

**Product Description Document**  
**NWS Convective Warnings with the Impact-Based Warning Format**  
**Update: IBW Damage Threat Categories for Severe Thunderstorm Warnings**  
**January 2021**

**Part I - Mission Connection**

- a. **Product Description** – The Impact-Based Warning (IBW) format is the operational means by which convective warnings are issued by National Weather Service (NWS) Weather Forecast Offices (WFOs). Specifically, WFOs issue Tornado Warnings (TOR), Severe Thunderstorm Warnings (SVR), and Severe Weather Statements (SVS) for their County Warning Area (CWA) of responsibility during severe convective weather events. These alphanumeric products provide the public, media, and emergency managers with advance notice of damaging wind gusts, large hail, and tornadoes that pose a threat to life and property.

Brief description of the NWS convective warning products:

- TORs are issued when there is radar indication and/or reliable reports of a tornado or developing tornado. Hazards associated with severe thunderstorms are nearly always attendant to the tornado threat as well.
- SVRs are issued when there is radar or satellite indication and/or reliable reports of wind gusts of 58 mph or greater, and/or hail of one inch (U.S. quarter-size) diameter or greater.
- The SVS is dedicated as the “follow-up” or update statement that provides the latest information of the evolving threat(s) in TORs or SVRs, including location/area updates and cancellation/expiration information during the valid time of the associated warning.

The IBW format became operational nationwide on February 5, 2018 and provided a more organized framework for the structuring of key information in the alphanumeric warning product. This framework provided a valuable and machine-parsable section at the end of the product, called the IBW Coded Tag section, that reiterates the most important threat-based information in a succinct formatted section from the body of the text. Additionally, other information from the legacy text-based format was rearranged within the body of the text. In particular, the “third bullet” paragraph was reorganized, to better describe the timing information, basis of the warning, forecast/known impacts (hail size and/or wind gusts), and general storm motion.

The IBW product structure that was operationalized in early 2018 featured a “damage threat” tag only available in TORs. This categorization of known or perceived threats in TORs has allowed forecasters to place a higher level of emphasis on certain tornado events. The “Tornado Damage Threat” tag can be set to either a “Considerable” or “Catastrophic” categorization for tornadic events. The addition of this tag allows for machine-parsing of the category terms and adds an enhanced dissemination method. A “Considerable” damage threat is the next level beyond the sole indication by radar of the possible existence of a tornado to the knowledge that a tornado exists and is performing damage and life threat. The “Catastrophic” tag corresponds to the sub-headline of “Tornado Emergency.”

The issuance of this update pertains only to the following additions to SVRs and associated SVSs. The remainder of this document describes the already operational framework of the IBW paradigm and is kept in as reference. SVRs will now contain two IBW “damage threat” tag categories as well. The new “Thunderstorm Damage Threat” tag will be triggered off of specific wind and/or hail criteria with either the “Considerable” or “Destructive” categories, as described in Part II.

- b. **Purpose** - Communication of crucial decision support and risk assessment information to partners and users within the guidelines of governing policy and the existing operational environment is the goal. The warnings will include streamlined, standardized, concise bullets to convey information about associated impacts, specific hazards expected, and recommended action designed to result in an improved public

response to take immediate protective action.

- c. **Audience** - The target audience for the product includes: national, state and local emergency managers, media partners, the private weather enterprise, government and military agencies, and the general public.
- d. **Presentation Format** - The enhanced wording is designed to highlight impacts, specific hazards, and source of information prompting the warning. This information will be provided in separate bullets, in the text area beneath the third mandatory bullet (immediately following the time, location and motion of the storm). A list of “recommended action” phrases will be selectable in the WFO warning software, depending on the situation. The selection will be inserted into the mandatory section labeled “PRECAUTIONARY/PREPAREDNESS ACTIONS”. Relevant coded tags for Tornado, Hail and Wind will be automatically appended to the bottom of severe convective warnings (TOR, SVR) and follow-up statements (SVS) that are issued by all offices.
- e. **Feedback** - To continually enhance this and all NWS products feedback is always encouraged. Comments and feedback may be provided to:

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## II - Technical Description

- a. **Format and Science Basis** - Compelling evidence exists to support the capability of NWS forecasters to differentiate the strong/violent tornadoes from the less damaging or less impactful tornadoes. Additionally, there is a need to differentiate across the spectrum of possible thunderstorm wind speeds and hail sizes in terms of the range of potential impacts to life and property. Annually, the number of tornadoes that are rated in the lowest range of intensities (according to the NWS-adopted Enhanced Fujita Scale -- or EF Scale), EF0-1, account for over 85% of all tornadoes nationwide.

Although every tornado is considered life-threatening, these weaker tornadoes typically perform measurably lower amounts of damage and/or threat to lives than tornadoes that are EF2 intensity or greater. These lower-end intensity tornadoes are also commonly shorter-duration and smaller in size (in contact with the ground/surface) than their stronger counterparts. They can also be challenging to predict within certain thunderstorm modes (e.g. squall line thunderstorms), whereas stronger tornadoes typically occur in environments that are more favorable for higher strengths and durations. Most tornadoes reach a peak intensity for a relatively smaller fraction of their entire life cycle and it is important, when possible, for forecasters to be able to express their knowledge of increase or decrease in tornado intensity in updates throughout the valid time of the warning.

Similarly, the vast majority of thunderstorms (nationwide, annually) produce wind and/or hail threats that reach the minimum issuance criteria for a SVR (one-inch diameter hail; 58 mph/50 kt winds). These values provide a considerably lower threat to life/property than amounts at the higher end of the possible spectrum, such as baseball size hail and/or 80 mph winds. The early 2018 operationalized version of the IBW format allowed for a substantial increase in forecasters’ abilities to promote the potential for higher levels of threat to lives/property through the “Impact Statements” in the “IMPACT” bullet of SVRs/SVSs. This was a first step in establishing an elevated alerting and messaging paradigm within warnings for severe thunderstorms. This update adds in the “damage threat” categories, following the similar paradigm in TORs and is expected to further solidify the importance of the “Impact Statements” across the stratification of severe effects into a three-tiered threat paradigm.

For both TORs and SVRs, separating out key information in a visually appealing format has been found

to be critical for quick consumption. The IBW format does this through the “Hazard, Source, and Impact” bullets, as follows:

**HAZARD**...the basis for the warning which is a listing of the type of hazard (tornado, maximum thunderstorm wind gust [speed], hail size)

**SOURCE**...based on a short list of possible types of reporting authorities, whether human-spotted (e.g. trained spotter, law enforcement, etc.),or remotely sensed (e.g. radar indicated).

**IMPACT**...a generalized and brief listing of potential impacts to lives/property based on the forecasted/known threat with added certainty of the impacts with increased size, speed, or intensity of the threat.

Unlike TORs which also have three categories (the “base” category is not named), the threats from hail/wind are strictly tiered according to ranges of increasing size/speed. The “Considerable” and “Catastrophic” damage threat categories can be invoked in TORs based on factors of confidence in existence or intensity of a tornado based on remotely-sensed data (e.g. radar) and known or perceived threat levels to human life/property.

The tiered categorizations of both TORs and SVRs threats lends to the continuing effort to more appropriately provide impact-based information about evolving threats through either radar analysis, received reports about the threats, or a combination. Whether the situation is a large, long-lived, and clearly damaging tornado that threatens a populous, intense downburst/microburst winds that can flatten large sections of a forest, or giant hail assumed to be the size of baseballs, tennis balls, or softballs, the NWS aims to highlight these rare events in a way that will elicit a more trusting, steadfast, and prompt response from those in the path of these threats.

**Severe Thunderstorm Warnings - IBW Format**

For SVRs, forecasters will be presented three options within the WFO warning software that relate to the aforementioned three-tiers of categorical damage/impact-based threats: (1) a storm (or line of storms) that meet the lowest minimum criteria of either/both wind and hail, (2) an increase in the range of wind and/or hail that is generally a “mid-range” within the threat stratification and (3) the generalized minimum level of highest-tier wind/hail threats.

Each of the three new categories and minimum trigger criteria can be found in the following table:

<b>Thunderstorm Damage Threat (tag category)</b>	<b>Wind</b>	<b>Hail (diameter)</b>
<b>Base</b> (no tag; default)	58 mph ( <i>60 mph will appear in the warning</i> )	1.00 inch (U.S. quarter)
<b>Considerable</b>	70 mph	1.75 inch (golf ball)
<b>Destructive</b>	80 mph	2.75 inch (baseball)

**Related Notes:**

- Invoking either of the higher two tiers will continue to include the same enhanced verbiage concerning impacts and calls to action, as well as the highlight statement “This is a very dangerous storm.”
- In all cases, the highest category will display in the damage threat tagline, even if one threat meets the next lowest threshold. Example: if “80 mph” wind is selected (which meets the Destructive threshold) as well as “2.00 inch” diameter hail (which meets the Considerable threshold), only the Destructive category will be displayed.

There are some changes to the IBW coded tags in SVRs this update to the current structure:

```
TORNADO...POSSIBLE (if selected)
HAIL...1.00IN
WIND...60MPH
```

The new IBW coded tag structure will appear in this format:

```
TORNADO...POSSIBLE (if selected)
THUNDERSTORM DAMAGE THREAT...CONSIDERABLE/DESTRUCTIVE (if selected)
HAIL THREAT...RADAR INDICATED/OBSERVED
MAX HAIL SIZE...X.XX IN
WIND THREAT...RADAR INDICATED/OBSERVED
MAX WIND GUST...XX MPH
```

Related Notes:

- No changes will be made to the option to add the IBW tagline “TORNADO...POSSIBLE”.
- The “Thunderstorm Damage Threat” tag will only appear if a qualifying hail and/or wind amount is selected per the category criteria range. The higher of the two categories will appear, if both are met by one of the other. Example: Wind = 70 mph (Considerable); Hail = 3.00 inch (Destructive) will yield the “Destructive” damage threat tag.
- “Radar Indicated” will be the default option for the “Hail/Wind Threat” tags, with “Observed” only appearing in either/both tags if selected.
- An extra character space has been added in both the “Max Hail/Wind Size/Gust” tags to separate the numeric value from the unit of measure. This has also been added to the hail and wind IBW tags in Tornado Warnings.

### **Tornado Warnings - IBW Format**

There are no changes to TORs in this update, except for the change from the IBW coded tag “HAIL” to “MAX HAIL SIZE”, detailed later in this section. Forecasters will continue to be provided a number of options to clarify the level of threat based on level of severity. These options are included for reference:

The first option pertains to the standard or “base” TORs (which are the most common type issued through the season). For these “base” TORs, forecasters will be able to (1) include bullets that plainly and clearly communicate hazard and impact information, (2) utilize enhanced calls to action, as rephrased by social science partners, and (3) add “tags” at the end of the message with additional critical information. This information may include any or all of the following: (a) whether the tornado is observed or radar-indicated (implied statement of confidence in evidence), (b) predicted hail size, and (c) the option to add strength of non-tornadic thunderstorm-related wind. This warning type will be selected for cases in which there is *credible* evidence of a tornado.

The second option will be exercised in cases where there is *substantial* evidence of a tornado coincident with a high impact event. In such cases, the phrase “This is a Particularly Dangerous Situation” (PDS) will be utilized, along with enhanced wording within the second warning bullet to identify a high level of risk, describe expected damage and impacts, and promote serious urgency in taking action to seek shelter immediately. The “PDS” warning will also append an explicit damage threat reference in the form of a tagline code “TORNADO DAMAGE THREAT...CONSIDERABLE”, rather than simply discriminating between observed or probable.

The third option will be used only for the most severe type of tornado warning. This option will be reserved for those rare cases in which a known, violent tornado is likely to produce devastating damage. For these situations, the enhanced wording will include a “TORNADO EMERGENCY” announcement,

the recommended action will be brief, clear and extremely urgent (e.g., IF YOU ARE IN OR NEAR [*impacted city; section of impacted city; impacted portion of county*]...SEEK SHELTER IMMEDIATELY!) and the tagline will read: TORNADO DAMAGE THREAT...CATASTROPHIC.

The impact statements for “CONSIDERABLE” (second option) and those for “CATASTROPHIC” (third option) served as markers of confidence of tornado occurrence, with both reflecting an “elevated tier” of tornado damage and risk. The term CATASTROPHIC is to be used only when there is high confidence or anticipation that the tornado will strike a community.

The coded tag lines appended to the bottom of every TOR, SVR and SVS products after the double ampersand (&&) directly below the existing TIME...MOT...LOC line and before the double dollar sign (\$\$).

The enhanced wording designed to communicate severity, hazards, and impacts will be inserted into the third mandatory bullet section, which begins “AT <time> CDT...”

The tag lines will be appended to TOR, SVR and appropriate follow-up SVS products, after the double ampersand (&&) and the “Lat/Lon” and “Time/Motion/Location” lines, as follows:

```
TORNADO . . .RADAR INDICATED/OBSERVED
TORNADO DAMAGE THREAT . . .CONSIDERABLE/CATASTROPHIC (if selected)
MAX HAIL SIZE . . .X.XX IN
WIND . . .XX MPH (optional for TOR)
```

where X.XX represents the expected maximum hail size in inches, and XX represents maximum expected thunderstorm-induced wind speed.

Related Notes:

- “Max Hail Size” has replaced the “Hail” in this update.
- An extra character space has been added to the “Max Hail Size” tag to separate the numeric value from the unit of measure.

#### Allowable Coded Tag Line Values

The allowable values for tornado, hail and wind tag lines are coded and defined as follows:

#### **Tornado Values for TOR and TOR related SVS:**

```
TORNADO . . .RADAR INDICATED/OBSERVED
TORNADO DAMAGE THREAT . . .CONSIDERABLE/CATASTROPHIC
```

#### **Hail Values for TOR/SVR/SVS**

Flexibility is given to local offices to include the denotation of events with less than minimum criteria hail (one inch diameter) in TORs, with no related qualifications, or in SVRs, as long as the minimum wind criteria (58 mph) is being met. This includes “no hail” (0.00 inch). Below are the default values with the left-hand column is the value as it appears in the warning text with the terminology per size stated to the right, with any comparable size (U.S. coin or standard/regulation size of a sports-related ball).

0 . 00	Equates to no hail
< . 75	“small hail”
0 . 75	“three-quarter inch” (penny-sized)
0 . 88	“nickel” (same)
1 . 00	“one inch” (quarter-sized minimal SVR criterion for hail size)
1 . 25	“one and one quarter inch” (half dollar-sized)*
1 . 50	“one and a half inch” (ping pong ball-sized)

- 1.75 “one and three-quarter inch” (golf ball-sized)
- 2.00 “two-inch” (same)\*
- 2.50 “two and a half inch” (tennis ball-sized)
- 2.75 “two and three-quarter inch” (baseball-sized)
- 3.00 “three inch” (same)\*
- 4.00 “softball” (same)\*\*
- 4.50 “grapefruit” (same)\*; highest allowable value

**Notes:** \* Added since the previous (2017) version.  
 \*\* Modified from 4.25” in the previous version, rounding closer to the size of a regulation softball.

**Wind Values for TOR/SVR/SVS**

Values are in mph (miles per hour). Below are default values with the left-hand column showing the warning text with general range terminology stated to the right:

- <50 Wind gusts below severe criteria and lowest allowable value (for min. SVR criteria hail only)
- 60 60 mph peak wind gust; the first allowable value above <50 (severe criteria)
- 70 Wind is expected to be GTE 70 mph but LT 80 mph
- 80 Wind is expected to be GTE 80 mph but LT 90 mph
- 90 Wind is expected to be GTE 90 mph but LT 100 mph
- 100 GTE 100 mph; the highest allowable value (significant structural damage)

- b. **Availability** – This enhanced product is available through all distribution channels which currently disseminate TOR, SVR, and SVS warning products.
- c. **Additional Information** – Examples of SVRs and follow-up/update SVSs with various instances of the new IBW categories. No examples for TORs in this edition.

**Listing of Example Severe Thunderstorm Warning Text Products:**

Ex. #	Warning Type:	Damage Threat Category	IBW Damage Threat Trigger
1)	SVR	Base (no tag)	none; no tag
2)	SVR	Considerable tag	wind only
3)	SVR	Destructive tag	hail only
4)	SVS (update)	Considerable	wind and hail (Partial Cancellation)
5)	SVS (update)	Destructive	wind only

**Notes:**

- The "TORNADO . . . POSSIBLE" IBW tagline does not have any association with the trigger criteria of the "THUNDERSTORM DAMAGE THREAT . . ." tag but will appear *ahead of* the damage threat tagline in the IBW coded tag section.
- Example of an SVR with no damage threat tagline has been included for reference.

**Example 1. SVR: Base; no damage threat tag**

```
SVRCTP
PAC061-032330-
/O.NEW.KCTP.SV.W.0030.190503T2251Z-190503T2330Z/

BULLETIN - IMMEDIATE BROADCAST REQUESTED
Severe Thunderstorm Warning
National Weather Service State College PA
651 PM EDT Fri May 3 2019

The National Weather Service in State College PA has issued a

* Severe Thunderstorm Warning for...
Northern Huntingdon County in central Pennsylvania...

* Until 730 PM EDT.

* At 650 PM EDT, a severe thunderstorm was located near Huntingdon,
moving northeast at 35 mph.

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

SOURCE...Radar indicated.

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

* Locations impacted include...
Huntingdon, Whipple Dam State Park, Mcalevys Fort, Raystown Dam,
McConnellstown, Petersburg, Alexandria, Mill Creek, Marklesburg and
Juniata College.

PRECAUTIONARY/PREPAREDNESS ACTIONS...

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

&&

LAT...LON 4039 7819 4047 7813 4050 7813 4049 7815  
4052 7815 4071 7802 4069 7794 4072 7788  
4062 7779 4055 7784 4050 7782 4032 7805  
TIME...MOT...LOC 2250Z 212DEG 30KT 4046 7808

HAIL THREAT...RADAR INDICATED  
MAX HAIL SIZE...1.00 IN  
WIND THREAT...RADAR INDICATED  
MAX WIND GUST...60 MPH

\$\$

### Example 2. SVR: Considerable tag (triggered by wind)

SVRILX

ILC019-039-115-147-230700-

/O.NEW.KILX.SV.W.0030.190523T0613Z-190523T0700Z/

BULLETIN - IMMEDIATE BROADCAST REQUESTED

Severe Thunderstorm Warning

National Weather Service Lincoln IL

113 AM CDT Thu May 23 2019

The National Weather Service in Lincoln has issued a

\* Severe Thunderstorm Warning for...  
Piatt County in central Illinois...  
Southeastern De Witt County in central Illinois...  
Champaign County in east central Illinois...  
Northeastern Macon County in central Illinois...

\* Until 200 AM CDT.

\* At 113 AM CDT, a severe thunderstorm was located near Monticello,  
moving east at 55 mph.

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

SOURCE...Trained weather spotters.

IMPACT...Hail damage to vehicles is expected. Expect considerable  
tree damage. Wind damage is also likely to mobile homes,  
roofs, and outbuildings.

\* Locations impacted include...  
Champaign, Monticello, Urbana, Savoy, Mahomet, St. Joseph, Tolono,  
Bement, Philo, Sidney, Homer, Thomasboro, Gifford, Ogden, Pesotum,  
De Land, Bondville, Broadlands, Allerton and Lake Of The Woods.



This includes the following highways...

Interstate 57 between mile markers 218 and 246.

Interstate 72 between mile markers 152 and 182.

Interstate 74 between mile markers 172 and 197.

PRECAUTIONARY/PREPAREDNESS ACTIONS...

A Tornado Watch remains in effect until 500 AM CDT for central and east central Illinois.

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

&&

LAT...LON 3988 8844 3990 8882 4010 8879 4032 8794  
3988 8794

TIME...MOT...LOC 0613Z 271DEG 48KT 4000 8868

TORNADO...POSSIBLE

THUNDERSTORM DAMAGE THREAT...CONSIDERABLE

HAIL THREAT...RADAR INDICATED

MAX HAIL SIZE...1.00 IN

WIND THREAT...OBSERVED

MAX WIND GUST...70 MPH

\$\$

### Example 3. SVR: Destructive tag (triggered by hail)

SVROUN

OKC065-141-TXC155-197-487-080030-

/O.NEW.KOUN.SV.W.0228.200507T2348Z-200508T0030Z/

BULLETIN - IMMEDIATE BROADCAST REQUESTED

Severe Thunderstorm Warning

National Weather Service Norman OK

648 PM CDT Thu May 7 2020

The National Weather Service in Norman has issued a

\* Severe Thunderstorm Warning for...

Southwestern Jackson County in southwestern Oklahoma...

Southwestern Tillman County in southwestern Oklahoma...

East central Foard County in northern Texas...

Wilbarger County in northern Texas...

Southeastern Hardeman County in northern Texas...

\* Until 730 PM CDT.

\* At 648 PM CDT, a severe thunderstorm was located 5 miles east of Quanah, moving southeast at 25 mph.

THIS IS A DESTRUCTIVE STORM FOR VERNON AND QUANAH.

HAZARD...Three inch 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...

Vernon, Quanah, Chillicothe, Eldorado, Davidson, Thalia, Lockett,  
Medicine Mound, Fargo, Odell, Oklaunion, Grayback and Rayland.

PRECAUTIONARY/PREPAREDNESS ACTIONS...

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

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 3450 9962 3431 9907 3402 9907 3383 9939  
3417 9976 3432 9977  
TIME...MOT...LOC 2348Z 310DEG 23KT 3431 9966

THUNDERSTORM DAMAGE THREAT...DESTRUCTIVE  
HAIL THREAT...RADAR INDICATED  
MAX HAIL SIZE...3.00 IN  
WIND THREAT...RADAR INDICATED  
MAX WIND GUST...70 MPH

\$\$

#### Example 4. SVS: Considerable tag (triggered by wind; partial cancellation)

SVSGSP

Severe Weather Statement  
National Weather Service Greenville-Spartanburg SC  
253 PM EDT Sat Apr 13 2019

NCC111-131903-  
/O.CAN.KGSP.SV.W.0015.000000T0000Z-190413T1930Z/  
McDowell NC-  
253 PM EDT Sat Apr 13 2019

...THE SEVERE THUNDERSTORM WARNING FOR EAST CENTRAL MCDOWELL 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 3566 8184 3579 8190 3594 8157 3571 8145  
TIME...MOT...LOC 1853Z 251DEG 20KT 3576 8179

\$\$

NCC023-027-131930-  
/O.CON.KGSP.SV.W.0015.000000T0000Z-190413T1930Z/  
Caldwell NC-Burke NC-  
253 PM EDT Sat Apr 13 2019

...A SEVERE THUNDERSTORM WARNING REMAINS IN EFFECT UNTIL 330 PM EDT FOR SOUTHWESTERN CALDWELL AND CENTRAL BURKE COUNTIES...

At 253 PM EDT, a severe thunderstorm was located 5 miles west of Morganton, or near Glen Alpine, moving east at 25 mph.

HAZARD...70 mph wind gusts and ping pong ball size hail.

SOURCE...Radar indicated.

IMPACT...People and animals outdoors will be injured. Expect hail damage to roofs, siding, windows, and vehicles. Expect considerable tree damage. Wind damage is also likely to mobile homes, roofs, and outbuildings.

Locations impacted include...  
Morganton, Valdese, Gamewell, Icard, Cajah's Mountain, Drexel, Connelly Springs, Rutherford College, Glen Alpine and Lake Rhodhiss.

PRECAUTIONARY/PREPAREDNESS ACTIONS...

Remain alert for a possible tornado! Tornadoes can develop quickly from severe thunderstorms. If you spot a tornado go at once into the basement or small central room in a sturdy structure.

Large hail can cause major property damage, especially to vehicles. Strong winds may blow down a few trees and power lines. Seek shelter inside an interior room.

&&

LAT...LON 3566 8184 3579 8190 3594 8157 3571 8145  
TIME...MOT...LOC 1853Z 251DEG 20KT 3576 8179

TORNADO...POSSIBLE  
THUNDERSTORM DAMAGE THREAT...CONSIDERABLE  
HAIL THREAT...RADAR INDICATED

MAX HAIL SIZE...1.50 IN  
WIND THREAT...RADAR INDICATED  
MAX WIND GUST...70 MPH

\$\$

#### Example 5. SVS: Destructive tag (triggered by wind)

SVSGLD

Severe Weather Statement  
National Weather Service Goodland KS  
824 PM MDT Fri Jun 21 2019

COC017-KSC199-220245-  
/O.CON.KGLD.SV.W.0163.000000T0000Z-190622T0245Z/  
Cheyenne CO-Wallace KS-  
824 PM MDT Fri Jun 21 2019

...A SEVERE THUNDERSTORM WARNING REMAINS IN EFFECT UNTIL 845 PM MDT  
FOR EAST CENTRAL CHEYENNE COUNTY IN EAST CENTRAL COLORADO AND WALLACE  
COUNTIES IN WEST CENTRAL KANSAS...

At 824 PM MDT, severe thunderstorms were located along a line  
extending from 17 miles northeast of Cheyenne Wells to near Weskan to  
13 miles southwest of Sharon Springs, moving northeast at 40 mph.

THESE ARE DESTRUCTIVE STORMS FOR WESKAN AND SHARON SPRINGS.

HAZARD...90 mph wind gusts and ping pong ball size hail.

SOURCE...Radar indicated.

IMPACT...You are in a life-threatening situation. Flying debris may  
be deadly to those caught without shelter. Mobile homes  
will be heavily damaged or destroyed. Homes and businesses  
will have substantial roof and window damage. Expect  
extensive tree damage and power outages.

Locations impacted include...  
Sharon Springs, Weskan and Wallace.

PRECAUTIONARY/PREPAREDNESS ACTIONS...

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

This is an EXTREMELY DANGEROUS SITUATION with tornado like wind  
speeds expected. Mobile homes and high profile vehicles are  
especially susceptible to winds of this magnitude and may be  
overturned. For your protection move to an interior room on the  
lowest floor of a building. These storms have the potential to cause

serious injury and significant property damage.

&&

LAT...LON 3913 10167 3905 10151 3884 10151 3872 10197

3884 10214 3895 10223

TIME...MOT...LOC 0224Z 246DEG 36KT 3900 10212 3889 10198 3881 10199

THUNDERSTORM DAMAGE THREAT...DESTRUCTIVE

HAIL THREAT...RADAR INDICATED

MAX HAIL SIZE...1.50 IN

WIND THREAT...RADAR INDICATED

MAX WIND GUST...90 MPH

\$\$