National Weather Service
Northern Indiana
Why We’re Here

• The National Weather Service Produces Weather, Water and Climate Forecasts and Warnings
  – For All Americans
  – To Protect Life and Property
  – To Enhance the National Economy

• Data and Products to:
  – Government Agencies
  – Private Sector
  – The Public
  – Global Communities

• Economic Decisions Are Based on NWS Data and Products


Why We’re Here

- 10 year average (2003-2012)
  - 640 weather related deaths
    - 117 heat related
    - 109 from tornado
    - 109 from hurricanes
    - 76 from flooding
    - 51 from wind
    - 46 from rip currents
    - 35 from lightning
    - 27 from cold
    - 24 winter weather related
Department of Commerce (DOC)

National Oceanic and Atmospheric Administration (NOAA)

National Weather Service (NWS)

Central Region (CR)

Weather Forecast Office (WFO)
Northern Indiana (IWX)
We’ve Been Around for a While…

- **1870** – President Grant signed into existence a national weather observing service, as part of the Army Signal Service
- **1870 – 1891** – Part of the War Department
- **1891 – 1940** – Weather Bureau, in the Department of Agriculture
- **1940 – 1970** – Weather Bureau, in the Department of Commerce
- **1970 – present** – National Weather Service, in the Department of Commerce

**Former Fort Wayne Office**

1911 - 1998

**Former South Bend Office**

1939 - 1998

**IWX**

1998 - present
What We Do At WFO Northern Indiana (IWX)
Maintain 24/7 Weather Watch for County Warning and Forecast Area (CWFA)

Map showing 37 counties, 3 states, and 2 time zones.
How America Gets Weather Information

The average person only sees the tip of the iceberg

TV  Radio  Internet  Private Weather Companies

NATIONAL WEATHER SERVICE

122 Weather Forecast Offices
Weather and Flood Forecasts and Warnings

13 River Forecast Centers
River Forecasts (used for Hydropower, Flood warnings, Irrigation, River Navigation)

National Centers for Environmental Prediction

Model Simulations
Climate & Seasonal Outlooks
Aviation & Marine Forecasts
Storm & Tornado Prediction, Hurricane Tracks

Observations

Radar Network, Satellites, Weather Balloons, Ground-level Observations at Airports, Aircraft, Lightning Network, Data Buoys, Stream Gauge Network, 11,000 Volunteer Daily-Data collectors, Thousands of Volunteer Storm Spotters
NWS Northern Indiana Staff

- Meteorologist-In-Charge (MIC)
- Science and Operations Officer (SOO)
- Warning Coordination Meteorologist (WCM)
- 13 Meteorologists (5 Lead Forecasters)
- Information Technology Officer (ITO)
- Observations Program Leader (OPL)
- Service Hydrologist (SH)
- Electronic Systems Analyst (ESA)
- 2 Electronics Technicians (ET)
Warnings and Forecasts

- Convective Warnings (Tornado, Severe, and Flash Flood)
- Non-convective Watches and Warnings (Wind Chill, High Wind, Winter Storm, etc.)
- Zone Forecast (Text, Digital, and Graphical)
- Terminal and Route Aviation Forecasts
- Short Term Forecasts
- River Forecasts and Warnings
- Climatology Products
- Marine Forecasts, Statements and Warnings
- Fire Weather Forecasts
Observation Tools - Ground Level

Automated Surface Observation System (ASOS)

- Rainfall
- Temperature/Dewpoint
- Weather
- Wind
- Sky Cover
- Freezing Rain
- Thunderstorm
- Visibility
- Pressure

  - Benton Harbor
  - Defiance
  - Fort Wayne
  - Goshen
  - Lima
  - South Bend
Doppler Radar WSR-88D
(Weather Surveillance Radar 1988 Doppler)
WSR-88D

World’s most powerful radar

- 28-foot diameter antenna transmits and receives energy (750,000 Watts)
- While rotating, samples up to 14 elevation scans in the atmosphere
- Range of 250 miles
- In addition to capabilities of older radars, can also identify rotation and strong winds inside of thunderstorms
WSR-88D Reflectivity Image
Fort Wayne, Indiana (North Side)
F2 Tornado
May 26, 2001
WSR-88D Velocity Image
Van Wert, Ohio
F4 Tornado
November 10, 2002
Analysis and Forecasting

Forecasters analyze myriad surface, upper air, radar, satellite, and numerical model data to create a plethora of forecasts.
Forecast and Warning Distribution To...

- County Officials via National Warning System (NAWAS), 800 MHz, NWSChat and phone
- Media by Associated Press, Family of Services, and NOAA Weather Radio (Emergency Alert System)
- Amateur Radio Network by radio operator at WFO IWX
- Public by NOAA Weather Radio and Internet (http://www.crh.noaa.gov/iwx)
- Social Media – Facebook and Twitter
- Third party cell phone apps and Wireless Emergency Alerts (WEA)
NOAA Weather Radio

- Voice of the National Weather Service
- Network of 1021 stations nationwide (Apr. ‘13)
- NOAA Weather Radio can be heard by more than 85% of the U.S. population
- Continuous weather information broadcasts from local forecast offices:
  - Warnings
  - Watches
  - Forecasts
  - Observations
- For more info, visit the NOAA Weather Radio Website at: [www.crh.noaa.gov/iwx.?n=noaaweatherradionew](http://www.crh.noaa.gov/iwx.?n=noaaweatherradionew)
NOAA All-Hazards Radio Coverage Areas
For Northern Indiana

North Webster   KZZ-36 162.500
• Built-in on newer cell phones
  – About 10 to 40 devices per major carrier
  – May be called wireless alerts, CMAS, or government alerts (iPhone)

• Contact your carrier for questions

**Extreme**
- Tornado Warning
- Extreme Wind Warning
- Tsunami Warning*
- Hurricane/Typhoon Warnings

**Severe**
- Flash Flood Warning
- Dust Storm Warning
Social Media at NWS Northern Indiana
Customer and Community Interaction in Addition to Forecasts and Warnings...

- Build and maintain relationships with local, state, and Federal governments and the media
- Provide expert advice to Emergency Operations Centers and the media
- Solicit feedback from customers (that’s you!)
- Conduct community awareness and education programs
- Train volunteer observers and storm spotters (SKYWARN)
Contact WFO IWX

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