



PRELIMINARY COMPILATION OF OUR CUSTOMER SERVICE WORKSHOPS



Top 5 Most Useful Products

Missouri Workshop

Scale 1-10 (10 extremely useful)

Tornado Watch.....	9.7
Tornado Warnings.....	9.6
Severe Thunderstorm Watch.....	9.5
Severe Thunderstorm Warnings.....	9.4
Hazardous Weather Outlook.....	9.3
Special Weather Statement	
Winter Weather Watch	
Winter Storm Warnings	
Winter Weather Warnings	

Top 5 Most Useful Products

Illinois Workshop

Scale 1-10 (10 extremely useful)

Tornado Warnings.....	9.6
Severe Thunderstorm Warnings.....	9.5
Hazardous Weather Outlook.....	9.4
Severe Weather Statement.....	9.3
Severe Thunderstorm Watch	
Winter Weather Warnings	
Winter Storm Warning	
Tornado Watch.....	9.2
Winter Storm Watch	

Top 5 Most Useful Products

Kentucky Workshop

Scale 1-10 (10 extremely useful)

Tornado Warnings.....	9.7
Severe Thunderstorm Warnings.....	9.4
Severe Weather Statement.....	9.3
Tornado Watch	
Winter Weather Warnings	
Civil Emergency Messages.....	9.2
Winter Storm Warnings	
Severe Thunderstorm Watch.....	9.1
Winter Weather Advisories	
Excessive Heat Warnings	

Top 5 Most Useful Products

Indiana Workshop

Scale 1-10 (10 extremely useful)

Tornado Warnings.....	9.4
Severe Thunderstorm Warnings.....	9.3
Severe Thunderstorm Watch.....	9.2
Severe Weather Statement	
Winter Storm Watch	
Winter Storm Warning	
Winter Weather Warning	
Tornado Watch.....	9.1
Hazardous Weather Outlook.....	9.0

Top 5 Least Useful Products

Missouri Workshop

Scale 1-10 (1 not useful)

Frost Advisory.....	7.2
Regional Temp & Precip Summary..	7.4
Hydrologic Outlook	
Hydrologic Summary.....	7.5
Tabular State Forecast	
Freeze Warning	
State Weather Roundup.....	7.8

Top 5 Least Useful Products

Illinois Workshop

Scale 1-10 (1 not useful)

Monthly Climate Report.....	6.2
Daily Climate Report.....	6.4
State Weather Roundup.....	6.6
Tabular State Forecast.....	6.7
Regional Temp & Precip Summary.....	7.2
Hydrologic Outlook	

Top 5 Least Useful Products

Kentucky Workshop

Scale 1-10 (1 not useful)

Monthly Climate Report.....	6.3
Tabular State Forecast.....	6.7
Regional Temp & Precip Summary....	7.0
Daily Climate Report.....	7.2
Hydrologic Summary	
Hydrologic Statement	
State Weather Roundup	
Hydrologic Outlook.....	7.3

Things to keep in mind while perusing the results of the product evaluations:

Some people were familiar with a certain product and then rated the product based on what they use it for at this time. (i.e., Tornado Watch – use it for preparedness).

Some people were unfamiliar with a certain product and hence, do not use it, but then rated it based on what they thought of it and how they *could* use it. (i.e. AFD - did not know about it and didn't use it but thought it was a useful tool (rated it high) and would use it occasionally).

Most people would rate certain products based on their usefulness for their operations or how it affected them. (i.e., rated Daily Climate Report low because they are from Hopkinsville, KY – no use for CLIPAH and CLIEVV).

Zone Forecast Product: How it is used

- To plan for possible emergency management needs
- For daily forecasts on the air
- For planning beyond day 3
- Use for decisions on herbicide applications
- Used to anticipate police response needed
- Use for electric utility – storms, heat, cold
- Use for planning for activities or daily operations
- Early preparation during possible severe weather
- To know what weather to expect
- For travel and field conditions
- For spotter information
- To determine staffing levels
- For pupil transportation and farming
- Use for environmental cleanup
- Provides quick summary to start formulating pollution forecast
- Used to determine climb rates
- Planning for storm recovery
- To get information on precipitation and wind

Zone Forecast Product: How it is used

Continued...

- Plan possible need for cooling centers
- Use for a comparison to my forecast
- Used for prescribed burns
- Flight planning for helicopter
- Use in newspaper and for news stories
- School operations
- For daily road maintenance work
- To schedule field work

Zone Forecast Product: What customers like

- It's timely
- Easy to read
- Easy to find and easy to understand
- This product reflects the state of the art in 3-7 day forecasting
- I like the variety of information you get (wind, temp etc)
- Like the POP term and percentages are generally accurate
- Credible information
- I like the extended forecast
- Works well for me
- Dependable
- Very good product, useful for work and personal activities
- This is a very helpful product for planning anything
- Best current available information

Zone Forecast Product: How to improve

- Use this product for work and event scheduling but this product is too widespread
- During severe weather, we need continued updates
- We need it more often (updates?)
- Would like to see more updates, rather than at 4am/330am
- Break the POP down for smaller coverage areas
- POP is difficult to understand for the layman
- Timeliness, more localized
- For Fulton County, KY, the forecast is more accurate for SEMO
- Add a legend of acronyms/definitions
- Does not have winds beyond 3rd day
- The wind portion really needs watching more closely. Forecast 5-10 mph and we get winds of 15-20 mph with gusts. It should/needs to be updated.
- Our relative humidity readings are consistently 15% lower than your forecast
- Need to improve relative humidity – it is critical in fire planning
- We are on the edge of your coverage area, not very accurate for local conditions
- Helps to narrow down what to expect in each county – more specific would help but I know that would be difficult
- Make product more county specific

AFM/PFM Products: How it is used

- Planning daily and weekly activities
- Used when more precise numbers are needed
- Heads up for daily operations
- Prescribed fires and wildfire staffing levels
- Used for winter weather conditions
- News articles
- Basic school operations
- Use to check precipitation, heat index & dewpoints
- Use during snow removal
- Use to fill in gaps in our fire weather database
- Scheduling
- Overview
- Preparation for severe weather
- Get current details of different items
- Use for travel and field conditions
- Use for pupil transportation
- Used for rainfall for runoff calculations
- Use for historical data
- Use for environmental cleanup
- Use for more detailed situational awareness

AFM/PFM Product: What customers like

- Great for farmers planning their workday
- Well put together
- Could be very useful
- I have found this helpful when preparing potential school dismissal
- Good product to use for firefighting
- Quick look at several parameters
- Very good information

AFM/PFM Product: How to improve

- On site is very different, temperatures and relative humidity are usually different
- It is confusing to try and read
- Hard to understand
- Need to be able to read very quickly – it is too complicated for what we need, need to be able to look at information and interpret very quickly
- Need list of acronyms
- Not aviation specific
- It would be nice to have more “points”, although the area works well
- Difficult to decipher - impossible without cheat sheet
- Slightly confusing/too busy

Tabular State Product: How it is used

- Use for environmental cleanup operations
- Reference only
- Use to help determine to have school in session
- Use when I travel
- Use for planning activities
- Use for early preparation
- Use for a quick weather update
- Use for news articles

Tabular State Product: What customers like

- Excellent quick and dirty idea of weather in certain locations
- Just a small amount of information to look at quickly- very easy to interpret
- Ease of understanding for the novice

Tabular State Product: How to improve

- Too general for us to use

Area Forecast Discussion: How it is used

- General information on weather and weather patterns
- Analyze conditions
- Plan operations, work or daily activities
- Use for early preparation (severe or winter weather)
- Use for an overview
- Use for staffing
- Use it to compare to what I think is happening
- Check for possible school closings
- Use for field conditions on and off station and for travel
- Use for staffing plans
- Helps to understand forecast issues
- For environmental cleanup operations
- Aviation planning – LOVE the aviation section

Area Forecast Discussion: What customers like

- Gives a good picture as to the overall weather picture
- It is interesting to read during times of severe weather
- My most used NWS product; I like the recently added aviation discussion
- A very helpful background summary
- Detail is good
- Thank you for your work
- Weather is not an exact science but I believe you are doing the best you can
- I like that it is area specific
- Excellent!

Area Forecast Discussion: How to improve

- Too much jargon – write for lay people
- Don't be afraid to give thorough discussions
- The more detail the better
- Discussion is too brief during stable weather, when I need expert discussion the most for determining air pollution forecast
- Please have the forecaster sign this so we know who it is coming from
- Sometimes it's issued early, sometimes not
- Suggest at least 1 hour before zones go out

Regional Weather Summary: How it is used

- Use for environmental cleanup operations
- To schedule workforce
- Enables me to be more prepared
- Preparing for severe weather
- To find rainfall amount and wind strength
- Use for travel
- Most useful to establish rain/snow line
- Planning activities/scheduling events
- Use often – plan spotter needs
- Use to see weather trends/patterns/conditions
- Use daily during fire weather season for staffing
- Operations decisions
- Look for anticipated conditions

Regional Weather Summary: What customers like

- You are doing good!
- I like that it gives you an overall synopsis
- It gives me an idea what to expect – I'm satisfied

Regional Weather Summary: How to improve

- Wish we could use this presentation to describe the weather for the pilots
- This product adds little if anything to weather operations or how folks learn about the weather
- Hard to read
- Would like more detail but also easy to understand and translate for radio listeners
- Expand on large scale processes affecting local weather

Short Term Forecast: How it is used

- To track weather and fire weather issues
- Use for travelling
- Use for farming
- Use for pupil transportation
- Use for school decisions/cancellations or early dismissal etc
- Helps determine if events need to be postponed or not
- For overall situation while working severe weather
- Used to get storm data while mobile (storm tracks etc)
- Used to get current weather conditions (up to date info)
- I like to know what is expected (Precip amounts, temperature etc)
- Use for hazardous weather updates
- Planning (field work, schedules, activities etc)
- To know when the weather is getting closer
- Used for runway changes
- Quick identifications of problems
- Weather preparedness

Short Term Forecast: What customers like

- Good information
- Very detailed
- Very good resource for broadcast
- Excellent tool in planning and scheduling
- Love the short term forecast during weather watches or hazardous weather conditions to provide updates to the listeners.
- Fire operations – good timing!

Short Term Forecast: How to improve

- Needs to be updated more
- During severe weather, would like more frequent reports, more descriptions, even to know that no reports are coming in or even if too many reports are coming in.
- GPS located area – more exact
- Would like to see this product more often
- Can be very vague at times
- Believe a bit more info, where/what/when could be added
- Need alerts to cell phones
- You could put a little more detail in this
- Please keep this easy to read for radio audience

Severe Thunderstorm/Tornado Watch: How it is used

- Prepare for severe weather
- Relay onto other personnel and interested parties (esp. those working outdoors)
- Prepare to activate spotters/Notify spotters
- Stay alert for updates and changing weather conditions
- Plan work activities
- Bring EOC to an increased level/prepare to activate EOC
- Plan on additional staffing/workforce
- Warn pilots
- Used to determine when to release students from school
- Begin to monitor the weather more closely (radar, warnings etc)
- Prepare equipment and personnel for possible damage (trees down, roads under water etc)
- Used to notify schools to make sure they have weather radios on!
- Monitor local radio and TV/become more vigilant
- To be aware of where we may need to concentrate concerns
- Put crews on standby
- Evaluate possible impact

Severe Thunderstorm/Tornado Watch: What customers like

- It helps us be prepared
- Very informative
- Easy to understand
- Very useful
- I'm happy with it
- Allows us time to move people to safety – it's excellent
- I feel you are doing a good job
- Discussions and timelines are invaluable. The more specific details the better.

Severe Thunderstorm Watch/Tornado: How to improve

- Very broad area
- More exact location
- Please get your county list out ASAP, so we can make sure we have the correct counties.
- Sometimes it can still be a little confusing who is issuing watches (and for what counties) and cancelling the watches. In some ways, it is more difficult to keep up with the counties being dropped from a watch when it is coming from multiple NWS offices.
- Provide a better understanding of where it is likely to occur

Severe Thunderstorm/Tornado Warning: How it is used

- Relay information on to interested parties/personnel
- Warning information is immediately broadcast on the air
- Advise everyone to take shelter
- Monitor weather for potential damage location
- Activate spotters and begin reporting
- Check for damage after storm passes
- EOC in full operation
- Monitor other products and NOAA Weather Radio/website
- May dictate when we release buses or direct them to find safe shelter
- Activate warning sirens
- Evaluation location and track for impact on a location (verify who will be affected)
- Prepare crews for emergency situation (personnel/equipment on standby)
- Release students from modular units
- Alert to move patients away from windows or to shelter (for tornadoes)
- Shut down non essential electrical equipment

Severe Thunderstorm/Tornado Warning: What customers like

- Partial counties are helpful
- Allows us time to move people to safety – excellent product
- Very informative
- Easy to understand
- Good job!
- I'm impressed with them

Severe Thunderstorm/Tornado Warning: How to improve

- Union County IL: in some cases a warning is issued too late to inform residents.
- More exact location
- Please include any observed details (Spotter reports) in warning text
- Would like to see if possible, time that storms will strike a certain city or county and direction
- I find the storm based warnings difficult to show on air. The small map on the screen- can't break it down.
- For TV folks and viewers, it is extremely difficult to use. The viewing area is so large that using the polygon would be impossible to see on our map. When we zoom in a track of the storm, it's easier to use. If more than one polygon warning is in an individual county, it can get confusing. Not all of the broadcast vendors are supplying a graphical display of the polygon.
- With tornadoes, often does not develop if radar indicated only
- Gaps in storm spotter system – training
- Lag time sometimes too long between reporting to the NWS and the warning catching up.
- Please add phonetic pronunciation for small towns
- Don't issue a tornado warning unless there is actually a tornado, often times it is a false warning.
- The more information the better

Severe Weather Statement: How it is used

- Use to update field personnel
- Use for spotter information and warning siren decisions
- To see we are still in path of storm or tornado
- Helps us know where to spot
- Helpful in following radar and tracking storms
- Used to see status of severe weather
- Used to monitor weather situation
- Use information for safety measures
- Used to get an idea where to expect runoff to reservoir system
- Know where and when storm is
- Help determine what to do with our students
- Transportation adjustments
- Determines how long EOC remains open
- Prepare for upcoming problems
- Staffing issues

Severe Weather Statement: What customers like

- Great
- Thank you
- Very informative
- Very useful for planning in advance
- Gets out the info we need in an easy to understand format
- I read each one during severe events
- Excellent product
- Love these! Updated info can be provided on air to help protect our listeners

Severe Weather Statement: How to improve

- Put more weather expected, some damage reports
- More exact location
- Damage reports are crucial, just put in as much info as you can

Flood Watch: How it is used

- Relay watch information onto interested parties
- Watch for water accumulating in low areas/local drainage ditches/flood prone areas
- May have to set up barricades/high water signs
- Be ready for heavy rain and flooding
- Be ready to respond in low lying areas if flooded
- Personnel would be sent to see if there are problems affecting highways
- Gives some lead time to handle anticipated flooding problem areas
- Planning
- Prepare for road closures
- Generally ignore it/not that important to our operation
- Monitor river, creek and stream levels and road conditions
- Increase monitoring of NOAA Weather Radio
- Would help to make decision if detour on certain routes is needed
- Transportation adjustments
- Adjust dismissal times, events, activities, trips etc
- Flood work planning and coordination
- Broadcast on the air with frequent updates
- Affects travel
- Prepare to react to runoff – gate changes at dams

Flood Watch: How to improve

- These seem over done at times
- More exact location
- Can be vague

Flash Flood Warning: How it is used

- Relay warning onto interested parties
- Prepare for flooded areas
- Warning broadcast on the air
- Will have to set up barricades
- Be ready for heavy rain and flooding
- Would change where we have crews working
- Monitor flood prone areas
- Send crews out to check flood prone areas
- Respond if needed in low lying areas
- Inspect roadways for damage and/or closures
- Would help to make decisions if detour on certain routes is needed
- Transportation adjustments
- Check creeks and streams and monitor precipitation outlook
- Consider trips, bus routes, activities, events and dismissal time
- Keep resources on higher ground
- Change travel plans – detour
- Send out spotters
- Prepare to react to runoff – changes at dams

Flash Flood Warning: What customers like

- Great – it gives us a heads up of what might possibly happen – good planning tool

Flash Flood Warning: How to improve

- More specific information can help keep our listeners safe
- More exact location
- Not always reflective of conditions

Flash Flood Statement: How it is used

- Relay information onto interested parties
- Check to see if more flooding will occur
- On air information
- Plan later actions
- Transportation adjustments
- Plan for events
- Consideration of bus route safety
- Interested in all aspects of this statement (Status, amt of rainfall, how much rain fell)
- State of rainfall potential
- Predict future incoming evacuees – great response tool
- Get an idea at how much runoff to expect to reservoir projects
- Used for rainfall to runoff calculations
- Helps to determine when flooding will recede

Flood Warning (Areal): How it is used

- Relay information onto interested parties
- Prepare for water on roadways
- Keep out of low lying areas near rivers
- Planning work/events/activities/projects
- Increased staffing
- This usually becomes a news story
- Plan for approaching high water
- Prepare crews for high water/send crews to area
- Watch river levels for road closings and evacuation purposes
- Difficulty getting to work or returning home
- Direct people to alternate routes/detours
- Prepare for an influx of patients
- Prepare to make operational changes at dams
- Close appropriate roads/flooded roadways

Flash Flood Statement: How it is used

- Relay information onto interested parties
- Check to see if more flooding will occur
- On air information
- Plan later actions
- Transportation adjustments
- Plan for events
- Consideration of bus route safety
- Interested in all aspects of this statement (Status, amt of rainfall, how much rain fell)
- State of rainfall potential
- Predict future incoming evacuees – great response tool
- Get an idea at how much runoff to expect to reservoir projects
- Used for rainfall to runoff calculations
- Helps to determine when flooding will recede

Flood Warning (River): How it is used

- Prepare for possible problems
- On air information
- Determines road closures/flood gates
- Watch lower areas for flooding
- News for viewers who live in these areas
- Listen for possible evacuation
- Move farm equipment to higher ground
- Bus Routes/ School closings
- Deciding impact on our electrical/gas system
- To warn boaters

•Rivers concerned with:

- Ohio, Mississippi, Big Muddy, Little Wabash, Wabash, Green, White, Pigeon Creek, Black, Whitewater, St. Francis, Current, Little River, Cumberland, Clarks, Tennessee, Rough, Barren,

Flood Warning (River): What customers like

- Crest information very useful as is flood stage, stages and timeframes
- Usually accurate- which helps us decide what actions we need to take to ensure public safety while monitoring customer service interruptions.
- I like the details of the warning

Flood Warning (River): How to improve

- Warnings that last for days seem to lose their significance
- It seems that some counties are almost always under a flood warnings, especially Illinois; to the point we have disabled the warning overlay on our maps. I wonder if the threshold for warnings on some of the rivers should be adjusted.
- Crests forecasts are sometimes omitted.
- Extra updates with current levels would be helpful during major events
- Need more gages
- Your modeling is generally not very good. This statement is particularly true as you move up the Cumberland River

Hydrologic Summary: How it is used

- General information
- Planning
- Rain Totals – we put river stages in a graphic for viewers
- Prepare daily crews
- Trips/Routes
- Use for long term moisture
- Farming
- Recap of previous weather
- Used for the operation of dams
- Used for input modeling
- Would announce on air

Hydrologic Summary: What customers like

- Precipitation data is useful

Hydrologic Summary: How to improve

- Not very easy to find on website

Hydrologic Statement: How it is used

- General information
- Planning
- Preparation for road closures
- Use for fishing for preparing crews
- Trips/Routes
- Check flooded areas
- Long term moisture
- Determine river flow/forecast/crest
- Used to develop reservoir forecast
- Compare to see how our forecast looks
- Would announce it on the air

Hydrologic Statement: How to improve

- Crest forecasts area sometimes omitted
- We have more faith in our own forecasts

Hydrologic Outlook: How it is used

- General information
- Prepare for possible incidents
- Alert area residents
- Planning
- For drought information and low flow planning
- Monitor changes and precipitation amounts
- Long term moisture
- Look for burn bans
- Used for danger and river outlook
- We look at it to plan projects

Hydrologic Outlook: What customers like

- Good planning tool

Hydrologic Outlook: How to improve

- We trust ourselves better than we do you
- Make stand alone drought statement

Daily Climate Report: How it is used

- Track temperature and changes to compare information for pollution
- Use for daily reports
- Long range prediction for planning personnel needs
- General information/curiosity/personal interest
- Plan operations
- Will use when available in my area
- Use it for on the air and for record keeping
- Planning
- Use for news stories
- Use to get ready for daily events
- Use to look at how forecast was against the actual
- Use for camp fire/hiking or heat conditions
- Use for historical data

Daily Climate Report: What customers like

- Especially helpful for farm activity planning
- Good weather safety tool

Daily Climate Report: How to improve

- We get multiple copies of your 5pm update (Wastes printer paper)
- Snowfall updates from 1000 pm snow would be helpful
- It is confusing to read/Make more user friendly
- Would use a southern Illinois product/Need a location in southern Illinois
- I would use this data if included data from CGI, MDH and POF
- Would like to see it for Hopkinsville, KY
- Need more cities included
- Would love it if you could put the High/Low/Precip for KCGI on the 5pm product.
- Climate normal should run to current year. It ends with 2000, nearly 7 yrs old

Monthly Climate Report: How it is used

- General information
- Planning
- When it gets too wet or too dry, it's worth a look
- Compare average conditions with pollution data
- Long range prediction for planning personnel needs
- Use for fire danger
- Use data in hydrologic models
- Use it for interesting weather stats to broadcast on the air
- Statistical comparison (Historical)
- News stories
- To check past record
- Used to plan outside operations – sets type of outside work and precautions to take
- Used to supplement forecast –sparks news
- Used to look at trends in the weather
- Filed for reference

Monthly Climate Report: What customers like

- The product for CGI has saved me from having to write down the data on a daily basis

Monthly Climate Report: How to improve

- Would use a southern Illinois product
- More timely issuance for EVV on the 1st of every month.
- An annual summary would also be good
- Need more cities included
- Make more user friendly and intuitive
- Include annual (calendar year) and long term (start of record through most recent year)

State Weather Roundup: How it is used

- General information
- Used to update temperatures and weather conditions for on the air
- Planning for travel
- To get overall weather picture
- Use this for planning purpose and in planning drills and travel
- Work plan and event schedule
- Use for fire planning and staffing
- Used to update forecasts
- Use for current conditions for crews
- Use during snow and ice events
- Use it to monitor weather for storms, ice, wind and rain

Regional Temp & Precip Summary: How it is used

- General information
- Use on the air
- Could use to gauge climate around the region I'm responsible for
- Allows you to get the big picture
- Long range prediction for planning personnel needs
- Keeping track for the year
- Would be great for news stories
- Use as a recap of weather
- Personal interest
- Use for park operations/travel/safety/planning
- Use for 24 hr precipitation total
- Use to supplement weather forecast
- Use for temps/snowfall for our crews to work with
- Could use this to supplement our storm logs
- I monitor weather for storms, ice, wind and rain

Regional Temp & Precip Summary: How to improve

- More stations needed
- More towns the better
- Please include more sites

Hazardous Weather Outlook: How it is used

- General information
- Used to prepare for hazardous weather conditions
- Spotter statements used to activate additional staff for on air if hazardous weather threatens.
- Plan operations/work/events/activities/travel
- Emergency/Awareness preparedness
- Determine students status/school closings
- I can usually use it to read the minds of the meteorologists as to whether or not warnings will be issued on marginal storms.
- To be aware of potential weather conditions that could impact safety
- Planning for possible alerts of spotters

Hazardous Weather Outlook: What customers like

- This is one of my most used resources – love it
- Spotter activation possibilities are good information
- Spotter information statement is most utilized part for me
- A good heads up
- A helpful briefing
- Good spotter planning tool
- I like the information, it is very useful
- Very good with giving the spotter activation potential

Hazardous Weather Outlook: How to improve

- The more detail provided in the product the better

Special Weather Statement: How it is used

- General/FYI information
- Update on the air
- Use it to know what kind of emergency we could encounter
- Planning and alerting
- EOC staffing/planning
- Preparedness
- Situational awareness
- Preparing crews/manpower
- Personnel needs
- Determine student status/potential weather risks that could impact safety/scheduling
- Scheduling events/trips etc.
- Like to be aware of current and changing conditions/storm movement
- Announce in on the air
- Used to see the area of concern
- Used to see how weather is going to affect visitors and employees work schedule
- We use it for heat index potential
- Dictates work and fire conditions

Special Weather Statement: What customers like

- Good product to reassure listeners of “special” weather

Special Weather Statement: How to improve

- Could use a little more data on storm at times
- More emphasis on lightning safety

Civil Emergency Message: How it is used

- We put it on the air and provide to public
- Response if needed
- Emergency preparation
- Depending on location, may activate staff
- Readiness
- Used as an early warning tool to protect employees and guests
- Awareness
- Make sure this information gets broadcasted

Civil Emergency Message: What customers like

- This ability is essential
- Will be extremely useful in the event
- This is very useful
- This product really helps our preparedness program
- Like the amount of information – it lets us know what we need to know
- Great notification tool – more reliable than siren
- Glad to see the more specific messages

Civil Emergency Message: How to improve

- Wish more EMs used this option
- Need better/wider distribution

Public Information Statement: How it is used

- Use for damage surveys and radio outages
- Used to alert public to upcoming events that are non emergency
- Observations and data recording
- Public safety
- General information
- Preparing crews/workforce
- Situational awareness
- Gives public notice of weather going on
- Keep up with what's going on in my county
- Saves us time and how to plan
- For verification
- Confirmation of damage and storm intensity
- Used as update information – relieve anxiety
- Allows agencies to know what they responded to
- Used for possible affect on operations
- Awareness

Public Information Statement: What customers like

- These are great!
- Very useful
- Looks helpful
- Rainfall totals and other area info area a big help
- Like storm reviews

Public Information Statement: How to improve

- Would like to learn more
- Access?
- Wish this product was issued more often
- Very hard to find on website

Earthquake Report: How it is used

- General information
- Use on the air
- Planning and monitoring
- Activation of response operations/emergency relief/manpower
- Passed on to news
- Warn about runway cracking, damage
- School issues
- Awareness
- Assessing damage
- For followup news stories
- Use it to plan after shocks
- Use this to check intensity, see area affected and possible damage
- Used to determine if we will be affected, gives opportunity to evacuate or go to a safe area
- Used for operation of dams
- Plan for evacuations and protection

Earthquake Report: What customers like

- Would be of great assistance if an earthquake emergency occurs
- Like reading reports, can learn information not reported elsewhere

Earthquake Report: How to improve

- More information needed
- Not always accurate, too slow
- Suggestion: Add bulleted info, similar to the warnings and surveys-
time, location, magnitude, duration, damage reports etc.
- It would be nice to have this play on NOAA Weather Radio

Winter Storm Watch: How it is used

- Relay information to interested parties
- May have to call out crews- salt/snow plows
- Equipment preparation
- Rearrange work schedules
- Prepare to respond to emergency situation
- Staffing concerns
- Helps me plan
- Stock up on supplies
- Be on alert
- Increased monitoring to determining potential affect on campus and potential closing of school
- Watch TV, radar, check website
- Advise employees to take precautions
- Taking care of livestock
- Readiness/Awareness
- Put emergency responders on standby
- Travel/meeting and training cancellations
- Occasionally broadcast to warn of possible danger
- Monitor weather/be ready to measure snowfall
- Start thinking about project operations – reduce spill to reduce icing threat

Winter Storm Watch: What customers like

- Love this discussion and specific track information
- Gives you time to prepare
- It works pretty well
- Like it
- Very good advanced planning tool
- A good heads up – allow citizens to buy bread and milk

Winter Storm Watch: How to improve

- Early morning (6-7am) assessment could help for school dismissal/safety
- Use well known landmarks such as “East of I-65” and such in forecasts
- Some events are difficult to predict, but we react financially (resources) by NWS forecasts.

Winter Storm/Weather Warning: How it is used

- Relay information to interested parties
- May have to call crews out – salt/snow plows
- Prepare crews for snow/ice removal
- Be ready to respond in emergency/make sure responders are aware
- Broadcast on air with frequent updates/urge listeners to stay inside
- Arrange work schedules
- Increase in monitoring and planning activities
- Restrict outdoor activities/don't travel unless necessary
- Prepare EOC/activation depending on arrival time
- Shelter operations
- Be prepared to close school
- Cancel/reschedule events
- Watch radar/tv/website – monitor conditions
- Additional staffing
- Put responders in field to survey
- Adjust and/or suspend daily activities
- Focus shift to ops to protection/preservation of life (motorists)
- Awareness/Preparedness
- Use it to predict some needs (how will hospitals and other facilities be affected – staffing)
- Be prepared to help counties with emergency declarations if needed

Winter Storm/Weather Warning: What customers like

- Great - allows time to plan for special needs individuals
- Thank you for being available at all hours (4am) to relay information on the phone
- Useful for safety of employees
- Excellent
- Great tool for preparation

Winter Storm/Weather Warning: How to improve

- Specific data for the 6-8am period for travel conditions would help. Trends, coverages etc.
- Predict snowfall amounts for certain cities or areas
- Some events are difficult to predict, but we react financially (resources) by NWS forecasts.

Winter Weather Advisories: How it is used

- Relay information to interested parties
- Announced on the air
- May have to call crews out – salt/snow plows
- Prepare crews for snow/ice removal
- Be ready to respond in emergency
- Planning increases
- Prep equipment
- Monitor weather
- Assist in determination of potential school closing
- Preparedness
- May cancel/postpone activities/events
- Watch TV/radar/website
- Plan on helping county if needed
- Readiness/Awareness
- Warn people to take care of themselves
- Be alert to changing conditions
- Adjust/Change work and event schedules

Winter Weather Advisories: What customers like

- Very helpful for school closings
- Gives ample time to prepare for conditions
- Helps us prepare for the type of event and how it will begin

Winter Weather Advisories: How to improve

- Vague at times
- Overall winter products: wish there was a way to blend watches/warnings/advisories with other offices. The boundaries between offices can look interesting with winter storms.
- Some events are difficult to predict, but we react financially (resources) by NWS forecasts.

Dense Fog Advisory: How it is used

- Relay information to interested parties (transportation, buses, aircraft, drivers on highway etc)
- Drive slowly – be careful
- Personnel may be sent to see if need for warning signs/trucks
- Work scheduling (different location, time etc)
- Make sure responders are aware of condition
- Monitor for traffic accidents with hazmat
- Announce on air with forecast
- Flight Planning/Plan for type approaches needing to be used at various airports
- Make a decision whether to run buses later
- Transportation adjustments
- Delay school start, alert drivers
- Possible event/activities cancellations
- Prepare for a longer drive into work
- Operational scheduling for barge traffic

Dense Fog Advisory: What customers like

- This will let me know response times and routes needed

Dense Fog Advisory: How to improve

- There are many times when dense fog occurs and no advisory
- Often doesn't seem to match our area
- Many times there is no fog when issued and other times there is dense fog and no warning

Freeze Warning: How it is used

- Relay information to interested parties
- Announce on the air with forecast
- May have to pretreat roads
- Extra time driving, extra clothes
- Depending on humidity and winds, may pretreat bridges and shaded areas
- The latest freeze will help push live herbaceous fuels into full dormancy- lowering their internal moisture content and making them more available to burn
- Make sure responders are prepared
- Increase in monitoring of agricultural issues
- Check equipment for anti-freeze/winterize
- Action would depend on temperature
- Prepare crews for slick spots on roadways
- Advise street maintenance if necessary
- Check buses
- Check TV and website
- Take precautions for outdoor and indoor plumbing
- Cover or take in plants
- Adjust/Cancel travel and other events and activities
- Watch for ice on roads if rain occurred earlier
- May adjust gate operation to reduce road icing at projects
- Crop management

Freeze Warning: What customers like

- Keep doing –it is a good warning to watch for black ice on roadways
- Good for agricultural uses

Freeze Warning: How to improve

- Should be reissued as conditions reoccur

Frost Advisory: How it is used

- Relay information to interested parties
- Announce on air with forecast
- May have to pretreat roads
- Increase in monitoring of agricultural issues
- Heavy frost can affect bridge decks- We treat bridge decks to prevent icing
- Response depends on lows and previous daytime highs
- Take plants inside – protect horticulture

Frost Advisory: How to improve

- This product only needed for the first frost
- Since early season frost may be patchy, perhaps wait to cease issuing after there has been a killing freeze
- Should be reissued as conditions occur

Heat Advisory: How it is used

- Relay information onto interested parties
- Announce on the air with forecast
- May have to change work crews plans/adjust schedules
- Drink lots of water
- Make sure employees are informed and are safe
- Check on welfare of elderly people
- Prepare personnel for the heat and heat related injuries
- Planning
- Plan reduced climb rates for aircraft
- Situational awareness
- Check for shelters
- Monitor conditions
- Make sure personnel do not become overheated
- Monitor sports closely
- Curtail or possibly cancelling outdoor events
- Use this to make decisions regarding children playing outside

Heat Advisory: What customers like

- Good for safety of employees

Heat Advisory: How to improve

- I think the criteria are too high, should be issued at 95-100 degrees

Excessive Heat Warning: How it is used

- Relay information onto interested parties
- Announce information on the air with forecast
- Stay inside, drink plenty of liquids
- Make sure workers are informed and stay hydrated
- Reschedule field work
- Planning increases for special needs population
- Avoid work during hottest times
- Possibly open cooling centers
- Situational awareness
- Make sure workers do not become overheated
- Start a pre-plan on water availability
- Monitor sports closely
- May close school
- Cancel outdoor events
- Prepare to react to system overloading
- Used to provide bottled water to students on buses and no outdoor recess
- Monitor for equipment failure
- Make A/C is in working order
- Protect citizens (especially the elderly)

Excessive Heat Warning: How to improve

- I think criteria are too high, should be issued for any temperatures 100 degrees or higher.
- I think the heat index needed for this should be lowered.

Wind Advisory: How it is used

- Relay information onto interested parties
- Announce on the air with forecast
- May have to curtail spraying operations
- May cause problems with travel/roadways
- Work scheduling to be prepared for downed trees and limbs
- Planning for wind damage monitoring and reporting
- Restrict wind sensitive operations (i.e. herbicide spraying)
- Warn of turbulence and low level wind shear
- Situational awareness
- Use to plan for a structure fire or wild land fire (movement issues)
- Fire danger
- May alter outdoor events
- Sustained winds could result in an emergency condition
- Trees affect our power in certain areas, road crew put on alert
- Help us plan our work schedule
- Operations – affect on employees and equipment

High Wind Warning: How it is used

- Relay information to interested parties
- Announce information on the air with forecast
- May have to curtail spraying operations
- Work scheduling to be prepared for downed trees and limbs
- Planning for wind damage monitoring and reporting
- Monitor for possible emergency
- Check roadways – warn drivers of high wind – prepare for much slower driving speed
- Restrict wind sensitive operations (Herbicide spraying)
- Warn of turbulence and low level wind shear
- Situational awareness
- Prepare crews for possible trees down across roadways
- Workforce preparation
- Advise utilities and street maintenance
- Use to plan for a structure fire or wild land fire (fire danger spread)
- Could halt or determine continued operations –determine staffing needs for a fire
- High winds can severely impact our electrical system due to trees or pole failures
- Crop issues
- Curtail or halt outdoor activities
- Give warnings to bus drivers – no outdoor recess for students
- Possible power outages

NWS Services Evaluation: NOAA Weather Radio

How would you rate the amount of weather
information broadcast on NOAA Weather
Radio? (1-10)

IL: 9.2 KY: 9.0 IN: 9.1 MO: 9.2

NWS Services Evaluation:

What other products/info do you want added to the broadcast?

- It's almost too much, wish information could be condensed into fewer products, yet I can understand why its all split up the way it is.
- Make information easier to understand (voice??)
- Hourly river stages from 4am-6am for waterfowl hunters during the winter.
- Conditions for Hopkinsville, KY instead of Clarksville, TN
- Broadcast major traffic problems, highway or interstate closures and route locations.
- More detailed radar information during storms. (meso, tvs, hail)
- Need aviation outlook
- Need more on air quality!
- Less river and lake stages
- Could broadcast more in depth weather summary
- Fire danger
- During evacuation, where to go, what shelter....
- High or extreme wildfire risk
- Climate data for Cape Girardeau
- You do a good job already

NWS Services Evaluation: NOAA Weather Radio

How would you rate the quality of the signal strength? (1-10)?

IL: 9.2 KY: 8.0 IN 8.1 MO: 9.5

Would you be interested in a NOAA Weather Radio Programming Campaign in your area?

IL: 8 Yes/8 No KY: 13 Yes/7 No IN: 9 Yes/7 No MO: 16 Yes/ 6 No

NOAA Weather Radio tests? Do the times work for you?

IL: 13 Yes/0 No KY: 17 Yes/0 No IN: 11 Yes/0 No MO:22 Yes/0 No

NWS Services Evaluation- NOAA Weather Radio

Comments on tests:

- They work well when I get them, doesn't happen every week!
- In the evenings when people are home mostly
- Yes, but people in the area work at that time and aren't at home to hear the alert.
- Like the evening test.
- I think every week is a bit excessive
- Always listen to the test
- I don't seem to notice the Wed. evening test

NWS Services Evaluation: Internet Website

How familiar are you with our website? (1-10)

IL: 6.9 KY: 6.8 IN: 7.9 MO: 6.9

Do you find our website easy to navigate?

IL: 19 Yes/1 No KY: 35 Yes/6 No

IN: 15 Yes/1 No MO: 23 Yes/4 No

NWS Services Evaluation: Internet Website

Comments:

- The links are down quite often
- There is great deal of information, finding the time to navigate through to find what I need takes time.
- For the most part, some things are tricky to find
- Not intuitive, hard to navigate – trouble understanding what certain things mean
- A little difficult – I am too old for the computer
- Some products are easy to find, others very hard to locate
- Font! The font could be bigger
- Easier to understand buttons
- One of the better NWS sites – enjoy the storm reviews and archive, year in review is great, storm data is nice!
- Love the damage summaries and pics.
- Not really sure if it is easy to navigate
- A little cumbersome –once I bookmark what I need - no problem
- Haven't played with it enough, this most things bookmarked
- Use daily, so very familiar with daily products. I find myself fumbling for storm reports during outbreaks. (Link to homepage like did for first WSW of season)
- Use it as home page

NWS Services Evaluation: Internet Website

Comments Continued:

- Need to experiment with it

- Very easy

I still have a hard time finding products. I use SPCs site a lot. I am a huge fan of the site. I do like the stop light feature. I think the public could use that easily.

- Sometimes the most important information (warnings, watches) is mixed with less important (hydrologic outlook, different radars)

- Sometimes difficult to get to the product I'm looking for. Information on CD should help me learn where to go.

- I intend to spend time getting more familiar with your website.

- There is so much info, sometimes it's hard to find exactly what you're looking for, but it's good.

- Can't find anything I would like to go to fast

- I feel there is enough, but wish I understood better how to utilize information

NWS Services Evaluation: Internet Website

Do you have any suggestions on how to organize information on our website?

- Main drop down tabs with extended menu under each tab.
- Typical windows type interface – all from homepage
- Easier to access watch and warning information and related details
- Scroll over information for explanation for each link
- Sometimes the page is missing information and you have to scroll down to see it
- The radar image has too much ground clutter that you can't see what's actually precip
- Make it easier to navigate. I have trouble understanding what certain things mean
- Warnings and watches stand out more and correct links to the information
- Maybe a NWS Paducah search function
- Have the standard radar view auto refresh
- One click to get latest IR/visible satellite
- Hard to find the right site

NWS Services Evaluation: Internet Website

What sections do you visit most?

Radar (NWS PAH and others)	Climate Data
Forecast	Historic Weather
Hazardous Weather	Weather Story
Watches & Warnings	State/Regional Weather Reports
Severe Weather	Conference call activities
Aviation products	Satellite
Fire Weather	Espotter
LSRs	Maps
Hourly Weather Graphs	Winter weather
Text products	Graphics
News of the Day	Rainfall Frequency
Storm archive	Storm Followup
Public Information	Rainfall
Point Forecast	City specific – hourly graphs
River Stages	Observations
Area Forecast Discussion	Hydrologic Info- AHPS
	Short term forecast

NWS Services Evaluation: Internet Website

What other types of information would you like to see added to the website?

- Forecast models as a graphic out to 48 hrs (map form)
- More wind data and MDH forecast
- Smoke dispersal/transport predictions (a la Blue Sky/RAINS)
- Wish you could have the local news stories archives and more easily retrieved
- Annual summaries up to current year
- Ability to download weather information to Excel or Text format
- More frequent updates to the radar data
- Radar like the weather channels (interactive)
- Radar should be able to be zoomed in and out and not become fuzzy
- Local storm reports during winter storms or winter events
- GPS locator for map
- Air quality info!
- More satellite imagery
- Lightning data
- Easier to access model data/display
- More radar options (VILs etc)
- If it doesn't already exist, a map of the area affected following storm events – examples areas affected by amount of ice build up, what areas sustained high winds etc.

NWS Sources of Information:

ILLINOIS CUSTOMER SERVICE WORKSHOP

From what avenue do you most often prefer to receive **NWS Warnings**?

<i>Warning Source</i>	<i>Responses</i>
Local TV, Satellite TV, or Cable TV	22
Commercial or Public Radio	14
National Weather Service website	14
Non-NWS websites (Weather Channel, etc.)	7
NOAA Weather Radio	22
Vendor (Meteorologix, AccuWeather, etc.)	2
Cell phone vendor (MyCast Weather, etc.)	6
NWS Weather Wire	1
EMWIN (Emergency Managers Weather Info Network)	4
Other (Leads)	1
Other (Amateur Radio)	1

From what avenue do you most often prefer to receive **weather information**?

<i>Weather Information Source</i>	<i>Responses</i>
Local TV, Satellite TV, or Cable TV	20
Commercial or Public Radio	13
National Weather Service website	16
Non-NWS websites (Weather Channel, etc.)	7
NOAA Weather Radio	16
Vendor (Meteorologix, AccuWeather, etc.)	3
Telephone call to the NWS	1
Cell phone vendor (MyCast Weather, etc.)	5
Newspaper	0
NWS Weather Wire	1
EMWIN (Emergency Managers Weather Info Network)	3
Other (Leads)	1
Other (Amateur Radio)	2

NWS Sources of Information:

KENTUCKY CUSTOMER SERVICE WORKSHOP

From what avenue do you most often prefer to receive **NWS Warnings**?

Warning Source	Responses
Local TV, Satellite TV, or Cable TV	40
Commercial or Public Radio	27
National Weather Service website	28
Non-NWS websites (Weather Channel, etc.)	13
NOAA Weather Radio	41
Vendor (Meteorologix, AccuWeather, etc.)	6
Cell phone vendor (MyCast Weather, etc.)	7
NWS Weather Wire	3
EMWIN (Emergency Managers Weather Info Network)	12
Other (Police Radio)	1
Other (Local DES/EMS/NAWAS)	2
Other (Email)	1

From what avenue do you most often prefer to receive **weather information**?

Weather Information Source	Responses
Local TV, Satellite TV, or Cable TV	39
Commercial or Public Radio	23
National Weather Service website	33
Non-NWS websites (Weather Channel, etc.)	15
NOAA Weather Radio	30
Vendor (Meteorologix, AccuWeather, etc.)	8
Telephone call to the NWS	4
Cell phone vendor (MyCast Weather, etc.)	4
Newspaper	4
NWS Weather Wire	5
EMWIN (Emergency Managers Weather Info Network)	8
Other (Police Radio)	1
Other (Email)	1

NWS Sources of Information:

MISSOURI CUSTOMER SERVICE WORKSHOP

From what avenue do you most often prefer to receive **NWS Warnings**?

Warning Source	Responses
Local TV, Satellite TV, or Cable TV	35
Commercial or Public Radio	21
National Weather Service website	25
Non-NWS websites (Weather Channel, etc.)	18
NOAA Weather Radio	31
Vendor (Meteorologix, AccuWeather, etc.)	4
Cell phone vendor (MyCast Weather, etc.)	6
NWS Weather Wire	2
EMWIN (Emergency Managers Weather Info Network)	1
NAWAS	1
Pager	1
E-Spotter Chat	1

From what avenue do you most often prefer to receive **weather information**?

Weather Information Source	Responses
Local TV, Satellite TV, or Cable TV	32
Commercial or Public Radio	18
National Weather Service website	23
Non-NWS websites (Weather Channel, etc.)	13
NOAA Weather Radio	21
Vendor (Meteorologix, AccuWeather, etc.)	5
Telephone call to the NWS	6
Cell phone vendor (MyCast Weather, etc.)	4
Newspaper	5
NWS Weather Wire	1
EMWIN (Emergency Managers Weather Info Network)	1
NAWAS	1
E-Spotter Chat	1

NWS Sources of Information:

INDIANA CUSTOMER SERVICE WORKSHOP

From what avenue do you most often prefer to receive **NWS Warnings**?

<i>Warning Source</i>	<i>Responses</i>
Local TV, Satellite TV, or Cable TV	20
Commercial or Public Radio	9
National Weather Service website	16
Non-NWS websites (Weather Channel, etc.)	2
NOAA Weather Radio	16
Vendor (Meteorologix, AccuWeather, etc.)	3
Cell phone vendor (MyCast Weather, etc.)	3
NWS Weather Wire	4
EMWIN (Emergency Managers Weather Info Network)	4
Other (Code Red)	1

From what avenue do you most often prefer to receive **weather information**?

<i>Weather Information Source</i>	<i>Responses</i>
Local TV, Satellite TV, or Cable TV	16
Commercial or Public Radio	6
National Weather Service website	18
Non-NWS websites (Weather Channel, etc.)	6
NOAA Weather Radio	10
Vendor (Meteorologix, AccuWeather, etc.)	2
Telephone call to the NWS	2
Cell phone vendor (MyCast Weather, etc.)	
Newspaper	2
NWS Weather Wire	2
EMWIN (Emergency Managers Weather Info Network)	3

Are you satisfied with the current Severe Thunderstorm Warning Criteria?

Kentucky:	38 Yes / 9 No
Illinois:	24 Yes / 2 No
Indiana:	20 Yes/ 4 No
Missouri:	36 Yes/ 2 No

Comments on the Severe Thunderstorm Warning criteria

- *Add lightning to the criteria*
- *Include dangerous lightning and rainfall amounts that produce flash floods*
- *Extreme cloud to ground lightning events – or need another product to address this.*
- *Hail criteria needs to be changed; too many warnings come out for hail that is too small to be concerned with.*
- *Any less would probably double to triple the amount of warnings*
- *We have a lot of storm damage with winds less than 58 mph that do a lot of damage and are a threat to life.*
- *I am not a fan of the push to move warning criteria to 1 inch hail. I think the public will then increase size estimates to 1 inch to get warnings issued.*
- *You would think that something like power of storms would be a factor (winds, speed, atmospheric pressure etc.)*
- *I think an added advisory of thunderstorm advisory would be a good addition.*
- *Big difference between a warning for penny hail and one for 70 mph+ winds*

Comments on the Severe Thunderstorm Warning criteria cont.

- *Hail criteria is too small*
- *Increase hail size to 1 inch*
- *Wind speeds need to be reduced to 40-45 mph*
- *Lower wind speed and/or smaller hail*
- *45 mph wind/strong lightning/possible hail*
- *Lower wind to 40 mph and ½ inch hail*
- *Maybe reduce the required wind strength*
- *50 mph winds and heavy rain and/or any size hail*
- *1 inch hail and 60 mph winds*
- *¾ inch hail is very large – may need to scale down to ½ inch*
- *Maybe pea size hail, wind advisory wind conditions*
- *Change 58 to 60 mph*
- *50 mph winds and ½ inch hail*

Breakout Sessions:

Questions asked to groups

What is the most important product(s) and/or service(s) we provide?

What do you least understand about NWS products/services?

How can we tailor our products and services to meet your needs?

How can we improve our products and services?

Are there any new products/services you need for your operations?

What kinds of helpful information can *you* provide to help us do our job? Where can we find this information?

Are there any specific past incidents you would like to bring to our attention, good or bad?

Breakout Sessions: Fire Weather

- Most important products: Fire Weather Forecast, Spot Forecast, Red Flag Warnings, Forecasts, Watches and Warnings, Daily Obs for RAWs
- Least understood?
 - Models that predict weather and what they tell forecasters
 - Fuel Stick Measurement
 - Parameters used for watches/warnings
 - What data goes into our fire weather products?
 - Physical meaning of certain weather indices (CAPE, Haines, etc)

Breakout Sessions: Fire Weather

- Tailor Products/Services?
 - On site training to our regional state parks (West KY)
 - Prescribed burn weather support
 - Better spot forecasts
 - Notification of Red Flag Watches/Warnings
 - Beef up smoke transport and dispersal products to include multiday forecasts with gridded wind models, nighttime /inversion forecasts.
 - More re pollution forecasts
 - Any chance of getting the fire weather earlier than 830am?
- Other notes:
 - We'll provide you with obs from fire/prescribed fire
 - Missed RH's on numerous incidents, but I believe we can make this work by giving you more observations.
 - Haines Index rarely gets higher than a 4 around here and isn't much difference in fire behavior between a Haines of 2-4.
 - We'll try to provide better feedback after a fire.
 - Would like a downloadable tool that will provide warning pop ups.

Breakout Sessions: EM/Police Etc.

- Conference Calls/Severe Wx:
 - Give time line of when to expect weather in each section of CWA, so it might negate the need for everyone to ask when it will get to *their* area.
 - Use bright colors on maps
 - Use generic user friendly, non technical, public orientated graphics
 - Make sure people know how to mute without locking people out
 - Advance notice of conference calls is very useful (2-3 hrs)
 - Would warnings to be emailed directly or through Interwarn (EMWIN)
 - Please use EM Chat more
 - Planning of conference calls (if an area coordinator has to be at more than 1 and also make sure all WFOs are on the same page with the forecast).
 - Conference call etiquette guide?

Breakout Sessions: EM/Police Etc.

- 1st major snowfall event of the season – try to hit it hard with advance warning and strong wording to get people to react.
- Try to anticipate the public's response to a certain forecast, watch, warning or advisory and try to use words to best convey safety tips.
- Really need those radars to stay up and stay continually updated.
- Could we use weather radio to convey things such as major interstates/highways closed? What about CEMs for events where we have trapped motorists during a heat wave or a winter storm?
- Any way to get more observations in western KY?
- Would like to see estimated speed of storms in HWO and time frame expected
- In HWO, try to be specific as you can on time when you think spotters would be needed.
- Can we put some PDF brochures on our websites for them to use for public training?
- They suggested that we take part in more of their exercises to see how things are done.
- They really appreciate the “spot forecasts”.
- Glossary of meteorologist shorthand? Try to be consistent with shorthand in AFDs.

Breakout Sessions: The Media

•Conference Calls/Severe Weather

- Give the basics first to the EMs, then, talk about the meteorology for the media.
- Any kind of pre-warning on IM is very helpful to them (watches or warnings).
- Want hail criteria to be raised.
- Mile markers very helpful in warnings for the radio media
- Clearing counties from a watch in a timely manner
- If anticipating blanket warning – let them know
- Mesoscale updates would be very helpful
- Longer watches are better for big events
- They don't like IEM chat – too much

Breakout Sessions: The Media

•Hydrology

- Need to have a difference between the flood warnings for widespread flooding and river flood warnings. Both set off their crawl system. (Next spring, they will have different HVTEC coding and the media will have to adjust their system)

•Products

- By far the most important product we issue is the AFD. This helps them know what we are really thinking.
- The TV mets all use our ZFP while the radio personnel use more point and click. They would like to see a point and click give a general forecast for a larger area rather than just a county. They need a forecast to cover portions of more than one CWA.

Breakout Sessions: Hydrology

Comments:

•The Ohio RFC

- The main concern revolves around the lack of communication from the Ohio RFC.
- They have valuable information to share with them that would help the hydrologists in preparing forecasts for the Cumberland basin.
- Forecasts from OHRFC have been as much as 10 ft off when the Corps model was much closer.
- Concerns about discrepancies in the forecasts because of the time that the models are run at all RFCs. They do not make decisions regarding operations along the Cumberland River when the RFC models are run. They run their models later, taking the release information into consideration and find their forecasts are much better.

Breakout Sessions: Hydrology

Comments:

•Precipitation Amts

- The Corps in Nashville uses precip amounts from us and may soon use radar precip estimates
- They do not use forecasted precip in their model, they occasionally look at QPF, mainly from HPC.

•Other

- They feel the website is overwhelming and difficult to navigate
- Can we add Chester to the Cape Girardeau NWR?
- The users want more frequent river forecast updates from all the RFCs, even evening updates.

Breakout Sessions: Aviation

- Will MDH get a TAF?
- I need Skew-T data for MDH
- How can I get better freezing level data?
- How can I get better winds for flights?
- Can you tailor area forecast/airmets and sigmets to our area?
- Is the VWP data available to the public? VWP text product?
- Can we get the satellite pictures to loop on the website?
- We want more ASOSs
- Radio frequency of ASOS/AWOS a problem – too many are picked up in route
- Problem → No TAFs between EVV and STL
- Wish ASOS/AWOS had faster reaction time to changing conditions-overall though, they are an amazing resource
- Would like to see a link on our Aviation webpage to the Aviation Discussion (GOLD!)
- Make TAFs current/concise – too many TEMPOs groups gives the impression we're just flipping a coin to make the forecast.
- Clouds AOA 6000 ft are considered for refueling missions
- AWC's Airmets are not useful/Sigmets are somewhat useful.

“TAFs and METARs are our meat and potatoes”

Breakout Session:

Utilities/Power Plants/Transportation

Comments:

- **Would like to see a two week forecast outlook**
- **Massac County Hwy Dept says they can provide data such as snowfall via email (they would like proper instruction on data collection!)**
- **Missouri DOT trucks are equipped with infrared sensors that measure pavement temperature- logged at stations.**
- **Ameren- outage map for MO/IL in real time by zipcode**
- **Let's find a way to package this data for us/let's share info!**
- **Toyota plant in Gibson County IN: Every shutdown costs a very large sum of money – but does not feel under or overwarned.**
- **Owensboro Electric produces a shapefile of damage after an event.**
- **Would like real time data, including ice/snow accum reports**

Breakout Sessions: Schools/Nursing Homes

Comments:

- Include more landmarks in our warnings.
- Need to be able to zoom in on radar to see specific cells (direction/speed etc) and not lose quality (keep buses safe)
- For winter weather, we need very accurate information in the 5am to 7am time frame.
- Very concerned with dense fog – would need us to make a decision by 6am so they can announce any delays for school. Would actually like the dense fog advisory tone alerted.

OTHER ITEMS DISCUSSED AND TO POSSIBLY ACT ON:

- Many people seemed confused on the Red Flag Warnings and that there is criteria to be met. Yet they see spot fires already started with no warning in effect. Maybe we need another product with different criteria to handle such events.
- Lake wind advisory/Small craft advisory (lightning for boaters?)
- Are we going to summarize the 2007 drought report?
- What can be done about the lag time between actual event and the warning being received?
- Website navigation - maybe we need an online tutorial?
- Would like to see a local search on WFO web sites.
- Would like enhanced radar viewing capabilities - high quality zoom overlaid with maps of towns/roads etc, and storm tracking.

OTHER ITEMS DISCUSSED AND TO POSSIBLY ACT ON:

- Can you use storm damage reports to provide an overlay on a map of the storm path and damages or wind speeds/hail/lightning?
- People really want us to expand on our notification systems - EMAIL/CELL PHONE/Desktop alerts?
- Let's try to utilize the highway signs for our watches/warnings and advisories!