid windows. If you are outdoors, in a mobile home, or in a vehicle, move to the closest substantial shelter and protect yourself from flying debris.

&&

LAT...LON 3477 10024 3489 10047 3526 10022 3515 10000
3504 10000

TIME...MOT...LOC 2301Z 210DEG 31KT 3493 10027

TORNADO...OBSERVED

HAIL...1.75IN

\$\$

d. IBW Tag: "Base" TOR with partial cancellation

WWUS54 KFWD 300012
SVSFWD

Severe Weather Statement
National Weather Service Fort Worth TX
712 PM CDT SAT APR 29 2017

TXC467-300021-
/O.CAN.KFWD.TO.W.0029.000000T0000Z-170430T0030Z/
Van Zandt TX-
712 PM CDT SAT APR 29 2017

...THE TORNADO WARNING FOR NORTH CENTRAL VAN ZANDT COUNTY IS
CANCELLED...

The tornadic thunderstorm which prompted the warning has moved out of the warned area. Therefore, the warning has been cancelled.

A tornado watch remains in effect until 1000 PM CDT for north central Texas.

LAT...LON 3284 9583 3298 9584 3298 9567 3288 9565
3282 9573

TIME...MOT...LOC 0011Z 193DEG 24KT 3290 9573

\$\$

TXC379-300030-
/O.CON.KFWD.TO.W.0029.000000T0000Z-170430T0030Z/
Rains TX-
712 PM CDT SAT APR 29 2017

...A TORNADO WARNING REMAINS IN EFFECT UNTIL 730 PM CDT FOR NORTHEASTERN RAINS COUNTY...

At 711 PM CDT, a confirmed tornado was located near Emory, or 18 miles southwest of Sulphur Springs, moving north at 30 mph.

HAZARD...Damaging tornado and ping pong ball size hail.

SOURCE...Weather spotters confirmed tornado.

IMPACT...Flying debris will be dangerous to those caught without shelter. Mobile homes will be damaged or destroyed. Damage to roofs, windows, and vehicles will occur. Tree damage is likely.

Locations impacted include...
Emory.

PRECAUTIONARY/PREPAREDNESS ACTIONS...

To repeat, a tornado is on the ground. TAKE COVER NOW! If you are outdoors, in a mobile home, or in a vehicle, move to the closest substantial shelter now! Get to an interior room on the lowest floor of a sturdy building and avoid windows.

&&

LAT...LON 3284 9583 3298 9584 3298 9567 3288 9565
3282 9573

TIME...MOT...LOC 0011Z 193DEG 24KT 3290 9573

TORNADO...OBSERVED
HAIL...1.50IN

\$\$

e. **IBW Tag: "Considerable" TOR**

Radar indicated; no visual confirmation

WWUS54 KFWD 292243
SVSFWD

Severe Weather Statement
National Weather Service Fort Worth TX
543 PM CDT SAT APR 29 2017

TXC213-467-292300-
/O.CON.KFWD.TO.W.0023.000000T0000Z-170429T2300Z/
Van Zandt TX-Henderson TX-
543 PM CDT SAT APR 29 2017

...A TORNADO WARNING REMAINS IN EFFECT UNTIL 600 PM CDT FOR
SOUTHWESTERN VAN ZANDT AND NORTH CENTRAL HENDERSON COUNTIES...

At 542 PM CDT, a confirmed large and extremely dangerous tornado was
located over Purtils Creek State Park, or 11 miles east of Gun Barrel
City, moving northeast at 35 mph. Another possible tornado was
located near Log Cabin moving northeast at 35 mph.

This is a PARTICULARLY DANGEROUS SITUATION. TAKE COVER NOW!

HAZARD...Damaging tornado.

SOURCE...Radar confirmed tornado.

IMPACT...You are in a life-threatening situation. Flying debris may
be deadly to those caught without shelter. Mobile homes
will be destroyed. Considerable damage to homes,
businesses, and vehicles is likely and complete destruction
is possible.

Locations impacted include...

Gun Barrel City, Mabank, Malakoff, Eustace, Enchanted Oaks, Caney
City, Purtils Creek State Park, Payne Springs, Log Cabin and Star
Harbor.

PRECAUTIONARY/PREPAREDNESS ACTIONS...

To repeat, a large, extremely dangerous and potentially deadly
tornado is on the ground. To protect your life, TAKE COVER NOW! If
you are outdoors, in a mobile home, or in a vehicle, move to the
closest substantial shelter now! Get to an interior room on the
lowest floor of a sturdy building and avoid windows.

If a tornado or other severe weather is spotted, report it to the

National Weather Service or your local nearest law enforcement agency who will send your report. This act may save lives of others in the path of dangerous weather.

&&

LAT...LON 3242 9576 3217 9598 3221 9614 3236 9612
3236 9608 3247 9607
TIME...MOT...LOC 2242Z 202DEG 30KT 3237 9595

TORNADO...OBSERVED
TORNADO DAMAGE THREAT...CONSIDERABLE
HAIL...<.75IN

\$\$

Visual confirmation

WWUS54 KSHV 022122
SVSSHV

Severe Weather Statement
National Weather Service Shreveport LA
422 PM CDT SUN APR 2 2017

LAC021-059-022145-
/O.CON.KSHV.TO.W.0048.000000T0000Z-170402T2145Z/
Caldwell LA-La Salle LA-
422 PM CDT SUN APR 2 2017

...A TORNADO WARNING REMAINS IN EFFECT UNTIL 445 PM CDT FOR SOUTHERN CALDWELL AND NORTHEASTERN LA SALLE PARISHES...

At 422 PM CDT, a confirmed large and extremely dangerous tornado was located near Jena, or 23 miles south of Columbia, moving north at 35 mph.

This is a PARTICULARLY DANGEROUS SITUATION. TAKE COVER NOW!

HAZARD...Damaging tornado.

SOURCE...Weather spotters confirmed tornado.

IMPACT...You are in a life-threatening situation. Flying debris may be deadly to those caught without shelter. Mobile homes will be destroyed. Considerable damage to homes, businesses, and vehicles is likely and complete destruction is possible.

This tornadic thunderstorm will remain over mainly rural areas of

southern Caldwell and northeastern La Salle Parishes.

PRECAUTIONARY/PREPAREDNESS ACTIONS...

To repeat, a large, extremely dangerous and potentially deadly tornado is on the ground. To protect your life, TAKE COVER NOW! Move to a basement or an interior room on the lowest floor of a sturdy building. Avoid windows. If you are outdoors, in a mobile home, or in a vehicle, move to the closest substantial shelter and protect yourself from flying debris.

&&

LAT...LON 3173 9207 3175 9220 3193 9212 3192 9201
TIME...MOT...LOC 2122Z 197DEG 30KT 3177 9214

TORNADO...OBSERVED
TORNADO DAMAGE THREAT...CONSIDERABLE
HAIL...1.25IN

\$\$

f. IBW Tag: "Catastrophic" (Tornado Emergency)

Radar indicated; no visual confirmation

WWUS54 KLCH 021912
SVSLCH

Severe Weather Statement
National Weather Service Lake Charles LA
212 PM CDT SUN APR 2 2017

LAC079-021945-
/O.CON.KLCH.TO.W.0030.000000T0000Z-170402T1945Z/
Rapides LA-
212 PM CDT SUN APR 2 2017

...TORNADO EMERGENCY FOR ALEXANDRIA...

...A TORNADO WARNING REMAINS IN EFFECT UNTIL 245 PM CDT FOR NORTH
CENTRAL RAPIDES PARISH...

At 211 PM CDT, a confirmed large and destructive tornado was located
over Alexandria, moving north at 30 mph.

TORNADO EMERGENCY for Alexandria. This is a PARTICULARLY DANGEROUS
SITUATION. TAKE COVER NOW!

HAZARD...Deadly tornado.

SOURCE...Radar confirmed tornado.

IMPACT...You are in a life-threatening situation. Flying debris may be deadly to those caught without shelter. Mobile homes will be destroyed. Considerable damage to homes, businesses, and vehicles is likely and complete destruction is possible.

The tornado will be near...

Alexandria around 215 PM CDT.

Pineville around 225 PM CDT.

Tioga, Paradise, Kingsville, Timber Trails and Libuse around 230 PM CDT.

PRECAUTIONARY/PREPAREDNESS ACTIONS...

To repeat, a large, extremely dangerous, and potentially deadly tornado is on the ground. To protect your life, TAKE COVER NOW! Move to an interior room on the lowest floor of a sturdy building. Avoid windows. If in a mobile home, a vehicle or outdoors, move to the closest substantial shelter and protect yourself from flying debris.

&&

LAT...LON 3119 9245 3124 9255 3141 9252 3142 9248
3134 9229

TIME...MOT...LOC 1911Z 198DEG 24KT 3127 9248

TORNADO...OBSERVED

TORNADO DAMAGE THREAT...CATASTROPHIC

HAIL...1.00IN

\$\$

Visual confirmation

WWUS54 KSHV 022107

SVSSHV

Severe Weather Statement

National Weather Service Shreveport LA

407 PM CDT SUN APR 2 2017

LAC021-059-022145-

/O.CON.KSHV.TO.W.0048.000000T0000Z-170402T2145Z/

Caldwell LA-La Salle LA-

407 PM CDT SUN APR 2 2017

...TORNADO EMERGENCY FOR THE CITIES OF MIDWAY AND JENA...

...A TORNADO WARNING REMAINS IN EFFECT UNTIL 445 PM CDT FOR SOUTHERN CALDWELL AND NORTHEASTERN LA SALLE PARISHES...

At 406 PM CDT, a confirmed large and destructive tornado was located near Midway, or 24 miles northwest of Larto, moving northeast at 35 mph.

TORNADO EMERGENCY for the cities of Midway and Jena. This is a PARTICULARLY DANGEROUS SITUATION. TAKE COVER NOW!

HAZARD...Deadly tornado.

SOURCE...Weather spotters confirmed tornado.

IMPACT...You are in a life-threatening situation. Flying debris may be deadly to those caught without shelter. Mobile homes will be destroyed. Considerable damage to homes, businesses and vehicles is likely and complete destruction is possible.

The tornado will be near...
Jena and Midway around 415 PM CDT.

PRECAUTIONARY/PREPAREDNESS ACTIONS...

To repeat, a large, extremely dangerous, and potentially deadly tornado is on the ground. To protect your life, TAKE COVER NOW! Move to an interior room on the lowest floor of a sturdy building. Avoid windows. If in a mobile home, a vehicle or outdoors, move to the closest substantial shelter and protect yourself from flying debris.

&&

LAT...LON 3172 9201 3166 9204 3159 9211 3163 9226
3193 9212 3192 9201
TIME...MOT...LOC 2106Z 205DEG 31KT 3163 9218

TORNADO...OBSERVED
TORNADO DAMAGE THREAT...CATASTROPHIC
HAIL...1.75IN

\$\$

5. **Watch County Notification Message (WCN).**

Initial Issuance

WWUS63 KFSD 052232
WCNFSD

NWSI 10-511 AUGUST 20, 2018

THE NATIONAL WEATHER SERVICE HAS CANCELLED SEVERE THUNDERSTORM
WATCH 240 FOR THE FOLLOWING AREAS

IN TEXAS THIS CANCELS 23 COUNTIES

IN WEST CENTRAL TEXAS

CALLAHAN	COKE	COLEMAN
CONCHO	CROCKETT	FISHER
HASKELL	IRION	JONES
KIMBLE	MASON	MCCULLOCH
MENARD	NOLAN	RUNNELS
SAN SABA	SCHLEICHER	SHACKELFORD
STERLING	SUTTON	TAYLOR
THROCKMORTON	TOM GREEN	

THIS INCLUDES THE CITIES OF...ABILENE...ALBANY...ANSON...BAIRD...
BALLINGER...BRADY...BRONTE...COLEMAN...CROSS PLAINS...EDEN...
ELDORADO...HAMLIN...HASKELL...JUNCTION...MASON...MENARD...
MERTZON...OZONA...PAINT ROCK...ROBERT LEE...ROBY...ROTAN...
SAN ANGELO...SAN SABA...SONORA...STAMFORD...STERLING CITY...
SWEETWATER...THROCKMORTON...WINTERS AND WOODSON.

\$\$

TXC049-050400-
/O.CON.KSJT.SV.A.0240.000000T0000Z-120505T0400Z/

SEVERE THUNDERSTORM WATCH 240 REMAINS VALID UNTIL 11 PM CDT THIS
EVENING FOR THE FOLLOWING AREAS

IN TEXAS THIS WATCH INCLUDES 1 COUNTY

IN WEST CENTRAL TEXAS

BROWN

THIS INCLUDES THE CITIES OF...BROWNWOOD.

\$\$

Watch Cancellation

WWUS61 KILN 010302
WCNILN

WATCH COUNTY NOTIFICATION FOR WATCH 211
NATIONAL WEATHER SERVICE WILMINGTON OH
1102 PM EDT MON APR 30 2012

KYC023-081-135-161-187-191-201-OHC001-015-071-073-131-141-145-

AREAS

IN KANSAS THIS WATCH INCLUDES 7 COUNTIES

IN EAST CENTRAL KANSAS

JOHNSON KS LINN KS MIAMI

IN NORTHEAST KANSAS

ATCHISON KS DONIPHAN LEAVENWORTH
WYANDOTTE

IN MISSOURI THIS WATCH INCLUDES 9 COUNTIES

IN NORTHWEST MISSOURI

ANDREW BUCHANAN CLINTON
DEKALB

IN WEST CENTRAL MISSOURI

BATES CASS CLAY
JACKSON PLATTE

THIS INCLUDES THE CITIES OF...ATCHISON...BUTLER...CAMERON...
EXCELSIOR SPRINGS...HARRISONVILLE...INDEPENDENCE...KANSAS CITY...
KANSAS CITY...LEAVENWORTH...LIBERTY...MOUND CITY...OLATHE...
OVERLAND PARK...PAOLA...PARKVILLE...PLATTE CITY...PLATTSBURG...
SAVANNAH...ST. JOSEPH AND TROY.

\$\$

MOC001-025-033-041-053-061-079-083-089-101-107-115-117-121-159-
175-177-195-211-070200-
/O.CON.KEAX.SV.A.0258.000000T0000Z-120507T0200Z/

SEVERE THUNDERSTORM WATCH 258 REMAINS VALID UNTIL 9 PM CDT THIS
EVENING FOR THE FOLLOWING AREAS

IN MISSOURI THIS WATCH INCLUDES 19 COUNTIES

IN CENTRAL MISSOURI

COOPER HOWARD PETTIS
SALINE

IN NORTH CENTRAL MISSOURI

CALDWELL CARROLL CHARITON
DAVISS GRUNDY LINN MO
LIVINGSTON MACON RANDOLPH

SULLIVAN

IN NORTHEAST MISSOURI

ADAIR

IN WEST CENTRAL MISSOURI

HENRY
RAY

JOHNSON MO

LAFAYETTE

THIS INCLUDES THE CITIES OF...BOONVILLE...BROOKFIELD...
CARROLLTON...CHILLICOTHE...CLINTON...CONCORDIA...FAYETTE...
GALLATIN...KEYTESVILLE...KINGSTON...KIRKSVILLE...LA PLATA...
LEXINGTON...MACON...MARSHALL...MILAN...MOBERLY...NEW FRANKLIN...
RICHMOND...SEDALIA...TRENTON...WARRENSBURG AND WINDSOR.

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New Watch Issued Which Replaces an Old Watch and Partial Cancellation of a Second Old Watch

WWUS63 KDVN 040557
WCNDVN

WATCH COUNTY NOTIFICATION FOR WATCHES 234/235/236
NATIONAL WEATHER SERVICE QUAD CITIES IA IL
1257 AM CDT FRI MAY 4 2012

IAC057-087-101-111-177-MOC045-199-041000-
/O.CAN.KDVN.TO.A.0234.000000T0000Z-120504T0600Z/
/O.NEW.KDVN.SV.A.0236.120504T0557Z-120504T1000Z/

THE NATIONAL WEATHER SERVICE HAS ISSUED SEVERE THUNDERSTORM WATCH
236 UNTIL 5 AM CDT EARLY THIS MORNING WHICH REPLACES A PORTION OF
TORNADO WATCH 234. THE NEW WATCH IS VALID FOR THE FOLLOWING AREAS

IN IOWA THE NEW WATCH INCLUDES 5 COUNTIES

IN SOUTHEAST IOWA

DES MOINES
LEE

HENRY IA
VAN BUREN

JEFFERSON

IN MISSOURI THE NEW WATCH INCLUDES 2 COUNTIES

IN NORTHEAST MISSOURI

CLARK

SCOTLAND

LYMAN

THIS INCLUDES THE CITIES OF...FORT THOMPSON...HIGHMORE...
MILLER AND PRESHO.

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Extension in Area - Adding Counties

WWUS62 KRAH 012229
WCNRAH

WATCH COUNTY NOTIFICATION FOR WATCH 219
NATIONAL WEATHER SERVICE RALEIGH NC
629 PM EDT TUE MAY 1 2012

NCC065-101-191-195-020100-
/O.EXA.KRAH.SV.A.0219.000000T0000Z-120502T0100Z/

THE NATIONAL WEATHER SERVICE HAS EXTENDED SEVERE THUNDERSTORM
WATCH 219 TO INCLUDE THE FOLLOWING AREAS UNTIL 9 PM EDT THIS
EVENING

IN NORTH CAROLINA THIS WATCH INCLUDES 4 COUNTIES

IN CENTRAL NORTH CAROLINA

EDGEcombe JOHNSTON WAYNE
WILSON

THIS INCLUDES THE CITIES OF...GOLDSBORO...ROCKY MOUNT...
SMITHFIELD AND WILSON.

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NCC001-037-057-063-067-069-077-081-083-127-135-145-151-181-183-
185-020100-
/O.CON.KRAH.SV.A.0219.000000T0000Z-120502T0100Z/

SEVERE THUNDERSTORM WATCH 219 REMAINS VALID UNTIL 9 PM EDT THIS
EVENING FOR THE FOLLOWING AREAS

IN NORTH CAROLINA THIS WATCH INCLUDES 16 COUNTIES

IN CENTRAL NORTH CAROLINA

ALAMANCE CHATHAM DAVIDSON
DURHAM FORSYTH FRANKLIN
GRANVILLE GUILFORD HALIFAX
NASH ORANGE PERSON

