# Tri-State Integrated Warning Team Tabletop Exercise

## After-Action Report/Improvement Plan

October 16, 2018

The After-Action Report/Improvement Plan (AAR/IP) aligns exercise objectives with preparedness doctrine to include the National Preparedness Goal and related frameworks and guidance. Exercise information required for preparedness reporting and trend analysis is included; users are encouraged to add additional sections as needed to support their own organizational needs.

# EXERCISE OVERVIEW

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|---|---|
| **Exercise Name** | Tri-State Integrated Warning Team Tabletop Exercise |
| **Exercise Dates** | October 16, 2018 |
| **Scope** | This exercise is a tabletop exercise planned for 2 hours during the Tri-State Integrated Warning Team Workshop in Ashland, KY. |
| **Mission Area(s)** | Protection and Response |
| **Core Capabilities** | Public Information and Warning, Operational Communications, Operational Coordination |
| **Objectives** | <ul><li>Objective 1: Evaluate NWS ability to supply outlook and forecast information needed to support partner decisions.</li><li>Objective 2: Exercise emergency management/NWS communications methods.</li><li>Objective 3: Exercise emergency management response plans, including EOC activation and public notification.</li></ul> |
| **Threat or Hazard** | Severe weather and flash flooding. |
| **Scenario** | NWS meteorologists and partners will simulate the exchange of information that takes place leading up to a severe weather and flash flood event. Incidents will also occur leading up to the event that will test the ability of NWS and partners to communicate important decision support information and activate emergency response plans. |
| **Sponsor** | National Weather Service, Kings Daughters Medical Center |
| **Participating Organizations** | National Weather Service, Kentucky Emergency Management, Kentucky Department of Public Health, American Red Cross, Kentucky Transportation Cabinet, Ohio Emergency Management Agency, WOWK, WTAP… |
| **Point of Contact** | Tony Edwards<br><br>NOAA/NWS, 400 Parkway Road, Charleston, WV  25309<br><br>304-746-0173 x223 |

# ANALYSIS OF CORE CAPABILITIES

Aligning exercise objectives and core capabilities provides a consistent taxonomy for evaluation that transcends individual exercises to support preparedness reporting and trend analysis. Table 1 includes the exercise objectives, aligned core capabilities, and performance ratings for each core capability as observed during the exercise and determined by the evaluation team.

| Objective | Core Capability | Performed without Challenges (P) | Performed with Some Challenges (S) | Performed with Major Challenges (M) | Unable to be Performed (U) |
|---|---|---|---|---|---|
| Evaluate NWS ability to supply outlook and forecast information needed to support partner decisions. | Public Information and Warning | | X | | |
| Exercise emergency management/NWS communications methods. | Operational Communications | | X | | |
| Exercise emergency management response plans, including EOC activation. | Operational Coordination | X | | | |

**Ratings Definitions:**
- Performed without Challenges (P): The targets and critical tasks associated with the core capability were completed in a manner that achieved the objective(s) and did not negatively impact the performance of other activities. Performance of this activity did not contribute to additional health and/or safety risks for the public or for emergency workers, and it was conducted in accordance with applicable plans, policies, procedures, regulations, and laws.
- Performed with Some Challenges (S): The targets and critical tasks associated with the core capability were completed in a manner that achieved the objective(s) and did not negatively impact the performance of other activities. Performance of this activity did not contribute to additional health and/or safety risks for the public or for emergency workers, and it was conducted in accordance with applicable plans, policies, procedures, regulations, and laws. However, opportunities to enhance effectiveness and/or efficiency were identified.
- Performed with Major Challenges (M): The targets and critical tasks associated with the core capability were completed in a manner that achieved the objective(s), but some or all of the following were observed: demonstrated performance had a negative impact on the performance of other activities; contributed to additional health and/or safety risks for the public or for emergency workers; and/or was not conducted in accordance with applicable plans, policies, procedures, regulations, and laws.
- Unable to be Performed (U): The targets and critical tasks associated with the core capability were not performed in a manner that achieved the objective(s).

**Table 1. Summary of Core Capability Performance**

The following sections provide an overview of the performance related to each exercise objective and associated core capability, highlighting strengths and areas for improvement.

## Objective: Evaluate NWS ability to supply outlook and forecast information needed to support partner decisions

The strengths and areas for improvement for each core capability aligned to this objective are described in this section.

## Core Capability: Public Information and Warning

### Strengths

The full capability level can be attributed to the following strengths:

**Strength 1:**  There was good general knowledge of the Decision Support Services that the individual NWS offices provide, including services available for Hazmat incidents.

**Strength 2:**  Exercise participants generally understood the terminology used by meteorologists in their briefings.  The level of response increased as the confidence levels and threat levels expressed by the meteorologists increased in each briefing.

**Strength 3:**  Several participants remarked that they look at computer model forecasts themselves and then ask the local NWS office their opinion on the models.  This means that decision makers trust the meteorologists to interpret the models correctly and points to the importance of meteorologists being good communicators and not just "forecasters".

**Strength 4:**  Decision makers generally understood how to change their posture based on changes in threat levels in the products presented, i.e. marginal risk of severe weather increasing to slight risk of severe weather.

### Areas for Improvement

The following areas require improvement to achieve the full capability level:

**Area for Improvement 1:**  Some participants were unaware of the Hazardous Weather Outlook or Area Forecast Discussion used by the National Weather Service offices.  Continued education on these and other products and services should be conducted by the National Weather Service.

**Area for Improvement 2:**  Some participants did not understand the term "severe weather" used in longer-term forecasts.  There was also some confusion between the terms "slight" and "moderate" used to define severe weather categories.  NWS offices can combat this confusion by being more specific on expected impacts in their products as early as possible in the forecast process for the event.

**Area for Improvement 3:**  General feedback from participants indicates that the public confuses the difference between "flash flooding" and "areal flooding".  Continued education on these and other products and services should be conducted by the National Weather Service.

**Area for Improvement 4:**  Exercise participants whose AORs encompass multiple NWS CWAs communicated the need for a more cohesive message coming from all NWS offices.

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## Objective: Exercise emergency management/NWS communications methods

The strengths and areas for improvement for each core capability aligned to this objective are described in this section.

## Core Capability: Operational Communications

### Strengths

The full capability level can be attributed to the following strengths:

**Strength 1:**  Several positive remarks were made about the morning Hazardous Weather Outlook emails sent by NWS Charleston, WV.

**Strength 2:**  The exercise provided a good way to introduce participants to NWS products and how to use the products when making decisions.

### Areas for Improvement

The following areas require improvement to achieve the full capability level:

**Area for Improvement 1:**  Some participants wondered if the NWS has an app for forecasts. NWS offices should continue to educate partners on the mobile.weather.gov service or alternatives.

**Area for Improvement 2:**  Some participants did not understand the term "severe weather" used in longer-term forecasts.  NWS offices need to be more specific on any impacts, instead of using the blanket statement "severe weather" in their products.

**Area for Improvement 3:**  Some participants asked for an expanded training session on NWS services, similar to a class held in the past by Ohio EMA.  FEMA G-271 course should be offered in the area.

# Objective: Exercise emergency management response plans, including EOC activation

The strengths and areas for improvement for each core capability aligned to this objective are described in this section.

## Core Capability: Operational Coordination

### Strengths

The full capability level can be attributed to the following strengths:

**Strength 1:** Emergency managers made good use of Local Emergency Planning Committees by sending heads up emails containing NWS weather information several days prior to the severe weather event.

**Strength 2:** Responses to scenarios indicate that most EOCs would be staffed with positions that would be needed with the weather activity going on and that most EOCs are prepared for an extended activation.

**Strength 3:** EMs indicated that a wide array of communication methods would be utilized to inform the public of the potential hazards. These included social media, media releases, reverse 911, public alert and notification programs/apps, Wireless Emergency Alerts, warning sirens, etc.

**Strength 4:** There were various ideas expressed on how to respond to the potential hazards for the public event. Participants identified the threats early on and involved event leaders and first responders in their planning.

### Areas for Improvement

The following areas require improvement to achieve the full capability level:

**Area for Improvement 1:** There were some questions on the ability for NWS to provide on-site weather support at an EOC or other event. Individual NWS offices should clarify this policy and educate their partners on the policy and how to request support.

**Area for Improvement 2:** Some groups questioned if a county-level state of emergency could be declared. This would enable EMA to have jurisdiction over the planned event. Individual county EM directors should clarify this in their EOPs.

# APPENDIX A: IMPROVEMENT PLAN

This IP has been developed specifically for the National Weather Service as a result of Tri-State Integrated Warning Team Tabletop Exercise conducted on October 16, 2018.

| Core Capability | Issue/Area for Improvement | Corrective Action | Primary Responsible Organization | Organization POC |
|---|---|---|---|---|
| Public Information and Warning | Some participants were unaware of the Hazardous Weather Outlook or Area Forecast Discussion used by the National Weather Service offices. | Continued and continual education on these and other products and services should be conducted by the National Weather Service. | National Weather Service | Warning Coordination Meteorologist |
| | Some participants did not understand the term "severe weather" used in longer-term forecasts. There was also some confusion between the terms "slight" and "moderate" used to define severe weather categories. | NWS offices can combat this confusion by being more specific on expected impacts in their products as early as possible in the forecast process for the event. | National Weather Service | Warning Coordination Meteorologist/ Forecasters |
| | General feedback from participants indicates that the public confuses the difference between "flash flooding" and "areal flooding". | Continued education on these and other products and services should be conducted by the National Weather Service. | National Weather Service | Warning Coordination Meteorologist |
| | Exercise participants whose AORs encompass multiple NWS CWAs communicated the need for a more cohesive message coming from all NWS offices. | NWS offices should continue to improve interoffice coordination. | National Weather Service | Meteorologist-in-Charge |

Homeland Security Exercise and Evaluation Program (HSEEP)

| Core Capability | Issue/Area for Improvement | Corrective Action | Primary Responsible Organization | Organization POC |
|---|---|---|---|---|
| Operational Communications | Some participants wondered if the NWS has an app for forecasts. | NWS offices should continue to educate partners on the mobile.weather.gov service or alternatives. | National Weather Service | Warning Coordination Meteorologist |
| | Some participants did not understand the term "severe weather" used in longer-term forecasts. | NWS offices need to be more specific on any impacts, instead of using the blanket statement "severe weather" in their products. | National Weather Service | Warning Coordination Meteorologist/ Forecasters |
| | Some participants asked for an expanded training session on NWS services, similar to a class held in the past by Ohio EMA. . | FEMA G-271 course should be offered in the area | State EMA/National Weather Service | State EMA Training Officer |
| Operational Coordination | There were some questions on the ability for NWS to provide on-site weather support at an EOC or other event. | Individual NWS offices should clarify this policy and educate their partners on the policy and how to request support. | National Weather Service | Warning Coordination Meteorologist |
| | Some groups questioned if a county-level state of emergency could be declared.  This would enable EMA to have jurisdiction over the planned event. | Individual county EMA directors should clarify this in their EOPs. | County EMA Directors | County EMA Directors |

Homeland Security Exercise and Evaluation Program (HSEEP)

# APPENDIX B: EXERCISE PARTICIPANTS

| Participating Organizations |
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| **Federal** |
| National Weather Service – WFO Jackson KY, Wilmington OH, Charleston WV |
| United States Coast Guard |
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| **State/Regional** |
| Kentucky Division of  Emergency Management |
| Kentucky Department for Public Health |
| Kentucky Transportation Cabinet |
| West Virginia Division of Highways |
| Ohio Emergency Management Agency |
| American Red Cross |
| Fresenius Kidney Care |
| Southern Ohio Amateur Radio Association |
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| **County** |
| Boyd County KY EMA |
| Boyd County Public Schools |
| Ashland – Boyd County Health Department |
| Boyd County 911 |
| Buchanan County VA Public Schools |
| Lawrence County KY EMA |
| Lawrence County OH EMA |
| Lawrence County OH EMS |
| Cabell County 911 |
| Putnam County WV OEM-911 |
| Kanawha County WV EMA |
| Jackson County OH EMA |
| Greenup County KY EMA |
| Lewis County KY EMA |
| Logan County WV Commission |
| Bath County KY Emergency Management |
| Greenup County ARES |
| Lawrence County OH ARES |
| Wood/Wirt County LEPC |
| **City/Local** |
| City of Grayson KY EMA |
| King's Daughters Medical Center |
| |
| **Media** |
| WTAP-TV |
| WSAZ-TV |
| WOWK-TV |