



# Driving Awareness of Hazardous & Impactful Weather

*Working Collaboratively with Governments to Save Lives Globally*

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# AccuWeather's Mission Starts:

*“To save lives, protect property,  
and help people prosper...”*

We are proud to share a common public service mission with  
NMHS and governments



# Unique & Mutually Beneficial Partnerships

- Through cooperation (in many cases using the CAP format), we have the opportunity to make a difference in the lives of users by quickly and accurately delivering critical weather and natural disaster warnings!
- Supplements existing warning delivery from NMHS
- Our goal today: share insights based on our unique experience working in partnership with governments around the world!



# WE ARE THE WORLD'S LARGEST & FASTEST GROWING WEATHER COMPANY

WORKS WITH  
**245** OF THE  
FORTUNE 500  
& THOUSANDS MORE



AVAILABLE ON MORE THAN  
**1.5 BILLION** MOBILE AND SMART DEVICES

**ANSWER 35 BILLION**  
DATA REQUESTS EACH DAY

**SAVED TENS OF THOUSANDS**  
OF LIVES ACROSS THE U.S. & GLOBALLY



FEATURED ON  
**180,000+ WEBSITES**  
AND **100+ TV STATIONS**

GROWING CABLE NETWORK AIRING  
TO **5.6 MILLION**  
**VERIZON AND**  
FRONTIER HOMES



FEATURED ON  
**900+ RADIO STATIONS**  
AND **700+ NEWSPAPERS**

\*Source: comScore



# The AccuWeather Team



- The world's leading weather media company
- 500+ employees, including more than 115 meteorologists
- 56+ years of global forecasting experience
- Offices: Global Headquarters in State College, PA, plus: New York City, Wichita, Oklahoma City, Montreal, Tokyo, Dublin, Seoul, Beijing and Mumbai.





# More Than 55 Years of Strategic Partnerships





# Global Weather Enterprise Role in Weather Preparedness

- A **continuing need** exists for **advancements** in awareness, preparation, and response to weather by the public.
- At times **misalignment** exists between **weather event risks** and the degree to which **consumers prepare and react**.
- Weather across the globe continues to cause **preventable casualties**.
- Studies show consumers acknowledge their **concerns about dangerous weather** and desire more **safety & preparedness education**.



# Weather Safety & Preparedness Program

*Unique to Global Weather Enterprise*



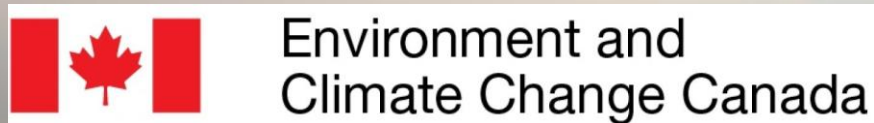
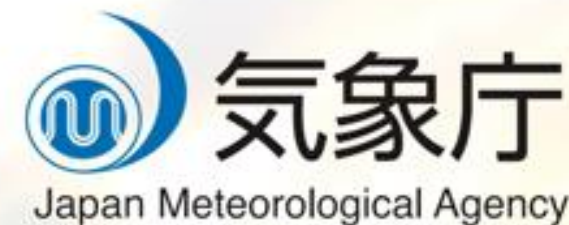
**AccuWeather**  
**READY**

*To keep the world's people prepared by  
empowering them with the most accurate &  
actionable information before, during, and after  
impactful weather events.*



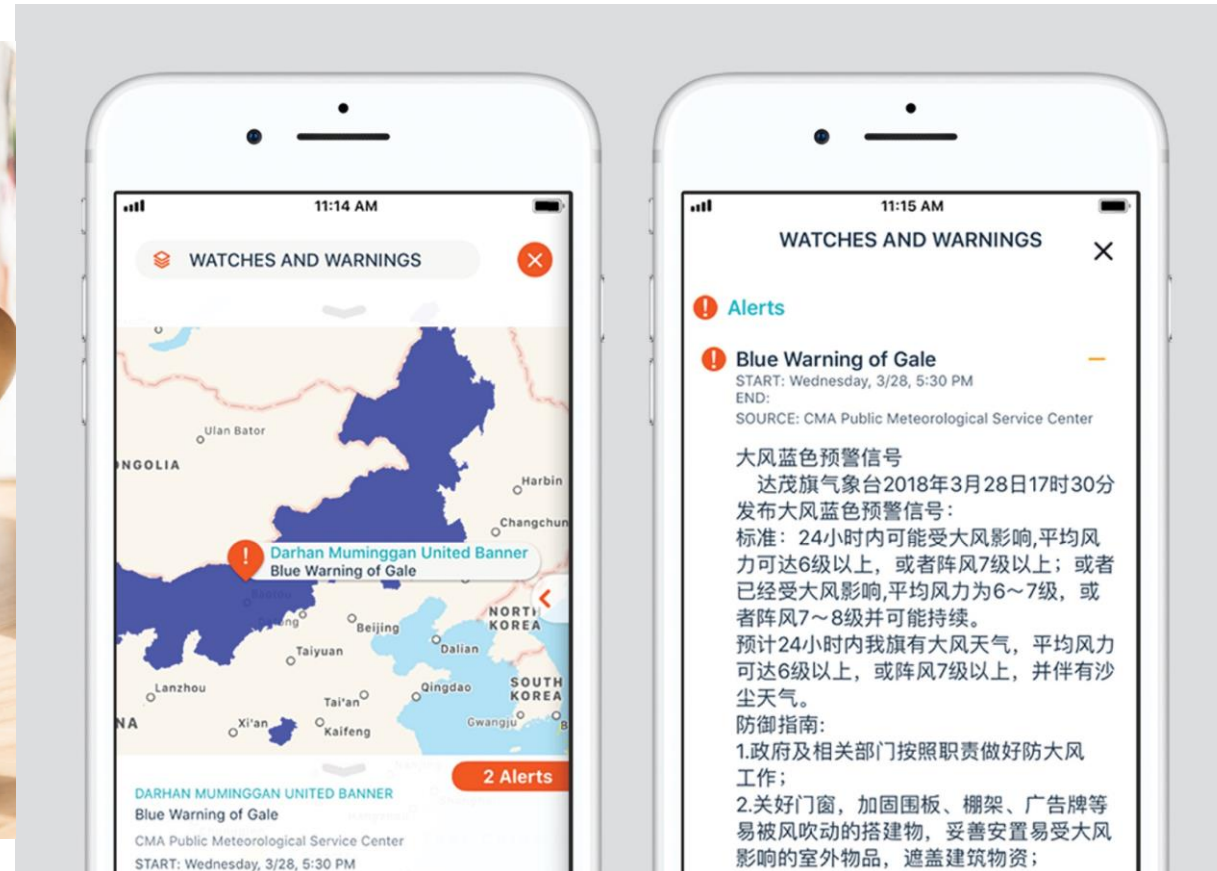
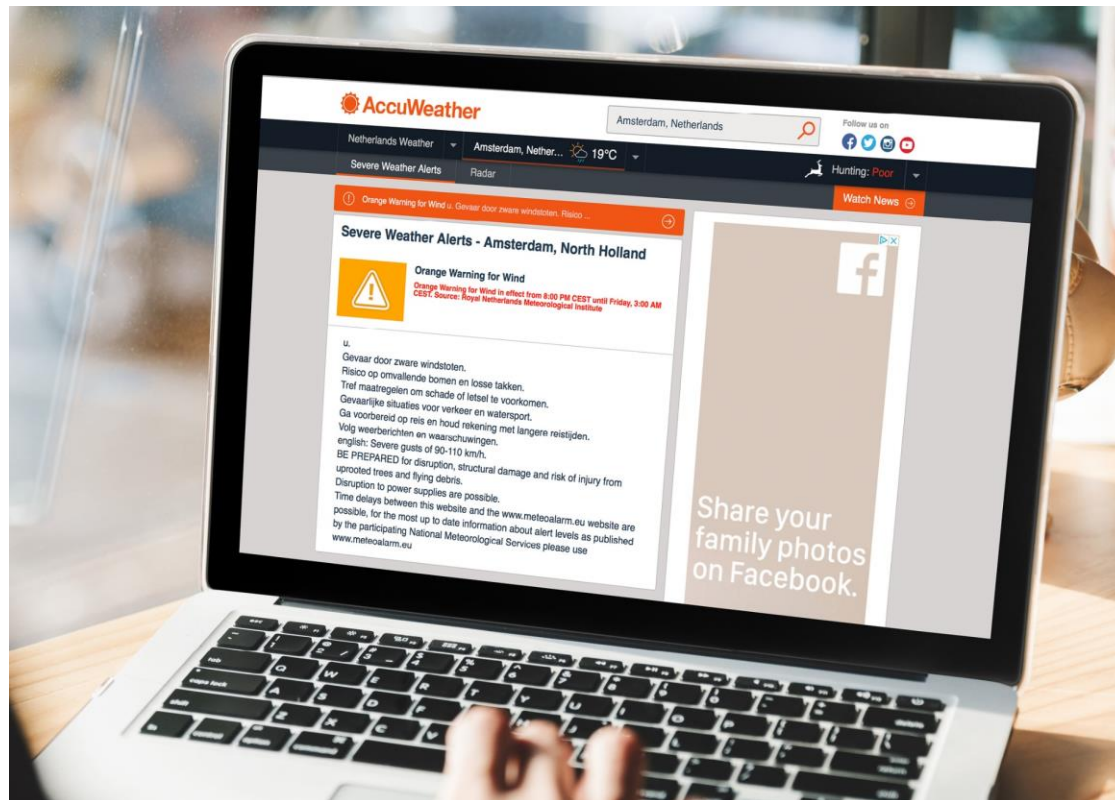


# Worldwide Government Partnerships





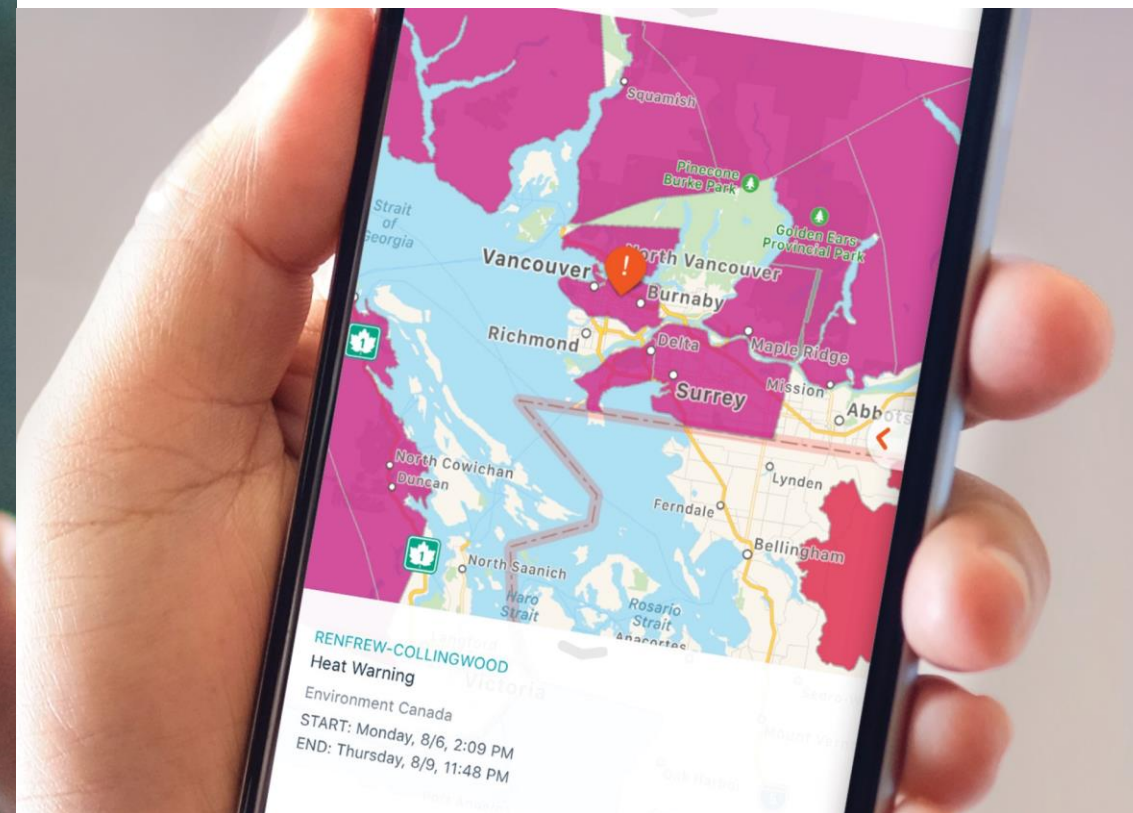
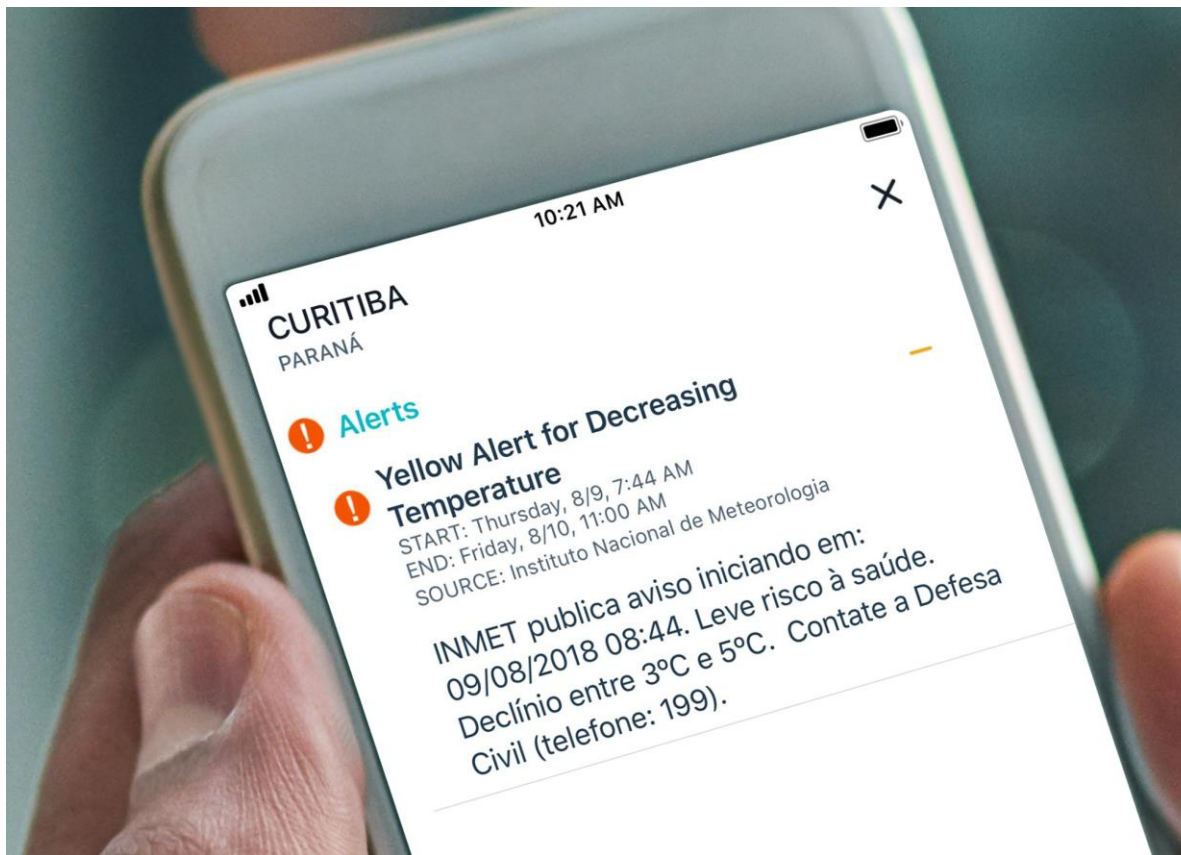
# Weather Alerts on AccuWeather Properties







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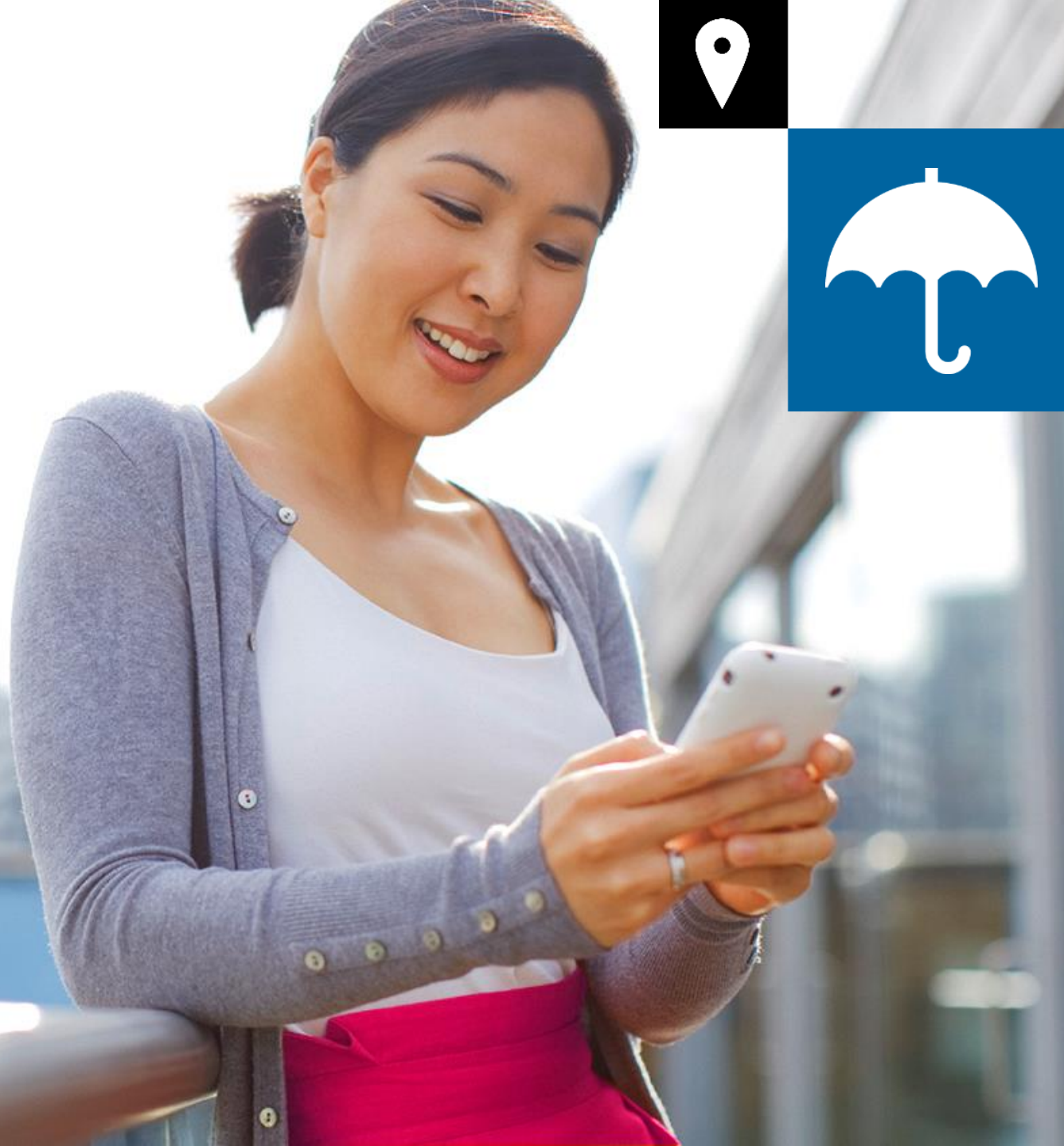




# Partnerships are Vital for Success...

- Working in partnership, AccuWeather CAN and WILL help governments reach citizens in new ways
  - Increasingly important as public sector budgets shrink
- AccuWeather is committed to delivering warnings accurately, quickly, and reliably to users.
- Additionally, we provide through our partnership:
  - Technical expertise related to data formats, input on warning system design
  - Quality control feedback in real-time to identify dissemination challenges

# Best Practices for Digital Distribution of Weather Alerts







# Best Practices

- In AccuWeather's experience working with NMHSs from around the world, we have found warnings formatted in Common Alerting Protocol (CAP) to be the most robust and suitable for digital distribution and consumption.
- CAP allows a warning message to be consistently disseminated simultaneously over many warning systems to many applications.
- This allows for wide dissemination and consumption by users.



# Key Components to Effective Weather Warning Data Systems

- **What** is the weather hazard?
- **Where** is the hazard occurring?
- **When** will the hazard occur?
- **Why** does the user need to be aware of the hazard and how should they react?
- **How** will the user get additional/updated information on the hazard?



# Key Components – What is the Weather Hazard?

- **CAP Elements:** `<event>` or `<eventcode>`, `<description>`, `<language>`
- Ensures end users are aware of the weather hazard type – snow, ice, coastal flooding, heat warning, thunderstorm, etc.
- A clearly defined list of weather warning names and types as well as a brief description of the hazard type as a reference to CAP message recipients is important (in each language supported)
- Color scheme (Yellow, Orange, Red, etc.) and display preferences, such as standard icons and priorities.
- Ability to expand the list as warning system changes



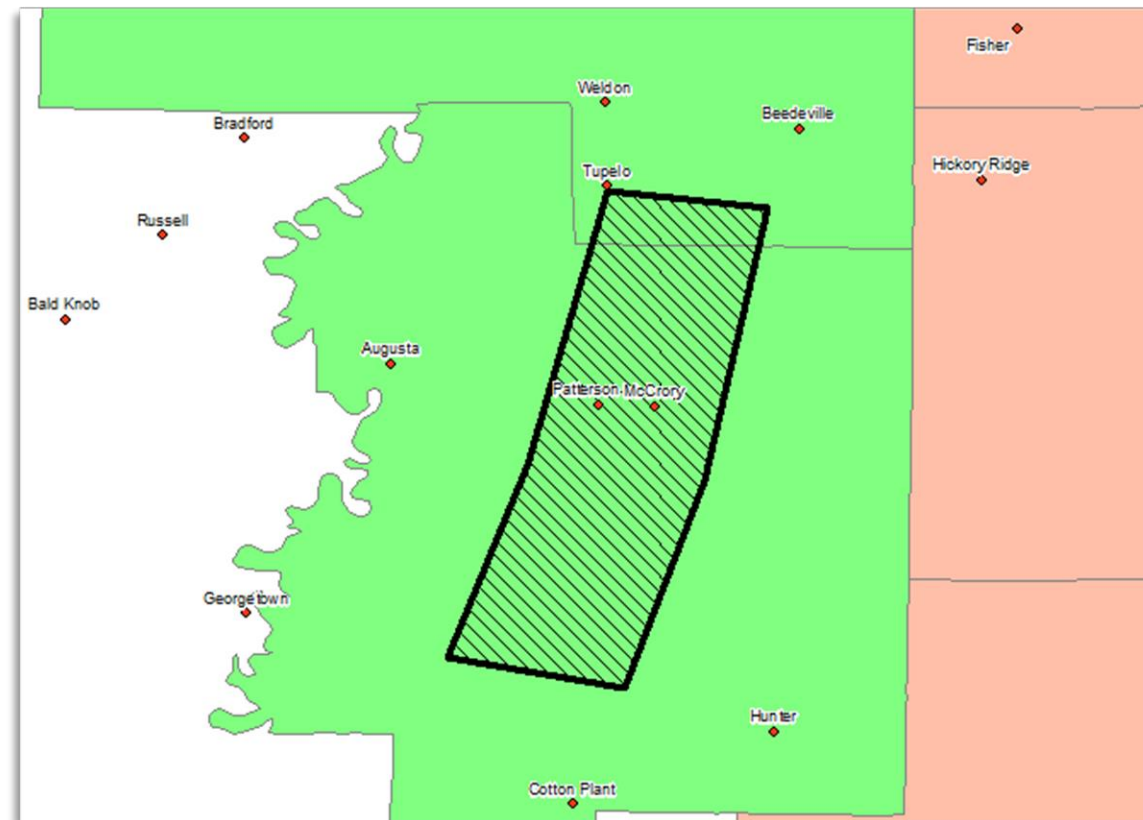
# Key Components – Where is the Weather Hazard?

- ***CAP elements: <areaDesc>, <polygon>, <geocode>***
- Critical to ensure only the correct users receive the weather warning to prevent “warning fatigue”
- How are the warning risk areas being defined geographically?
  - Simple: Follow Existing Administrative Boundaries (provinces, states, counties, etc.)
  - Moderate: Dynamic Warning Areas (polygon areas)
  - Advanced: Custom Defined Warning Boundaries (following terrain etc)



# Key Components – Where is the Weather Hazard?

- Dual approach works well in other countries – both the inclusion of standardized administrative boundaries and polygon areas.
- Use administrative areas (counties) to increase awareness.
- Use dynamic warning area to refine impact area.
- Impacted Areas: Patterson and McCroy







# Key Components – When is the Threat for the Weather Hazard?

- ***CAP elements: <onset>, <expires>***
- We strongly recommend including a defined start and end time for the warning
  - Situations that are “in effect until further notice” present challenges & do not communicate full and complete information to users
- Update relevant times during warning lifecycle
  - Time Extensions
  - Cancellations



# Key Components – Why Does the User Need to be Aware of the Hazard?

- ***CAP Elements: <description>, <instruction>***
- Very helpful to user when making proactive and informed decisions.
- Contains actionable text to describe the weather hazard, *expected impacts*, and what actions the end user should take to remain safe
- Must be succinct (a few sentences), but convey important details in easy to understand language – not a “meteorological forecast discussion”
- Multiple languages are valuable, when tagged correctly
- Routinely update with latest information during warning lifecycle to stay relevant



# Key Components – How is Event Tracked Over Time?

- **CAP Elements:** *<identifier>*, *<references>*, *<msgType>*, *<responseType>*
- Unique Identifier for the message is a CAP requirement (alert identifier)
- Using references section to link to previous message will insure the correct hazard is updated.
- *<event code>* section can be used to store an unique key that will remain the same throughout the lifecycle of an event.
- Message type also helps with relating a new message to a previous one.
- New response type status, all clear, helps with partial expires



# Other Important Aspects

- Clearly identify test messages and how they should be handled
  - Set the status = test
- Frequent communication and discussion empowers success in these types of partnerships
  - Ongoing discussion about what is working great and opportunities to enhance format or workflow.
  - Clearly communicate upcoming changes in timely manner.
  - Work with partners to validate changes prior to deployment to production systems.

# Thank You!

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