



DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric
Administration

NATIONAL WEATHER SERVICE

1325 East-West Highway
Silver Spring, Maryland 20910-3283

APRIL 14, 2009

MEMORANDUM FOR: Distribution

FROM: W/OPS2 Acting - Neal DiPasquale

SUBJECT: Follow-On Operational Test & Evaluation Test (FOTE) Report for
the All Hazards Emergency Message Collection System
(HazCollect), dated April 2009

Attached for your information is a copy of the subject test report defining how the National Weather Service (NWS) conducted the Follow-On Operational Test & Evaluation (FOTE) of the All Hazards Emergency Message Collection System (HazCollect).

The HazCollect FOTE was conducted **September 17, 2008** through **December 5, 2008** at the following NWS Weather Forecast Offices (WFOs):

- WFO Pittsburgh (PBZ), PA
- WFO Tallahassee (TAE), FL
- WFO Paducah (PAH), KY
- WFO San Francisco Bay Area/Monterey (MTR), CA
- WFO Sacramento (STO), CA
- WFO Anchorage (AFC), AK
- WFO Honolulu (HFO), HI.

Subsequent to this test report, an abbreviated Operational Test & Evaluation (OT&E) for an Initial Operating Capability (IOC) of HazCollect was conducted in March 2009. The results of the March 2009 OT&E were satisfactory and on April 3, the Test Review Group recommended proceeding to implement HazCollect IOC. The test report for the abbreviated OT&E will be forthcoming.

Please direct any comments or questions to the FOTE Director, Bert Vilorio W/OPS24 at 301-713-0326 ext 131, (Bert.Vilorio@noaa.gov) or Jae Lee W/OPS24 at 301-713-0326 ext 158, (Jae.Lee@noaa.gov).

Attachment



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FOLLOW-ON OPERATIONAL TEST & EVALUATION (FOTE) REPORT

For the
**All-Hazards Emergency
Message Collection System (HazCollect)**

April 2009

**U.S. DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
National Weather Service/Office of Operational Systems
Field Systems Operations Center/Test and Evaluation Branch**

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Executive Summary

This test report contains the test and evaluation results from the Follow-On Operational Test & Evaluation (FOTE), conducted by the National Weather Service (NWS), for the All Hazards Emergency Message Collection System (HazCollect). The report includes the test objectives and criteria, Test Trouble Reports (TTRs), test results, and recommendations.

The HazCollect system previously underwent an Operational Acceptance Test (OAT) from June 5, 2006 through July 21, 2006. A Field Operational Demonstration Test (FOD) was performed from November 6, 2006 through November 22, 2006 to test fixes and solutions for problems found during the OAT. After the FOD, additional problems and issues were documented. The Office of Operational Systems, Test & Evaluation Branch (OPS24) was responsible for conducting both tests. Results were recorded in test reports available on the OPS24 website:

http://www.nws.noaa.gov/ops2/ops24/documents/hazcollect_docs.htm

Due to a recent change in network connectivity using NOAANet instead of the previous dedicated commercial providers, the HazCollect system needed to be re-verified for end-to-end dissemination capabilities. The system was not specifically updated to address any of the critical TTRs from the previous OAT and FOD. Prior to start of the FOTE, the HazCollect system went through a successful system test from September 11 through September 15, 2008 at the National Weather Service Headquarters (WSH). The Office of Science and Technology (OS&T) and their contractor (UACS) were responsible for the system test. OPS24 was responsible for the planning, conducting, and reporting of the FOTE.

The HazCollect FOTE was conducted **September 17, 2008**, through **December 5, 2008** at the following NWS Weather Forecast Offices (WFO) during the dates indicated:

- WFO Paducah (PAH), KY (Sept 17, 2008 - Dec 5, 2008)
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- WFO Anchorage (AFC), AK (Oct 28, 2008 - Dec 5, 2008)
- WFO Tallahassee (TAE), FL (Nov 4, 2008 - Dec 5, 2008).

Before the start of the FOTE, an FOTE Readiness Review meeting was conducted by OPS24 and confirmed all prerequisites listed from the test plan were met. During the FOTE, the test team traveled to WFO MTR to conduct, witness, and oversee the Disaster Management Interoperability Services (DMIS) Open Platform for Emergency Networks (OPEN) Application Programming Interface (API) demonstration. For all the other sites, OPS24 performed tests by teleconference to verify the status of the HazCollect system using non-weather emergency messages (NWEMs) test messages.

Overall, the HazCollect system was able to transmit messages successfully during the FOTE. The test sites successfully monitored and verified that all test messages were properly broadcasted in Console Replacement System (CRS), including all test messages during the state and national

message tests. OPS24 also performed some of the tests at NWS headquarters (WSH) including performance and failover testing.

During the FOTE, a Test Review Group (TRG) consisting of NWS headquarters personnel, NWS Employees Organization (NWSEO) representative, regional and FOTE site focal points, met weekly to discuss the status of the testing, review FOTE activities, and adjudicated reported test trouble reports (TTRs). TTRs created during the FOTE were tracked using the TestTrack Pro database and were addressed during the TRG meetings for assignment and resolution. Each of the TTRs was classified with a specific **Priority** and **Impact** (see Attachment D, Page D-1 footnote). The FOTE officially ended December 5, 2008.

On December 10, 2008, the HazCollect FOTE Wrap-Up meeting was held to discuss the results of the FOTE. All of the Test Plan test objectives were successfully met except for the failover and recovery functionality. The outgoing failover tests failed as test messages were not received at the Telecommunications Gateway from the backup HazCollect server. Additionally, the DMIS OPEN API demonstration was not able to demonstrate the end-to-end dissemination using the Common Alerting Protocol (CAP) editor, and up to broadcasting the message to the transmitter via HazCollect server. The WMO message, converted from the input CAP message at the HazCollect server, did not have an effective time value and was not disseminated.

There were 12 TTRs that were generated with nine TTRs that are still open. Six of the nine open TTRs are designated with Impact 2 (malfunction of required functionality; reasonable workaround). Per the FOTE Test Plan, all assigned TTRs with Impact 1 or 2 must be resolved and closed prior to a deployment.

At the HazCollect FOTE Wrap-Up meeting, the TRG agreed that the HazCollect will be available for use, after the FOTE, only by emergency managers involved during the FOTE in the event of actual emergencies. New users can be added at the start of the Initial Operating Capability (IOC). Plans for routine weekly/monthly test of the HazCollect system by some emergency managers and their local NWS WFOs are being discussed by the Office of Climate, Water, and Weather Services (OCWWS) who will be coordinating this task.

The Program Office informed the TRG of the HazCollect deployment plan. The HazCollect IOC will be scheduled for April, 2009. OS&T estimates another 18 months before it proceeds to the final operational capability (FOC) with the additional development and testing. OS&T will be the system owner and in charge of the HazCollect system until FOC.

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Acronyms

| | |
|----------|--|
| API | Application Programming Interface |
| AWIPS | Advanced Weather Interactive Processing System |
| C & A | Certification and Accreditation |
| CAFE | CRS AWIPS Formatter Extended |
| CAP | Common Alerting Protocol |
| COG | Collaborative Operations Group |
| CRS | Console Replacement System |
| DHS | Department of Homeland Security |
| DMIS | Disaster Management Interoperability Services |
| EM | Emergency Manager |
| EMWIN | Emergency Manager Weather Information Network |
| FOC | Final Operating Capability |
| FOTE | Follow-On Operational Test & Evaluation |
| IOC | Initial Operating Capability |
| MIC | Meteorologist In Charge |
| NCF | Network Control Facility |
| NOAA | National Oceanic and Atmospheric Administration |
| NWEM | Non-weather emergency message |
| NWR | NOAA Weather Radio All Hazards |
| NWRWAVES | NOAA Weather Radio with All-Hazards VTEC Enhanced Software |
| NWS | National Weather Service |
| NWSTG | National Weather Service Telecommunications Gateway |
| NWWS | NOAA Weather Wire Service |
| OAT | Operational Acceptance Test |
| OCWWS | Office of Climate, Water, and Weather Services |
| OPEN | Open Platform for Emergency Networks |
| OPS24 | Office of Operational Systems, Test & Evaluation Branch |
| OST | Office of Science and Technology |
| PAMS | Product Availability Monitoring System |
| PNS | Public Information Statement |
| POC | Point of Contact |
| ST | System Test |
| TRG | Test Review Group |
| TTR | Test Trouble Report |
| UGC | Universal Geographic Code |
| VTEC | Valid Time Event Code |
| WAN | Wide Area Network |
| WCM | Warning Coordination Meteorologist |
| WFO | Weather Forecast Office |
| WMO | World Meteorological Organization |
| WSH | National Weather Service Headquarters |

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1.0 Introduction

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2.0 Purpose

The purpose of the HazCollect FOTE was to verify the end-to-end operation of the HazCollect system from the DMIS user interface client software or third party vendor software (OPEN API-compliant), the HazCollect server software, and at specified NWS dissemination infrastructure verification points [e.g., NOAA Weather Wire Service (NWWS), CRS, NOAA Weather Radio All-Hazards (NWR), and NWR "Public Alert Certified" receivers].

The FOTE was performed to ensure the DMIS user interface client software, the HazCollect server, the National Weather Service Telecommunications Gateway (NWSTG), Network Control Facility (NCF), NOAA Weather Wire Service (NWWS), Emergency Manager Weather Information Network (EMWIN), CRS, and NWR systems will be validated for communication reliability, and availability to support HazCollect. The FOTE would also confirm the overall HazCollect system does not adversely affect current field office operations.

3.0 FOTE Test Activities

The FOTE was performed at specific WFOs (see **Attachment B**) representing all the six NWS regions. The FOTE started in September 17, 2008 and officially ended in December 5, 2008. Each of the FOTE sites started their FOTE at specific start dates, wherein pre-test requirements were verified before the actual start of their tests.

Before the start of the FOTE at a test site, the emergency managers were informed that they needed to have valid DMIS accounts and belong in Collaborative Operations Groups (COG). If not already installed, the DMIS client v2.3.3 was required to be installed on their computer for use during the FOTE. The test sites were also notified that they need to be configured and enabled for HazCollect. The FOTE test team verified the above requirements including the issuance of the public information statement (PNS). The PNS messages were verified to have been issued before the start of testing, including during the state and national message tests.

During the FOTE, the following tests (see **Attachment C for detailed chronology and information**) were performed to verify the test objectives outlined in the HazCollect FOTE Test Plan. The FOTE test team traveled to WFO MTR on October 7 through 8, 2008 to conduct the DMIS OPEN API demonstration. For all the other test sites, testing was performed by

teleconference and monitored via verifications on the HazCollect server website logs and NWS response emails.

The FOTE Testing included end-to-end verification of DMIS client generated NWEM messages for local, state, and National scope, performance-based verification (authentication and dissemination speed), HazCollect server modes checking, DMIS OPEN API demonstration using third party software, failover and recovery testing, and limited NRRWAVES testing.

3.1 Dissemination Tests

There were a total of 87 test Administrative Messages (ADR) generated by the emergency managers during the FOTE. These messages are the combined test messages during the teleconferences and during the regular emergency manager exercise of the DMIS client (daily or weekly). These messages verified receipt at the HazCollect server, WFO transmission, NWS response email verification, and EMWIN verification. Additionally, these test messages also verified Advanced Weather Interactive Processing System (AWIPS) red banner display; CRS broadcast cycle display; and subsequent broadcast to designated transmitters to NOAA weather radio. In addition to verifying the test message contents, the SAME tone generation was also monitored for transmission.

During the FOTE, there were two actual emergency messages (both 911 Telephone Outage Emergency, TOEPAH) generated by Walter Atherton, Paducah KY emergency manager. These two NWEM messages were successfully generated, on October 29, 2008, using the DMIS client v2.3.3 and were successfully broadcasted from the field office at Paducah, KY to NOAA weather radio.

There were two performance-based tests conducted on September 17, 2008 which included the verification of single NWEM dissemination within 2 minutes from emergency manager interfaces and the emergency manager authentication within 5 seconds. Both performance-based tests were successfully verified.

The single NWEM dissemination took 19 seconds based on the HazCollect Message Queue and the Product Availability Monitoring System (PAMS) logStreamExpect log value. The 19-second transmission time was consistent with both the FOTE test team message to WFO PAH and from the emergency manager generated NWEM message. The emergency manager authentication took about 2 seconds.

During the week of October 26th, the FOTE test team noted that the test ADR messages were erroneously generated with incorrect time zones. The Daylight time to Standard time had been recently updated to switch on November 2, 2008, but DMIS/HazCollect was still using the previous switch in the last week of October (see **TTR #61**).

3.2 Server Mode Tests

On September 18 and 19, 2008, the FOTE test team successfully verified the HazCollect server modes and their behavior when messages are input to HazCollect. The modes that were verified included:

- Active/Actual (used during actual end-to-end dissemination tests)
- Active/Test (WFO PAH test)
- Test/Actual (correction and update tests)
- Test/Exercise (WFO PAH test)
- Test/System (WFO PAH test)
- Test/Test (used during failovers. The ADR test messages, designated for WFO PAH, were not actually disseminated as the NWSTG contained filters to detect incoming ADRPAH messages and did not allow the Test/Test messages to transmit. These mode tests allowed the failover testing multiple ingest and outgoing tests without concern for repeated test messages being transmitted at WFO PAH)
- Training/Actual, Training/System, Training/Exercise, Training/Test (all tested at WSH)

During the verification of end-to-end messages and mode checking, two database-related issues were noted as problems. The HazCollect server mode, when updated, was not being saved in all of the HazCollect servers (see **TTR #55**). The mode, when changed, was only updated on the selected HazCollect server using the HazCollect server website and is not simultaneously updated for all servers. Additionally, the HazCollect message queue data were not available for display in all of the servers (see **TTR #56**). The message queue data was only available for the primary server; the backup data server did not contain the same message queue data.

3.3 State Message Tests

All of the state message tests were successfully performed for Pennsylvania, Florida, Kentucky, California, Alaska, and Hawaii.

Alaska: During the state message test for Alaska, the SAME tones were not configured for broadcast as requested by the WFO Anchorage WCM, Sam Albanese. Previous Alaska test messages have already verified the SAME tone handling. Additionally, there was an on-going issue of ADR messages (enabled for SAME tones) being used to update tsunami warnings, and at the same time used to cancel actual NWEM messages.

Pennsylvania: On September 30, 2008, during the state message test for Pennsylvania, WFO Pittsburgh, PA was experiencing AWIPS problems and alerted the FOTE test team that it might not be able to broadcast the incoming test ADR state message. When the state message for PA was sent, all monitoring field offices in PA, except for Pittsburgh, were able to report successful broadcast. When WFO Pittsburgh was able to resolve their AWIPS issues, the old and expired ADR state message for Pittsburgh was inadvertently sent through CRS and broadcasted with new and improper creation date and expiration time. This problem has been initially attributed to possible CRS AWIPS Formatter Extended (CAFÉ) formatter handling and has been documented in **TTR# 58**.

Hawaii: On October 23, 2008, Tom Simon (Hawaii EM) was able to repost a successful Hawaii state test message as a previous test message incurred time zone errors (see **TTR# 59**). The repost was performed after Tom applied Windows patches on his work computer, reset the system time zone, and performed system shutdown and reboot. Tom also recommended a capability in HazCollect to be able to individually select counties or state codes. Currently, HazCollect is generating his state message as HIC000 instead of pre-selected counties (see **TTR#62**).

Florida: On November 6, 2008, during the Florida state message test, John Fleming (Florida EM) generated an ADR state message which included all Florida marine zones. All monitoring WFOs were able to properly report two ADR messages (one for the ADRFL land zone and another one for the Florida marine zone). However, Arthur Kraus (OS51) noticed that a required message with a required marine zone area was missing (e.g., WFO Miami marine zone GMZ656). This missing marine zone message anomaly was repeated upon further FOTE test team retest (see **TTR #64**).

3.4 National Message Test

Before the actual national message test, Mike Moss (AWIPS SST) provided the readiness reports (HazCollect configuration script execution) to all the field offices. He also provided instructions on how to run the HazCollect scripts for those sites that have not recently run these scripts.

The National message test was successfully performed on November 18, 2008. After the test, there were 13 reported problems from the different field offices, but these were mostly CRS database and configuration setup related issues. A valid issue concerned non-dissemination of the NWEM message at Puerto Rico and the Virgin Islands. At El Paso, TX, the field office also requested a re-test as their Spanish translation software was not triggered for the message.

Subsequently, Raytheon discovered that there was a problem when two or more identical NWEM messages (first line of the WMO message header) are input to NCF causing to possible non-generation of the message. Raytheon fixed the problems at the NCF and during the retest on December 2, 2008, NWEM messages were properly generated for Puerto Rico and the Virgin Islands and successfully broadcasted. At El Paso, TX, the field office personnel determined that they had issues with their Spanish translator script timeouts and data trigger problems so when these were rectified, the message was resent and the Spanish broadcast was successfully verified.

After the National Message test, WFO Guam reported that their GUMADRGUM message had an “incorrect” Universal Geographic Code (UGC) of GUC085. Herb White (OS51) responded that the UGC value was obtained from the Public forecast Zone-county Correlation file sourced from the AWIPS County and Public Zones shapefiles. Herb White also added from recent teleconferences, Bill Ward (PRH POC) has been working with WFO Guam to make corrections to the shapefiles and public zone IDs. Herb White added that further investigation needs to be performed to verify these corrections (see **TTR #66**).

3.5 DMIS OPEN API Demonstration

The DMIS OPEN API demonstration was initially conducted on October 7-8, 2008, at the Contra Costa Emergency Manager facility in California and at WFO MTR and WFO STO. During the OPEN API demonstration, there were specific CAP v1.1 compliance issues (see **Attachment C**) which were documented in **TTR # 60**.

While there were subsequent re-demonstration attempts on October 10, October 31, and November 10, 2008, there were problems that precluded end-to-end dissemination from the CAP editor, to the Hormann America CapConHC conversion to CAP format, to input and output from

the DMIS production server, and into the HazCollect server at Silver Spring, MD. During the last demonstration on November 10th, the generated WMO message from the incoming test CAP message was missing the effective time and hence was not disseminated. Contractors for FEMA/DHS are currently working to find and troubleshoot the possible CAP to WMO message conversion problem.

3.6 Failover and Recovery Tests

The failover and recovery functionality of HazCollect system were validated for ingest and outgoing handling on September 30, 2008, November 7 and 25, 2008. The ingest handling consisted of verifying HazCollect servers (Rack 1 at Silver Spring, MD and Rack 2 at Mt Weather, WV) for receipt of test messages generated by the DMIS client v2.3.3 software. The outgoing handling consisted of verifying that the ingested messages into HazCollect are subsequently sent to the NWSTG. Initial ingest problems (see **TTR#57** and **TTR#63** in **Attachment D**) were successfully retested and verified. However, outgoing handling incurred problems and these outstanding problems were noted in **TTR #65**.

3.7 NWRWAVES Test

On November 21, 2008, the FOTE test team conducted a limited test of the NOAA Weather Radio with All-Hazards Valid Time Event Code (VTEC) Enhanced Software (NWRWAVES) formatter for NWEM messages through HazCollect. The test was in preparation for using NWRWAVES as the possible formatter for HazCollect at the field offices since the HazCollect system still currently uses the CAFÉ formatter as its official formatter. While the limited test with WFO Paducah, KY was successful, Central Region Headquarters and the FOTE test team recommended further and more rigorous testing of the NWRWAVES formatter with HazCollect by the Software Branch (OPS23).

4.0 Conclusion

On December 10, 2008, the HazCollect FOTE Wrap-Up meeting was held to discuss the results of the FOTE. All of the Test Plan test objectives were successfully met except for the failover and recovery functionality. The outgoing failover tests failed as test messages were not received at the Telecommunications Gateway from the backup HazCollect server. Additionally, the OPEN API demonstration was not able to demonstrate the end-to-end dissemination using the Common Alerting Protocol (CAP) editor, and up to broadcasting the message to the transmitter via HazCollect server. The WMO message, converted from the input CAP message at the HazCollect server, did not have an effective time value and was not disseminated.

At the HazCollect FOTE Wrap-Up meeting, the TRG agreed that the HazCollect will be available for use, after the FOTE, only by emergency managers involved during the FOTE in the event of actual emergencies. New users can be added at the start of the Initial Operating Capability (IOC). Plans for routine weekly/monthly test of the HazCollect system by some emergency managers and their local NWS WFOs are being discussed by the Office of Climate, Water, and Weather Services (OCWWS) who will be coordinating this task.

The Program Office informed the TRG of the HazCollect deployment plan. The HazCollect IOC will be scheduled for April, 2009. OS&T estimates another 18 months before it proceeds to the final operational capability (FOC) with the additional development and testing. OS&T will be the system owner and in charge of the HazCollect system until FOC.

4.1 Test Objectives Results

The list of all the HazCollect FOTE test objectives, criteria, and results are listed in Table 1. **Per Table 1, seven out of nine FOTE test objectives passed.** The OPEN API demonstration is still pending due to missing effective time and end-to-end dissemination issues.

Table 1 - HazCollect FOTE Test Objectives and Results

| Item | Test Objective | Criteria | Results |
|------|---|--|---|
| 1 | Confirm the following setup/configurations: <ul style="list-style-type: none"> • DMIS setup for emergency managers • Collaborative Operations Groups (COG) setup and EM/user registration • HazCollect server setup • FOTE sites configured (AWIPS, CRS) for HazCollect | The setup and configurations listed above are complete and accurate. | PASS Setup and configuration were properly performed prior to the start of the tests. |

| Item | Test Objective | Criteria | Results |
|------|--|---|--|
| 2 | Verify the operation of the HazCollect system. | The HazCollect and FOTE site service operations perform successfully without adversely affecting current field office operations. The current dissemination of any existing non-HazCollect NWEMs is still fully functional. | PASS The HazCollect system performed successfully without affecting field office operations |
| 3 | Verify HazCollect products for end-to-end dissemination. | The HazCollect NWEM messages are successfully created and verified for end-to-end dissemination from DMIS clients (or other DMIS OPEN API compliant clients) and routed to the HazCollect server and forwarded to NWS dissemination systems (NWS, EMWIN, CRS, NWR, etc.). | PASS NWEM messages generated via DMIS client were sent successfully to HazCollect. OPEN API dissemination are still pending. |
| 4 | Verify availability of required HazCollect documents. | HazCollect documentation listed in Attachment H of Test Plan is accurate and available. | PASS Documents are located in the global U drive and the directory is: \GLOBAL\$\HazCollect |
| 5 | Verify a subset of the HazCollect operational modes. | The subset of HazCollect operational modes verified at FOTE is functional. | PASS Successfully tested Active/Actual, Active/Test, all Test modes, all Training modes. |
| 6 | Verify a subset of the failover and recovery functionality of the HazCollect server. | The subset of HazCollect failover and recovery functionality verified at FOTE is operational. | FAIL TTR #65 – failed outgoing failover tests. |
| 7 | Verify the HazCollect national message functionality | The HazCollect system will successfully transmit and receive national messages to all designated listening areas. | PASS National tests on 11/18/08 and 12/2/08 were successful. |

| Item | Test Objective | Criteria | Results |
|------|---|--|--|
| 8 | Demonstrate DMIS OPEN NWEM API end-to-end functionality | The DMIS OPEN NWEM API end-to-end functionality is demonstrated successfully. | FAIL Demonstration conducted on 10/7-10/8, 10/10, 10/31, and 11/10/08; at last demo, WMO message was missing the effective time; problem being analyzed by FEMA/DHS contractor |
| 9 | Verify user-related HazCollect performance-based test procedures (2). | Performance tests are performed and meet thresholds including: i. Verify the transmission of single NWEM messages to dissemination systems within 2 minutes of submission from EM interfaces. ii. Verify the EM authentication into HazCollect within 5 seconds. | PASS 9/17/08 test @ WFO PAH, per Msg Queue and PAMS logStreamExpect logs, 19 secs. dissemination time 9/17/08 tests @ WFO APH, for single transmission, EM authentication = 2 secs. |

4.2 Test Trouble Reports

The test trouble reports generated during the HazCollect FOTE are listed in **Attachment D**. There were **12** TTRs generated during the FOTE. There are still **nine** open TTRs still pending, including **six open Priority 2 TTRs (#55, #56, #61, #64, #65, and #66)** that need to be fixed prior to deployment (see Attachment D, Page D-1 footnote).

4.3 User Surveys

The individual site questionnaire responses are found in **Attachment E** and individual emergency manager questionnaire responses are found in **Attachment F**.

The average values for site questionnaire responses are found in Table 2. These average values are calculated based on the aggregate numerical values taken from the returned site responses with ratings code 1=Excellent, 2=Good, 3=Satisfactory, 4=Deficient, and 5=Unsatisfactory. Any N/A value was not added into the overall average value.

Table 2 - Average Site Questionnaire Values

| Statement | Avg Value |
|---|-----------|
| HazCollect documentation, including any training materials, is adequate and accurate. | 2.40 |
| HazCollect NWEM dissemination under non-severe weather conditions. | 1.80 |

| Statement | Avg Value |
|--|-----------|
| HazCollect NWEM dissemination under severe weather conditions. | 2.00 |
| HazCollect effect on existing NWS infrastructure/dissemination systems | 1.80 |
| HazCollect effect on WFO operators or forecasters workload. | 1.80 |
| HazCollect is suitable for general implementation. | 2.20 |

The average values for the emergency manager questionnaire response are found in Table 3. These average values are calculated based on the aggregate numerical values taken from the returned emergency manager responses with ratings code 1=Excellent, 2=Good, 3=Satisfactory, 4=Deficient, and 5=Unsatisfactory. Any N/A value was not added into the overall average value.

Table 3 - Average Emergency Manager Questionnaire Values

| Statement | Avg Value |
|---|-----------|
| DMIS documentation, including any training materials, is adequate and accurate. | 2.40 |
| HazCollect authentication and authorization processing. | 1.60 |
| DMIS software user interface ease of use. | 2.25 |
| DMIS software dissemination of CAP formatted NWEM. | 1.80 |
| HazCollect alert response and/or any error notification back to DMIS. | 2.20 |
| DMIS effect on emergency manager workload. | 2.25 |
| DMIS software is suitable for general implementation. | 2.40 |
| DMIS OPEN API interoperability with HazCollect (if demonstrated) | 4.50 |
| HazCollect is suitable for general implementation. | 2.00 |

5.0 Recommendations

The TRG agreed to the following recommendations:

- a. The HazCollect system will be available for use after the FOTE only by emergency managers involved during the FOTE in the event of actual emergencies.
- b. There will be no registration of new users to the HazCollect system. New users will be added starting in April, 2009.
- c. Plans to use the system for additional test messages by some emergency managers and their local NWS WFOs are to be further discussed with the Office of Climate, Water, and Weather Services (OCWWS) who will be coordinating this task.
- d. Timothy Hopkins (OS&T) and Herb White (OS51) agreed to serve as main focal points for the HazCollect system.
- e. OPS24 agreed to support OS&T during ad-hoc tests and to possibly conduct another OT&E in preparation for the IOC and/or the FOC.

Attachment A – Test Review Group Members

| Name (Organization) | Function | Phone |
|---|--|----------------------------------|
| Jerald Dinges (OPS24) | Test Review Group Chair | (301) 713-0326 x160 |
| Bert Vilorio (OPS24) | FOTE Director | (301) 713-0326 x131 |
| Jae Lee (OPS24) | FOTE Test Team | (301) 713-0326 x158 |
| Joel Williams (OST11) | HazCollect Project Manager | (301) 713-3400 x114 |
| Timothy Hopkins (OST31) | WSH Test Support | (301) 713-1570 x129 |
| Steve Pritchett (OST11) | WSH Test Support | (301) 713-3557 x172 |
| Herb White (OS51) | WSH Test Support | (301) 713-0090 x146 |
| Arthur Kraus (OS51) | WSH Test Support | (301) 713-0090 x161 |
| Daniel Starosta (CIO12) | WSH Test Support | (301) 713-0864 x171 |
| Odon Dario (CIO14) | WSH Test Support | (301) 713-0510 x172 |
| Jeremiah Dewey (OST31) | Information Technology Security Officer | (301) 713-1570 x127 |
| David Manning (ER) John Guiney (ER1) | Eastern Region Focal Point | (631) 244-0107 (631) 244-0121 |
| Mike Mach (SR11) | Southern Region Focal Point | (817) 978-1100 x108 |
| Gregory Noonan (CR4) | Central Region Focal Point | (816) 891-7734 x301 |
| Jeffrey Lorens (WR1) | Western Region Focal Point | (801) 524-4000 x265 |
| Jeffrey Osiensky (AR1) | Alaska Region Focal Point | (907) 271-5132 |
| Bill Ward (PR1) | Pacific Region Focal Point | (808) 532-6415 |
| Richard Kane (WCM – WFO PBZ) | FOTE Site Focal Point | (412) 262-2170 x223 |
| Robert Goree (WCM – WFO TAE) | FOTE Site Focal Point | (850) 942-8834 x223 |
| Rick Shanklin (WCM – WFO PAH) | FOTE Site Focal Point | (270) 744-6440 x726 |
| Dave Reynolds (MIC – WFO MTR) | FOTE Site Focal Point | (831) 656-1710 x222 |
| Kathy Hoxsie (WCM – WFO STO) | FOTE Site Focal Point | (916) 979-3046 x223 |
| Sam Albanese (WCM – WFO AFC) | FOTE Site Focal Point | (907) 266-5117 |
| Ray Tanabe (WCM – WFO HFO) | FOTE Site Focal Point | (808) 973-5275 |
| John Nicklin (EM – Allegheny County, PA) | Emergency Manager | (724) 662-6100 x2441 |
| John Fleming (Florida DCA) Ben Nelson (FL State Meteorologist) | Emergency Manager State Meteorologist | (850) 413-9888 (850) 413-9885 |
| Walter Atherton (EM – Daviess County, KY) | Emergency Manager | (270) 685-8448 |

| Name (Organization) | Function | Phone |
|---|--|--|
| Art Botterell (EM – Contra Costa County, CA) | Emergency Manager | (925) 313-9627 |
| Vince McCoy (EM – Anchorage, AK) | Emergency Manager | (907) 343-1403 |
| George Burnett (EM – Hawaii) Tom Simon (EM – Hawaii) | Emergency Manager Emergency Manager | (808) 733-4301 x530 (808) 733-4300 x541 |
| Michael Dion | NWSEO Test Support | (301) 713-1792 x142 |

Attachment B – HazCollect FOTE Test Sites

| Region | FOTE Site | Test Dates | MIC / POC / EM |
|----------|---|---------------------|---|
| Eastern | WFO Pittsburgh, PA (PBZ) 192 Shafer Road Moon Township, PA 15108 (412) 262-1591 | 09/30/08 – 12/05/08 | <p>William Comeaux (MIC) (412) 262-1591 x222 william.comeaux@noaa.gov</p> <p>Richard Kane (WCM) (412) 262-2170 x223 richard.kane@noaa.gov</p> <p>John Nicklin (EM) Deputy EMA Director, Mercer County, PA 205 S. Erie St. Mercer, PA 161237 (724) 662-6100 x2441 (724) 685-1140 (Cell) jnicklin@mcc.co.mercer.pa.us</p> |
| Southern | WFO Tallahassee, FL (TAE) 7955 Airport Rd Santa Teresa, NM 88008 (505) 589-4088 | 11/4/08 – 12/05/08 | <p>Paul Duval (MIC) (850) 942-8831 paul.duval@noaa.gov</p> <p>Robert Goree (WCM) (850) 942-8834 x223 (850) 322-3250 (cell) bob.goree@noaa.gov</p> <p>John Fleming Florida DCA/DEM (850) 413-9888 john.fleming@em.myflorida.com</p> <p>Ben Nelson Florida State Meteorologist (850) 413-9885 ben.nelson@em.myflorida.com</p> |
| Central | WFO Paducah, KY (PAH) 8250 KY Highway 3250 West Paducah, KY 42086-6440 (270) 744-6440 | 09/15/08 – 12/05/08 | <p>Beverly Poole (MIC) (270)744-6440 x642 beverly.poole@noaa.gov</p> <p>Rick Shanklin (WCM) (270)744-6440 x726 ricky.shanklin@noaa.gov</p> <p>Walter Atherton, Daviess Co. KY EM/ Comms Supervisor 212 St Anne Street Room 3 Owensboro, KY 42301 270.685.8448 Office/EOC 270.929.4257 Cell atherton@daviessky.org</p> |

| Region | FOTE Site | Test Dates | MIC / POC / EM |
|---------|---|---------------------|--|
| Western | WFO San Francisco Bay Area//Monterey, CA (MTR) 21 Grace Hopper Ave, Stop 5 Monterey, CA 93943-5505 (831)-656-1725 | 10/06/08 – 12/05/08 | David Reynolds (MIC) (831)656-1710 x222 david.reynolds@noaa.gov Tom Evans (WCM) tom.evans@noaa.gov Art Botterell CWS Manager 50 Glacier Drive Martinez, CA 94553 (925) 646-4461 (Main) (925) 313-9627 (925) 383-6415 (Cell) ABott@so.co.contra-costa.ca.us |
| | WFO Sacramento CA (STO) 3310 El Camino Avenue Sacramento, CA 95821 Tel: (916) 979-3045 | 10/06/08 – 12/05/08 | Daniel Keeton (MIC) (916) 979-3041 x222 elizabeth.morse@noaa.gov Kathy Hoxsie (WCM) (916) 979-3046 x223 kathryn.hoxsie@noaa.gov |
| Alaska | WFO Anchorage AK (AFC) 6930 Sand Lake Road Anchorage, AK 99502-1845 (907) 266-5105 | 10/28/08 – 12/05/08 | Robert Hopkins (MIC) (907) 266-5120 bob.hopkins@noaa.gov Sam Albanese (WCM) (907) 266-5117 sam.albanese@noaa.gov Vince McCoy Municipality of Anchorage Emergency Coordination Mgr. (907) 343-1403 McCoyVG@ci.anchorage.ak.us |
| Pacific | WFO Honolulu, HI (HFO) 2525 Correa Rd, Suite 250 Honolulu, HI 96822 (808) 973-5286 | 10/21/08 – 12/05/08 | James Weyman (MIC) 808-973-5272 james.veyman@noaa.gov Raymond Tanabe (WCM) (808) 973-5275 raymond.tanabe@noaa.gov George Burnett State of Hawaii Civil Defense Agency (808) 733-4301 x530 gburnett@scd.hawaii.gov Tom Simon Hawaii State Civil Defense (Emergency Mgt) (808) 733-4300 x541 (Office) (808) 620-5411 (Cell) tsimon@scd.hawaii.gov |

Attachment C – HazCollect Test Summary

Software Used:

- HazCollect server software (Version 1.1)
- DMIS client software (Version 2.3.3)
- CapConHC (Hormann America CAP generator tool used for the DMIS OPEN API demonstration)

General Test Results

- There were a total of 87 test Administrative NWEMs (ADR) generated by emergency managers and successfully broadcasted

| Dates | Test/Description | Status/Results |
|------------------------|--|---|
| 09/17/08 | FOTE starts for WFO Paducah, KY (PAH) | OK |
| 09/17/08 | Performance testing @ WFO PAH, per Msg Queue: arrived at HCS@ 15:15:13, PAMS logStreamExpect @ 15:15:32 = 19 secs. | OK Procedure #230 (Attachment D – Test Plan) |
| | Walt Atherton Msg, per Msg Queue: arrived at HCS@ 19:16:21, PAMS logStreamExpect @ 19:16:40 = 19 secs. | |
| | @ WFO PAH, test team single NWEM transmission: EM authentication ~ 2 secs. | OK Procedure #200 (Attachment D – Test Plan) |
| 09/18/08 | Mode testing - Active/Actual Active/Test Test/Actual Test/Actual – Correction Test/Actual – Update Test/Exercise Test/System | OK Procedures #300, 310, 320 (Attachment D – Test Plan) |
| 09/19/09 | Mode testing - Training/Actual Training/System Training/Exercise Training/Test | OK Procedure #330 (Attachment D – Test Plan) |
| 09/24/08 | State Message test for Kentucky | OK Procedures #110 (Attachment D – Test Plan) |
| 09/29/08 | FOTE starts for WFO Pittsburgh, PA (PBZ) | OK |
| 09/30/08 | State Message test for Pennsylvania | OK Procedure #110 (Attachment D – Test Plan) |
| 10/07/08 | FOTE starts for WFO San Francisco, CA (MTR) | OK FOTE test team travels to WFO MTR and at the Contra Costa EM office. |
| 10/07/08 – 10/08/08 | DMIS OPEN API demonstration | Art Botterell was able to generate message from his CAP editor and was properly sent to CapConHC software (Hormann America) as monitored by Tomer |

| Dates | Test/Description | Status/Results |
|-------|------------------|---|
| | | <p>Petel. The CAP message was sent to DMIS server OK but it was not received at the HazCollect server. There were some possible issues with the DMIS handling of the incoming CAP message (see TTR #60 Attachment D) namely:</p> <ol style="list-style-type: none"> 1. <code><geocode>06013</geocode></code> should be in CAP 1.1; the format should be <code><geocode><valueName>SAME</valueName><value>006013</value></geocode></code> 2. SAME as used in weather Radio and EAS use a six-digit format. Therefore, the HazCollect should use a 6-digit format instead of a 5-digit format. 3. The current HazCollect CAP formatted message is (almost) in CAP 1.0 format. Two ways we can tell are: <ol style="list-style-type: none"> a. The <code><password></code> element does not exist in CAP 1.1. b. The <code><eventCode></code> value is in the "this=that" form used in CAP 1.0. 4. The current CAP formatted message uses CAP 1.0 for Alert tag: <code><alert xmlns="http://www.incident.com/cap/1.0"></code> Should be in CAP 1.1 – <code><alert xmlns="urn:oasis:names:tc:emergency:cap:1.1"></code> 5. The use of a <code><geocode></code> alone, without a corresponding geospatial geometry (a circle or polygon) is deprecated in both the CAP 1.0 and 1.1 specs. The reason is that some recipient somewhere might not be familiar with the particular geocoding system used, but latitudes and longitudes are universal. At the minimum a pre-computed default polygon could be inserted that outlines the county designated by the FIPS or SAME code. Eventually, of course, this facility will permit more precise and flexible geotargeting across all CAP-integrated warning systems. 6. Additionally, although it isn't a compliance issue, it's not necessary to include all those null elements (the ones that end with a slash, such as <code><password /></code>). If an element is empty it can be omitted altogether. Including explicit nulls doesn't do any harm, technically, but it does create unnecessary clutter. <p>Was not able to disseminate the CAP to NWEM message all the way out to WFO San Francisco (MTR) and to WFO Sacramento (STO).</p> <p>Procedure #600 (Attachment D – Test Plan)</p> |

| Dates | Test/Description | Status/Results |
|----------|---|--|
| 10/08/08 | State Message test for California | OK Procedure #110 (Attachment D – Test Plan) |
| 10/10/08 | DMIS OPEN API demonstration | Continued OPEN API demonstration with Art Botterell, Tomer Petel (Hormann America), Wayne Bailey (WFO MTR), and Neil Bourgeois. A 5 digit SAME value was used instead of the 6 digit FIPS code but still was not able to disseminate all the way from CAP editor to WFO MTR. Procedure #600 (Attachment D – Test Plan) |
| 10/21/08 | FOTE starts for WFO Honolulu, HI (HFO) | OK |
| 10/23/08 | State Message test for Hawaii | OK Procedure #110 (Attachment D – Test Plan) |
| 10/28/08 | FOTE starts for WFO Anchorage, AK (AFC) | OK |
| 10/29/08 | Two actual TOEPAH (911 Telephone Outage Emergency) messages were sent by Walter Atherton (Paducah, KY EM) @ 11:53am CDT and 12:06pm CDT | OK The two TOEPAH messages did not send out SAME tones as they were not configured for SAME tones in the CRS database at WFO PAH. This type, and other SAME toned types, has since been updated by Deanna Lindstrom at WFO PAH per CRS Maintenance Note 63. |
| 10/30/08 | State Message test for Alaska | OK Procedure #110 (Attachment D – Test Plan) |
| 10/31/08 | DMIS OPEN API demonstration | Conducted pre-test demonstration with Art Botterell, Tomer Petel, and Neil Bourgeois, using the HazCollect Active/Test mode to verify CAP message entry into HazCollect server without actual dissemination. The CAP message was now input to HazCollect server successfully. Procedure #600 (Attachment D – Test Plan) |
| 11/04/08 | FOTE starts for WFO Tallahassee, FL (TAE) | OK |
| 11/06/08 | State Message test for Florida | OK Procedure #110 (Attachment D – Test Plan) |
| 11/07/08 | Failover testing | Started OK with the ingest failover testing, but incurred problems during the backup rack (Rack 2) ingest handling with Rack 2 Router 1 OFF, Rack 2 Router ON, and both routers on Rack 1 OFF. Message was not sent through the HazCollect server. This problem was noted on TTR #63 . Procedure #510, 520 (Attachment D – Test Plan). |

| Dates | Test/Description | Status/Results |
|----------|------------------------------------|---|
| 11/10/08 | DMIS OPEN API demonstration | <p>During the last demonstration performed with WFO MTR, Tomer Petel, Art Botterell, Neil Bourgeois, and Sean Payne, the CAP message was correctly generated from CAP editor, went through CapConHC, through DMIS server OK, and was able to be input to HazCollect server. However, the CAP to WMO conversion is incorrect, as the WMO message was missing the effective time on the first line of the MND header. Message was not disseminated. Neil Bourgeois has since put in tracing code to trace the processes in the Test-HazCollect server he's using.</p> <p>Procedure #600 (Attachment D – Test Plan)</p> |
| 11/21/08 | Limited NWRWAVES testing @ WFO PAH | <p>OK Central Region Headquarters and FOTE test team recommended further testing by Software Branch (OPS23).</p> |
| 11/25/08 | Failover testing | <p>FAIL Was able to retest TTR #63 for the ingest handling and was able to successfully received incoming messages to HazCollect server (CLOSED TTR #63). However, on the outgoing tests, test messages did not go to the Telecommunications Gateway (TG) for three test conditions:</p> <ul style="list-style-type: none"> • All Rack 1 router switches (RTG-CUST) are shutdown, Rack 2 router output switch (BTG-CUST) to TG#1 is ON, and Rack 2 router output switch (BTG-CUST) to TG #2 is ON. • All Rack 1 router switches (RTG-CUST) are shutdown, Rack 2 router output switch (BTG-CUST) to TG#1 is shutdown, and Rack 2 router output switch (BTG-CUST) to TG #2 is still ON. • All Rack 1 router switches (RTG-CUST) are shutdown, Rack 2 router output switch (BTG-CUST) to TG#1 is ON, and router output switch (BTG-CUST) to TG#2 is shutdown. <p>This outstanding problem is noted on TTR #65 (see Attachment D).</p> <p>Procedure #510, 520 (Attachment D – Test Plan).</p> |
| 11/18/08 | National Message Test | <p>OK</p> <p>Procedure #110 (Attachment D – Test Plan)</p> <p>Hawaii was not included in the test due to request by WFO HFO of severe weather conditions. WFO AFC requested no SAME tones for the Alaska.</p> <p>There were 13 issues recorded which were mostly CRS setup. Puerto Rico and Virgin Islands reported non-dissemination. WFO El Paso, TX reported Spanish</p> |

| Dates | Test/Description | Status/Results |
|---------|---|--|
| | | <p>translation issues. Retest requested for TX, PR, and Virgin Islands.</p> <p>Raytheon discovered and fixed an overwrite problem when 2 exact message arrive at the NCF at the same. This affected Puerto Rico and Virgin Islands.</p> |
| 12/2/08 | Retest State Message tests for TX, PR, Virgin Islands | <p>OK</p> <p>Raytheon added fix to the overwrite problem found during initial National message test.</p> <p>WFO EPZ discovered Spanish translation script timeout issues and were subsequently fixed by field office personnel.</p> |
| 12/5/08 | FOTE ends | |

Attachment D – HazCollect FOTE Test Trouble Reports

| Date | TTR# | Summary | Priority* | Impact** | Status |
|----------|------|--|-----------|----------|--|
| 09/19/08 | 55 | HazCollect server mode changes are not saved in all servers | 2 | 2 | OPEN ; assigned to Timothy Hopkins, Joel Williams |
| 09/19/08 | 56 | HazCollect message queue data are not available for display in all servers | 2 | 2 | OPEN ; assigned to Timothy Hopkins, Joel Williams |
| 09/30/08 | 57 | Message was not sent to the expected HazCollect Rack during ingest failover | 5 | 6 | CLOSED |
| 10/01/08 | 58 | CAFÉ Formatter handling of expired NWEM messages and generation of new and incorrect creation and expiration times | 3 | 3 | OPEN ; assigned to Timothy Hopkins, Joel Williams, Steve Pritchett. AWIPS DR#20592 (major) |
| 10/22/08 | 59 | POST failed for a test message using time zone "HST" | 1 | 1 | CLOSED |
| 10/28/08 | 60 | CAP v1.1. compliance issues | 3 | 3 | OPEN ; assigned to Timothy Hopkins, Joel Williams, Steven Pritchett |
| 10/31/08 | 61 | DMIS/HazCollect posting incorrect date time / time zone on NWEM message. | 2 | 2 | OPEN ; assigned to Timothy Hopkins, Joel Williams, Steven Pritchett |
| 11/03/08 | 62 | HazCollect automatically creates state code (HIC000) for individually selected counties | 3 | 3 | OPEN ; assigned to Timothy Hopkins, Joel Williams, Steven Pritchett |
| 11/07/08 | 63 | FOTE Failover ingest test for backup (Rack 2) Router 1 switch shutdown failed. | 5 | 6 | CLOSED |
| 11/07/08 | 64 | Missing marine zone message during Florida State Message test. | 3 | 2 | OPEN ; assigned to Timothy Hopkins, Joel Williams, Steven Pritchett |
| 12/01/08 | 65 | FOTE Failover outgoing tests for backup rack (Rack 2) | 2 | 2 | OPEN ; assigned to Timothy Hopkins, Joel Williams, Steven Pritchett |
| 12/01/08 | 66 | FOTE National Message Test issues with WFO Guam | 2 | 2 | OPEN ; assigned to Herb White, Art Kraus, Bill Ward |

- * Priority 1 - Need immediate fix; suspends the FOTE
- Priority 2 - Include in the next build *before initial deployment*
- Priority 3 - Include in the next build *after deployment*
- Priority 4 - Include in a future build
- Priority 5 - Undetermined

- ** Impact 1 - malfunction of required functionality; no workaround
- Impact 2 - malfunction of required functionality; reasonable workaround for the FOTE only
- Impact 3 - less critical - loss of minimum capability
- Impact 4 - watch item
- Impact 5 - minimum to no impact; nice to have
- Impact 6 - undetermined

| TTR | Description |
|-----|---|
| 55 | <p>During FOTE testing (Tests 5 and 7), when the HazCollect server mode was changed in Rack 1 Server 1, this same data change (server mode) was not automatically changed in all servers. This data would have to be manually updated for all servers in the HazCollect Rack 1 and Rack 2 servers.</p> |
| 56 | <p>During FOTE testing, the message queue data was correctly displayed via the sysadmin utility for all incoming message data on Rack 1, Server 1 and Rack 1, Server 2. However, this same message queue data was not available in sysadmin utility on either Server 1 and Server 2 in Rack 2.</p> |
| 57 | <p>During the FOTE failover test #2, the HazCollect mode was set to 'Test' and the DMIS client status was set to 'Test'. The TG was setup to block the incoming test ADR message.</p> <p>For Failover Test #2, the Rack 1 Router 1 ingest/input line was pulled and the Test/Test ADR message was sent via DMIS client. This message is expected to arrive at Rack 1 Server 1 as the Rack 1 has another ingest/input Router 2.</p> <p>However, the Test/Test message did not go through Rack 1 Server 1 as expected. Instead, the message went through Rack 2 Server 1. Odon Dario verified the incoming message in TG and tracked the receipt from Rack 2 Server 1. Bert Vilorio checked the message queue data on the Rack 2 Server 1 sysadmin.</p> <p>UPDATE: 10/28/08 A retest was performed by FOTE test team on October 2, 2008 and the test ADR message was successfully routed to the HazCollect Rack 1 Server 1. THIS TTR IS CLOSED.</p> |
| 58 | <p>On Sept 30, 2008, FOTE test team conducted the state message for Pennsylvania. The WFO Pittsburgh office was experiencing AWIPS problems and alerted the FOTE test team that it might not be able to broadcast the incoming test ADR state message.</p> <p>When test ADR message (ADRPA) was sent at around Sept 30 1:15pm EDT, monitoring field offices for Sterling VA, Cleveland OH, State College PA, Buffalo NY, Mt Holly NJ, and Binghamton NY all reported successful broadcast except for Pittsburgh, PA.</p> <p>After WFO Pittsburgh was able to resolve their AWIPS issues by Oct 1 4:00am, yesterday's 1:15pm EDT test ADR message was still sent through CRS and broadcasted with new and improper creation date and new and improper expiration time even though the original WMO message received in AWIPS had the proper Sept 30 1:15pm creation and proper duration value.</p> <p>The following excerpts are from Joe Palko of WFO Pittsburgh, PA who reported the incident: *****</p> <p>Jae and Bert, PBZ AWIPS finally came back up on line around 4am this morning after getting new parts in and our database was restored. Anyway all products in queue were received. While of course this AWIPS problem is a rare event, but it brought up an issue with the NWEM CAFE formatter that is a problem. What if there are delays in receiving a product and it results in a WFO not receiving a product till perhaps it has expired, or a product is sent with incorrect UGC codes, the formatter should have caught it and not created a fictitious expiration time in the CRS product of 2 days after the original expiration time. In this case it was a test product and of course clearly labeled as a test so not a problem. But if this would happen with a real emergency, sending out a product saying a serious event is in effect, after it was over would be problematic.</p> <p>Attached are 2 files. One is a tar file of our completed /home/CRS/NWEM directory. The second is a copy of the PHLADRPA that was received at 0806Z that was held in queue from 115pm yesterday.</p> <p>You can clearly see that the product has an expiration time of 301745. But the NWEM CAFE formatter took it and did not decode the UGC line correctly and created formatted ADR product and sent it to CRS. If you look below the ADR expiration time in the NWR product that was sent to NWR</p> |

| | |
|----|--|
| | <p>has a expiration time set to October 2 at 1745Z (0810021745).</p> <p>aT_ENGPHLADRPA 08100108060810010806 CD PAC000c0810021745</p> <p>*****</p> <p>I have attached the two files described by Joe Palko in the Attachments tab.</p> <p>UPDATE: 10/28/08 A new AWIPS DR # 20592 (Major) has been created for this TTR.</p> <p>UPDATE: 10/29/08 At TRG meeting, the TRG agreed to set the Priority to 3, and the Impact to 3 and assigned to Joel Williams, Steve Pritchett, and Tim Hopkins.</p> |
| 59 | <p>Tom Simon (Hawaii State Civil Defense Emergency Manger) was able to create a test message successfully using DMIS client software; however, when he tried to post the message, an NWEM Posting Error window was displayed. The content of the pop-up window was "Invalid time zone, GMT-10:00 provided".</p> <p>Logged in as Sysadmin on the HazCollect Server, and view the message queue. The HazCollect Server 1, rack 1 had an error entry stating "Message failed validation. Invalid time zone, GMT-10:00 provided".</p> <p>Tom tried to post twice; therefore, there are two error entries in the queue from 10/21. The HazCollect mode was Active, and the DMIS status Cap status was Actual.</p> <p>Tom captured the screen, and the screen shot is attached to this TTR.</p> <p>UPDATE: 10/28/08 On October 23, 2008, Tom Simon (Hawaii EM) was able to post a Hawaii state test message successfully using his desktop. This message was received by WFO HFO AWIPS, CRS, weather radios, southern region's web site (confirmed by Art Kraus) and NWWS.</p> <p>Since last Tuesday's test, Tom performed the following on his desktop -</p> <ol style="list-style-type: none"> 1) Applied all the Windows patches 2) Reset Time zone 3) Shutdown and reboot the system <p>THIS TTR IS CLOSED.</p> |
| 60 | <p>A sample CAP message (10/07/08) generated for WFO MTR using the DMIS client was sent to Art Botterell for review (ATTACHED). Here are CAP v1.1 compliance comments from Art Botterell per 10/20/088 email.</p> <ol style="list-style-type: none"> 1) <geocode>06013</geocode> should be in CAP 1.1; the format should be <geocode><valueName>SAME</valueName><value>006013</value></geocode> 2) SAME as used in weather Radio and EAS use a six-digit format. Therefore, the HazCollect should use a 6-digit format instead of a 5-digit format. 3) The current HazCollect CAP formatted message is (almost) in CAP 1.0 format. Two ways we can tell are: <ol style="list-style-type: none"> a) The <password> element does not exist in CAP 1.1. b) The <eventCode> value is in the "this=that" form used in CAP 1.0. 4) The current CAP formatted message uses CAP 1.0 for Alert tag: <alert xmlns="http://www.incident.com/cap/1.0"> Should be in CAP 1.1 - <alert xmlns="urn:oasis:names:tc:emergency:cap:1.1"> |

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| | <p>5) The use of a <geocode> alone, without a corresponding geospatial geometry (a circle or polygon) is deprecated in both the CAP 1.0 and 1.1 specs. The reason is that some recipient somewhere might not be familiar with the particular geocoding system used, but latitudes and longitudes are universal. At the minimum a pre-computed default polygon could be inserted that outlines the county designated by the FIPS or SAME code. Eventually, of course, this facility will permit more precise and flexible geotargeting across all CAP-integrated warning systems.</p> <p>6) Additionally, although it isn't a compliance issue, it's not necessary to include all those null elements (the ones that end with a slash, such as <password />). If an element is empty it can be omitted altogether. Including explicit nulls doesn't do any harm, technically, but it does create unnecessary clutter.</p> <p>UPDATE: 10/29/08 The TRG agreed to set the Priority to 3, and the Impact to 3 and assigned to Tim Hopkins, Joel Williams, and Steve Pritchett.</p> |
| 61 | <p>Starting the week of Oct 26th, test daily ADR messages generated by the local emergency managers already contained date time and time zone values that are Standard time values. The Daylight time to Standard time does not switch until November 2, 2008.</p> <p>For example, the message posted by the KY Daviess county EMA office on Oct 27, 2008 contained the erroneous data on 10th line (e.g., one hour earlier than expected, and CST instead of CDT).</p> <p>-----</p> <p>000 WOUS43 KPAH 271538 ADRP AH KYC059-271608-</p> <p>BULLETIN - EAS ACTIVATION REQUESTED ADMINISTRATIVE MESSAGE/FOLLOW UP STATEMENT KY DAVIESS COUNTY EMA OWENSBORO KY RELAYED BY NATIONAL WEATHER SERVICE PADUCAH KY 0938 AM CST MON OCT 27 2008</p> <p>THIS MESSAGE IS FOR TEST PURPOSES ONLY.</p> <p>THE FOLLOWING MESSAGE IS TRANSMITTED AT THE REQUEST OF THE KY DAVIESS COUNTY EMA.</p> <p>THIS IS A TEST MESSAGE. THIS IS A TEST OF THE CAPABILITY TO RELAY EMERGENCY MESSAGES FROM NON-NATIONAL WEATHER SERVICE SOURCES USING DEPARTMENT OF HOMELAND SECURITY AND NATIONAL WEATHERSERVICE SYSTEMS. THIS TEST MESSAGE MAY BE RELAYED BY EMERGENCY ALERT SYSTEM PARTICIPATING STATIONS IN ACCORDANCE WITH LOCAL AND STATE EAS PLANS.</p> <p>THIS IS A TEST MESSAGE. DO NOT TAKE ACTION BASED ON THIS TEST MESSAGE \$\$ DM4173778661765996544/4999565908914453504 -----</p> <p>UPDATE: On 11/05/08, TRG adjudicated this TTR for Priority 2, Impact 2.</p> |
| 62 | <p>As reported by Tom Simon (HI EM): Using DMIS client software, Tom individually selected all four counties for Hawaii. He confirmed all counties (HIC001, HIC003, HIC007 and HIC009) are selected and listed under AREAS tab of the DMIS client software. He posted this test message successfully. Tom noticed that the WMO</p> |

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|----|---|
| | <p>message was generated with a state code "HIC000", not "HIC001-HIC003-HIC007-HIC009". He thought the message would individually include the counties as it was listed on the DMIS client software. The FOTE test team checked the HazCollect server and noticed that the CAP formatted message was generated with four individual counties.</p> <p>Since some of the older weather radios do not recognize or properly decode the "000" state code, Tom would like to have choices for generating messages with individual counties or a state code.</p> |
| 63 | <p>The FOTE test team initially verified successful login to the DMIS client and successfully verified the Save Copy and Post capabilities before the start of the test. The FOTE test team then proceeded to successfully save a test ADR message for use to Save Copy for the next failover step and subsequently exited successfully from the DMIS client.</p> <p>The FOTE failover ingest test step #5 was performed to verify that when we disconnected the Rack 1 Routers 1 and 2 input lines, and shutdown the BTG-CUST switch to the Rack 2 Router 1, the Rack 2 Router 2 should still take over and still process incoming messages. The FOTE test team waited past the requisite 30-second timeout (per UACS recommendation) before proceeding with the next step.</p> <p>Upon successful re-login to DMIS client and selection of the previous test ADR message for Save Copy, the HazCollect mode was now displaying 'UNKNOWN' at the bottom of the DMIS client instead of the expected "Test" so we can trap the message at the TG and not disseminate to AWIPS.</p> <p>Additionally, the FOTE test team was unable to perform a Save Copy nor a Post as these commands were not available on the toolbar nor at the menu level. Subsequently, the FOTE test team was unable to post a test ADR message from the DMIS client. FOTE test team then exits DMIS client.</p> <p>NOTE: On closeout procedures, the FOTE test team turned OFF both BTG-CUST switches ON at Rack 2, and reconnected the Rack 1 routers 1 and 2, to force the message flow back to the primary Rack 1 server. After waiting for the requisite timeout period (at least 30 seconds), the FOTE test team successfully generated Save Copy on DMIS client and was able to see the HazCollect mode back to "Test" and posted successfully to DMIS and verified message input at the HazCollect server.</p> <p>In order to get back to normal configuration, both BTG-CUST switches were turned ON at Rack 2. Another successful test ADR message was generated on DMIS client wherein the ADR message was properly routed to Rack 1 Server 1.</p> <p>UPDATE - 12/1/08 - On retest, the test message is received on input and is validated at the HazCollect server. User was able to login to DMIS client, create a DMIS message, HazCollect mode was noted at "Test", and message is properly sent. CLOSED.</p> |
| 64 | <p>The FOTE Florida State message test was performed last November 6, 2008.</p> <p>Monitoring WFOs at Tallahassee, Melbourne, Miami, Key West, Jacksonville, Tampa, and at Mobile, AL (they also get broadcast feed from Pensacola transmitters) were present for verification.</p> <p>John Fleming (Florida DCA/DEM) successfully generated and posted a test FL state ADR message, which included all Florida Marine zones. All monitoring WFOs successfully reported two ADR messages (one for the ADRFL land state message) and the other for the separate marine zone message broadcasted on NOAA weather radio.</p> <p>Upon review by Art Kraus (OS51), he noticed that the WFO Miami (MFL) field office should have also broadcasted the GMZ656-657-676 marine zone message, but this was never received at either the NWWWS verification email, or at the HazCollect server marine zone message off the CAP message. The only marine zone that went out was the AMZ450-452-470-472-474. Upon further inspection of the CAP message sent by John Fleming, the GMZ656-657-676 geocodes were all included.</p> |

ADDITIONAL TESTING:

On November 6, 2008, to further validate the missing marine zones, OPS24 proceeded to generate an DMIS Active/Test message which has areas set for both GMZ656 and AMZ650. Upon dissemination only to the HazCollect server, only 1 message for marine zone AMZ650 was generated. There was not a separate GMZ656 marine zone message.

OPS24 again generated a DMIS Active/Test message which has areas set only for GMZ656 marine zone. This time, it properly generated only 1 message for GMZ656.

=====
WMO message TEXT FOR MFL AMZ450-452-470-472-474

000
WOUS42 KMFL 061508
ADRMFL
AMZ450-452-470-472-474-061538-

BULLETIN - EAS ACTIVATION REQUESTED
ADMINISTRATIVE MESSAGE/FOLLOW UP STATEMENT
FL DIVISION OF EMERGENCY MANAGEMENT TALLAHASSEE FL
RELAYED BY NATIONAL WEATHER SERVICE MIAMI FL
1008 AM EST THU NOV 06 2008

THIS MESSAGE IS FOR TEST PURPOSES ONLY.

THE FOLLOWING MESSAGE IS TRANSMITTED AT THE REQUEST OF THE FL
DIVISION OF EMERGENCY MANAGEMENT.

THIS IS A TEST MESSAGE. THIS IS A TEST OF THE CAPABILITY TO RELAY
THE EMERGENCY MESSAGES FROM NON-NATIONAL WEATHER SERVICE SOURCES
USING DEPARTMENT OF HOMELAND SECURITY AND NATIONAL WEATHER
SERVICE SYSTEMS. THIS TEST MESSAGE MAY BE RELAYED BY EMERGENCY
ALERT SYSTEMS PARTICIPATING STATIONS IN ACCORDANCE WITH LOCAL AND
STATE EMERGENCY ALERT SYSTEMS PLANS.

THIS IS A TEST MESSAGE. DO NOT TAKE ACTION BASED ON THIS TEST
MESSAGE.

\$\$
DM4237558389431383040/2253587949768957952

65

On Tuesday November 25, 2008, OPS24 conducted the HazCollect Follow-On Operational Test & Evaluation (FOTE) outgoing failover tests with Odon Dario (CIO14). The following outgoing tests failed:

1. Test #11 - the Rack #1 output lines to TG were shutdown (RTG-CUST Gi-9/9 and Gi-9/10 interface) ; both Rack 2 output lines to the Telecommunications Gateway (TG) are open; test ADR message was sent and received at HazCollect server on input, but it failed to be received at the TG.
2. Test #12 - the Rack #1 output lines to TG were shutdown (RTG-CUST Gi-9/9 and Gi-9/10 interface) ; the Rack 2 TG output line #1 (BTG-CUST Gi-1/0/5 interface) was shutdown leaving only the Rack 2 TG output line #2 open; test ADR message was sent and received at HazCollect server on input but it failed to be received at TG.
3. Test #13 - the Rack #1 output lines to TG were shutdown (RTG-CUST Gi-9/9 and Gi-9/10 interface) ; the Rack 2 output line to TG #2 (BTG-CUST Gi-1/0/6 interface) was shutdown and the Rack 2 TG output line #1 was re-opened (BTG-CUST Gi-1/0/5 interface); test ADR message was sent and received at HazCollect server on input but it failed to be received at TG.

UPDATE: @ TRG meeting (12/3/08)

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| | TRG adjudicated for Priority 2, Impact 2 |
| 66 | <p>After the FOTE National Message Test held last 11/18/08, WFO Guam reported that their GUMADRGUM message had an 'incorrect' UGC code of GUC085 and that it was not broadcasted. Nancy Helderman (OPS23) reported that the non-broadcast was due to the message type only being scheduled on the Exclusive Suite and not being set as a trigger. This non-broadcast finding is also true for the GUMADRGU message.</p> <p>Herb White however also responded, per his email (dated 11/19/08) "...The UGC of GUC085-MPC100-110-120- (read in as LACs) in the GUMADRGUM is obtained from the Public Forecast Zone-County Correlation file which is sourced from the AWIPS County and Public Zones shapefiles. There are numerous lines in the Z-C file with 085 county code that is correct FIPS code for the Northern Islands of the Northern Mariana Islands. We know from recent conference calls with Bill Ward that he is working with your office (Guam) to make corrections to the shapefiles and public zone ids that may be the source of the incorrect GUC085 code. We will also look further at the GUC085 issue..."</p> <p>NOTE: The results from the FOTE National Message Test are added as a separate attachment.</p> <p>UPDATE @ TRG meeting (12/3/08): Will wait for an update from Herb White before assigning Priority and Impact.</p> <p>UPDATE 12/9/08: Priority set to 2, Impact to 2.</p> |

Attachment E – HazCollect Site Questionnaire

(This survey is to be completed by the FOTE site at the end of FOTE, coordinating responses with the test site management and staff).

| | | | |
|-------------------------|-------------------------|-----------------------|-------------|
| Test Site: | WFO Pittsburgh, PA | Date: | 01/09/09 |
| Name: | Rich Kane and Joe Palko | Title: | WCM and ITO |
| Test Start Date: | September 29 2008 | Test End Date: | 12/5/2008 |
| AWIPS Build: | 8.3 | | |

Respond to the statements below by checking the rating box that best describes your opinion according to the following code:

| | | | | | |
|--|--|---|---|---|-------------------------------------|
| 1 Excellent Performed in a manner that could not be improved | 2 Good Performed well, met field needs and offered some improvements | 3 Satisfactory Performed in a manner that meets basic field needs | 4 Deficient Performed in unsatisfactory manner, does not fully meet field needs, may be workarounds | 5 Unsatisfactory Performed in a wholly unsatisfactory manner, does not meet field needs and negatively impacts field operations | N/A Does Not Apply |
|--|--|---|---|---|-------------------------------------|

| Statement | 1 | 2 | 3 | 4 | 5 | N/A |
|---|---|---|---|---|---|-----|
| HazCollect documentation, including any training materials, is adequate and accurate. | | | | X | | |
| HazCollect NWEM dissemination under non-severe weather conditions. | | X | | | | |
| HazCollect NWEM dissemination under severe weather conditions. | | | X | | | |
| HazCollect effect on existing NWS infrastructure/dissemination systems | X | | | | | |
| HazCollect effect on WFO operators or forecasters workload. | | | X | | | |
| HazCollect is suitable for general implementation. | | X | | | | |

Please comment on any item that received **a rating of 4 or 5**. Include any comments received concerning maintenance. You may provide other comments, as desired.

Internal Technical documentation relative to the testing, methodology, procedures was fine. However, documentation (external) for our users (EMs), especially training material is absent.

| | | | |
|-------------------------|-----------------|-----------------------|----------|
| Test Site: | WFO Paducah, KY | Date: | 1/8/09 |
| Name: | Rick Shanklin | Title: | WCM |
| Test Start Date: | 9/15/08 | Test End Date: | 12/05/08 |
| AWIPS Build: | 8.3.1 | | |

Respond to the statements below by checking the rating box that best describes your opinion according to the following code:

| | | | | | |
|--|--|---|---|---|-------------------------------------|
| 1 Excellent Performed in a manner that could not be improved | 2 Good Performed well, met field needs and offered some improvements | 3 Satisfactory Performed in a manner that meets basic field needs | 4 Deficient Performed in unsatisfactory manner, does not fully meet field needs, may be workarounds | 5 Unsatisfactory Performed in a wholly unsatisfactory manner, does not meet field needs and negatively impacts field operations | N/A Does Not Apply |
|--|--|---|---|---|-------------------------------------|

| Statement | 1 | 2 | 3 | 4 | 5 | N/A |
|---|---|---|---|---|---|-----|
| HazCollect documentation, including any training materials, is adequate and accurate. | | X | | | | |
| HazCollect NWEM dissemination under non-severe weather conditions. | X | | | | | |
| HazCollect NWEM dissemination under severe weather conditions. | | | | | | X |
| HazCollect effect on existing NWS infrastructure/dissemination systems | | X | | | | |
| HazCollect effect on WFO operators or forecasters workload. | X | | | | | |
| HazCollect is suitable for general implementation. | X | | | | | |

Please comment on any item that received **a rating of 4 or 5**. Include any comments received concerning maintenance. You may provide other comments, as desired.

| | | | |
|-------------------------|------------------------|-----------------------|----------|
| Test Site: | Monterey, CA | Date: | 1/07/09 |
| Name: | Tom Evans/Wayne Bailey | Title: | WCM/ESA |
| Test Start Date: | 10/8/08 | Test End Date: | 12/05/08 |
| AWIPS Build: | OB8.3.1 | | |

Respond to the statements below by checking the rating box that best describes your opinion according to the following code:

| | | | | | |
|--|--|---|---|---|-------------------------------------|
| 1 Excellent Performed in a manner that could not be improved | 2 Good Performed well, met field needs and offered some improvements | 3 Satisfactory Performed in a manner that meets basic field needs | 4 Deficient Performed in unsatisfactory manner, does not fully meet field needs, may be workarounds | 5 Unsatisfactory Performed in a wholly unsatisfactory manner, does not meet field needs and negatively impacts field operations | N/A Does Not Apply |
|--|--|---|---|---|-------------------------------------|

| Statement | 1 | 2 | 3 | 4 | 5 | N/A |
|---|---|---|---|---|---|-----|
| HazCollect documentation, including any training materials, is adequate and accurate. | | | X | | | |
| HazCollect NWEM dissemination under non-severe weather conditions. | | | X | | | |
| HazCollect NWEM dissemination under severe weather conditions. | | | | | | X |
| HazCollect effect on existing NWS infrastructure/dissemination systems | | | X | | | |
| HazCollect effect on WFO operators or forecasters workload. | | | X | | | |
| HazCollect is suitable for general implementation. | | | X | | | |

Please comment on any item that received **a rating of 4 or 5**. Include any comments received concerning maintenance. You may provide other comments, as desired.

The test was satisfactory for any message sent through internal NWS software. Messages sent from outside NWS systems failed.

| | | | |
|-------------------------|----------------------------|-----------------------|------------------------------|
| Test Site: | WFO Anchorage, AK | Date: | 1/6/09 |
| Name: | Sam Albanese/Jeff Osiensky | Title: | WFO AFC WCM/ Regional WCM |
| Test Start Date: | 10/28/08 | Test End Date: | 12/05/08 |
| AWIPS Build: | 8.3 | | |

Respond to the statements below by checking the rating box that best describes your opinion according to the following code:

| | | | | | |
|--|--|---|---|---|-------------------------------------|
| 1 Excellent Performed in a manner that could not be improved | 2 Good Performed well, met field needs and offered some improvements | 3 Satisfactory Performed in a manner that meets basic field needs | 4 Deficient Performed in unsatisfactory manner, does not fully meet field needs, may be workarounds | 5 Unsatisfactory Performed in a wholly unsatisfactory manner, does not meet field needs and negatively impacts field operations | N/A Does Not Apply |
|--|--|---|---|---|-------------------------------------|

| Statement | 1 | 2 | 3 | 4 | 5 | N/A |
|---|---|---|---|---|---|-----|
| HazCollect documentation, including any training materials, is adequate and accurate. | X | | | | | |
| HazCollect NWEM dissemination under non-severe weather conditions. | X | | | | | |
| HazCollect NWEM dissemination under severe weather conditions. | X | | | | | |
| HazCollect effect on existing NWS infrastructure/dissemination systems | X | | | | | |
| HazCollect effect on WFO operators or forecasters workload. | X | | | | | |
| HazCollect is suitable for general implementation. | X | | | | | |

Please comment on any item that received **a rating of 4 or 5**. Include any comments received concerning maintenance. You may provide other comments, as desired.

| | | | |
|-------------------------|------------------|-----------------------|-----------------|
| Test Site: | WFO Honolulu, HI | Date: | 07 January 2009 |
| Name: | Raymond Tanabe | Title: | WCM |
| Test Start Date: | 21 October 2008 | Test End Date: | 12/05/08 |
| AWIPS Build: | | | |

Respond to the statements below by checking the rating box that best describes your opinion according to the following code:

| | | | | | |
|--|--|---|---|---|-------------------------------------|
| 1 Excellent Performed in a manner that could not be improved | 2 Good Performed well, met field needs and offered some improvements | 3 Satisfactory Performed in a manner that meets basic field needs | 4 Deficient Performed in unsatisfactory manner, does not fully meet field needs, may be workarounds | 5 Unsatisfactory Performed in a wholly unsatisfactory manner, does not meet field needs and negatively impacts field operations | N/A Does Not Apply |
|--|--|---|---|---|-------------------------------------|

| Statement | 1 | 2 | 3 | 4 | 5 | N/A |
|---|---|---|---|---|---|-----|
| HazCollect documentation, including any training materials, is adequate and accurate. | | X | | | | |
| HazCollect NWEM dissemination under non-severe weather conditions. | | X | | | | |
| HazCollect NWEM dissemination under severe weather conditions. | | | | | | X |
| HazCollect effect on existing NWS infrastructure/dissemination systems | | X | | | | |
| HazCollect effect on WFO operators or forecasters workload. | X | | | | | |
| HazCollect is suitable for general implementation. | | | | X | | |

Please comment on any item that received **a rating of 4 or 5**. Include any comments received concerning maintenance. You may provide other comments, as desired.

Line item #3. N/A rating given as HazCollect testing was suspended during periods of severe weather.

Line item #6. The issue of using catch all "000" county codes instead of individual county codes was not fully resolved during the course of testing. WFO Honolulu identified NOAA weather radios in use which were not manufactured to handle the 000 zone designation. If these radios are set to receive messages for a particular county, HazCollect messages were hard coded to use the "000" designation and could not be changed. State of Hawaii Civil Defense personnel tried different composition/configuration methods within the DMIS software package to force individual county codes and were unsuccessful.

Attachment F – HazCollect Emergency Manager Questionnaire

(This survey is to be completed by the Emergency Manager at the end of the FOTE).

| | | | |
|-------------------------|---|-----------------------|-----------------|
| Test Site: | Mercer County Department of Public Safety | Date: | 1/9/2009 |
| Name: | John Nicklin | Title: | Deputy Director |
| Test Start Date: | 9/29/2008 | Test End Date: | 12/05/08 |
| COG Name: | PA Mercer County Dept. of Public Safety | | |

Respond to the statements below by checking the rating box that best describes your opinion according to the following code:

| | | | | | |
|--|--|---|---|---|-------------------------------------|
| 1 Excellent Performed in a manner that could not be improved | 2 Good Performed well, met field needs and offered some improvements | 3 Satisfactory Performed in a manner that meets basic field needs | 4 Deficient Performed in unsatisfactory manner, does not fully meet field needs, may be workarounds | 5 Unsatisfactory Performed in a wholly unsatisfactory manner, does not meet field needs and negatively impacts field operations | N/A Does Not Apply |
|--|--|---|---|---|-------------------------------------|

| Statement | 1 | 2 | 3 | 4 | 5 | N/A |
|---|---|---|---|---|---|-----|
| DMIS documentation, including any training materials, is adequate and accurate. | | X | | | | |
| HazCollect authentication and authorization processing. | X | | | | | |
| DMIS software user interface ease of use. | | X | | | | |
| DMIS software dissemination of CAP formatted NWEM. | | X | | | | |
| HazCollect alert response and/or any error notification back to DMIS. | | X | | | | |
| DMIS effect on emergency manager workload. | X | | | | | |
| DMIS software is suitable for general implementation. | X | | | | | |
| DMIS OPEN API interoperability with HazCollect (if demonstrated) | | | | | | X |
| HazCollect is suitable for general implementation. | X | | | | | |

Please comment on any item that received **a rating of 4 or 5**. Include any comments received concerning maintenance. You may provide other comments, as desired.

| | | | |
|-------------------------|----------------------|-----------------------|-------------------|
| Test Site: | FLDEM | Date: | 1/9/2009 |
| Name: | William Stoye | Title: | Electronics Tech. |
| Test Start Date: | 10/1/08 Thru Present | Test End Date: | 12/05/08 |
| COG Name: | FLDEM | | |

Respond to the statements below by checking the rating box that best describes your opinion according to the following code:

| | | | | | |
|---|---|--|--|--|--|
| 1 <u>Excellent</u> Performed in a manner that could not be improved | 2 <u>Good</u> Performed well, met field needs and offered some improvements | 3 <u>Satisfactory</u> Performed in a manner that meets basic field needs | 4 <u>Deficient</u> Performed in unsatisfactory manner, does not fully meet field needs, may be workarounds | 5 <u>Unsatisfactory</u> Performed in a wholly unsatisfactory manner, does not meet field needs and negatively impacts field operations | <u>N/A</u> Does Not Apply |
|---|---|--|--|--|--|

| Statement | 1 | 2 | 3 | 4 | 5 | N/A |
|---|---|---|---|---|---|-----|
| DMIS documentation, including any training materials, is adequate and accurate. | X | | | | | |
| HazCollect authentication and authorization processing. | X | | | | | |
| DMIS software user interface ease of use. | X | | | | | |
| DMIS software dissemination of CAP formatted NWEM. | X | | | | | |
| HazCollect alert response and/or any error notification back to DMIS. | X | | | | | |
| DMIS effect on emergency manager workload. | X | | | | | |
| DMIS software is suitable for general implementation. | X | | | | | |
| DMIS OPEN API interoperability with HazCollect (if demonstrated) | X | | | | | |
| HazCollect is suitable for general implementation. | X | | | | | |

Please comment on any item that received **a rating of 4 or 5**. Include any comments received concerning maintenance. You may provide other comments, as desired.

| | | | |
|-------------------------|-------------------------------------|-----------------------|-----------------|
| Test Site: | Owensboro, Daviess County, Kentucky | Date: | 1/6/09 |
| Name: | Walter Atherton | Title: | Deputy Director |
| Test Start Date: | 9/17/08 | Test End Date: | 12/05/08 |
| COG Name: | KY Daviess County EMA Owensboro KY | | |

Respond to the statements below by checking the rating box that best describes your opinion according to the following code:

| | | | | | |
|--|--|---|---|---|-------------------------------------|
| 1 Excellent Performed in a manner that could not be improved | 2 Good Performed well, met field needs and offered some improvements | 3 Satisfactory Performed in a manner that meets basic field needs | 4 Deficient Performed in unsatisfactory manner, does not fully meet field needs, may be workarounds | 5 Unsatisfactory Performed in a wholly unsatisfactory manner, does not meet field needs and negatively impacts field operations | N/A Does Not Apply |
|--|--|---|---|---|-------------------------------------|

| Statement | 1 | 2 | 3 | 4 | 5 | N/A |
|---|---|---|---|---|---|-----|
| DMIS documentation, including any training materials, is adequate and accurate. | | X | | | | |
| HazCollect authentication and authorization processing. | X | | | | | |
| DMIS software user interface ease of use. | | | X | | | |
| DMIS software dissemination of CAP formatted NWEM. | X | | | | | |
| HazCollect alert response and/or any error notification back to DMIS. | X | | | | | |
| DMIS effect on emergency manager workload. | | | X | | | |
| DMIS software is suitable for general implementation. | | X | | | | |
| DMIS OPEN API interoperability with HazCollect (if demonstrated) | X | | | | | |
| HazCollect is suitable for general implementation. | | X | | | | |

Please comment on any item that received **a rating of 4 or 5**. Include any comments received concerning maintenance. You may provide other comments, as desired.

DMIS and in turn, HazCollect are not as user friendly as they need to be. One example, when selecting an area for a HazCollect message, if you do not already know or remember how, you would never get an area selected. I hope this does not delay roll out of the full product.

| | | | |
|-------------------------|--|-----------------------|-----------------|
| Test Site: | Contra Costa County, CA | Date: | 1/8/09 |
| Name: | Art Botterell | Title: | Warning Manager |
| Test Start Date: | 10/7/08 | Test End Date: | 12/05/08 |
| COG Name: | CA Contra Costa County CWS, Martinez, CA | | |

Respond to the statements below by checking the rating box that best describes your opinion according to the following code:

| | | | | | |
|--|--|---|---|---|-------------------------------------|
| 1 Excellent Performed in a manner that could not be improved | 2 Good Performed well, met field needs and offered some improvements | 3 Satisfactory Performed in a manner that meets basic field needs | 4 Deficient Performed in unsatisfactory manner, does not fully meet field needs, may be workarounds | 5 Unsatisfactory Performed in a wholly unsatisfactory manner, does not meet field needs and negatively impacts field operations | N/A Does Not Apply |
|--|--|---|---|---|-------------------------------------|

| Statement | 1 | 2 | 3 | 4 | 5 | N/A |
|---|---|---|---|---|---|-----|
| DMIS documentation, including any training materials, is adequate and accurate. | | | | X | | |
| HazCollect authentication and authorization processing. | | | X | | | |
| DMIS software user interface ease of use. | | | | | | X |
| DMIS software dissemination of CAP formatted NWEM. | | | X | | | |
| HazCollect alert response and/or any error notification back to DMIS. | | | X | | | |
| DMIS effect on emergency manager workload. | | | | | | X |
| DMIS software is suitable for general implementation. | | | | X | | |
| DMIS OPEN API interoperability with HazCollect (if demonstrated) | | | | X | | |
| HazCollect is suitable for general implementation. | | | | | X | |

Please comment on any item that received **a rating of 4 or 5**. Include any comments received concerning maintenance. You may provide other comments, as desired.

There appears to be very little documentation available for the OPEN API. The DMIS client interface is poorly designed and creates an additional workload that duplicates other existing systems, so we do not use it. There were technical problems at the interface between DMIS and the HazCollect gateway; regardless of precisely where the problems lay, they made the OPEN interface unusable. (NOTE: We are still evaluating changes made since the end of the formal FOTE.) The OPEN API is essential to integrating HazCollect with existing government systems and commercial products, and it would be inappropriate and unwise to implement HazCollect until it works.

| | | | |
|-------------------------|----------------------------|-----------------------|------------------|
| Test Site: | Hawaii State Civil Defense | Date: | 1/6/09 |
| Name: | Tom Simon | Title: | Systems Engineer |
| Test Start Date: | 10/21/08 | Test End Date: | 12/05/08 |
| COG Name: | HI State Civil Defense | | |

Respond to the statements below by checking the rating box that best describes your opinion according to the following code:

| | | | | | |
|--|--|---|---|---|-------------------------------------|
| 1 Excellent Performed in a manner that could not be improved | 2 Good Performed well, met field needs and offered some improvements | 3 Satisfactory Performed in a manner that meets basic field needs | 4 Deficient Performed in unsatisfactory manner, does not fully meet field needs, may be workarounds | 5 Unsatisfactory Performed in a wholly unsatisfactory manner, does not meet field needs and negatively impacts field operations | N/A Does Not Apply |
|--|--|---|---|---|-------------------------------------|

| Statement | 1 | 2 | 3 | 4 | 5 | N/A |
|---|---|---|---|---|---|-----|
| DMIS documentation, including any training materials, is adequate and accurate. | | | X | | | |
| HazCollect authentication and authorization processing. | | X | | | | |
| DMIS software user interface ease of use. | | | X | | | |
| DMIS software dissemination of CAP formatted NWEM. | | X | | | | |
| HazCollect alert response and/or any error notification back to DMIS. | | | | X | | |
| DMIS effect on emergency manager workload. | | | | X | | |
| DMIS software is suitable for general implementation. | | | | X | | |
| DMIS OPEN API interoperability with HazCollect (if demonstrated) | | | | | X | |
| HazCollect is suitable for general implementation. | X | | | | | |

Please comment on any item that received **a rating of 4 or 5**. Include any comments received concerning maintenance. You may provide other comments, as desired.

- There were problems with DMIS, and DMIS lacked the error notification necessary to troubleshoot these problems.
- Because of periodic problems getting DMIS to work, a lot of time was wasted getting ready to send a message.
- I would not recommend DMIS, in its present state, for use by typical users.
- There were several failed attempts at demonstrating OPEN API during this testing, so it is unsatisfactory at this time.