



Outreach Program of the U.S. National Weather Service on Disaster Planning and Preparedness

Keeping Hazards from Becoming Disasters

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Presentation Outline

- **International Decade for Natural Disaster Reduction**
- **Integrated Warning System**
- **Partnerships**
- **Warning Coordination Meteorologists**
- **Storm/TsunamiReady**
- **Other Outreach Programs & Web Resources**
- **Closing**



International Decade for Natural Disaster Reduction (1991-2000)

- **Created to keep Natural Hazards from becoming Disasters**
- **Premise was that humankind has acquired enough knowledge to now make this a reality**



International Decade for Natural Disaster Reduction (1991-2000)

- All nations should perform national assessments of natural hazards risks
- Nations should develop mitigation plans at national and/or local levels involving:
 - *Long-term prevention*
 - *Preparedness*
 - *Community Awareness (Outreach)*
- Nations should have access to global, regional, national, and local warning systems and broad dissemination of warnings



Integrated Warning System



- **Detection and Warning**
- **Communication and Dissemination**
- **Response**

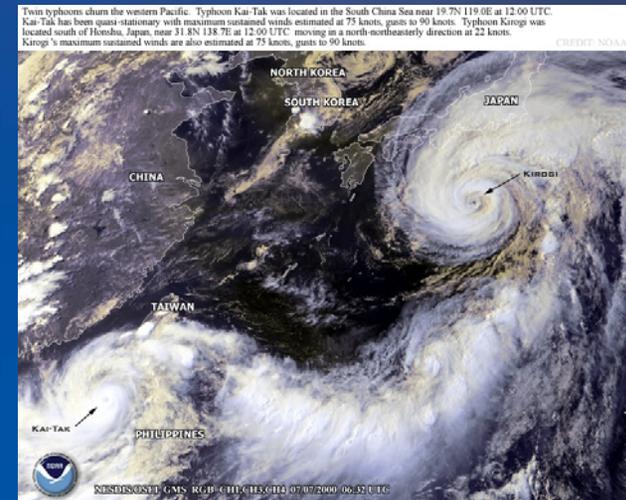
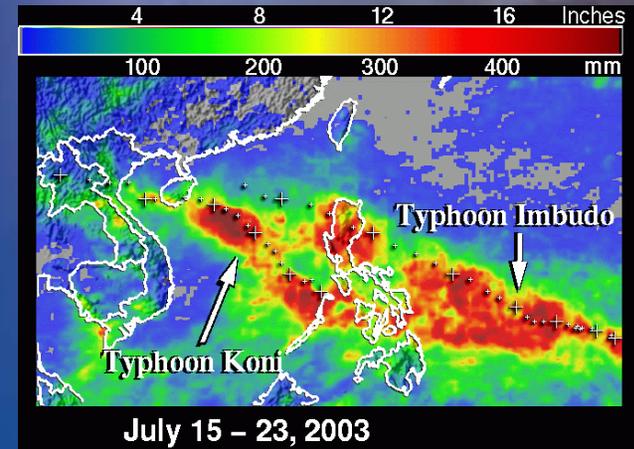
Detection and Warning is an important part of the Integrated Warning System. However, for this presentation I will focus on the last two bullets!



Integrated Warning System



- **What we have learned from Social Scientists is that if any one part of the Integrated Warning System breaks down... the *entire process* fails**





Goshen Church: Piedmont, AL



March 27, 1994

- The NWS issued a tornado warning with 20 minute lead time
- The detection and warning portion of the system was a success *but...* the system still failed because the Church did not receive the warning message!





Goshen Church: Piedmont, AL



March 27, 1994

- Is there a safe place in the Church?
- Did the Church have a weather safety plan?
- Did they assess their vulnerability to severe weather threats ahead of time?





Van Wert Cinema: Van Wert, OH



November 10, 2002

- The NWS issued a tornado warning with a 28 minute lead time
- The detection and warning; communication and dissemination; and response portions of the Integrated Warning System were a success!

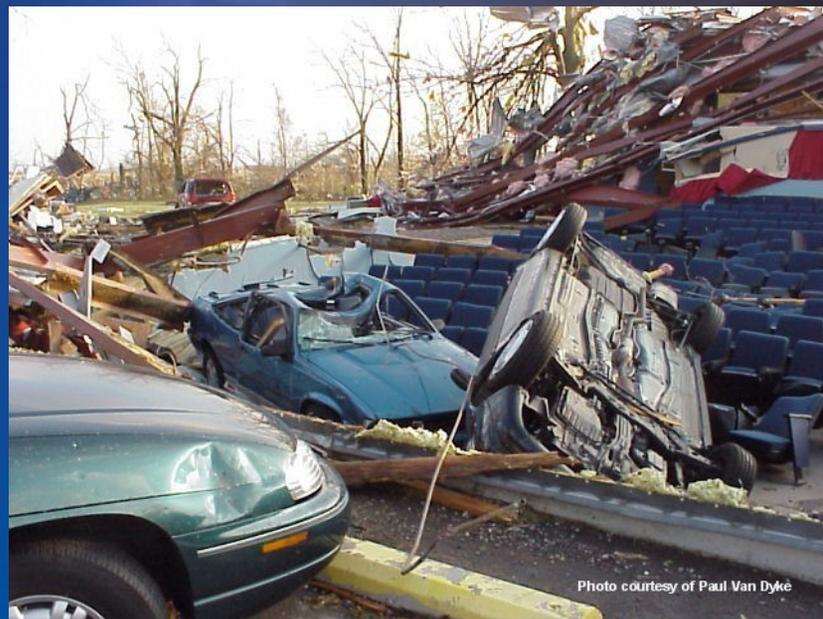


Photo courtesy of Paul Van Dyke



Van Wert Cinema, Van Wert, OH



November 10, 2002

- There was a safe place pre-designated in the Cinema!
- The Cinema had developed a weather safety plan!
- The Cinema assessed their vulnerability to severe weather threats ahead of time!





Response

- **We want the public to respond correctly to a warning message**
- **The warning message itself does not stimulate an immediate response from people**
- **People will 1st assess their own personal risk**
- **Public action depends on the content and clarity of the warning and the credibility of the issuing organization**



Response (continued)



- **Potential for correct response increases if people have clear information that defines their personal risk and tells them what actions to take**
- ***Bottom Line:* We need to provide consistent, credible, information from multiple trusted sources**



Family Disaster Plans

- **Shown on the back page of all National Disaster Education Coalition (NDEC) Publications**
- **Steps to Forming a Plan:**
 - ***Gather Information about hazards***
 - ***Meet with your family to create a plan***
 - ***Implement your plan***
 - ***Practice and maintain your plan***



Disaster Supplies Kit

- **Every family and business should have a Disaster Supplies Kit which includes:**
 - ***3 Day supply of water and food that won't spoil***
 - ***Change of clothing and shoes***
 - ***First-aid kit and Prescription Medicines***
 - ***Battery-powered Radio and NOAA Weather Radio***
 - ***Cash and a credit card***
 - ***Flashlight with extra batteries***
 - ***Emergency tools and extra set of car keys***



U.S. NWS Communication and Dissemination



- U.S. NWS partners with the media and private sector to disseminate warning messages
- U.S. NWS has multiple systems to use to get warning messages out to the public





NOAA Weather Radio



The voice of the National Weather Service

There are over
800 NWR
Transmitters in
all 50 States
across the U.S.





NOAA Weather Radio and Emergency Alert System





Partnerships

- Partners consist of multiple publics:
 - *Emergency Management*
 - *Other Government Agencies*
 - *Private Sector*
 - *Media*





Partnerships

- Establishing close working relationship with partners is crucial to a successful integrated warning process
- Allows you to do things together that you can't do alone
- Leverages resources to get the job done





Warning Coordination Meteorologists

- **Customer Service Representatives of the U.S. National Weather Service**
- **Staffed at all 122 U.S. NWS Field Offices**
- **Work with the public, emergency management, and media on outreach and education about all hazards (*weather or not!*)**



Warning Coordination Meteorologists (Continued)

- **Solicit input from partners to improve products and services**
- **Post-Storm Damage Assessments**
- **Post-Storm Service Assessments**
- **Provide media interviews**

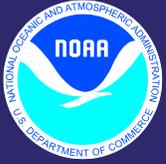


What is StormReady and TsunamiReady?

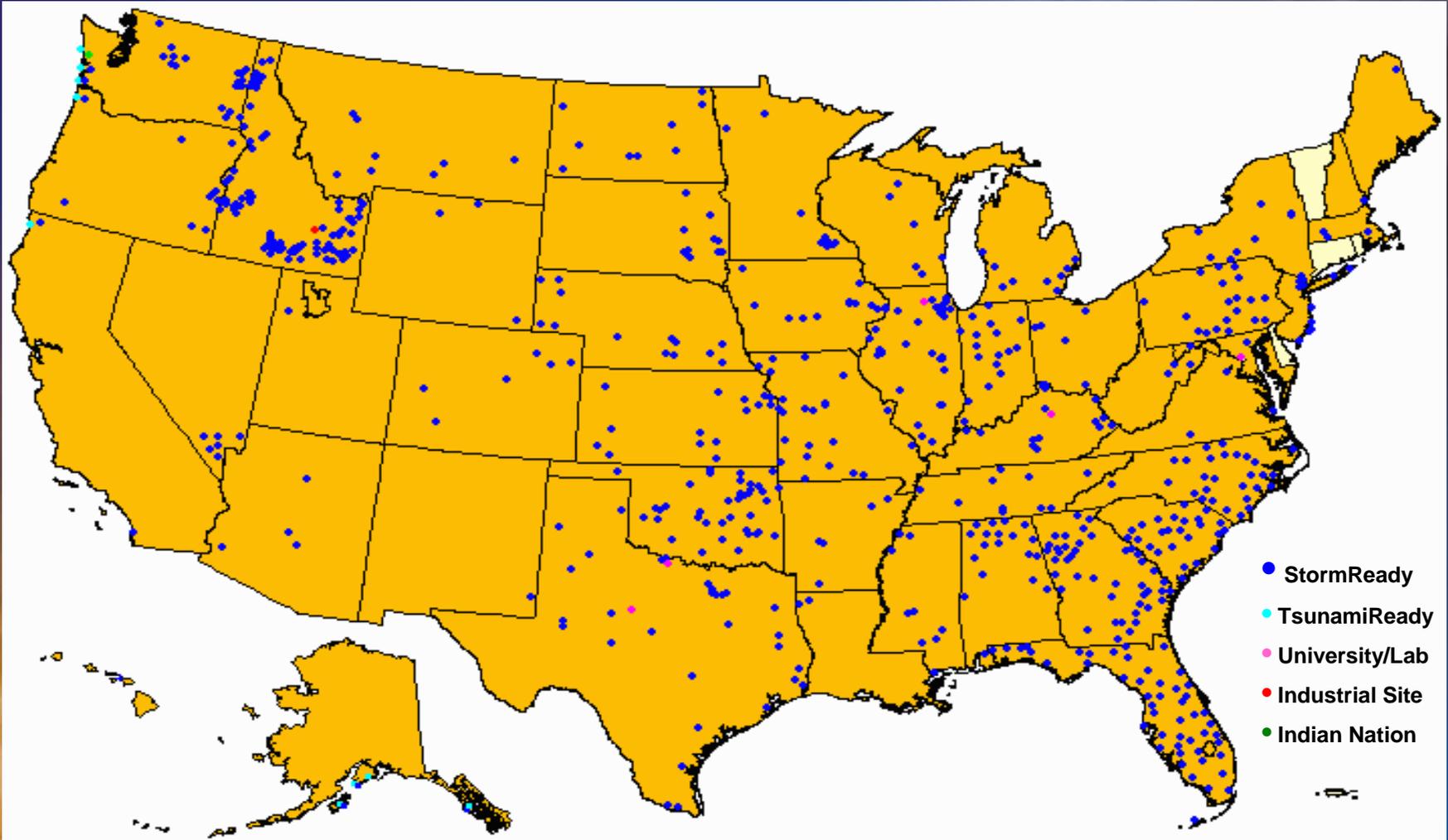


- **Local level program that focuses on improving communication and severe weather preparedness**
- **Helps community leaders and emergency managers strengthen local safety programs**
- **Prepares communities for severe weather - *from tornadoes to tsunamis***
- **Provides community leaders and emergency managers with detailed guidance on how to improve warning and weather preparedness programs**





As of March 2004 there were over 700 Storm/TsunamiReady Communities in the United States





How does a Community become StormReady?



- **Establish Communication and Coordination Plans**
 - *24 Hour Warning Point*
 - *Emergency Operations Center*
- **Receive Critical Warning Information**
 - *NOAA Weather Radio*
 - *NOAA Weather Wire*
 - *Emergency Managers Weather Information Network*
 - *News Media (Radio/TV)*
 - *Internet*
 - *Pagers, cell phones, etc.*

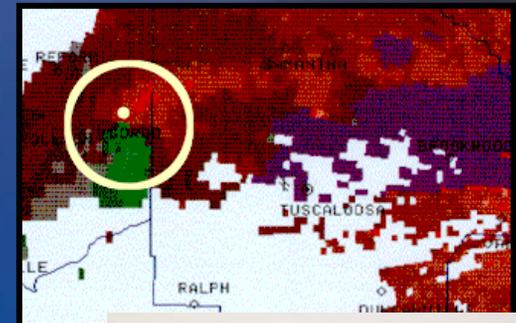




How does a Community become StormReady? (continued)



- **Monitor Evolving Weather**
 - *Weather instruments*
 - *River gage monitoring*
 - *Radar access (Internet, local providers)*
- **Disseminate Warnings**
 - *Emergency Alert System*
 - *Cable Override*
 - *NOAA Weather Radio in public buildings*
 - *Sirens*
 - *Other systems unique to the area*





How does a Community become StormReady? (continued)



- **Increase Community Preparedness**
 - *Spotter and dispatcher severe weather training*
 - *Public weather safety presentations*

- **Enhance Internal Operational Procedures**
 - *Review of hazardous weather action plan*





StormReady Communities Receive:



- A StormReady recognition letter from local U.S. NWS Office valid for 3 years
- Two official StormReady signs
- Authorization to use the StormReady logo
- Instructions for acquiring additional signs
- Information on how to notify the ISO for possible flood insurance rate adjustments
- Listing on the Natl StormReady Website





StormReady & TsunamiReady Web Resources



- **NWS StormReady Page:**
www.stormready.noaa.gov
- **NWS TsunamiReady Page:**
wcatwc.gov/tsunamiready/tready.htm
- **NWS West Coast & Alaska Tsunami Warning Center:** wcatwc.gov/main.htm
- **NWS Pacific Tsunami Warning Center:**
www.prh.noaa.gov/pr/ptwc





Storm/TsunamiReady Outreach Materials



- **StormReady Promotional Poster**
- **TsunamiReady Tri-fold Brochure**

When seconds count... TsunamiReady communities are prepared!

Schools, playgrounds, hospitals, factories and homes are often built in areas vulnerable to tsunamis. The TsunamiReady Program, developed by the National Weather Service, is designed to help cities, counties and towns in coastal areas to reduce the potential for disastrous tsunami-related consequences.

TsunamiReady
West Coast & Alaska Tsunami Warning Center
910 S. Falco St
Palmer, AK 99645

TsunamiReady
Pacific Tsunami Warning Center
91-270 Fl. Weaver Rd
Ewa Beach, HI 96706

How can I learn more about TsunamiReady?

For more information about TsunamiReady, visit the TsunamiReady web site at <http://tsunami.gov>

or Contact the Warning Coordination Meteorologist at your local NWS forecast office

Find them at www.stormready.noaa.gov/contact.htm

StormReady

TsunamiReady is part of NWS's StormReady program. To find out more about it, visit www.stormready.noaa.gov

Is Your Community Ready for the Next Tsunami?

<http://tsunami.gov>

PA210357

NOAA'S NATIONAL WEATHER SERVICE

StormReady
NOAA'S NATIONAL WEATHER SERVICE

When seconds count StormReady communities are prepared

www.stormready.noaa.gov

U.S. DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NOAA's National Weather Service



Other Outreach Programs





NOAA/FEMA Courses

- **Four core courses developed to teach Emergency Managers on how best to use NWS products and services**
 - *Hazard Weather and Flood Preparedness*
 - *Warning Coordination*
 - *Partnerships for Creating and Maintaining Spotter Groups*
 - *Hurricane Planning*
- **Uses resident and distance learning**





National Disaster Education Coalition (NDEC)



- **Composed of 17 federal and not-for-profit organizations**
- **Develops *consistent* educational brochures and info about disaster preparedness and distributes it to the public**
 - ***What is the hazard, how it develops, & its impact***
 - ***What sources of critical information are available***
 - ***How can critical information be received***



NDEC (continued)



- Ensures disaster safety messaging is appropriate, accurate, research-based, and crafted for public understanding
- Principle publication is a document entitled *"Talking About Disasters: Guide for Standard Messages"*
- The guide provides standardized safety messages about 13 hazards and general disaster preparedness topics



Annual Lightning Safety Awareness Week Campaign



LIGHTNING SAFETY



NO PLACE OUTSIDE IS SAFE WHEN THUNDERSTORMS ARE IN THE AREA

* Plan your outdoor activities to avoid thunderstorms. Listen to NOAA Weather Radio for the latest forecast before heading out.

* **30/30 rule** - if the time between lightning and thunder is **30 seconds** or less go to a safe shelter. Stay there until until **30 minutes** after the last rumble of thunder.

* A safe shelter during lightning is inside a fully enclosed, substantial building, or, a vehicle with a solid metal roof.



* **Indoors** - stay away from anything connected to power, telephone, and cable lines. Remote controls and cordless phones are okay. Stay away from water or plumbing.

* **Outdoors** - Stay away from high places, open areas (including golf courses and other sports fields), and tall isolated objects. Avoid open structures such as picnic shelters. Make sure you leave enough time to get to safe shelter.

National Lightning Safety Institute

Visit this site for more information
www.lightningsafety.noaa.gov



LIGHTNING KILLS
PLAY IT SAFE

"If lightning threatens, head indoors. Don't get caught in striking distance."

Siri Mullins
Goalkeeper,
Washington Freedom

www.lightningsafety.noaa.gov

NOAA logo and WUSA-TV logo are also present.



Turn Around – Don't Drown

- NWS is developing new tri-fold pamphlets for nation wide distribution





Owlie Skywarn Coloring Book



Designed for young school children



NWS: When Seconds Count DVD

- Collaborative outreach effort between U.S. NWS and private sector company called “The Weather Channel”
- Copies of DVD sent to all NWS field Offices
- 30 minutes long with three main topics
 - *El Nino connection to floods in California*
 - *Tornadoes in the mid-western United States*
 - *Tropical Storm Allison flooding in Texas*





Citizen Corps Initiative

- “A community based initiative to engage all citizens in homeland security and community and family preparedness through public education, *outreach*, training opportunities, and volunteer programs.”





Citizen Corps (continued)



- Together U.S. Department of Homeland Security and U.S. NWS agree to work to:
 - Raise public awareness about weather hazards
 - Promote public safety
 - Promote forming local Citizen Corps Councils





Citizen Corps (continued)



- **Expand NOAA Weather Radio coverage**
- **Expand NWS Storm Spotter training at NWS field Offices**
- **Advertise the NWS/Citizen Corps affiliation thru website links, co-logos on publications etc.**
- **Coordinate activities to further shared missions**





Outreach Web Resources

- **NWS Main Homepage:**
www.nws.noaa.gov
- **NWS Awareness Brochures:**
www.nws.noaa.gov/om/brochures.shtml
- **NWS Weather Education Resources:**
www.nws.noaa.gov/om/edures.htm
- **NOAA Education Resources:**
www.education.noaa.gov
- **StormReady:**
www.nws.noaa.gov/stormready
- **Tsunami Awareness & TsunamiReady:**
www.tsunami.gov
- **National Disaster Education Coalition (NDEC):**
test.e-scapes.com/ndec_site/default.html



Outreach Web Resources

- **Hurricane Awareness:**
www.nws.noaa.gov/om/hurricane/index.shtml
- **Lightning Safety Awareness:**
www.lightningsafety.noaa.gov
- **Thunderstorm - Tornado - Flood Awareness:**
www.nws.noaa.gov/om/severeweather/index.shtml
- **Heat & Drought Awareness:**
www.nws.noaa.gov/om/heat/index.shtml
- **Winter Weather Awareness:**
www.nws.noaa.gov/om/winter/index.shtml
- **Turn Around - Don't Drown:**
www.nws.noaa.gov/om/water/turnaround.shtml



Outreach Web Resources

- **Talking About Disasters:**
www.redcross.org/disaster/safety/guide.html
- **Red Cross Publications:**
www.redcross.org/pubs/dspubs/cde.html
- **Federal Emergency Mgmt Agency Education:**
www.fema.gov/tab_education.shtm
- **Citizens Corps:**
www.citizencorps.com
- **NWS Dissemination Services Program:**
www.nws.noaa.gov/om/disemsys.shtml
- **NOAA Weather Radio:**
www.nws.noaa.gov/nwr



In Closing!

- **Meteorological Services are Government leaders in Disaster Reduction**
- **You are the ones that issue life saving warnings**
- **You develop partnerships to get warnings to those who need it, and educate partners on how to best use this information**
- **You educate the public so they can respond in a pre-determined or learned manner upon receipt of a warning to save lives**



Questions or Comments?