

**NATIONAL WEATHER SERVICE CENTRAL REGION SUPPLEMENT 01-2003  
APPLICABLE TO 10-517  
February 5, 2007**

**Operations and Services  
Public Weather Warning Services NWSPD 10-5  
WFO Severe Weather Products Specification NWSI 10-517**

**Hazardous Weather Outlook**

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**SUMMARY OF REVISIONS:** This supplement update contains changes corresponding to the updated version of NWSI 10-517 effective date December 6, 2004

Information on the Hazardous Weather Outlook (HWO) has been reorganized. A Bullet type format has been used for easier comprehension.

Changes have been made to better emphasize the forecast hazardous weather.

New examples have replaced the 2004 version examples.

\_\_\_\_\_  
/signed/ January 22, 2007

Lynn P. Maximuk  
Director, Central Region

Date

## Hazardous Weather Outlook

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1. Mission. In addition to the information in NWSI 10-517 section 4.1, the Hazardous Weather Outlook (HWO) is designed to be a “Heads Up” to expected hazardous weather and its potential impact for the entire seven-day forecast period. The HWO provides a “first-stop” for customers to find information on potential hazardous weather, its timing, its location and its impact.

Weather Forecast Offices (WFOs) in Central Region will issue an HWO a minimum of once each day, between the hours of 4 a.m. and 7 a.m. local time. Other releases will be issued based on changes in hazardous weather or customer needs.

2. Definition of a Hazard. In an HWO, a hazard is defined as a meteorological or hydrological event which has a significant chance of creating a harmful impact on people, property, or the economy. Effects of this impact can sometimes be reduced or eliminated, if appropriate action is taken.

3. HWO Content. Brevity and clarity are essential in an HWO. The National Weather Service (NWS) must communicate in a clear and concise manner, potential hazardous weather, its timing, its areal coverage and its forecasted impact.

3.1 General Guidelines. In addition to guidelines found in NWSI 10-517, section 4, Central Region WFOs will also adhere to the following guidelines:

- WFOs will include all types of hazards mentioned in NWSI 10-517, section 4.3.3 d for their entire forecast area for the entire seven day forecast period with the following exceptions:
  - WFOs do **not** need to update the HWO for short term information included in a Short Term Forecast.
  - WFOs do **not** need to update the HWO during the afternoon or nighttime when a hazard is introduced in the new seventh day of the forecast. The Days Two through Seven time period does not include this new seventh day.
- For hazards in the HWO, WFOs will mention the timing, areal coverage and the impacting weather. The areal coverage may be omitted when the area of the hazard is for the entire segment of the HWO. A brief explanation for a hazard may be included under the following conditions:
  - The hazardous event, when and where it will occur, and the meteorological impact will be placed first in the text before the reason why. The reason for this is that all HWO customers want, and will likely need, this information.
  - The brief explanation for a hazard, if included, will follow in the same paragraph, will be confined to a couple sentences, and will be restricted to nontechnical terms the general public understands.
- Potential hazards are defined in NWSI 10-517, section 4.3.3 d and this supplement.
- The impacting weather is defined in NWSI 10-517, section 4.3.3 d, subsection (1) for convective weather, (2) for winter weather, (3) for non precipitation, (4) for fire weather, (5) for flooding, and (6) for marine.
- When conditions in latter forecast periods are expected to meet the WFO's warning or advisory criteria posted on the Intranet, the WFO will include these potential hazards in the HWO.
- If the HWO refers to a warning, watch or advisory (except for a convective watch (see section 3.2)) and the warning, watch or advisory is later canceled, the WFO

will update the HWO before the expiration time of the watch, warning or advisory cancellation product. Otherwise, the customer will be referred to a product which is no longer in the system.

- WFOs will not include nonhazardous weather information in the HWO. Nonhazardous weather information tends to obscure the most important facts the customer needs to know and unnecessarily lengthens the text.

### 3.2 Convective Weather Guidelines:

- WFOs will **not** update the HWO for each tornado or severe thunderstorm warning. The warnings, themselves, receive high customer attention, and critical time used to update the HWO would be better spent addressing the ongoing severe weather.
- Since lightning is the third leading cause of weather related fatalities (behind only excessive heat and flash floods), and lightning from even an isolated thunderstorm may cause fatalities, injuries or significant damage; thunderstorms forecast will always be included in the HWO.
- WFOs should include subwarning criteria convective hazards, such as small hail, strong winds (less than severe), and heavy rain. Heavy rain, in this context, is defined as visibility low enough that land-based vehicles could not be driven safely at posted speed limits.
- For a severe convective watch, severe weather **must** take highest priority. When the WFO feel severe convective activity may develop in the Day One time period, the WFO should refer customers to SPC's convective watch page for the latest information on any convective watches issued. Convective watches, themselves, need **not** be included in the HWO.

### 3.3 Winter Weather Guidelines:

- A brief discussion of the mesoscale or synoptic situation causing the winter weather hazard may be presented in the HWO as per instructions in section 3.1 of this supplement. Call to action statements will **not** be included in the HWO. For winter weather hazards, more detailed information may be presented in a winter weather product (WSW) as per instructions in NWSI 10-513. In the HWO, if a WSW is written, WFOs will refer customers to the WSW for further details. A hyperlink may be used for web customers.
- Long term dangerous wind chill episodes will be mentioned in the HWO each day they exist. This adverse condition is still a hazard to the customer no matter how many days it continues. The NWS cannot know, on any particular day, if a customer has heard or read the wind chill information from past days' HWOs.

- In the HWO, snow or ice amounts, as well as wind chill temperatures, may be quantitative or qualitative as long as the seriousness of the hazard is clearly communicated to the customer.

#### 3.4 Nonprecipitation Weather Hazard Guidelines.

- A brief discussion of the mesoscale or synoptic situation causing the nonprecipitation weather hazards may be presented in the HWO as per instructions in section 3.1 of this supplement. Call to action statements will **not** be included in the HWO. For nonprecipitation weather hazards, more detailed information may be presented in a nonprecipitation weather product (NPW) as per instructions in NWSI 10-515. In the HWO, if an NPW is written, WFOs will refer customers to the NPW for further details. A hyperlink may be used for web customers.
- Localized dense fog can lead to fatalities or injuries to drivers when the visibility is unexpectedly reduced. Therefore, localized dense fog should be included in the HWO as per NWSI 10-515, Table 5.
- When freezing fog is expected, WFOs should include information about moisture condensing and freezing on road surfaces, especially bridges and overpasses.
- In the HWO, wind speeds or visibility may be quantitative or qualitative as long as the seriousness of the hazard is clearly communicated to the customer.

#### 3.5 Fire Weather Hazard Guidelines.

- A brief discussion of the mesoscale or synoptic situation causing the fire weather hazards may be presented in the HWO as per instructions in section 3.1 of this supplement. Call to action statements will **not** be included in the HWO. For fire weather hazards, more detailed information may be presented in a Red Flag Warning or Fire Weather Watch product (RFW) as per instructions in NWSI 10-401. In the HWO, if an RFW is written, WFOs will refer customers to the RFW for further details. A hyperlink may be used for web customers.
- In the HWO, WFOs will mention potential fire weather conditions, which meet the WFO's Red Flag Warning, Fire Weather Watch, or other customer driven criteria. WFOs will include timing, areal coverage and forecasted impacting weather. Impacting weather includes high temperatures, low relative humidity, high winds, and dry thunderstorms. Dry fuels may also be mentioned if applicable.
- In the HWO, temperatures, relative humidity and wind speeds may be quantitative or qualitative as long as the seriousness of the hazard is clearly communicated to the customer.

- WFOs should include any fire weather hazards forecast for their area issued by another WFO.

### 3.6 Flooding Guidelines.

- A brief discussion of the mesoscale or synoptic situation causing the flooding hazard may be presented in the HWO as per instructions in section 3.1 of this supplement. Call to action statements will **not** be included in the HWO. For flooding hazards, more detailed information may be presented in a hydrologic outlook product (ESF) or flood statement (FLS) as per NWSI 10-922. In the HWO, if an ESF or FLS is written, WFOs will refer customers to the ESF or FLS for further details. A hyperlink may be used for web customers.
- WFOs will not update the HWO for each flash flood warning. The flash flood warnings, themselves, receive high customer attention, and critical time used to update the HWO would be better spent addressing the ongoing flash flooding.
- Long term river flooding will be mentioned in the HWO each day it exists. The NWS cannot know, on any particular day, if a customer has received the river flooding information from past days.
- When River Flooding is a hazard, WFOs should include the names of the major river(s) flooding, but may generically note small streams or tributaries when applicable.
- Since low impact flooding can be a hazard to some customers' normal activities, low impact flooding should be included in the HWO.

### 3.7 Marine Hazard Guidelines.

- A brief discussion of the mesoscale or synoptic situation causing the marine weather hazard may be presented in the HWO as per instructions in section 3.1 of this supplement. Call to action statements will **not** be included in the HWO. For marine weather hazards, more detailed information may be presented in another marine product. In the HWO, if another marine product is used for more detailed information, WFOs will refer customers to the other marine product for further details. A hyperlink may be used for web customers.
- WFOs will **not** update the HWO for each special marine warning. The special marine warnings, themselves, receive high customer attention, and critical time used to update the HWO would be better spent addressing the ongoing severe weather.
- Central Region WFOs may provide rip current information to the degree that availability of outside factors, such as bathymetry, will allow.

4. Format. The following comments apply to the HWO format in NWSI 10-517 section 4.3.4 Figure 3.

4.1 Headlines.

- Headline(s) may be included to highlight the most significant hazard(s) or the hazard(s) with the greatest potential impact. For example, if heavy snow is possible in day 6, a headline concerning the snow in day 6 may be appropriate to assure the customers' attention to the potential for snow.
- Headline(s) may reference either the "Day One" period, or the "Days Two through Seven" period.
- Headline(s) should be brief and clear. Complete sentences are **not** necessary.

4.2 Day One Section.

- The appropriate time period will be attached to the Day One line (e.g., ".Day One...Today and Tonight", "Day One...This Afternoon and Tonight", "Day One...Tonight").
- If more than one hazard is expected in the Day 1 time period, then WFOs should discuss the hazards in order of greatest potential impact on the customer.
- If more than one hazard is expected in the Day 1 time period, and the hazards are independent of each other; then WFOs will use separate paragraphs to make each hazard more visible to the customer.
- WFOs will use one of the two phrases in NWSI 10-517, section 4.3.3 e, when no hazards are forecast in the Day One time period. This section of the HWO will not contain additional text when one of these phrases is used. In addition, HWOs will not contain these phrases when hazards are forecast. Customers may not receive important information if these phrases are used when hazards are expected.

4.3 Days Two through Seven Section.

- The appropriate time period will be attached to the Day Two through Seven line. (e.g., ".Days Two through Seven...Wednesday through Monday.")
- If more than one hazard is expected in the Days 2 through 7 time period, then WFOs should discuss the hazards in order of greatest potential impact on the customer.

- If more than one hazard is expected in the Days 2 through 7 time period, and the hazards are independent of each other, then WFOs will use separate paragraphs to make each hazard more visible to the customer.
- WFOs will use one of the two phrases in NWSI 10-517, section 4.3.3 e, when no hazards are forecast in the Days Two through Seven time period. This section of the HWO will not contain additional text when one of these phrases is used. In addition, HWOs will not contain one of these phrases when hazards are forecast. Customers may not receive important information if these phrases are used when hazards are expected.

#### 4.4 Spotter Information Statement.

- A WFO may include spotter actions for the Days Two through Seven period as “Heads Up” information.
- HWO spotter requests are not limited to reports of severe weather and flooding, but may also include requests for precipitation reports such as heavy rain or snowfall amounts.

#### 5. Examples. These examples have been edited for illustrative purposes.

5.1 Example 1. This example illustrates two time periods of a convective weather hazard and a time period of nil hazardous weather.

FLUS43 KGLD 211030  
HWOGLD

HAZARDOUS WEATHER OUTLOOK  
NATIONAL WEATHER SERVICE GOODLAND KS  
430 AM MDT THU SEP 21 2006

COZ090>092-KSZ001>004-013>016-027>029-041-042-NEZ079>081-221300-  
YUMA-KIT CARSON-CHEYENNE CO-CHEYENNE KS-RAWLINS-DECATUR-NORTON-  
SHERMAN-THOMAS-SHERIDAN-GRAHAM-WALLACE-LOGAN-GOVE-GREELEY-  
WICHITA-  
DUNDY-HITCHCOCK-RED WILLOW-  
530 AM CDT THU SEP 21 2006 /430 AM MDT THU SEP 21 2006/

THIS HAZARDOUS WEATHER OUTLOOK IS FOR EXTREME SOUTHWEST  
NEBRASKA...NORTHWEST KANSAS AND EAST CENTRAL COLORADO.

.DAY ONE...TODAY AND TONIGHT

ISOLATED THUNDERSTORMS CAN BE EXPECTED OVER MUCH OF THE TRI-STATE TODAY. DANGEROUS CLOUD TO GROUND LIGHTNING AND NORTHWEST WINDS GUSTING TO 35 MPH CAN BE EXPECTED WITH THESE THUNDERSTORMS.

EAST OF A HILL CITY TO GOVE KANSAS LINE STRONG TO POSSIBLY SEVERE THUNDERSTORMS MAY DEVELOP THIS AFTERNOON AND THIS EVENING. THE PRIMARY HAZARDS WOULD BE DAMAGING WINDS AND LARGE HAIL.

.DAYS TWO THROUGH SEVEN...FRIDAY THROUGH WEDNESDAY

NO HAZARDOUS WEATHER IS EXPECTED AT THIS TIME.

.SPOTTER INFORMATION STATEMENT...

SPOTTER ACTIVATION MAY BE NEEDED THIS AFTERNOON EAST OF A HILL CITY TO GOVE KANSAS LINE.

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DDT

5.2 Example 2. This example illustrates a winter weather hazard and two different types of events in the same time period.

FLUS45 KPUB 201304  
HWOPUB

HAZARDOUS WEATHER OUTLOOK  
NATIONAL WEATHER SERVICE PUEBLO CO  
704 AM MDT WED SEP 20 2006

COZ058>089-093>099-211315-  
WESTERN MOSQUITO RANGE/EAST LAKE COUNTY ABOVE 11000 FT-  
LEADVILLE VICINITY/LAKE COUNTY BELOW 11000 FT-  
EASTERN SAWATCH MOUNTAINS ABOVE 11000 FT-  
WESTERN CHAFFEE COUNTY BETWEEN 9000 AND 11000 FT-  
CENTRAL CHAFFEE COUNTY BELOW 9000 FT-  
WESTERN MOSQUITO RANGE/EAST CHAFFEE COUNTY ABOVE 9000 FT-  
SAGUACHE COUNTY WEST OF CONTINENTAL DIVIDE BELOW 10000 FT-  
SAGUACHE COUNTY EAST OF CONTINENTAL DIVIDE BELOW 10000 FT-  
LA GARITA MOUNTAINS ABOVE 10000 FT-  
UPPER RIO GRANDE VALLEY/EASTERN SAN JUAN MOUNTAINS BELOW 10000 FT-  
EASTERN SAN JUAN MOUNTAINS ABOVE 10000 FT-  
DEL NORTE VICINITY/NORTHERN SAN LUIS VALLEY BELOW 8500 FT-

ALAMOSA VICINITY/CENTRAL SAN LUIS VALLEY BELOW 8500 FT-  
SOUTHERN SAN LUIS VALLEY-  
NORTHERN SANGRE DE CRISTO MOUNTAINS BETWEEN 8500 AND 11000 FT-  
NORTHERN SANGRE DE CRISTO MOUNTAINS ABOVE 11000 FEET-  
SOUTHERN SANGRE DE CRISTO MOUNTAINS BETWEEN 7500 AND 11000 FT-  
SOUTHERN SANGRE DE CRISTO MOUNTAINS ABOVE 11000 FT-  
NORTHWESTERN FREMONT COUNTY ABOVE 8500 FT-  
WESTERN/CENTRAL FREMONT COUNTY BELOW 8500 FT-  
WET MOUNTAIN VALLEY BELOW 8500 FEET-  
WET MOUNTAINS BETWEEN 6300 AND 10000 FT-  
WET MOUNTAINS ABOVE 10000 FT-  
TELLER COUNTY/RAMPART RANGE ABOVE 7500 FT/PIKES PEAK BETWEEN  
7500 AND 11000 FT-PIKES PEAK ABOVE 11000 FT-  
CANON CITY VICINITY/EASTERN FREMONT COUNTY-  
NORTHERN EL PASO COUNTY/MONUMENT RIDGE/RAMPART RANGE BELOW  
7500 FT-  
COLORADO SPRINGS VICINITY/SOUTHERN EL PASO COUNTY/RAMPART RANGE  
BELOW 7400 FT-PUEBLO AND VICINITY/PUEBLO COUNTY BELOW 6300 FT-  
WALSENBURG VICINITY/UPPER HUERFANO RIVER BASIN BELOW 7500 FT-  
TRINIDAD VICINITY/WESTERN LAS ANIMAS COUNTY BELOW 7500 FT-  
CROWLEY COUNTY-LA JUNTA VICINITY/OTERO COUNTY-  
EASTERN LAS ANIMAS COUNTY-WESTERN KIOWA COUNTY-  
EASTERN KIOWA COUNTY-LAS ANIMAS VICINITY/BENT COUNTY-  
LAMAR VICINITY/PROWERS COUNTY-SPRINGFIELD VICINITY/BACA COUNTY-  
704 AM MDT WED SEP 20 2006

...SNOW AND BLOWING SNOW ADVISORY FOR SAWATCH AND MOSQUITO  
MOUNTAINS  
ABOVE 11000 FEET FROM 6 PM THIS EVENING TO 12 PM MDT THURSDAY...

THIS HAZARDOUS WEATHER OUTLOOK IS FOR PORTIONS OF CENTRAL...EAST  
CENTRAL...SOUTH CENTRAL AND SOUTHEAST COLORADO.

.DAY ONE...TODAY AND TONIGHT

SNOW WILL FALL ACROSS THE MOUNTAINS...MAINLY ABOVE 8000 FEET...THIS  
AFTERNOON AND TONIGHT. THE SNOW LEVEL WILL START AROUND 12000 FEET  
THIS AFTERNOON AND THEN DROP TO AROUND 8000 FEET TONIGHT. AREAS  
MOST LIKELY FOR SIGNIFICANT SNOW ACCUMULATION WILL BE THE SAWATCH  
AND MOSQUITO MOUNTAIN RANGES WHERE 3 TO 11 INCHES OF SNOW WILL BE  
LIKELY ALONG WITH BLOWING SNOW. A SNOW AND BLOWING SNOW ADVISORY  
HAS BEEN ISSUED FOR TONIGHT AND THURSDAY MORNING. FOR MORE  
INFORMATION SEE THE LATEST WINTER WEATHER ADVISORY PRODUCT.

THUNDERSTORMS ARE POSSIBLE ACROSS THE MOUNTAINS AND ADJACENT  
PLAINS...MAINLY THIS AFTERNOON AND EVENING. THE MAIN HAZARD WILL BE

HAIL UP TO 1/2 INCH IN DIAMETER...WIND GUSTS OF 40 TO 55 MPH...AND DANGEROUS CLOUD TO GROUND LIGHTNING.

.DAYS TWO THROUGH SEVEN...THURSDAY THROUGH TUESDAY

ACCUMULATING SNOWS AND GUSTY WINDS AT TIMES ARE EXPECTED OVER THE MOUNTAINS...ESPECIALLY THE CENTRAL MOUNTAINS...FROM THURSDAY INTO SATURDAY MORNING. AT THIS TIME IT APPEARS THAT THE HEAVIEST SNOW OVER THE CENTRAL MOUNTAINS SHOULD OCCUR FROM THURSDAY NIGHT INTO FRIDAY MORNING WHERE SEVERAL ADDITIONAL INCHES OF SNOW COULD OCCUR.

GUSTY WINDS IN THE 30 TO 50 MPH RANGE ARE EXPECTED OVER LARGE SECTIONS OF SOUTHERN COLORADO THURSDAY MORNING WITH WINDS DECREASING BY LATE THURSDAY.

.SPOTTER INFORMATION STATEMENT...

WEATHER CONDITIONS THAT MEET REPORTING CRITERIA FOR SPOTTERS WILL BE LIKELY THIS AFTERNOON AND TONIGHT ACROSS THE CENTRAL MOUNTAINS.

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5.3 Example 3. This example illustrates a flooding hazard and two different hazards in the same time period.

FLUS43 KDVN 111000  
HWODVN

HAZARDOUS WEATHER OUTLOOK  
NATIONAL WEATHER SERVICE QUAD CITIES IA IL  
500 AM CDT MON SEP 11 2006

IAZ040>042-051>054-063>068-076>078-087>089-098-099-ILZ001-002-007-  
009-015>018-024>026-034-035-MOZ009-010-121000-  
BENTON IA-BUCHANAN IA-BUREAU IL-CARROLL IL-CEDAR IA-CLARK MO-  
CLINTON IA-DELAWARE IA-DES MOINES IA-DUBUQUE IA-HANCOCK IL-  
HENDERSON IL-HENRY IA-HENRY IL-IOWA IA-JACKSON IA-JEFFERSON IA-  
JO DAVIESS IL-JOHNSON IA-JONES IA-KEOKUK IA-LEE IA-LINN IA-LOUISA IA-  
MCDONOUGH IL-MERCER IL-MUSCATINE IA-PUTNAM IL-ROCK ISLAND IL-  
SCOTLAND MO-SCOTT IA-STEPHENSON IL-VAN BUREN IA-WARREN IL-  
WASHINGTON IA-WHITESIDE IL-  
500 AM CDT MON SEP 11 2006

THIS HAZARDOUS WEATHER OUTLOOK IS FOR PORTIONS OF NORTH CENTRAL ILLINOIS...NORTHWEST ILLINOIS...WEST CENTRAL ILLINOIS...EAST CENTRAL IOWA...NORTHEAST IOWA...SOUTHEAST IOWA AND NORTHEAST MISSOURI.

.DAY ONE...TODAY AND TONIGHT

HEAVY RAINS NORTH OF HIGHWAY 30...COULD CAUSE SOME FLASH FLOODING OVER AREAS ALONG HIGHWAY 20 WEST OF THE MISSISSIPPI RIVER. A FLASH FLOOD WATCH HAS BEEN ISSUED FOR THIS AFTERNOON AND TONIGHT. SEE THE LATEST FLOOD PRODUCTS FOR MORE DETAILS.

THUNDERSTORMS WILL CONTINUE OVER THE AREA THROUGHOUT THE DAY. THE THUNDERSTORMS OCCURRING SOUTH OF HIGHWAY 34 THIS AFTERNOON MAY BE STRONG ENOUGH TO PRODUCE PEA SIZE HAIL. THE THUNDERSTORM THREAT WILL DIMINISH BY THIS EVENING.

.DAYS TWO THROUGH SEVEN...TUESDAY THROUGH SUNDAY

THERE IS A CHANCE OF THUNDERSTORMS AGAIN SATURDAY NIGHT AND SUNDAY. IT IS TOO EARLY TO DETERMINE IF SEVERE THUNDERSTORMS ARE POSSIBLE.

.SPOTTER INFORMATION STATEMENT...

SPOTTER ACTIVATION IS NOT EXPECTED TODAY OR TONIGHT.

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DLF

5.4 Example 4. This example illustrates a fire weather hazard.

FLUS43 KDLH 151155  
HWODLH

HAZARDOUS WEATHER OUTLOOK  
NATIONAL WEATHER SERVICE DULUTH MN  
655 AM CDT FRI SEP 15 2006

LSZ121-140>148-162-MNZ010>012-018>021-025-026-033>038-WIZ001>004-  
006>009-161230-  
BAYFIELD TO OAK POINT WI-GRAND PORTAGE TO GRAND MARAIS MN-  
GRAND MARAIS TO TACONITE HARBOR MN-  
TACONITE HARBOR TO SILVER BAY HARBOR MN-

SILVER BAY HARBOR TO TWO HARBORS MN-TWO HARBORS TO DULUTH MN-  
DULUTH MN TO PORT WING WI-PORT WING TO SAND ISLAND WI-  
SAND ISLAND TO BAYFIELD WI-OAK POINT TO SAXON HARBOR WI-  
OPEN WATERS OF LAKE SUPERIOR WEST OF A LINE FROM SAXON HARBOR WI  
TO GRAND PORTAGE MN-KOOCHICHING-NORTHERN ST. LOUIS-  
NORTHERN COOK/NORTHERN LAKE-NORTHERN ITASCA-CENTRAL ST. LOUIS-  
SOUTHERN LAKE/LAKESHORE-SOUTHERN COOK/LAKESHORE-NORTHERN CASS-  
SOUTHERN ITASCA-SOUTHERN CASS-CROW WING-NORTHERN AITKIN-  
SOUTHERN AITKIN-CARLTON/SOUTHERN ST. LOUIS-PINE-DOUGLAS-BAYFIELD-  
ASHLAND-IRON-BURNETT-WASHBURN-SAWYER-PRICE-  
655 AM CDT FRI SEP 15 2006

...SLIGHT RISK OF SEVERE THUNDERSTORMS SATURDAY AND SATURDAY  
EVENING...

THIS HAZARDOUS WEATHER OUTLOOK IS FOR NORTHEAST MINNESOTA...  
NORTHWEST WISCONSIN AND WESTERN LAKE SUPERIOR.

.DAY ONE...TODAY AND TONIGHT

A COMBINATION OF WARM TEMPERATURES...LOW RELATIVE  
HUMIDITIES...GUSTY SOUTHERLY WINDS AND DROUGHT CONDITIONS WILL  
CREATE HAZARDOUS FIRE WEATHER CONDITIONS ACROSS ALL OF NORTHEAST  
MINNESOTA TODAY.

THERE IS A CHANCE OF THUNDERSTORMS TONIGHT.

.DAYS TWO THROUGH SEVEN...SATURDAY THROUGH THURSDAY

SCATTERED THUNDERSTORMS ARE EXPECTED ACROSS THE REGION SATURDAY  
THROUGH SUNDAY. THERE IS A SLIGHT RISK THAT SOME OF THE  
THUNDERSTORMS MAY BE SEVERE SATURDAY AND SATURDAY EVENING.

.SPOTTER INFORMATION STATEMENT...

SKYWARN SPOTTER ACTIVATION WILL NOT BE NEEDED TODAY OR TONIGHT.

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BERDES

5.5 Example 5. This example illustrates two of the same type of hazardous event in the same time period as well as a marine hazard.

FLUS43 KDTX 221418  
HWODTX

HAZARDOUS WEATHER OUTLOOK  
NATIONAL WEATHER SERVICE DETROIT/PONTIAC MI  
1018 AM EDT FRI SEP 22 2006

MIZ047>049-053>055-060>063-068>070-075-076-082-083-231000-  
MIDLAND-BAY-HURON-SAGINAW-TUSCOLA-SANILAC-SHIAWASSEE-GENESEE-  
LAPEER-  
ST. CLAIR-LIVINGSTON-OAKLAND-MACOMB-WASHTENAW-WAYNE-LENAWEE-  
MONROE-  
1018 AM EDT FRI SEP 22 2006

THIS HAZARDOUS WEATHER OUTLOOK IS FOR SOUTHEAST MICHIGAN.

.DAY ONE...TODAY AND TONIGHT

ISOLATED THUNDERSTORMS ARE POSSIBLE THIS AFTERNOON...MAINLY EAST OF  
INTERSTATE 75.

THUNDERSTORMS ARE LIKELY TONIGHT. SEVERE WEATHER IS NOT EXPECTED  
WITH THESE STORMS. THE STRONGEST STORMS ARE EXPECTED TO OCCUR AFTER  
MIDNIGHT. LOCALLY HEAVY RAINFALL AND SMALL HAIL WILL BE POSSIBLE  
WITH THESE THUNDERSTORMS

.DAYS TWO THROUGH SEVEN...SATURDAY THROUGH THURSDAY

THUNDERSTORMS ARE LIKELY ON SATURDAY. THERE IS A SLIGHT CHANCE OF  
SEVERE WEATHER WITH THE THUNDERSTORMS SATURDAY AFTERNOON AND  
EVENING.

.SPOTTER INFORMATION STATEMENT...

SPOTTER ACTIVATION IS NOT ANTICIPATED TODAY OR TONIGHT.

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LCZ422-423-460-LEZ444-LHZ421-422-441>443-462>464-231000-  
ST. CLAIR RIVER-DETROIT RIVER-LAKE ST. CLAIR-  
MICHIGAN WATERS OF LAKE ERIE-OUTER SAGINAW BAY-INNER SAGINAW BAY-  
PORT AUSTIN TO HARBOR BEACH MI-HARBOR BEACH TO PORT SANILAC MI-  
PORT SANILAC TO PORT HURON MI-  
LAKE HURON OFFSHORE BEYOND 5 NM FROM PORT AUSTIN TO HARBOR BEACH  
MI-

LAKE HURON OFFSHORE BEYOND 5 NM FROM HARBOR BEACH TO PORT SANILAC MI-  
LAKE HURON OFFSHORE BEYOND 5 NM FROM PORT SANILAC TO PORT HURON MI-  
1018 AM EDT FRI SEP 22 2006

THIS HAZARDOUS WEATHER OUTLOOK IS FOR LAKE ST CLAIR...THE MICHIGAN WATERS OF LAKE ERIE AND LAKE HURON.

.DAY ONE...TODAY AND TONIGHT

A SMALL CRAFT ADVISORY IS IN EFFECT FOR TODAY FOR THE SAGINAW BAY. PLEASE REFER TO THE LATEST NEARSHORE MARINE FORECAST /NSHDTX/ FOR MORE DETAILS.

A SMALL CRAFT ADVISORY IS ALSO IN EFFECT FOR TODAY AND TONIGHT FOR THE NEARSHORE WATERS OF LAKE HURON FROM PORT AUSTIN TO PORT HURON...LAKE ST CLAIR...AND THE MICHIGAN WATERS OF LAKE ERIE. PLEASE REFER TO THE LATEST NEARSHORE MARINE FORECAST /NSHDTX/ FOR MORE DETAILS.

ISOLATED THUNDERSTORMS ARE POSSIBLE THIS AFTERNOON...MAINLY NEAR LAKE ERIE.

THUNDERSTORMS ARE LIKELY TONIGHT. SEVERE WEATHER IS NOT EXPECTED WITH THESE STORMS. THE STRONGEST STORMS ARE EXPECTED TO OCCUR AFTER MIDNIGHT. LOCALLY HEAVY RAINFALL AND SMALL HAIL WILL BE POSSIBLE WITH THE THUNDERSTORMS.

.DAYS TWO THROUGH SEVEN...SATURDAY THROUGH THURSDAY

THUNDERSTORMS ARE LIKELY ON SATURDAY. THERE IS A SLIGHT CHANCE OF SEVERE WEATHER WITH THE THUNDERSTORMS SATURDAY AFTERNOON AND EVENING.

.SPOTTER INFORMATION STATEMENT...

SPOTTER ACTIVATION IS NOT ANTICIPATED TODAY OR TONIGHT.

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KAHL

YOU CAN OBTAIN YOUR LATEST NATIONAL WEATHER SERVICE FORECASTS ONLINE  
AT [WWW.WEATHER.GOV/DETROIT](http://WWW.WEATHER.GOV/DETROIT) (ALL LOWER CASE).