

# Case Study

## 2011 Woodward Dream Cruise



# The Decision Support Role of the NWS

Phil Kurimski

NWS Detroit/Pontiac

Large Venue Workshop

26 March 2013



# Case Study

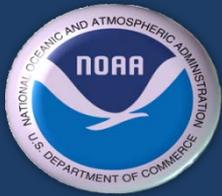
## 2011 Woodward Dream Cruise



### Overview

- **Background**
- **Brief review of Decision Support**
- **National Weather Service Role**
  - Before the Event
  - During the Event
  - After the Event
- **Summary**





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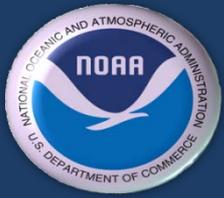
## 2011 Woodward Dream Cruise



### Background

- **August 20, 2011**
  - Over 1 million people line Woodward Avenue for annual automotive festival
  - Decision support from NWS
  - A late afternoon thunderstorm drenched onlookers as winds kicked up blankets and lawn chairs





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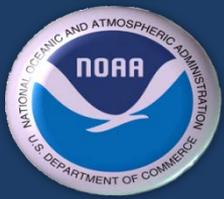
## 2011 Woodward Dream Cruise



## Decision Support

- **What is it?**
  - Meet with partners before an event to establish needs and protocol
  - Provide decision makers with critical environmental data and forecasts to allow them to better protect life and property
  - On-Site and remote





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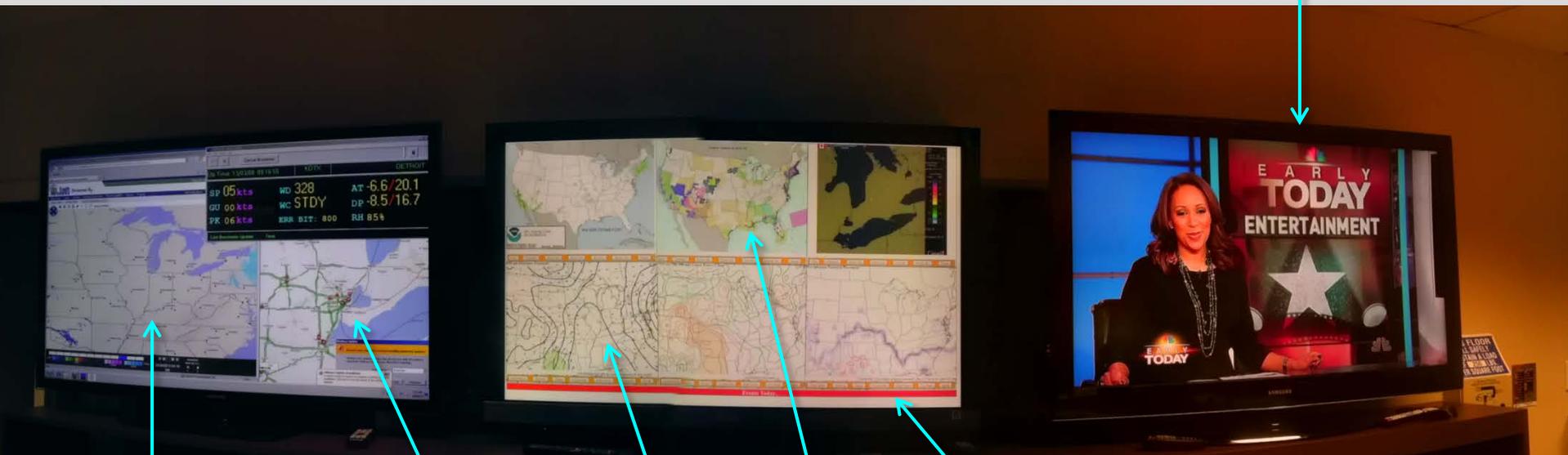
## 2011 Woodward Dream Cruise



### NWS Role

- **Operations Area**
  - Situational Awareness Display (SAD)

Local TV Station

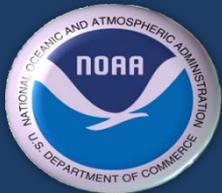


Regional Radar

Road Conditions

Environment/WWA Map and  
Event Crawl





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## 2011 Woodward Dream Cruise



## NWS Role

- **Decision Support**
  - Meetings and briefings before the event
  - NWS Personnel in contact with local law enforcement during the event
  - Relayed weather conditions hazardous to public safety as it happened
- **Warning Operations Team**
  - NWS personnel aware of special event taking place
  - Warning team took action when storm impacted event





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## 2011 Woodward Dream Cruise



## NWS Role

- **Before the event**
  - Amos attended a planning meeting several weeks beforehand to establish needs and communications protocols
  - NWS Personnel held special webinar on 19 August to cover severe weather potential for 3 IDSS events occurring that day



**National Weather Service**  
**Detroit/Pontiac**

Large Event Support Webinar  
August 19, 2011

To hear the audio portion of this webinar:  
Phone#: 888-597-5980  
Access Code: 2955399427



# Weekend Forecast south of M-59

## Tonight

- Quiet with no issues
- (Light winds and lows upper 50s-low 60s)

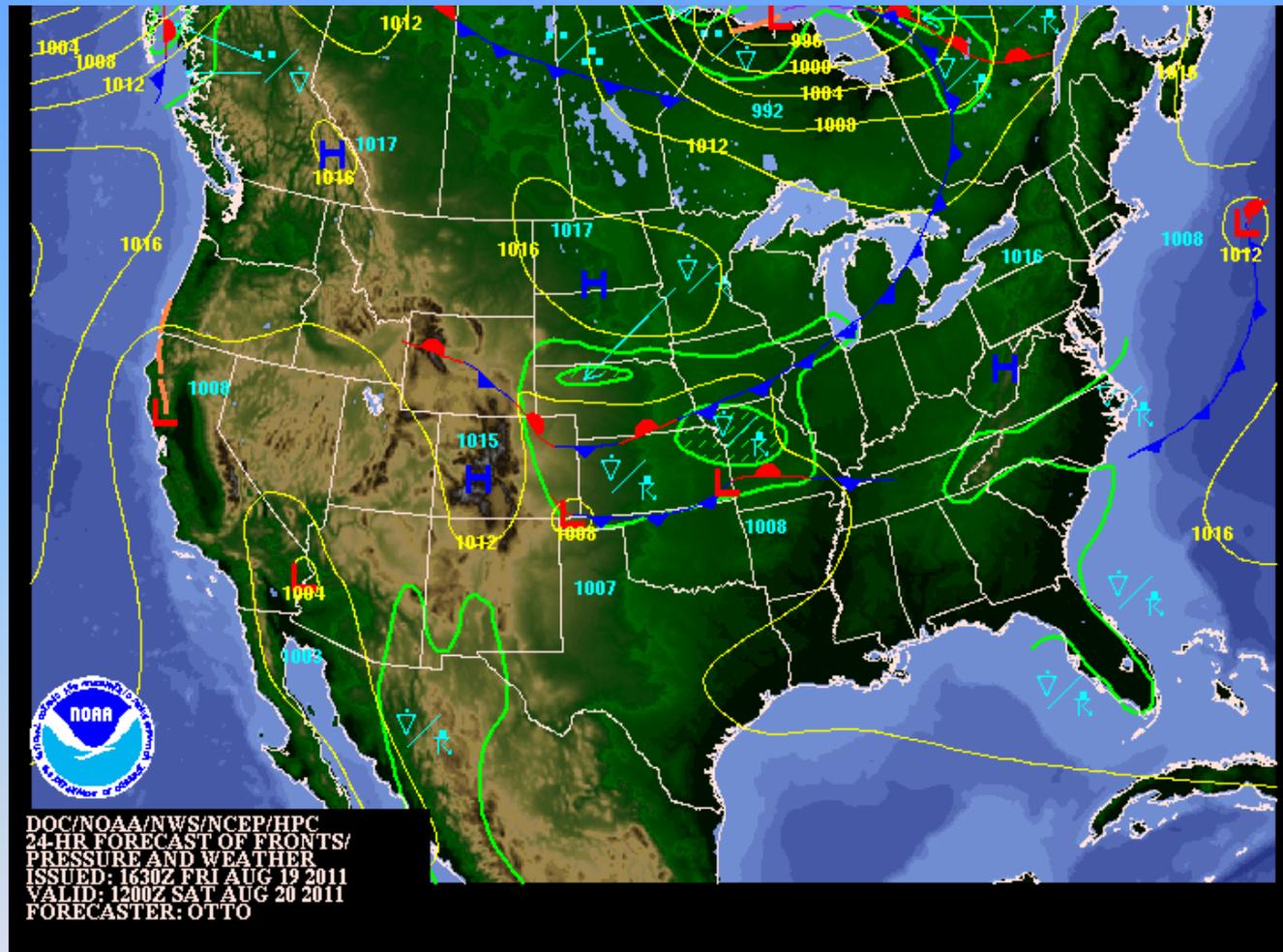
## Saturday and Saturday Night

- Thunderstorms ARE expected to develop over the area
- Scattered to numerous coverage
- A few storms could be severe (60 mph winds, 1 inch hail)
- Heat may also be an issue
  - Highs mid 80s with increasing humidity
  - Heat index 87-90
- Rain likely with embedded thunderstorms overnight

## Sunday

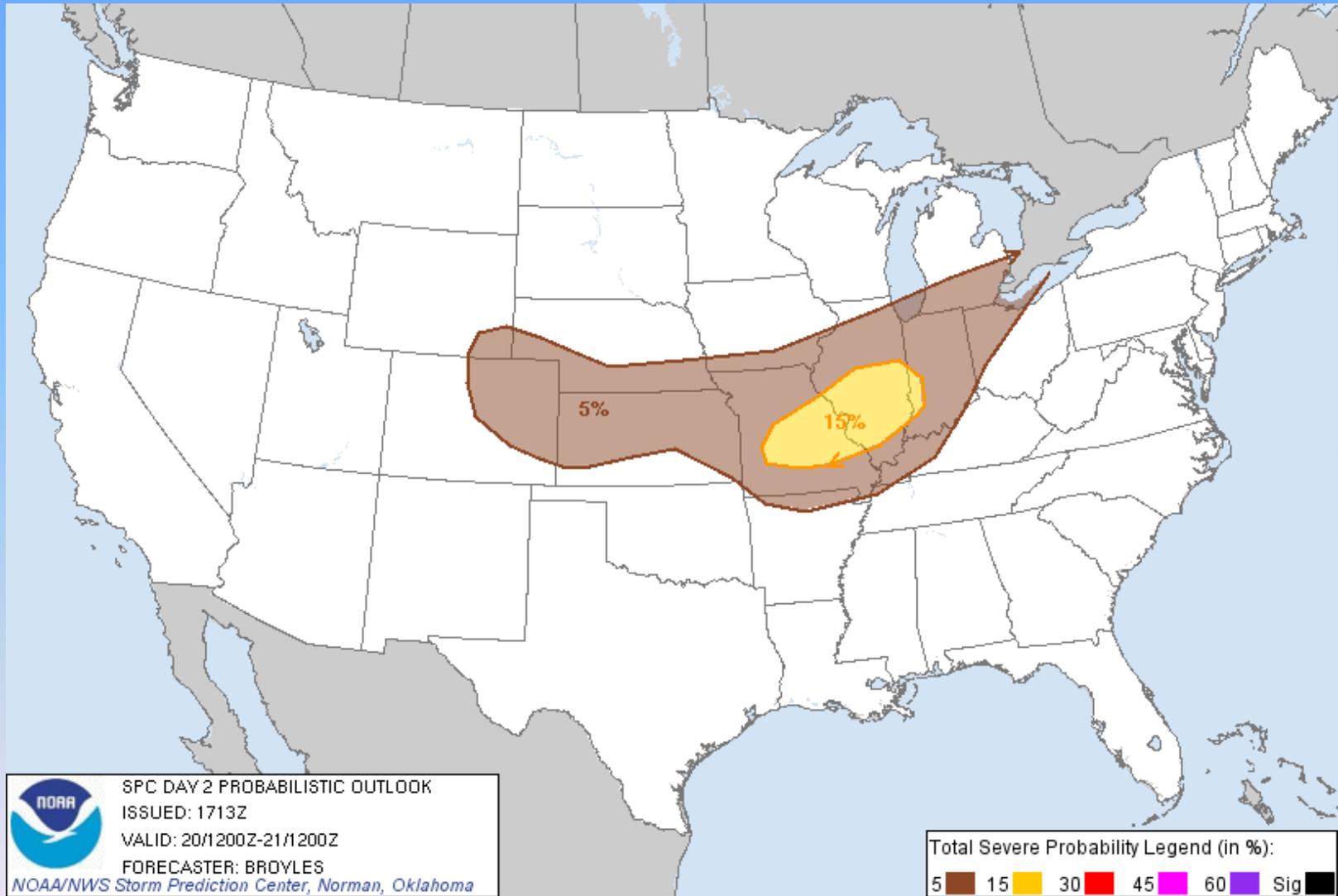
- Isolated showers and thunderstorms
- Cooler, with highs in the low 80s

# Cold front brings some threats Saturday



- Influx of warm, moist, and unstable air
- Scattered to numerous thunderstorms should develop over the region by afternoon and evening

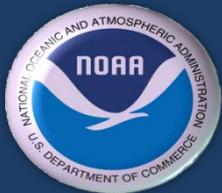
# Severe Weather Potential Saturday



Severe thunderstorm potential is not high, but there

# Hazard Information for Saturday

<b>Thunderstorms Timing</b>	<ul style="list-style-type: none"><li>• Potential for storms anytime after 1200 PM and lasting all night</li><li>• Highest probability for strong to severe: 3PM until 10 PM</li><li>• Rain with embedded thunderstorms overnight</li></ul>
<b>Storm Motion</b>	Southwest to Northeast at 35 mph
<b>Hazards from Thunderstorms</b>	<p>Most Likely:</p> <ul style="list-style-type: none"><li>• Frequent lightning</li><li>• Wind gusts to 45 mph</li><li>• Very heavy rainfall</li></ul> <p>Possible:</p> <ul style="list-style-type: none"><li>• Wind gusts to 60 mph</li><li>• Hail to 1 inch in diameter</li></ul>
<b>Heat</b>	Temperatures rise to mid to upper 80s in the afternoon. Heat index values 87-90



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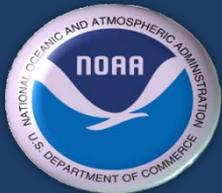
## 2011 Woodward Dream Cruise



### NWS Role

- **During the event**
  - NWS Personnel provided several phone briefings the day of the event
  - Mike Loper (Oakland County DHS) was called around 4 pm for a potentially severe storm that would impact the cruise in about an hour
  - Lt. Clemens (Royal Oak PD) was called about 10 minutes before the storm hit
    - Briefings discussed timing and threats with high winds the main impact along with lightning and brief heavy rain
  - In addition to briefings the cruise was mentioned in severe weather products





# Case Study

## 2011 Woodward Dream Cruise



SEVERE WEATHER STATEMENT  
NATIONAL WEATHER SERVICE DETROIT/PONTIAC MI  
419 PM EDT SAT AUG 20 2011

MIC125-202100-  
/O.CON.KDTX.SV.W.0115.000000T0000Z-110820T2100Z/  
OAKLAND MI-  
419 PM EDT SAT AUG 20 2011

...A SEVERE THUNDERSTORM WARNING REMAINS IN EFFECT FOR OAKLAND COUNTY  
UNTIL 500 PM EDT...

AT 417 PM EDT...NATIONAL WEATHER SERVICE DOPPLER RADAR INDICATED A  
LINE OF SEVERE THUNDERSTORMS CAPABLE OF PRODUCING QUARTER SIZE  
HAIL...AND DAMAGING WINDS IN EXCESS OF 60 MPH. THESE STORMS WERE  
LOCATED ALONG A LINE EXTENDING FROM ORTONVILLE TO CLARKSTON...MOVING  
EAST AT 35 MPH.

SEVERE THUNDERSTORMS WILL BE NEAR...  
WATERFORD AROUND 425 PM EDT.  
SYLVAN LAKE AROUND 430 PM EDT.  
BLOOMFIELD HILLS AND AUBURN HILLS AROUND 435 PM EDT.  
LEONARD AROUND 440 PM EDT.  
TROY AND ROCHESTER HILLS AROUND 445 PM EDT.  
ROCHESTER AROUND 450 PM EDT.

THE WARNING INCLUDES AREAS SURROUNDING THESE LOCATIONS...  
WEST BLOOMFIELD... TROY... ROCHESTER...  
PONTIAC... OXFORD... ORTONVILLE...  
MILFORD... HOLLY... CLARKSTON...

THOSE ATTENDING THE WOODWARD DREAM CRUISE ARE IN THE PATH OF THESE  
STORMS AND SHOULD PREPARE FOR DANGEROUS WEATHER CONDITIONS.

PRECAUTIONARY/PREPAREDNESS ACTIONS...

TORRENTIAL RAINFALL IS ALSO OCCURRING WITH THESE STORMS...AND MAY  
LEAD TO FLASH FLOODING. DO NOT DRIVE YOUR VEHICLE THROUGH FLOODED  
ROADWAYS.

&&

LAT...LON 4256 8368 4287 8369 4287 8345 4288 8345  
4289 8310 4258 8309  
TIME...MOT...LOC 2019Z 261DEG 29KT 4286 8339 4269 8345  
WIND...HAIL 60MPH 1.00IN

##

KURIMSKI/MM

Woodward Dream Cruise was mentioned  
In 3 separate Severe Weather Statements  
Issued at 419 pm...430 pm and 446 pm

THOSE ATTENDING THE **WOODWARD  
DREAM CRUISE** ARE IN THE PATH OF  
THESE STORMS AND SHOULD PREPARE  
FOR DANGEROUS WEATHER  
CONDITIONS.





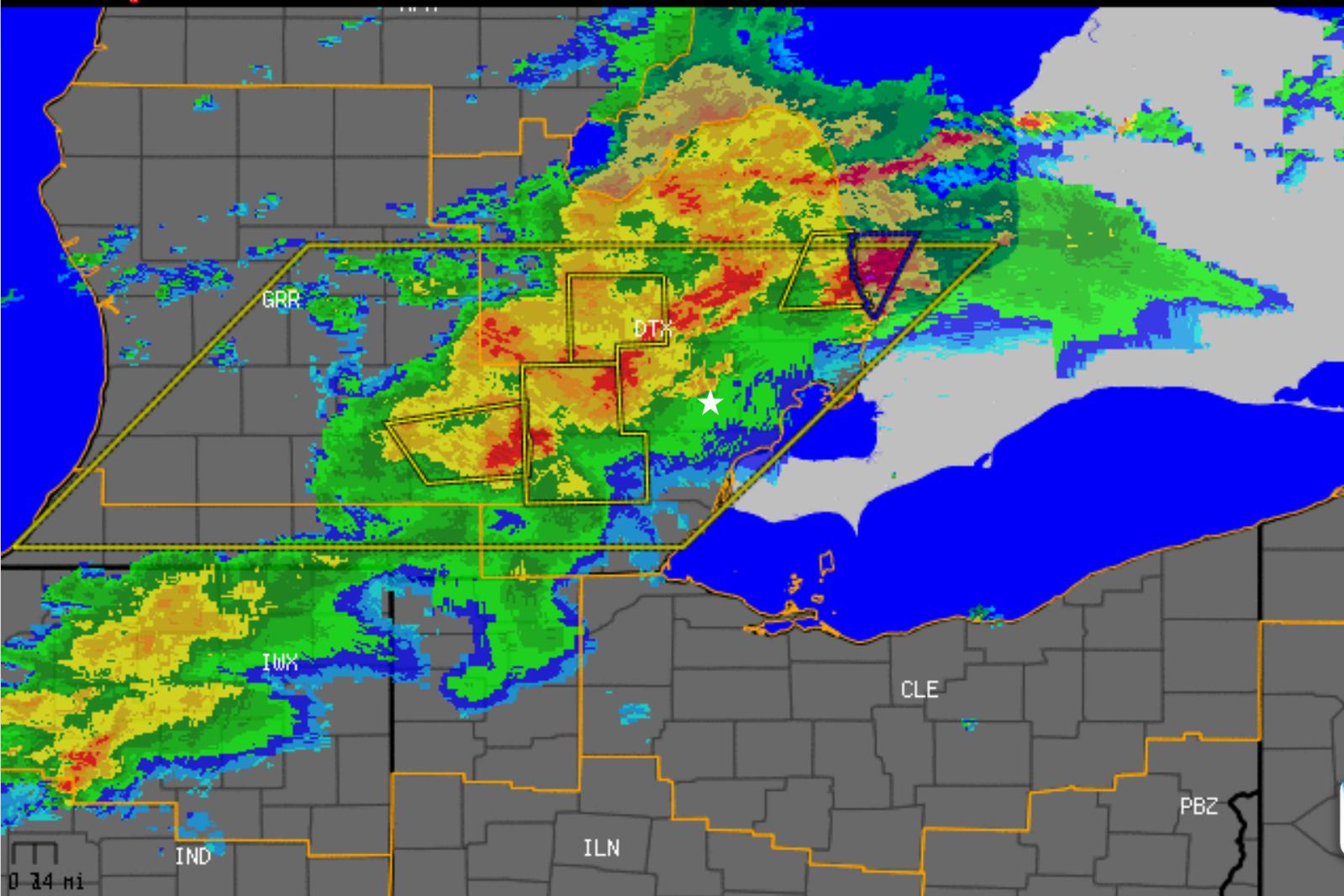
# Case Study

## 2011 Woodward Dream Cruise



### IEM NEXRAD Composite Base Reflectivity

Valid: 20 Aug 2011 04:00 PM EDT





# Case Study

## 2011 Woodward Dream Cruise



### What Happened?

- **Storm hit the Cruise around 5 pm**
  - Winds overturned several tents put along the cruise
  - High winds produced tree damage across southern Oakland county







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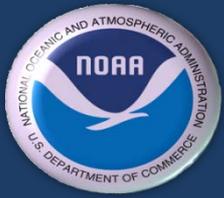
HOMELAND SECURITY



### After the Event

- **Mike Loper – Oakland County Homeland Security**
  - "Thank you again for doing a great job with this – good concise, but not sky is falling, but needed information for situational awareness... this is especially important for decision makers, event planners, emergency operations centers, incident command posts and others involved in public safety and protective action/emergency warning."





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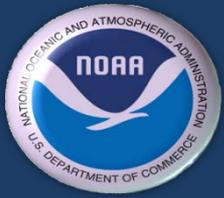
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### In summary, we can provide support by:

- Meeting with partners before an event to establish needs and protocol
- Providing briefings leading up to an event if the weather will be an impact
- Provide on-site or remote support during the event
- Mention the event in NWS products with a high number of people gathered
  - Dream Cruise and Michigan Football game





# Case Study

## 2011 Woodward Dream Cruise



## Acknowledgements

- **Amos Dodson**
  - Forecaster - NWS IWX
- **Andy Hatzos**
  - Forecaster - NWS ILN





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# Questions?