



Unique Partnerships to Deliver Global Extreme Weather Warnings

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Enhance 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**.





Focus Has Been On Protecting People & Property From Weather Impact For 55 Years

AccuWeather's Mission Starts:

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



A New Weather Safety & Preparedness Program Unique to Global Weather Enterprise

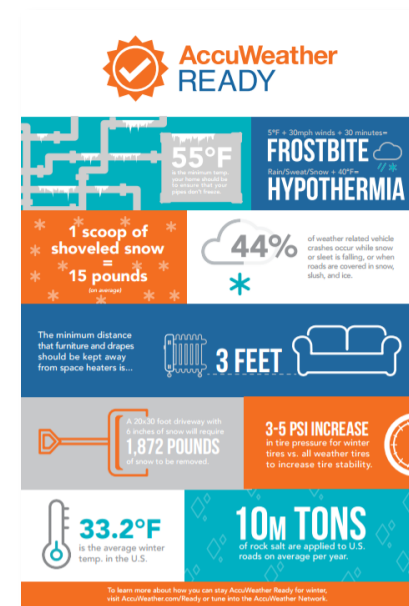


Mission

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



AccuWeather Ready Safety & Preparedness Content Is A Multi-Platform Initiative





Partnership Opportunities

- A key part of AccuWeather Ready is our partnerships with government NMHS and other agencies
- **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 NHMS
- My goal today: share insights based on our unique experience working in partnership with governments around the world!

Weather in a Hyper-Connected World





Providing Global Content 24x7

- AccuWeather reaches 2+ Billion users daily!
- Weather in 100+ languages and dialects
- Award-winning mobile apps available on every major platform worldwide
- Highly ranked, rated, and featured across all major, global mobile platforms





Our Role in Distributing Warnings

- AccuWeather is delivering publically available, government issued weather warnings for over 40 countries within our products and services!
- Severe weather alerts provide proactive, valuable, actionable insight into extreme weather events
- Contextually relevant for the end user so they can make informed decisions and take necessary precautions
 - “Wow, this is great- I never knew my country issued warnings like this!”
- Quickly and rapidly amplify important messages



Global Severe Weather Alert Examples

WATCHES AND WARNINGS

Alerts

Red Warning of Rainstorm
START: Monday, 9/18, 10:45 PM
END: --
澧县气象台9月18日22时43分发布暴雨红色预警信号：过去3小时澧县西北部降雨量已达100毫米以上且强降雨仍将持续，请加强防范。

Yellow Warning of Rainstorm
START: Monday, 9/18, 11:46 PM
END: --

WATCHES AND WARNINGS

Alerts

Warning for Steady Rain
START: Monday, 9/18, 10:00 PM
END: Wednesday, 9/20, 9:00 AM
Amtliche WARNUNG vor DAUERREGEN. Es tritt Dauerregen auf. Dabei werden Niederschlagsmengen zwischen 35 l/m² und 50 l/m² erwartet. In Staulagen werden Mengen um 70 l/m² erreicht.

Warning for Snowfall
START: Monday, 9/18, 10:00 PM
END: Wednesday, 9/20, 9:00 AM

AccuWeather Rome, Italy

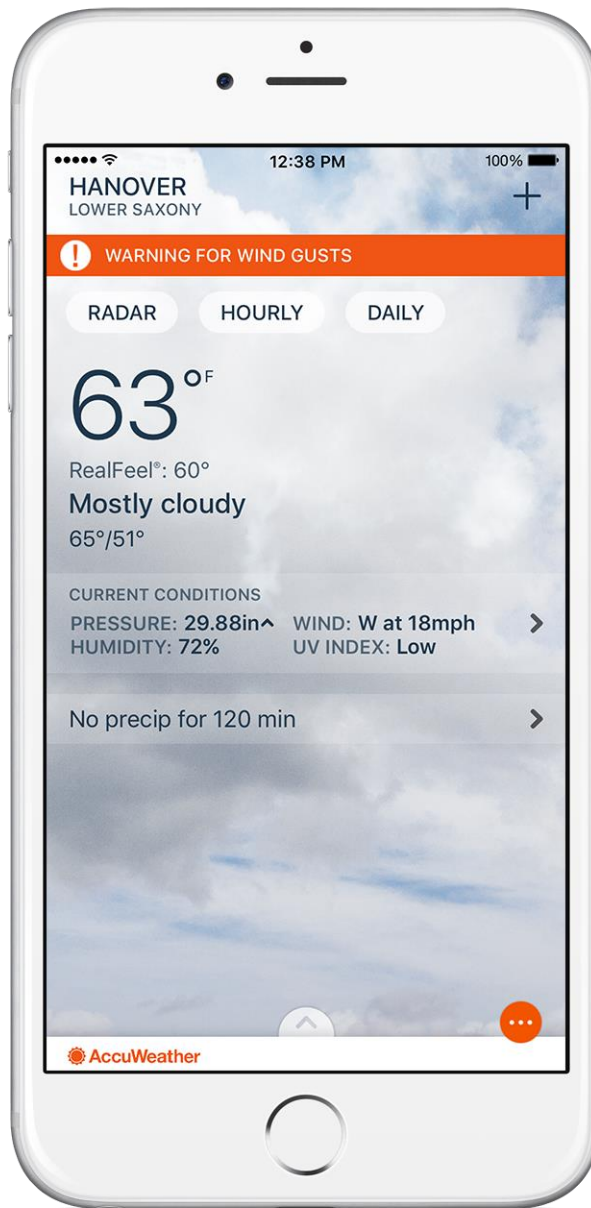
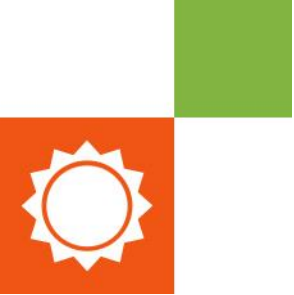
Italy Weather **Rome, Italy Local Weather** 70°F Personalized For

Severe Weather Alerts Radar

Yellow Warning for Thunderstorms

Severe Weather Alerts - Rome, Lazio

- Yellow Warning for Thunderstorms**
Yellow Warning for Thunderstorms in effect from 8:00 PM CEST until Tuesday, 1:59 AM CEST. Source: Servizio Meteorologico
- Yellow Warning for Thunderstorms**
Yellow Warning for Thunderstorms in effect from Tuesday, 2:00 PM CEST until Tuesday, 7:59 PM CEST. Source: Servizio Meteorologico
- Yellow Warning for Rain**
Yellow Warning for Rain in effect from 8:00 PM CEST until Tuesday, 1:59 AM CEST. Source: Servizio Meteorologico
- Yellow Warning for Rain**
Yellow Warning for Rain in effect from Tuesday, 2:00 PM CEST until Tuesday, 7:59 PM CEST. Source: Servizio Meteorologico







Partnerships are Key!

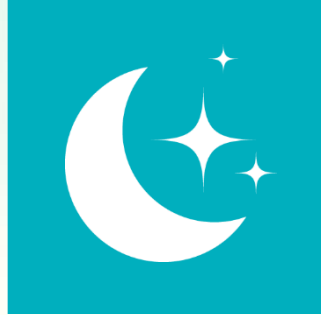
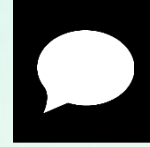
- Working in partnership, AccuWeather CAN and WILL help governments reach citizens in new ways
 - Increasingly important as public sector budgets shrink
- We are committed to delivering warnings accurately, quickly, and reliably to users. Additionally, to many countries, we provide:
 - Technical expertise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



Partnerships are Key!

- Typically are able to integrate warnings at no cost to governments
- Warning integration enabled by an agreement or MOU defining collaboration
- Original warning text from provider is what we display – no modifications
- Clearly identify source of warning as being from the government provider
- Unique AccuWeather location technology plays a key role in delivering warnings

Best Practices





Weather Warning Best Practices

- Unique designs in each country based on weather hazards and communication systems
- Components for consideration when weather warning data systems are being designed or refreshed:
 - **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? How should they react?
- CAP facilitates communication of these key points



Key Components – What

- ***What is the weather hazard? CAP eventCode***
- Ensures end users are aware of the weather hazard type – snow, ice, coastal flooding, heat warning, etc.
- A clearly defined list of weather warning types and 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, standard icons?
- Ability to expand the list as warning system changes



Key Components – Where

- ***Where is the weather hazard? CAP area & geocode elements***
- How are the warning risk areas being defined geographically?
 - Custom Defined Warning Boundaries (following terrain etc)
 - Follow Existing Administrative Boundaries (provinces, states, counties, etc.)
 - Dynamic Warning Areas (polygon areas)
- Critical to ensure only the correct users receive the weather warning to prevent “warning fatigue”



Key Components – When

- ***When is the threat for the weather hazard?***
CAP elements: effective, 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 & don’t communicate full information to users
- Update relevant times during warning lifecycle
 - Time Extensions
 - Cancellations



Key Components – Why

- ***Why does the user need to be aware of the hazard? CAP headline, description, instruction***
- Very helpful to user when making decisions.
- Actionable text to describe the weather hazard, *expected impacts*, and what actions the end user should take
- Succinct, but convey important details – not a “meteorological forecast discussion”
- Multiple languages are valuable, tagged correctly
- Update with latest information during warning lifecycle to stay relevant



Unique Event Identifier

- Unique Identifier for the message is a CAP requirement (alert identifier)
- Additional unique identifier for the warning event is another **critical component**, implemented within <info> elements.
- Common to all messages about a specific warning event (snowfall warning #5) and used to track changes over time.
- Often added as an additional parameter
- Can be a numerical auto incrementing key or unique string value.



Other Important Aspects

- Additional country-specific attributes are helpful as well, based on uniqueness of warning systems
 - Typically implemented as added parameters
- 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

Thank You!

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