



SEP 12, 2005

MEMORANDUM FOR: Distribution

FROM: W/OPS2 – John Vankuren, Acting/s/

SUBJECT: Operational Acceptance Test (OAT) Plan for the All-Hazards
Emergency Message Collection (HazCollect) System

Attached for your information is a copy of the subject test plan defining how the National Weather Service (NWS) will conduct the Operational Acceptance Test (OAT) of the All-Hazards Emergency Message Collection (HazCollect) System.

The HazCollect OAT is scheduled to commence on Tuesday, October 11, 2005, and end Friday, November 18, 2005. The OAT will be conducted at the following NWS Weather Forecast Offices (WFOs):

- WFO Baltimore-Washington in Sterling, Virginia (LWX)
- WFO San Juan in Carolina, Puerto Rico (SJU)
- WFO Paducah in West Paducah, Kentucky (PAH)
- WFO San Francisco in Monterey, California (MTR)
- WFO Sacramento in Sacramento, California (STO)
- WFO Anchorage in Anchorage, Alaska (AFC)

Please direct any comments or questions to the OAT Director, Bert Vioria at 301-713-0326 ext 131, e-mail bert.vioria@noaa.gov or Jae Lee W/OPS24 at 301-713-0326 ext 158, e-mail jae.lee@noaa.gov.

Attachment



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OPERATIONAL ACCEPTANCE TEST PLAN

for the

All Hazards Emergency Message Collection System (HazCollect)

April 2006

**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**

Revision History

Date	Version	Description	Author
April, 2006	2.1	Updated version (evaluation criteria, updated test conduct)	Bert Vioria
April, 2006	2.0	Updated version (dates, OAT sites, Tiger Team, C&A, etc.)	Bert Vioria
September, 2005	1.0	Initial Version	Bert Vioria

Executive Summary

This plan describes the Government tests planned during the Operational Acceptance Test (OAT) of the National Oceanic and Atmospheric Administration (NOAA) All Hazards Emergency Message Collection System (HazCollect). The OAT is intended to verify and confirm the successful operation of the HazCollect system in the National Weather Service's (NWS) Weather Forecast Offices (WFOs) and existing dissemination infrastructure prior to nationwide deployment.

In April 1999, the Federal Emergency Management Administration (FEMA) Federal Response Plan (FRP) assigned to National Oceanic and Atmospheric Administration (NOAA), the responsibility of providing the public with the dissemination of critical non-weather information on the NOAA Weather Radio All Hazards (NWR) system. The current NWS systems process non-weather emergency messages (e.g., chemical spills, AMBER alerts, and radiological events), but they must be manually transcribed by NWS staff. While currently operational, these messages are prone to processing delays and human error. Delays occur during message validation processing. Common errors occur due to the manual transcription of the emergency manager's input.

The HazCollect system will be a comprehensive solution for the centralized collection and efficient distribution of Non-Weather Emergency Messages (NWEMs), commonly known as CEMs. Authorized emergency managers (EM) will use the Disaster Management Interoperability Services (DMIS) desktop client software to write NWEMs in Common Alerting Protocol (CAP) format and send them through the DMIS central processor for authentication and dissemination. DMIS will send the CAP-formatted NWEM messages to the new HazCollect server. The HazCollect server will receive the NWEM from DMIS, authenticate it, convert the authenticated message to World Meteorological Organization (WMO) format, and then send it to the NWS dissemination architecture. This architecture includes the Advance Weather Interactive Processing System (AWIPS), the Console Replacement System (CRS), and critical links to the NOAA Weather Wire Service (NWWS) and NOAA Weather Radio All Hazards (NWR); the NWS National broadcast ability to quickly reach civil and emergency organizations, and the general public.

The Office of Operational Systems, Test & Evaluation Branch (OPS24) is responsible for the planning, conduct, and reporting of the OAT. The OAT is scheduled to begin May 8, 2005 and proceed through June 23, 2005. The OAT test team will use a staggered schedule and travel, during the first week, to the Weather Forecast Office (WFO) **WFO Paducah KY**. On the second week of the OAT, the test team will proceed to **WFO San Juan PR**. On the third week, the test teams will continue the OAT at **WFO Pittsburgh PA** and **WFO Anchorage AK**. On the fourth week, the OAT is performed at **WFO San Francisco CA** and **WFO Sacramento CA**.

In addition to the OAT testing, the HazCollect Tiger Team will ensure that OAT and non-OAT sites will be configured and enabled for HazCollect. The Office of Science and Technology (OST) is coordinating all the HazCollect Tiger Team activities to make sure all OAT sites are configured and enabled for HazCollect before the start of the OAT at each site. Additional

Certification and Accreditation (C&A) testing will also be coordinated and performed by OST. The C&A testing will include server rack scanning, operational maintenance verification, and incident response reporting. The status for both activities will be reported at the weekly Test Review Group (TRG) meetings by OST.

The TRG will be established for the duration of the HazCollect OAT. Once every week, the TRG will convene and discuss the status of the OAT testing. The TRG will expeditiously review OAT activities, coordinate issues, and classify any problems identified during the OAT for resolution. Problems identified during the OAT will be documented by creating test trouble reports. The TRG will provide NWS management with a recommendation whether to proceed with national deployment.

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Acronyms

ASCII	American Standard Code for Information Interchange
AWIPS	Advanced Weather Interactive Processing System
C & A	Certification and Accreditation
CAP	Common Alerting Protocol
COG	Collaborative Operations Group
CRS	Console Replacement System
CRSFM	CRS Formatted Message
DHS	Department of Homeland Security
DM	Disaster Management
DMIS	Disaster Management Interoperability Services
DT&E	Development Test & Evaluation
EAS	Emergency Alert System
EM	Emergency Manager
EMWIN	Emergency Manager Weather Information Network
FEMA	Federal Emergency Management Administration
FRD	Functional Requirements Document
FRP	Federal Response Plan
GSD	Global Systems Division
ILS	Integrated Logistics Support
ITSO	Information Technology Security Officer
MIC	Meteorologist In Charge
NCF	Network Control Facility
NGIT	Northrup Grumman Information Technology
NOAA	National Oceanic and Atmospheric Administration
NWEM	Non-weather emergency message
NWR	NOAA Weather Radio All Hazards
NWS	National Weather Service
NWSTG	National Weather Service Telecommunication Gateway
NWWS	NOAA Weather Wire Service
OAT	Operational Acceptance Test
OPS24	Office of Operational Systems, Test & Evaluation Branch
OST	Office of Science and Technology
POC	Point of Contact
SAME	Specific Area Message Encoder
SBN	Satellite Broadcast Network
ST	System Test
TRG	Test Review Group
TTR	Test Trouble Report
WAN	Wide Area Network
WCM	Warning Coordination Meteorologist
WFO	Weather Forecast Office
WMO	World Meteorological Organization
WSH	Weather Service Headquarters

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1.0 Introduction

This plan describes the Government tests planned during the Operational Acceptance Test (OAT) of the National Oceanic and Atmospheric Administration (NOAA) All Hazards Emergency Message Collection System (HazCollect). The OAT is intended to verify and confirm the successful operation of the HazCollect system in the National Weather Service's (NWS) Weather Forecast Offices (WFOs) and existing dissemination infrastructure prior to nationwide deployment.

In April 1999, the Federal Emergency Management Administration (FEMA) Federal Response Plan (FRP) assigned to National Oceanic and Atmospheric Administration (NOAA), the responsibility of providing the public with the dissemination of critical non-weather information on the NOAA Weather Radio All Hazards system (NWR). The current NWS systems process non-weather emergency messages (e.g., chemical spills, AMBER alerts, and radiological events), but they must be manually transcribed by NWS staff. While currently operational, these messages are prone to processing delays and human error. Delays occur during message validation processing. Common errors occur due to the manual transcription of the emergency manager's (EM) input.

The HazCollect system will be a comprehensive solution for the centralized collection and efficient distribution of Non-Weather Emergency Messages (NWEMs), commonly known as CEMs. Authorized EMs will use the Disaster Management Interoperability Services (DMIS) desktop client software to write NWEMs in Common Alerting Protocol (CAP) format and send them through the DMIS central processor for authentication and dissemination. The HazCollect system will utilize the existing NWR network that provides the most robust Government-owned dissemination infrastructure capable of meeting the all-hazard dissemination requirements with necessary upgrades.

The HazCollect system is composed of several subsystems. The following subsystems include:

1. Disaster Management Interoperability Services (DMIS) user interface client software.
2. DMIS Server.
3. HazCollect Server software, including script files that transfer message products to the existing Advanced Weather Interactive Processing System (AWIPS), Network Control Facility (NCF) and the National Weather Service Telecommunication Gateway (NWSTG) users.
4. AWIPS software that supports HazCollect.
5. Existing NWS dissemination infrastructure including NOAA Weather Wire Service (NWWS), Console Replacement System (CRS), National Weather Radio All Hazards (NWR), and NWR "Public Alert Certified" receiver.

See **Section 1.5** for additional HazCollect background information regarding overall system data flow.

The Office of Operational Systems, Test & Evaluation Branch (OPS24) is responsible for the planning, conduct, and reporting of the OAT. The OAT is scheduled to begin May 8, 2005 and proceed through June 23, 2005. The OAT test team will use a staggered schedule and travel, during the first week, to the Weather Forecast Office (**WFO WFO Paducah KY**). On the second week of the OAT, the test team will proceed to **WFO San Juan PR**. On the third week,

the test teams will continue the OAT at **WFO Pittsburgh PA** and **WFO Anchorage AK**. On the fourth week, the OAT is performed at **WFO San Francisco CA** and **WFO Sacramento CA**.

In addition to the OAT testing, the HazCollect Tiger Team will ensure that OAT and non-OAT sites will be configured and enabled for HazCollect. The Office of Science and Technology (OST) is coordinating all the HazCollect Tiger Team activities to make sure all OAT sites are configured and enabled for HazCollect before the start of the OAT at each site. Additional Certification and Accreditation (C&A) testing will also be coordinated and performed by OST. The C&A testing will include server rack scanning, operational maintenance verification, and incident response reporting. The status for both activities will be reported at the weekly Test Review Group (TRG) meetings by OST.

The OAT Test Review Group (TRG) (see **Section 1.6**) will be established for the duration of the HazCollect OAT. Once every week, the TRG will convene and discuss the status of the OAT testing. The TRG will expeditiously review OAT activities, coordinate issues, and classify any problems identified during the OAT for resolution. Problems identified during the OAT will be documented by creating Test Trouble Reports (TTR) (see **Attachment A**). The TRG will also provide NWS management with a recommendation whether to proceed with national deployment.

1.1 Test Plan Organization

This OAT plan is comprised of three sections. Section 1.0 contains introductory material dealing with the HazCollect system, test purpose, test objectives, background information, test strategy, test prerequisites, and personnel responsibilities.

Section 2.0 describes the schedule and methodology for conducting the OAT, including the test conduct, OAT test personnel, and the pre- and post-test activities performed at the OAT site test facilities.

Section 3.0 discusses how a recommendation for OAT will be made and how the test report will be written.

1.2 Purpose

The HazCollect OAT will verify the end-to-end operation of the HazCollect system from the DMIS user interface client software, the HazCollect server software, and at specified NWS dissemination infrastructure verification points (e.g., NWWS, CRS, NWR, and NWR "Public Alert Certified" receivers). The OAT will ensure the DMIS user interface client software, the HazCollect server, NWSTG, AWIPS, CRS, and NWR systems will be validated for system performance, communication reliability, and availability to support HazCollect. The OAT will also confirm the overall HazCollect system does not adversely affect current field office operations.

The OAT is performed after all successful Development Test and Evaluation (DT&E) tests by Battelle (contractor) in a simulated operational environment. Upon the successful completion of the OAT, a recommendation for national deployment will be evaluated and determined.

1.3 Test Objectives and Evaluation Criteria

The specific objectives and evaluation criteria of the OAT are to:

a. Confirm the following site setup/configurations:

- i. DMIS setup for emergency managers**
- ii. HazCollect server setup**
- iii. OAT sites are configured (for AWIPS OB6.0 and CRS) per HazCollect Tiger Team-approved instructions.**

CRITERIA: The setup and configurations listed above are complete and accurate.

b. Verify the operation of the HazCollect system.

CRITERIA: The HazCollect and OAT site service operations perform successfully without degrading current WFO operations. The current dissemination of any existing non-HazCollect NWEMs is still fully functional.

c. Verify HazCollect products for end-to-end dissemination.

CRITERIA: HazCollect test and actual (in the event of actual emergencies) NWEM messages are created, tested, and verified from end-to-end through the existing NWS dissemination infrastructure. All products disseminated by HazCollect will be available 99.99% of the time.

d. Verify the contents of the required HazCollect documents (see 2.2.2.2 Support Documentation).

CRITERIA: HazCollect support documentation listed in Section 2.2.2.2 is accurate and available. User surveys will rate from 1 to 5. A rating of 3 and above is considered successful.

e. Verify the HazCollect operational modes (Active Operations, Training Operations, and Test Operations).

CRITERIA: The HazCollect operational modes (Active, Training, and Test) are fully functional 99.99% of the time.

f. Verify the failover and recovery functionality of the DMIS server.

CRITERIA: The DMIS server performs failover and recovery successfully.

g. Verify the failover and recovery functionality of the HazCollect server.

CRITERIA: The HazCollect server performs failover and recovery successfully 99.99% of the time.

h. Verify the failover and recovery functionality of AWIPS (dx processor)

CRITERIA: The existing AWIPS failover and recovery functionality is fully functional 99.98% of the time.

i. Verify user-related HazCollect performance-based test procedures (5).

CRITERIA: Specific performance tests are performed and meet performance-based thresholds stated in the Functional Requirements Document including:

1. Verify the transmission of NWEM message to dissemination systems within 2 minutes of submission from EM interfaces.
2. Verify message processing for up to 20 simultaneous users and 20 concurrent emergency messages.
3. Verify the EM authentication into HazCollect within 5 seconds.
4. Verify EM authorization failure message within 10 seconds.
5. Verify HazCollect acknowledgement, to the EM, of NWEM creation and pending dissemination within 10 seconds.

j. Confirm that instructional materials and/or user training prepare HazCollect system administrators and emergency managers.

CRITERIA: OAT site Warning Coordination Meteorologist (WCMs), and emergency managers have attended the Battelle-provided computer-based training, or have read the DMIS users guide for NWEM preparation. User surveys will rate from 1 to 5. A rating of 3 and above is considered successful.

k. Confirm the following non-OAT activities performed during the OAT:

- i. Certification & Accreditation (C&A) testing**
- ii. HazCollect Tiger Team activities**
- iii. Additional failover testing requested by OST.**

CRITERIA: The HazCollect and OAT site service operations perform successfully when the activities listed above are conducted.

1.4 Background

Current NWS systems address non-weather emergency messages (e.g., chemical spills, AMBER alerts, and radiological events), but they must be manually transcribed by NWS staff. While currently operational, these messages are prone to processing delays and human error. Delays occur during message validation processing. Common errors occur due to the manual transcription of the EM's input. In some areas, EMs will manually create the text messages and then proceed to call their local weather forecast offices. The EM messages that are currently created are subject to typographical and grammatical errors when further transcribed and composed upon reporting to the WFO personnel. These messages are subsequently manually entered into the WFO's broadcast schedules for NWS forecast, watches, and warning products.

The HazCollect system provides an automated capability to streamline the creation, authentication, collection, and dissemination of non-weather emergency messages in a quick and secure fashion. Using the proposed HazCollect system, in conjunction with existing NWS dissemination systems like NWR and NWS, NWEMs can be disseminated as standard AWIPS messages.

EMs will use the DMIS client software to compose NWEMs in the CAP format. The DMIS software, which is developed by Battelle under the supervision of the Department of Homeland Security (DHS), will send authorized and authenticated CAP-formatted NWEM messages to the

HazCollect server for conversion to the NWS World Meteorological Organization (WMO) communication format.

The HazCollect server will send the WMO-formatted NWEMs to the NCF and to the NWSTG. The NWEMs will be disseminated through the existing NWWS and broadcasted by the CRS to the NWR transmitters. The general public will subsequently hear the NWEM messages from NOAA weather radios.

The HazCollect system was officially assigned to four major development efforts:

1. Battelle will update the DMIS user interface client software, with direction and supervision from DHS/FEMA.
2. Battelle will develop the HazCollect server system to interface with the FEMA's DMIS and NWS's communication infrastructure.
3. The NOAA Office of Oceanic and Atmospheric Research, Global Systems Division (GSD) will develop and modify the AWIPS code to ensure automated dissemination of NWEMs through the existing NWS communication infrastructure.
4. Raytheon/Keane will develop necessary changes to the NCF system to ensure full system integration with the HazCollect central server and provide integration testing and technical support.

1.5 Test Strategy

The OAT will be conducted at six WFO sites from May 8 to June 23, 2006. During the OAT, sites will use their current AWIPS (OB6.0) and the associated NWEM formatter that has been updated for HazCollect to receive and send data products for English and/or Spanish messages.

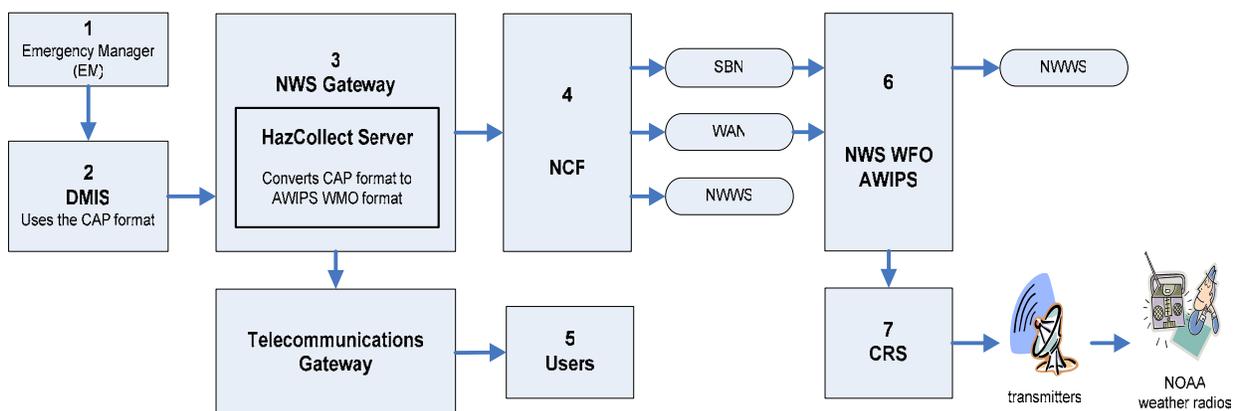


Figure 1 - HazCollect System Data Flow

Figure 1 provides a quick overview of the HazCollect system data flow processing. The following steps coincide with the sequential numbered blocks within the Figure 1 data flow scheme:

1. EMs will need valid DMIS accounts and belong to the proper Collaborative Operations Groups (COG) to log into the DMIS user interface client.
2. The DMIS toolkit, while only one of many toolkits, is the designated HazCollect EM interface for creating NWEMs. The resulting output NWEM message format from DMIS will be in CAP format. The DMIS client software will be updated for use with the HazCollect system.
3. The CAP NWEM message will be routed to the NWSTG where it is processed by the HazCollect server. The HazCollect server will, in addition to storing and listing all other NWEM messages, convert incoming CAP messages to a WMO-formatted message. The converted message will be transferred to both the NCF and the NWSTG by a script file that is located on the HazCollect server.
4. Upon receipt of products in the NCF, the NWEM message will now be sent to the AWIPS Satellite Broadcast Network (SBN), and the Wide Area Network (WAN), as well as through the NWWS.
5. The NWSTG currently interfaces with other users and agency systems (e.g., Emergency Manager Weather Information Network (EMWIN)).
6. When the WMO-formatted message is finally received by the NWS WFO's AWIPS component, which will contain updated software to handle incoming NWEMs, the message is initially saved into the local AWIPS text database. The message is converted to a CRS-Formatted Message (CRSFM) via the NWEM formatter. Output data are also sent to the NWWS.
7. The CRSFM message is sent to the CRS system. This message will be processed, saved in the CRS database, and scheduled for broadcast as an emergency message together with other weather-related products. The CRSFM message will be scheduled (based on message type product priorities set by individual field offices), broadcasted on NWR transmitters, and is finally heard on NOAA weather radios.

The following non-weather emergency event products valid in the HazCollect system are listed in Table 1.

Table 1 - Non-Weather Emergency Product Information

Event Code	AWIPS Priority	Event (Product) Name
AVW	Warning/Exclusive	Avalanche Warning
CDW	Warning/Exclusive	Civil Danger Warning
CEM	Warning/Exclusive	Civil Emergency Message
EQW	Warning/Exclusive	Earthquake Warning
EVI	Warning/Exclusive	Immediate Evacuation Warning
FRW	Warning/Exclusive	Fire Warning
HMW	Warning/Exclusive	Hazardous Materials Warning

Event Code	AWIPS Priority	Event (Product) Name
LEW	Warning/Exclusive	Law Enforcement Warning
NUW	Warning/Exclusive	Nuclear Power Plant Warning
RHW	Warning/Exclusive	Radiological Hazard Warning
SPW	Warning/Exclusive	Shelter In Place Warning
VOW	Warning/Exclusive	Volcano Warning
AVA	Watch/High	Avalanche Watch
CAE	Watch/High	Child Abduction Emergency
LAE	Watch/High	Local Area Emergency
TOE	Watch/High	911 Telephone Outage Emergency
ADR	Other/General	Administrative Message/Follow up Statement
DMO	Configurable	Practice/Demo Warning
NIC*	Other/General	National Information Center
NPT*	Configurable	National Periodic Test
RMT**	Configurable	Routine Monthly Test
RWT**	Configurable	Routine Weekly Test

* not yet defined and not implemented in HazCollect at this time.

** not implemented in HazCollect at this time.

The OAT will involve end-to-end verification of all the event codes that are listed in Table 1. During the OAT, the planned tests will:

1. Verify authorization and authentication for different COG levels – verify NWEM messages were broadcasted to the proper areas by monitoring the EMWIN, NWWS, CRS, and NWR transmission.
2. Authenticate and authorize EMs – verify EM authentication and authorization using the DMIS user interface client.
3. Acknowledge NWEM creation per required performance times – verify, by performance test parameters, if NWEM dissemination were on time. Multiple users will also verify stress testing for up to 20 concurrent users.
4. Verify failover and recovery processing – verify the DMIS switchover, HazCollect Server and AWIPS failover and recovery processing. Check for actual NWEM dissemination by monitoring CRS and NWR transmission.
5. Verify NWEM dissemination based on different HazCollect Server Modes – verify NWEM dissemination for Actual, Test, and Training HazCollect server modes by monitoring EMWIN, NWWS, CRS, and NWR transmission.

Each designated verification location will have support personnel who will assist during the OAT (see **Section 2.2.4 Test Conduct** and **Table 5 OAT Test Personnel**). The OAT support personnel will verify message delivery and/or system logging indicating delivery. Failover and recovery testing will also be performed on the DMIS Production server, the HazCollect server and at the WFO AWIPS. The WFO Warning Coordination Meteorologists (WCM) will be the OAT site Point of Contact (POC) and the AWIPS POC for each of the designated OAT sites.

When the HazCollect NWEM message is input into the NWSTG, NWSTG processes it and output data are transmitted to numerous data output components including EMWIN. During the OAT, the EMWIN points of contact will verify the receipt of the OAT test message(s). These cursory checks on EMWIN will not be performed for all test messages.

During the OAT, the OPS24 Test and Evaluation Branch will document, in addition to other related OAT test results, site resolutions regarding any problems encountered during the test. These documented resolutions will be verified and, upon TRG adjudication, disseminated by the TRG to the WFOs participating in the OAT.

The HazCollect Tiger Team will ensure that OAT and non-OAT sites are setup and enabled for the HazCollect. Before the start of the OAT, each of the OAT sites AWIPS and CRS setup will be configured. These sites will have their HazCollect enabled during their scheduled OAT start dates (see **Attachment D – OAT Test Schedule**).

In addition to, but independent of, the OAT test activities, specific C&A tests will be performed by the NWS Information Technology Security Officer (ITSO) during the OAT including:

1. HazCollect server rack scanning
2. Operational maintenance verification
3. Incident response reporting

The status for the Tiger Team activities and the C&A tests will be reported at the weekly TRG meetings.

1.6 Test Review Group (TRG)

The Test Review Group (TRG) will assist in problem resolution during the OAT. The TRG is comprised of a group of subject-matter experts and is chaired by the Chief, Test and Evaluation Branch (OPS24). The role of the TRG is to evaluate each defect’s impact on daily field service operations and make recommendations to the HazCollect Program Manager on defect criticality. During the TRG, other non-OAT test activities including the C&A testing, HazCollect Tiger Team activities status, and requested failover tests from OST31, will also be discussed.

The TRG is comprised of the personnel from the offices identified in Table 2. Following completion of the OAT, the TRG will convene to review the findings and recommend whether to proceed with national implementation.

Table 2 - HazCollect OAT Test Review Group (TRG) Personnel

Name/Organization * = Alternate		Function	Phone	Voting Member
Jerald Dinges	OPS24	TRG Chair	(301) 713-0326 x160	Yes
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Name/Organization * = Alternate		Function	Phone	Voting Member
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Peter Pickard	OST32	HazCollect Tiger Team Lead	(301) 713-1570 x126	
Timothy Howard	OST	Information Technology Security Officer	(301) 713-1570 x143	
Gregory Zwicker	OPS17	Dissemination Systems	(301) 713-9478 x141	Yes
Iyad Salman	OPS12	HazCollect Integrated Logistics Support Lead	(301) 713-1833 x135	Yes
Daniel Starosta	CIO12	NWSTG POC	(301) 713-0864 x171	Yes
Odon Dario	CIO14	NWSTG POC	(301) 713-0877 x172	
Santos Rodriguez	CIO11	NWSTG/EMWIN POC	(301) 713-0077	
Ross Dickman Rick Watling *	ER1	Eastern Region HazCollect POC	(631) 244-0104 (631) 244-0123	Yes
Walt Zaleski Mike Mach *	SR11	Southern Region HazCollect POC	(817) 978-1100 x106 (817) 978-1100 x108	Yes
Greg Noonan Jim Keeney *	CR1	Central Region HazCollect POC	(816) 891-7734 x301 (816) 891-7734 x702	Yes
Craig Schmidt Jeff Lorens *	WR1	Western Region HazCollect POC	(801) 524-4000 x266 (801) 524-4000 x265	Yes
Freddy Peters	AR4	Alaska Region HazCollect POC	(907) 271-5145	Yes
Joel Cline Ken Waters *	PR	Pacific Region HazCollect POC	(808) 532-6414 (808) 532-6413	Yes
Richard Kane (WCM)	WFO PBZ	OAT Site POC/AWIPS POC	(412) 262-2170 x223	
Rafael Mojica (WCM)	WFO SJU	OAT Site POC/AWIPS POC	(787) 253-4586	
Rick Shanklin (WCM)	WFO PAH	OAT Site POC/AWIPS POC	(270) 744-6440 x726	
David Soroka (WCM)	WFO MTR	OAT Site POC/AWIPS POC	(831) 656-1710	
Kathryn Hoxsie (WCM)	WFO STO	OAT Site POC/AWIPS POC	(916) 979-3041	
Sam Albanese (WCM) Renee Wise (Asst WCM)	WFO AFC	OAT Site POCs/AWIPS POCs	(907) 266-5117 (907) 266-5108	

Name/Organization * = Alternate		Function	Phone	Voting Member
David Johnson	EM	Emergency Manager for WFO PBZ	(412) 473-3315	
Dionides Pietri Gisela Rosario	EM	Emergency Managers for WFO SJU	(787) 782-9006 (787) 724-0124	
Walter Atherton Richard Payne Chuck Genesisio Alan Ninness	EM	Emergency Managers for WFO PAH	(270) 685-8448 (270) 685-8448 (618) 542-2009 (618) 252-3732	
Elizabeth Klute Art Botterell	EM	Emergency Managers for WFO MTR & WFO STO	(925) 646-4461 (925) 313-9627	
Scott Walden	EM	Emergency Manager for WFO AFC	(907) 262-2097	

1.7 Prerequisites, Assumptions, and Risks

This section describes the actions required before the OAT, the availability of other equipment needed for the OAT, and a description of the risks associated with performing the OAT.

1.7.1 Prerequisites

Before proceeding with the HazCollect OAT testing, the following prerequisites include:

- a. The HazCollect system successfully completes all DT&E tests.
- b. All requirements, per the Functional Requirements Document, have been successfully tested and verified during all DT&E tests.
- c. All reported defects classified as ‘**Critical**’ or ‘**Major**’ must be fixed.
- d. All OAT sites will have their HazCollect Tiger Team-approved AWIPS and CRS setup configured and enabled for HazCollect on their respective OAT start dates.
- e. The AWIPS build version at all OAT sites shall be OB6.0.
- f. The **afos2awips.txt** file, in AWIPS, shall contain the non-weather emergency products (see Table 1) and Spanish products (for OAT sites that broadcast Spanish messages).
- g. Required HazCollect documentation are available (see **2.2.2.2 Support Documentation**) and provided to the OAT site.
- h. An OAT Test Readiness Review meeting is conducted by OPS24 to confirm with the TRG that the HazCollect system is ready to begin the OAT.

- i. Each of the emergency managers will have valid DMIS accounts and belong to at least one of the Collaborative Operations Group (COG) level supporting HazCollect – local, state, regional, and national level.
- j. The OAT WFOs shall generate their local public information statement (PNS) messages to provide notification to the general public regarding the start of OAT testing.
- k. The Dissemination Services (OS51) personnel will notify the NWS dissemination infrastructure users and other related agencies about the HazCollect OAT by using a National PNS message.

1.7.2 Assumptions and Limitations

The NWSTG support personnel will receive adequate training (at a future scheduled date), per HazCollect Integrated Logistics Support (ILS) Plan Section 4.2.1 Support Training. The emergency managers and WFO WCMs will have received adequate user training via the contractor-provided Microsoft LiveMeeting sessions.

1.7.3 Risks

The HazCollect system is a new addition to the existing NWS infrastructure and as such, some risks are inherent. Risks are usually minimized by rigorous DT&E testing. However, all tests before the OAT are performed in a *simulated* environment. During the OAT, the HazCollect system will undergo testing in an *operational* environment, wherein existing NWS systems, to be used, are currently working under operational conditions. However, even though the OAT testing takes place at an operational field site, it is still conducted under controlled conditions as far as practicable without impacting normal operations. The following risks that are currently identified for the OAT include:

1. The testing of HazCollect at operational sites will be optimized if actual NWEM warning/watches do occur and are properly responded to by the HazCollect system. However, if non-weather emergency events do not occur, there will be no testing of actual watch and warning products and thus this capability and the HazCollect system behavior, under watch and warning conditions, will not be operationally verified.

If actual NWEM watch and warning events do occur, the emergency manager will use the DMIS client software to format his message and send them to the HazCollect server for subsequent dissemination and broadcast.

2. During the OAT, the HazCollect Tiger Team will be coordinating an effort to enable HazCollect at non-OAT sites per the Tiger Team's activation plan. The OAT team is responsible for monitoring only the OAT sites, and the HazCollect Tiger Team is responsible for monitoring non-OAT sites during the OAT.
3. The NWEM messages, from the HazCollect server, will be verified in NWSTG, on input, with only minimal verification for subsequent user community data on output. Data output

(e.g., EMWIN) will be verified by cursory checking (verification of receipt). Not all test NWEM message output from NWSTG will be checked and confirmed.

1.8 Test Personnel and Responsibilities

The following describes the major roles and responsibilities of the HazCollect test personnel:

Test Review Group Chair (OPS24) - Convenes the weekly TRG meetings by conference calls to review, clarify, and validate deficiencies documented in test defects. Categorizes validated deficiencies and recommends corrective actions to the HazCollect Program Manager. Coordinate the prioritization and resolution of validated deficiencies and of other test-related issues. *The Test Review Group Chair is a voting member of the TRG.*

OAT Test Director (OPS24) – Writes the HazCollect OAT Test Plan. Ensures all tests defined in the OAT Test Plan are completed and the results properly documented in the OAT Test Report. The Test Director is responsible for collecting and presenting test defects to the TRG for classification and coordinating OAT conference calls. Following completion of the OAT, the Test Director will call a final meeting of the TRG, detail to the HazCollect Program Manager what was tested, and report the OAT conclusions. Ensures all test defects documented and classified during the OAT are forwarded to the proper Weather Service Headquarters (WSH) organization or board for adjudication and writes the OAT Test Report to document the test results and recommendations. *The Test Director is a not a voting member of the TRG.*

HazCollect Program Manager (OST) - Ensures the HazCollect system and documentation are available for the OAT. The Program Manager will participate in the OAT conference calls. The Program Manager will review all problems documented and classified during the OAT and coordinates their adjudication. The Program Manager will also review the OAT test plan and report documents. *The HazCollect Program Manager is a voting member of the TRG.*

HazCollect Technical Lead (OST) - Ensures that all technical issues regarding the HazCollect system and documentation are identified and resolved for the OAT. The Technical Lead will participate in the OAT conference calls. The Technical Lead will review all problems documented and classified during the OAT and coordinates their adjudication. The Technical Lead will review the OAT test plan and report documents. *The HazCollect Technical Lead is a voting member of the TRG.*

CRS/NWEM Formatter Software Manager (OPS23) – Ensures that all technical issues regarding the CRS and the NWEM Formatter software are identified and resolved for the OAT. The CRS/NWEM Formatter Software Manager will participate in the OAT conference calls. The CRS/NWEM Formatter Software Manager will review OAT Test Plan and test report documents. *The CRS/NWEM Formatter Software Manager is a voting member of the TRG.*

Dissemination Services (OS51) – Provides for the liaison between WSH, regional point of contacts, emergency managers, and the NWS dissemination infrastructure user community. The Dissemination Services Manager will notify the NWS dissemination infrastructure user community of the upcoming OAT testing. The Dissemination Services Manager and/or Support will participate in the OAT conference calls. The Dissemination Services Manager and/or

Support will review the OAT Test Plan and test report documents. *The Dissemination Services Manager is a voting member of the TRG.*

Dissemination Systems (OPS17) – Ensures that all technical and management issues regarding the NWR and NWWS are identified and resolved for the OAT. The Dissemination Systems TRG representative will participate in the OAT conference calls and review the OAT Test Plan and the OAT Test Report documents. *The Dissemination Systems POC is a voting member of the TRG.*

HazCollect Integrated Logistics Support Lead (OPS12) - Ensures that all technical issues regarding the HazCollect maintenance and logistics are identified and resolved for the OAT. The Integrated Logistics Support (ILS) lead assists the HazCollect Program Manager and Technical Lead to ensure all issues regarding the HazCollect reliability and availability are identified and resolved for the OAT. The ILS lead will participate in the OAT conference calls and review the OAT Test Plan and test report documents. *The ILS Lead is a voting member of the TRG.*

OAT Support (OPS24) - Responsible for performing OAT test support duties as assigned; assists OAT sites in completing test defect forms when problems are observed; provides the OAT Test Director with technical information and advises on problem solutions. The OAT support team will also monitor and assist during the OAT site testing.

Regional HazCollect POC – The regional HazCollect POCs are responsible for providing coordination between WFOs and WSH, participating in conference calls, and reviewing test plans and reports during the OAT. *The regional HazCollect points of contacts are voting members of the TRG.*

OAT Site POC – The selected OAT site will be responsible for planning and coordinating OAT activities with their regional HazCollect POCs and WSH, participating in conference calls, and reviewing of plans and reports during the OAT. The OAT site MIC will approve decisions required during the OAT, for example, when to begin the OAT testing, how to operate existing systems, and ensure the availability of staff support as required. **The OAT site MIC retains all management responsibility for the site including whether to continue the OAT.** The OAT site will provide at least one site representative to participate in any OAT conference calls. The OAT site personnel will:

- participate in the OAT testing with assistance from OAT support team.
- provide feedback to the OAT Test Director
- verify HazCollect and NWR operations
- identify problems on test defect forms (see **Attachment A**).
- provide input during OAT at TRG conference calls
- complete and return questionnaire to OAT Test Director (see **Attachment B**)

Emergency Managers – For each selected OAT site, the designated EM(s) will be responsible for creating operational and test NWEM messages that will be verified for dissemination using existing NWS infrastructure (NWWS, NWR, etc.). Additionally, each EM will:

- participate in the HazCollect OAT testing with assistance from OAT support team.
- provide input during OAT at TRG conference calls

- complete and return questionnaire to OAT Test Director (see **Attachment C**).

NWSTG POC - These personnel are responsible for ensuring that NWEM messages from the HazCollect server are verified for input into NWSTG and for any subsequent output to existing dissemination systems. Additionally, the NWSTG point of contact will:

- participate in the HazCollect OAT testing.
- provide input during OAT at TRG conference calls.

AWIPS POC - These personnel are responsible for ensuring that NWEM messages from the HazCollect server are verified for input into AWIPS and for any subsequent output to existing dissemination systems. Additionally, the AWIPS point of contact will:

- participate in the HazCollect OAT testing.
- provide input during OAT at TRG conference calls.

2.0 Method of Accomplishment

The following sections describe the test schedule, facilities, configuration, resources, test personnel to conduct the OAT, including any test result analysis after the OAT.

2.1 Test Sites

The selection of the HazCollect OAT test sites were based on the following criteria:

- a. Sites where EMs use (or willing to use) the DMIS client and who works well with their respective state agencies [**Note: the use of DMIS at the OAT start date by at least one EM within the County Watch Area (CWA) is a required criterion for all sites.**]
- b. Sites that use zones rather than counties in their Non-Weather Emergency Messages.
- c. Sites with associated Weather Service Office (WSO).
- d. Sites that use Spanish language.
- e. Sites that have coverage areas in multiple states.
- f. Sites that have marine, offshore, and/or coastal zones.
- g. Sites must have AWIPS OB6.0 installed before start of OAT. **This is a required criterion for all sites.**
- h. Sites selected based on different number of transmitters (Typical, Large, and Maximum transmitter configurations).

The selected OAT test sites are listed in Table 3.

Table 3 - OAT Test Sites

Region	OAT sites (Site ID)	Criteria	Transmitter configuration
Eastern	WFO Pittsburgh PA (PBZ) 192 Shafer Road Moon Township, PA 15108 Phone: (412) 262-1591	- Use of DMIS (a) - Coverage in multiple states (e) - Number of transmitters (h)	Large 7
Southern	WFO San Juan PR (SJU) 4000 Carreterra 190 Carolina, PR 00979 Phone: (787)253-4586	- Use of DMIS (a) - Use of Spanish (d) - Number of transmitters (h)	Typical 4
Central	WFO Paducah KY (PAH) 8250 KY Highway 3520 West Paducah, KY 42086-6440 Phone: (270) 744-6440	- Use of DMIS (a) - Coverage in multiple states (e) - Number of transmitters (h)	Maximum 9

Region	OAT sites (Site ID)	Criteria	Transmitter configuration
Western	WFO San Francisco CA (MTR) 21 Grace Hopper Ave, Stop 5 Monterey, CA 93943-5505 Tel: (831) 656-1725	- Use of DMIS (a) - Overlapping transmitters in adjacent counties. - Number of transmitters (h)	Large 6
	WFO Sacramento CA (STO) Sacramento, CA Phone: (916) 979-3051		Large 5
Alaska	WFO Anchorage AK (AFC) 6930 Sand Lake Road Anchorage, AK 99502-1845 Phone: (907) 266-5102	- Use of DMIS (a) - Use of zones (b) - Associated WSO (c) - Marine zones (f) - Number of transmitters (h)	Maximum 12

2.2 Test Methodology

The following sections describe how the OAT will be conducted. The OAT Test Director will ensure the test is performed as outlined. Any deviation from the test methodology will be documented and provided to the OAT Support Team prior to conduct of the affected tests.

2.2.1 Pre-OAT Activities

1. **WSH** - Prior to conducting the OAT, WSH will complete the following actions:
 - a. Convene an introductory meeting with the OAT sites – (OPS24).
 - b. Convene an introductory meeting with the emergency managers – (OPS24).
 - c. Convene an OAT Readiness Review meeting to decide if the HazCollect system is ready for the OAT testing – (OPS24).
 - d. Distribute the OAT Test Plan to each OAT site – (OPS24).
 - e. Prepare PAMS for tracking log files for NWEM verification and tracking – (OPS24).
 - f. Create and distribute the AWIPS Information Note 20 and CRS Maintenance Note 63 – (OPS12).
 - g. Notify the NWS dissemination infrastructure user community of the upcoming OAT testing using a National PNS message – (OS51).

- h. Provide OAT sites with message contents for each of the OAT site local PNS messages – (OS51).
 - i. HazCollect Tiger Team successfully setup the AWIPS and CRS configuration for all OAT sites – (OST).
 - j. HazCollect Tiger Team successfully enables all OAT sites for HazCollect – (OST)
2. **Battelle** – Prior to conducting the OAT, Battelle (contractor) will complete the following actions:
- a. Successfully completed all the DT&E tests.
 - b. Successfully tested and verified all Battelle-related requirements, per Functional Requirements Document, during all the DT&E tests.
 - c. Setup the EMs/OAT Support personnel DMIS accounts and COG levels in preparation for the OAT (Battelle).
 - d. Provide HazCollect EM training (Battelle).
3. **OAT Sites** - Prior to conducting the OAT, the OAT sites will complete the following actions:
- a. The OAT sites will ensure AWIPS, NWWS, and CRS systems are operational.
 - b. The OAT sites will confirm the required documentation is available.
 - c. The OAT sites will confirm/perform the AWIPS Information Note 20, CRS Maintenance Note 63, and AWIPS Software Patch-Other Mod Notes 24 procedures and ensure that HazCollect Tiger Team-approved AWIPS and CRS setup have been configured.
 - d. The OAT sites will ensure the NWEM formatter and the **afos2awips.txt** file contain all non-weather emergency products required for local NWS operations, including Spanish products (for sites that broadcast Spanish messages).
 - e. The OAT site personnel will ensure any required local public information messages will be disseminated prior to the start of the OAT. These messages shall inform the public of the operational testing mode is being performed on the systems and any possible failure will be immediately mitigated and/or fixed.
4. **Emergency Managers** – Prior to conducting the OAT, the emergency managers will complete the following actions:
- a. Install the latest DMIS client software and create COGs for use during the OAT.

- b. Attend DMIS client training sessions.

2.2.2 Test Configuration and Resources

The following sections describe the HazCollect test configuration, resources, and supporting documentation.

2.2.2.1 Hardware/Software

The following hardware and software will be used:

1. DMIS client user interface software (Version 2.3)
EMs will require the DMIS client user interface software (Version 2.3) for properly creating and sending NWEMs into the HazCollect system and disseminated by existing NWS infrastructures. Any problems with the DMIS user interface will necessitate contacting the Disaster Management Help Desk (see **Section 2.2.2.2** HazCollect Integrated Logistics Support (ILS) Plan document).
2. DMIS Production Server (Version XX.XX)
During the OAT, the DMIS Production server (Version XX.XX) will be used.
3. HazCollect server software (Version XX.XX)
The NWSTG facility will require the HazCollect server and related communication hardware. The HazCollect server shall contain the latest HazCollect server software including updated scripts from the NCF to transfer converted HazCollect NWEMs to NCF. During the OAT, Battelle (contractor) is responsible for any software/hardware maintenance and/or server administrator responsibilities for the HazCollect server.
4. AWIPS OB6.0
The AWIPS OB6.0, which supports HazCollect processing, will be required.

2.2.2.2 Support Documentation

HazCollect support documentation and operational instructions will be shipped to each OAT site prior to the OAT. Reference to these documents will be made as required throughout the test. The list of documentation, including the responsible authors includes, but is not limited to, the following:

- a. HazCollect OAT Test Plan (OPS24)
- b. AWIPS Software Patch-Other Mod Notes 24 (OST)
- c. AWIPS Information Note 20 (OST)
- d. CRS Maintenance Note 63 (OST)
- e. HazCollect User's Manual & Operations Manual (Battelle)
- f. HazCollect Version Description Document (Battelle)
- g. DMIS Operator's Guide (Battelle)
- h. HazCollect ILS Plan (Battelle)

2.2.3 Installation

There will be no software installation performed by the OAT Support personnel during the OAT. All required HazCollect server and application software will have already been installed and verified before the start of the OAT. The required software that will have already been pre-installed are the following:

- HazCollect server software
- DMIS client software (Version 2.3)
- DMIS server software
- AWIPS OB6.0
- CRS database setup

A HazCollect Tiger Team will setup the AWIPS and CRS configuration and enable specified OAT sites before the start of the OAT. All OAT sites must have AWIPS OB6.0 pre-installed.

2.2.4 Test Conduct

The OAT starts on May 8, 2006 (see **Attachment D**). The HazCollect server and its corresponding HazCollect server software will reside in the NWSTG. The field office AWIPS must already have the AWIPS Build OB6.0 pre-installed and configured before the start of the OAT. The OAT site locally-based EM(s) will already have valid DMIS accounts, belong to appropriate COGs at different levels, and have access to the DMIS user interface client software that supports the HazCollect processing.

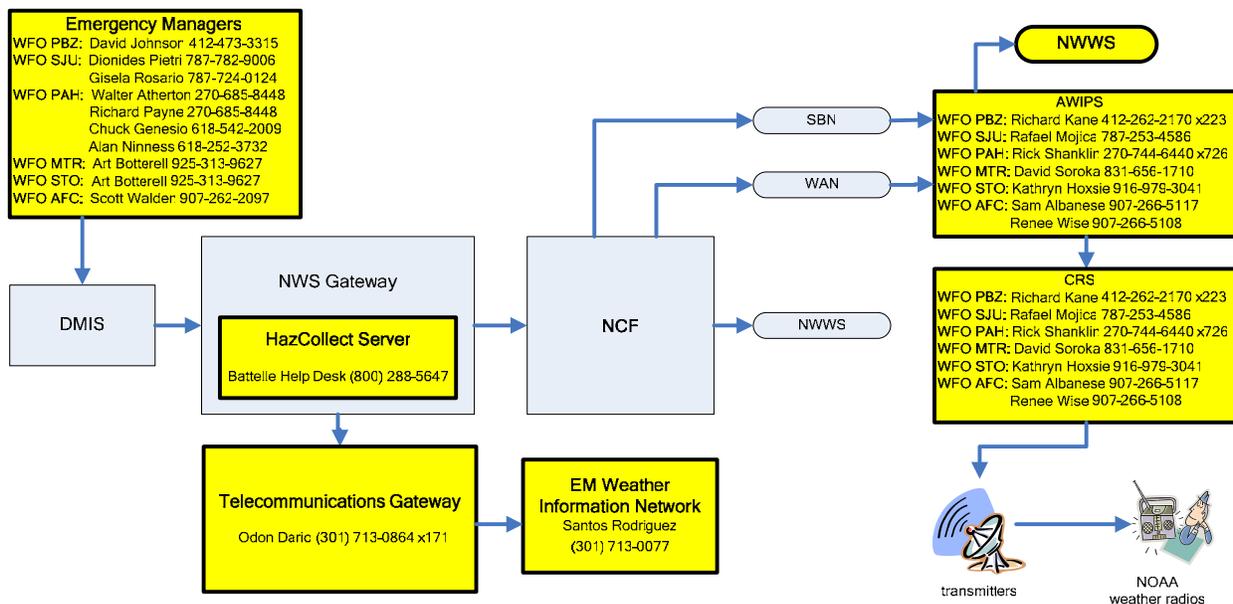


Figure 2 - HazCollect OAT Resources and Points of Contact

In Figure 2, the HazCollect OAT resources and points of contacts will include members from the emergency managers, OAT Support personnel, HazCollect server system administrator, and OAT site personnel. During the OAT, each emergency manager, point of contact, and OAT site point of contact will be responsible for providing verification and for performing specific test procedural duties. **The OAT site MIC retains control over the operations of the OAT site including whether to halt the OAT.**

If there are any problems with the NWEM messages (non-dissemination, message corruption), the OAT site will call the NCF (301-713-1284 or 301-713-1288) to report the problem. The OAT site will receive an open ticket number for tracking and will receive a response when the problem is resolved.

The HazCollect server is capable of being switched into three different operational modes:

1. The **Active Mode** is the normal mode when the system is operationally functioning. This mode allows the EM to enter active operational mode providing all functionality and performance necessary for the EM to disseminate emergency messages whenever required.
2. The **Training Mode** is used to replicate EM user functionality of creating NWEM messages while inhibiting the routing and dissemination of any data from the HazCollect server to the NWS infrastructure.
3. The **Test Mode** provides the capability for system administrators to place elements of the system in test mode to verify proper operation, communication, and performance without jeopardizing alert dissemination functions.

Currently, the NWEM dissemination processing is described in **Table 4 HazCollect NWEM Dissemination**. During the OAT, all of the HazCollect Server modes will be tested. For more explanation of the NWEM Dissemination, refer to the **HazCollect System Dataflow Analysis** document (Section 4.2.3 Item 8). Refer to **Attachment D** for where and when each of the HazCollect server test modes (**Active, Training, and Test**) will be performed.

Table 4 - HazCollect NWEM Dissemination

HazCollect Server Mode	CAP Status	NWEM Format	NWEM Disseminated?	OAT Test Procedure/Event
Active	Actual	Normal	Yes	Test #300 / ADR
	System	Training	No	
	Exercise	Exercise	Yes	
	Test	Test	No	
Training	Actual	Normal	No	Test #110 and #330 / ADR
	System	Training	No	
	Exercise	Exercise	No	
	Test	Test	No	
Test	Actual	Normal	No	Test #310 / ALL

HazCollect Server Mode	CAP Status	NWEM Format	NWEM Disseminated?	OAT Test Procedure/Event
	System	Training	No	Test #320 / ADR
	Exercise	Exercise	No	
	Test	Test	Yes	

2.2.4.1 Test Conduct – WSH Team at Site

The OAT test team will be on site, in a staggered schedule, at each of the different WFOs, during the first four weeks of the OAT (see **Attachment D – OAT Test Schedule**). If operational concerns affect the agreed start of the OAT, the OAT site must notify the OAT Test Director and reschedule the OAT testing.

The WSH personnel will convene a kickoff meeting with the OAT site personnel (see **Attachment E** for meeting agenda) to discuss the OAT test strategy, including roles and responsibilities. The OAT will consist of tests that will be conducted by WFO personnel performing routine daily operations, emergency managers creating test NWEM messages for local and/or state messages, and the OAT test team running specific failover and/or performance tests.

Prior to running the OAT tests, the HazCollect Tiger Team and OAT site personnel will have already successfully setup the OAT site AWIPS and CRS configuration that will process incoming HazCollect messages. At the OAT Readiness Review meeting, these setups will be verified for each of the OAT sites. The OAT test team will assume that all AWIPS and CRS related configuration and database updates have already been performed and that systems will be ready for the OAT.

The test procedure sequence and description listing are contained in **Attachments F, G, H, I, J, and K**. The actual test procedures will be available on request from OPS24. Included in the OAT testing will be the use of test messages to verify local, state, and national NWEM messages using the ADR message type.

During the first four weeks of the OAT, the test procedures and activities that are planned to be performed include the following:

First Week:

1. The WFO PAH will disseminate the local PNS message regarding upcoming OAT.
2. The WSH OAT test team will travel to **WFO PAH** to start the OAT.
3. The kickoff meeting, with the OAT site personnel and any EMs in attendance, will be convened.
4. The testing will start with test procedures outlined in **Attachment F (WFO PAH)**.
5. The OAT site will continue to run their normal routine weekly tests.
6. A TRG teleconference meeting will be convened on Thursday (2:00 PM EDT) of the week to discuss current status and any problems found.

Second Week:

1. The WFO SJU will disseminate the local PNS message regarding upcoming OAT.
2. WSH OAT test team will travel to **WFO SJU**.
3. The kickoff meeting, with the OAT site personnel and any EMs in attendance, will be convened.
4. The testing will start with test procedures outlined in **Attachment G (WFO SJU)**.
5. The OAT site will continue to run their normal routine weekly tests.
6. A TRG teleconference meeting will be convened on the Wednesday (2:00 PM EDT) of the week to discuss current status and any problems found.

Third Week:

1. The WFO PBZ and WFO AFC will disseminate the local PNS message regarding upcoming OAT.
2. WSH OAT test teams will travel to **WFO PBZ** and **WFO AFC**.
3. For each site, a kickoff meeting, with the OAT site personnel and any EMs in attendance, will be convened.
4. The testing will start at each site, with test procedures outlined in **Attachment H (WFO PBZ)** and **Attachment I (WFO AFC)**.
5. The OAT sites will continue to run their normal routine weekly tests.
6. A TRG teleconference meeting will be convened on the Wednesday (2:00 PM EDT) of the week to discuss current status and any problems found.

Fourth Week:

1. The WFO MTR and WFO STO will disseminate the local PNS message regarding upcoming OAT.
2. WSH OAT test teams will travel to **WFO MTR** and **WFO STO**.
3. For each site, a kickoff meeting, with the OAT site personnel and any EMs in attendance, will be convened.
4. The testing will start at each site, with test procedures outlined in **Attachment J (WFO MTR)** and **Attachment K (WFO AFC)**.
5. The OAT sites will continue to run their normal routine weekly tests.
6. A TRG teleconference meeting will be convened on the Wednesday (2:00 PM EDT) of the week to discuss current status and any problems found.

If an actual non-weather emergency occurs, the EM should use the DMIS client in order to send the alert and at the same time, test the capability and stability of the DMIS client software. The DMIS Production Version will allow the EMs to create and distribute any incident and emergency information to the other COGS that are allowed to receive the emergency message. If the NWEM message fails dissemination via HazCollect, the EM should use his previous process of sending NWEMs to the WFO (e.g., phone messages and/or faxes to WFO, etc.) as a backup method.

For all disseminated test messages during the OAT (those NOT involving actual emergencies), the headline and body of the NWEM message text should always be prefaced and completed

with **TEST** phrases to remind weather radio listeners of the test nature of the broadcasted messages. For the same scenarios, the EMs are instructed to only use the approved text contents from the test procedures and to refrain from using critical watch and warnings text descriptions when composing the message contents.

OAT sites that are already activated for HazCollect should also test the functioning of their local non-HazCollect NWEM messages. This verification is performed to ensure that these non-HazCollect NWEM messages are being disseminated just as they used to and that there are no unexpected behaviors associated with HazCollect activation.

For the WFO San Juan, PR, NWEM messages will be tested using both English and Spanish languages. In the event of an actual emergency, the EMs in San Juan, PR will need to create both English and Spanish emergency messages.

Successful completion of the test procedures, especially the verification of the end-to-end NWEM dissemination, will involve active participation and coordination between the OAT test resources. Battelle (contractor) will assist in testing and problem resolution for the DMIS client user interface software (with HazCollect updates) via the Battelle Help Desk (800-451-2647).

The NWSTG and EMWIN POCs will verify, upon request from the OAT test team, for incoming messages and their subsequent transfers. The AWIPS and CRS POCs will monitor message storage, transmit (including by NWS), scheduling, and broadcast via weather radios. Additionally, PAMS will track all disseminated NWEM messages to CRS, NWS, and NWSTG for verification. The DMIS Program Management Office (PMO) will provide assistance in support of the DMIS server switchovers.

At the end of each day, during OAT testing at a particular WFO, the OAT test team will verify the current HazCollect server mode is set to **Active** in the event an actual emergency does occur and the EMs need to disseminate their actual NWEMs over to NWS dissemination systems. Constant communication between resources, each staffing their respective verification point, will be needed. Phone bridges to allow teleconferencing during testing can be employed to provide constant communication between resources. Staggered test times can be utilized for each of the OAT sites to verify outgoing data and minimize confusion as to who sent a NWEM.

2.2.4.2 Test Conduct – WSH Team Leaves Site

The OAT continues even as the WSH OAT test team leaves an OAT site. The HazCollect server operational mode will remain in **Active** mode.

For the duration of the OAT, the EMs will continue to do the following activities:

1. Perform non-weather emergency message creation as described in Section 2.2.4.1 in the event of an actual emergency.
2. Create a daily (Monday-Friday @ 10:00AM local time) ADR NWEM message, for the duration of the OAT, using the DMIS user interface client to test the availability of the HazCollect system.
3. Report any problems found (see **Attachment A**).
4. Participate at the TRG conference call meetings (see **Attachment D** for OAT schedule).

The OAT site personnel will continue to perform the following tasks:

1. Perform the normal WFO routine weekly tests.
2. Monitor any actual emergency and/or daily test ADR NWEM messages from the EM and report any problems found (see **Attachment A**).
3. Participate at the TRG conference call meetings (see **Attachment D** for OAT schedule).

The WSH test team will continue to perform the following tasks:

1. Create test national messages every Tuesday up until the end of the OAT.
2. Host and coordinate scheduled and/or any emergency TRG meetings.
3. Monitor NWEM message traffic log files, using the Product Availability Monitoring System (PAMS).

Point of contacts for the OAT at WSH OPS24 will be:

- Bert Vilorio (Bert.Vilorio@noaa.gov) 301-713-0326 x131
- Jae Lee (Jae.Lee@noaa.gov) 301-713-0326 x158
- FAX Number: 301-713-0912
- Battelle Help Desk for DMIS client related problems: 800-451-2647

Any problems observed during the OAT should be documented via the Test Trouble Report Form (see **Attachment A**) and subsequently emailed and/or faxed to the OAT Test Director. The OAT Test Director will enter the test defects into the TestTrack database. Additionally, the OAT Test Director will present the defects to the TRG for further action.

At the conclusion of the OAT, the HazCollect server administrator and the WFO OAT site personnel will manually record, the system time of the HazCollect servers and AWIPS and CRS systems respectively to compute overall availability. This end time recording will merely record end time parameters for non-statistical availability readings.

Additionally, specified log files from the HazCollect server, NCF, and/or AWIPS will be collected, during the duration of the OAT, for use by the PAMS for verifying message transmission start and end times. PAMS is a tool developed by OPS24 to quantify the effectiveness of the AWIPS communication networks in delivering weather-related products from data sources to field sites, from field sites to the AWIPS NCF for uplinking over the SBN, and to the NWSTG for further distribution to users.

2.2.5 OAT Test Personnel

The OAT test personnel will be the actual team of personnel involved during the OAT testing, including test personnel resources (see **Section 2.2.4 Test Conduct**) who may or may not be a member of the TRG (See **1.6 Test Review Group**). The following OAT test personnel who will be involved during the OAT testing are listed in Table 5.

Table 5 - OAT Test Personnel

Name/Organization		Function	Phone
Bert Vloria	OPS24	OAT Test Director	(301) 713-0326 x131 Fax: (301) 713-0912
Jae Lee	OPS24	OAT Support	(301) 713-0326 x158
Herbert White	OS51	OAT Support	(301) 713-0090 x146
Arthur Kraus	OS51	OAT Support	(301) 713-0090 x161
Battelle Help Desk	Battelle	HazCollect Help Desk	(800) 451-2647
Odon Dario	CIO14	NWSTG POC	(301) 713-0864 x171
Santos Rodriguez	CIO11	NWSTG/EMWIN POC	(301) 713-0077
Richard Kane (WCM)	WFO PBZ	OAT Site POC	(412) 262-2170 x223
Rafael Mojica (WCM)	WFO SJU	OAT Site POC	(787) 253-4586
Rick Shanklin (WCM)	WFO PAH	OAT Site POC	(270) 744-6440 x726
David Soroka (WCM)	WFO MTR	OAT Site POC	(831) 656-1710 x223
Kathryn Hoxsie (WCM)	WFO STO	OAT Site POC	(916) 979-3041
Sam Albanese (WCM) Renee Wise (Asst WCM)	WFO AFC	OAT Site POCs	(907) 266-5117 (907) 266-5108
David Johnson	Alleghany County, PA EM	Emergency Manager	(412) 473-3315
Dionides Pietri Gisela Rosario	Police Dept PR Emergency Mgmt	Emergency Managers	(787) 782-9006 (787) 724-0124
Walter Atherton Richard Payne Chuck Genesio Alan Ninness	Kentucky EM Kentucky EM Illinois EM Illinois EM	Emergency Managers	(270) 685-8448 (270) 685-8448 (618) 542-2009 (618) 252-3732
Elizabeth Klute Art Botterell	Comm Warning System Mgr Asst Comm Warning Sys Mgr	Emergency Managers	(925) 646-4461 (925) 313-9627
Scott Walden	Alaska EM	Emergency Manager	(907) 262-2097

2.2.6 Post-OAT Activities

Following completion of the OAT, the OAT Test Director will conduct a wrap-up meeting of the TRG to review test activities, summarize defects found, list major findings and recommendations. The TRG will review the materials presented by the OAT Test Director, HazCollect Tiger Team, and C&A related testing, and make a recommendation to the HazCollect Program Manager whether to proceed with the national deployment. The WFO OAT site personnel, will also manually record the OAT test completion system time.

Each OAT site and EM resource point of contact are required to submit responses to their respective questionnaires (**Attachments B and C**). These questionnaires will be appended to the HazCollect OAT Test Report document which will be generated after the OAT.

2.3 Schedule

The HazCollect OAT Test Schedule will start on May 8 through June 28, 2006. The calendar of events, meetings, and planned tests are documented in **Attachment D**.

2.4 Test Result Analysis

The OAT site personnel, emergency managers, and the NWSSTG resource POC will provide their respective comments on the operational use of the HazCollect system (see **Attachments B, C, and D**). If problems are observed, these test personnel can use the Test Trouble Report Form (see **Attachment A**) to report manually the defect description and information. This report would need to be emailed and/or faxed to the OAT Test Director. The OAT Test Director will collect the defect information and manually enter them by **TestTrack** database.

The **TestTrack** database will include the **Impact** and the **Priority** of each TTR. The **Impact** field deals with how each problem affects the overall NWEM message broadcast mission.

a. **Impact 1 – Malfunction of required functionality, no workaround**

This impact describes a problem that severely impacts the HazCollect system operations and there are NO acceptable workarounds.

***ACTION:** The TRG recommends suspension of the test to the NWS HazCollect Program Manager. If suspended, the OAT Test resumes when the HazCollect Program Manager approves a proposed corrective action. When an approved corrective action is implemented, regression testing may be required.*

b. **Impact 2 – Malfunction of required functionality with reasonable workaround**

This impact describes a problem that severely impacts the HazCollect system but has a reasonable workaround.

***ACTION:** The test continues with the current system using the acceptable workaround until a permanent fix is available. Once the NWS HazCollect Program Manager approves the fix, only those areas affected by the problem will be retested.*

c. **Impact 3 – Routine deficiency – loss of minimum capability**

This impact describes a minor problem that does not significantly impact HazCollect system.

***ACTION:** The test continues with the current system; approved workarounds maybe implemented. Routine deficiencies are submitted by the TRG to the NWS HazCollect Program Manager for adjudication.*

d. Impact 4 – Watch item

This impact describes a random problem with potentially significant impact on HazCollect system.

ACTION: The TRG monitors test activities for recurrence of the problem; if recurrence is documented, the TRG will consider re-categorizing the problem.

e. Impact 5 – Minimum to no impact; nice to have

This impact describes problems that have little to no impact to the HazCollect service operations. This impact will also include potential enhancements.

ACTION: The TRG will document the minor problem for tracking and future re-categorization. The TRG forwards the potential enhancement to the NWS HazCollect Program Manager for adjudication. The HazCollect Program Manager may then forward the potential enhancement as a Request for Change.

The **Priority** value prioritizes any defect that was found during the duration of the OAT. This value provides for when or how the problem is planned to be resolved. The defect is assigned (sorted in ascending severity):

- a. Priority 1 – Immediate fix
- b. Priority 2 – Include in the next build
- c. Priority 3 – Include in a future build
- d. Priority 4 – Undetermined

If the TRG assigns a problem with an Impact of 1, an immediate suspension of the OAT will result and the TRG will assign the problem resolution to the responsible personnel. If the problem has been deemed resolved by the TRG, the OAT will resume and any further regression testing will be performed.

3.0 Test Recommendations and Report

During the OAT, the OAT Test Director will prepare weekly reports summarizing any defects, operational issues and test completions. The reports will be distributed to the TRG and any other requested recipients.

At the conclusion of the OAT, the TRG will review documented problems. **If no defects with Impact 1 deficiencies remain open, and operationally acceptable workarounds have been developed and documented for deficiencies that are not fixed, a recommendation will be forwarded to the HazCollect Program Manager to proceed with the national deployment.**

Upon completion of the OAT, the OAT Test Director will prepare a separate OAT Test Report document, including details of any defects, findings, and recommendations. Included in the test report will be completed OAT questionnaires from the OAT test personnel and resources who were involved during the OAT testing.

Attachment A – Test Trouble Report

HazCollect OAT TEST TROUBLE REPORT				
Title/Summary:				
Originator:		AWIPS:		Phone:
Location:		Date/Time:		Email:

Priority	Impact	Component	Frequency
1. Immediate fix	1. Malfunction of required functionality. NO WORKAROUND	Software	Always
2. Include in the next build	2. Malfunction of required functionality. REASONABLE WORKAROUND	Hardware	Sometimes
3. Include in a future build	3. Routine deficiency Loss of minimum capability	Documentation	One-time occurrence
4. Undetermined	4. Watch Item	Other	See description
	5. Minimum to no impact; nice to have	Unknown	Unknown

Problem Description:	
Recommended Solution:	
Authorizing Signature:	Date:

Please send an email to Bert.Viloria@noaa.gov or Jae.Lee@noaa.gov with this form as an email attachment.

Call Bert Viloria at 301-713-0326 x131 or Jae Lee at 301-713-0326 x158 if you have any questions and/or comments.

Attachment B – HazCollect WFO OAT Questionnaire

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

Test Site: _____ Date: _____

Name and Title: _____

Beginning and Ending Dates of Test: _____

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
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Statement	1	2	3	4	5	N/A
HazCollect documentation, including any training materials, is adequate and accurate.						
AWIPS Information Note 20 instructions are adequate and accurate.						
CRS Maintenance Note 63 instructions are adequate and accurate.						
AWIPS Software Patch-Other Mod Note 24 instructions are adequate and accurate.						
HazCollect NWEM dissemination under non-severe weather conditions.						
HazCollect NWEM dissemination under severe weather conditions.						
HazCollect effect on existing NWS infrastructure/dissemination systems						
HazCollect effect on WFO operators or forecasters workload.						
HazCollect is suitable for general implementation.						

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.

Attachment C – HazCollect Emergency Manager OAT Questionnaire

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

Test Site: _____ Date: _____

Name and Title: _____

Beginning and Ending Dates of Test: _____

COG Name & Level: _____

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
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Statement	1	2	3	4	5	N/A
DMIS documentation, including any training materials, is adequate and accurate.						
Microsoft LiveMeeting training sessions						
HazCollect authentication and authorization processing.						
DMIS software user interface ease of use.						
DMIS software dissemination of CAP formatted NWEM.						
HazCollect alert response and/or any error notification back to DMIS.						
DMIS effect on emergency manager workload.						
DMIS software is suitable for general implementation.						
HazCollect is suitable for general implementation.						

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.

Attachment D – OAT Test Schedule

Attachment D displays the planned calendar of upcoming events, tests, and meetings before and during the OAT. These activities are subject to change per updates to the schedule and any planned meetings and tests.

April 2006						
Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
March 26	27	28	29	30	31	April 1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
		Pre-OAT Meeting 2-4PM	DMIS client load @ Battelle @ 8:30AM Testing with WFO Bismarck, ND @ 10:00AM			
16	17	18	19	20	21	22
				Battelle Regression Test	Battelle Regression Test	
					⚠ DMIS client upgrade	
23	24	25	26	27	28	29
	Battelle Regression Test	NWS Defect/Enhancement Test	NWS Regression Test LiveMeeting @ 9:00AM	NWS Regression Test LiveMeeting @ 2:00PM	Regression Tests WRAP-UP Meeting	
30						
	⚠ DMIS client upgrade	⚠ DMIS client upgrade	⚠ DMIS client upgrade	⚠ DMIS client upgrade	⚠ DMIS client upgrade	

May 2006						
Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
April 30	May 1	2	3	4	5	6
	End-to-End Test @ Battelle	End-to-End Test @ Battelle	OAT Readiness Review Meeting @ 2-4PM		National PNS – OS51	
7	8	9	10	11	12	13
	PAH Bert/Jae/Herb/Art Start of OAT Only WFO PAH & BIS are activated. Local PNS – WFO PAH	OAT starts @ WFO PAH NWEM testing of loca, state, & NATIONAL message Operational Modes Testing	Failover testing EM daily message @ 10:00 AM local	9am: Activate 5 non-OAT sites 10am: Test national msg 11am: Activate all other non-OAT sites and test national msg. TRG @ 2:00 PM EDT EM daily message @ 10:00 AM local	EM daily message @ 10:00 AM local	
14	15	16	17	18	19	20
	SJU Bert / Art List of activated non-OAT sites Local PNS – WFO SJU EM daily message @ 10:00 AM local	OAT starts @ WFO SJU NWEM testing of loca, state, & NATIONAL message EM daily message @ 10:00 AM local	Performance testing TRG @ 2:00 PM EDT EM daily message @ 10:00 AM local	EM daily message @ 10:00 AM local	EM daily message @ 10:00 AM local	
21	22	23	24	25	26	27
	PBZ Jae/Art AFC Bert/Herb List of activated non-OAT sites Local PNS – WFO AFC, PBZ EM daily message @ 10:00 AM local	OAT starts @ WFO AFC & WFO PBZ NWEM testing of loca, state, & NATIONAL message EM daily message @ 10:00 AM local	Performance testing TRG @ 2:00 PM EDT EM daily message @ 10:00 AM local	EM daily message @ 10:00 AM local	Local PNS – WFO MTR Local PNS – WFO STO EM daily message @ 10:00 AM local	
28	29	30	31	June 1	2	3
	MTR Jae/Herb STC Bert/Art List of activated non-OAT sites EM daily message @ 10:00 AM local	OAT starts @ WFO MTR & WFO STO NWEM testing of loca, state, & NATIONAL message EM daily message @ 10:00 AM local	Performance testing TRG @ 2:00 PM EDT EM daily message @ 10:00 AM local			

June 2006						
Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
May 28	29	30	31	June 1	2	3
				⚠ EM daily message @ 10:00 AM local	⚠ EM daily message @ 10:00 AM local	
4	5	6	7	8	9	10
	List of activated non-OAT sites C&A Rack Scanning ⚠ EM daily message @ 10:00 AM local	9am: Test NATIONAL msg ⚠ EM daily message @ 10:00 AM local	TRG @ 2:00 PM EDT ⚠ EM daily message @ 10:00 AM local	⚠ EM daily message @ 10:00 AM local	⚠ EM daily message @ 10:00 AM local	
11	12	13	14	15	16	17
	List of activated non-OAT sites C&A Operational maintenance verification ⚠ EM daily message @ 10:00 AM local	9am: Test NATIONAL msg C&A Operational maintenance verification and Incident response reporting ⚠ EM daily message @ 10:00 AM local	TRG @ 2:00 PM EDT ⚠ EM daily message @ 10:00 AM local	⚠ EM daily message @ 10:00 AM local	⚠ EM daily message @ 10:00 AM local	
18	19	20	21	22	23	24
	List of activated non-OAT sites ⚠ EM daily message @ 10:00 AM local	9am: Test NATIONAL msg ⚠ EM daily message @ 10:00 AM local	TRG @ 2:00 PM EDT ⚠ EM daily message @ 10:00 AM local	⚠ EM daily message @ 10:00 AM local	End of OAT ⚠ EM daily message @ 10:00 AM local	
25	26	27	28	29	30	July 1
			OAT Wrap-Up Meeting @ 2:00 PM EDT			

Attachment E – HazCollect OAT Test Site Introduction Agenda

1. Introduction of test team Test Coordinator
2. The Test Structure Test Coordinator
 - Overview of HazCollect
 - Test schedule
3. Test Team Responsibilities Test Coordinator
 - Hours working on-site
 - Activities
4. Site Management and Staff Responsibilities Test Coordinator/MIC
 - EM Responsibilities
 - CRS/AWIPS Focal Point Responsibilities
 - Reporting/documenting problems
5. Test Team Office Needs Test Coordinator
 - E-mail, PC with Internet connection, modem phone lines, copying, phones, work space, etc.
6. Other Expected Visitors Test Coordinator
7. Discussion of Questions and Concerns Site Management

Attachment F – WFO Paducah KY OAT Test Sequence and Description

Seq #	Test #	Description	HazCollect Server Mode	Event Code Used	DMIS CAP status	Disseminated?
1	110	This test will verify NWEM message generation using different areas for local, state, and NATIONAL messages using only the ADR product.	Active	ADR	Actual	YES
2	230	This test will verify the transmission of NWEM message to dissemination systems <u>within 2 minutes</u> of submission from EM interfaces. Perform this test using multiple EMs sending NWEMs at the same time.	Active	ADR	Actual	YES
3	300	This test will verify that the HazCollect Active Operations mode is operational using the DMIS client Status = Actual, System, Exercise, and Test .	Active	ADR	Actual, System, Exercise, Test	NO for System & Test YES for Actual & Exercise
4	510	This test will verify, <u>WITHIN THE RACK #1 @ Silver Spring, MD</u> , that the failover and recovery in the HazCollect server is functional	Active	ADR	Actual	YES
5	520	This test will verify, <u>BETWEEN racks (@ Silver Spring & Stafford, VA)</u> , that the failover and recovery in the HazCollect server is functional.	Active	ADR	Actual	YES
6	530	This test will verify that the circuit failover processing is functional.	Active	ADR	Actual	YES
7	540	This test will verify that the HazCollect failover and recovery processing during a planned NCF switch is functional.	Active	ADR	Actual	YES
8	500	This test will verify that the <u>failover and recovery in the DMIS Pre-Production Server</u> is functional.	Active	ADR	Actual	YES
9	560	This test will verify that the <u>failover and recovery in AWIPS</u> is functional.	Active	ADR	Actual	YES
10	310	This test will verify that the HazCollect Test Operations mode is operational using the DMIS ' Actual ' CAP status for <u>ALL</u> products. Will verify Corrected, Update/Cancel functionalities.	Test	ALL	Actual	NO

Seq #	Test #	Description	HazCollect Server Mode	Event Code Used	DMIS CAP status	Disseminated?
11	320	This test will verify that the HazCollect Test Operations mode is operational for the DMIS CAP status of System, Exercise, and Test using <u>only the ADR product</u> .	Active	ADR	Test, Exercise, System	YES for Test, NO for Exercise, System
12	330	This test will verify that the HazCollect Training Operations mode is operational for CAP status System, Exercise, and Test .	Training	ADR	System, Exercise, Test	NO

Attachment G – WFO San Juan PR OAT Test Sequence and Description

Seq #	Test #	Description	HazCollect Server Mode	Event Code Used	DMIS CAP status	Disseminated?
1	110	This test will verify NWEM message generation using different areas for local, state, and NATIONAL messages using <u>English and Spanish</u> language.	Active	ADR	Actual	YES
2	230	This test will verify the transmission of NWEM message to dissemination systems <u>within 2 minutes</u> of submission from EM interfaces. Perform this test using multiple EMs sending NWEMs at the same time.	Active	ADR	Actual	YES
3	200	This test will verify the EM authentication into HazCollect within <u>5 seconds</u> .	Active	ADR	Actual	YES
4	210	This test will verify the EM authorization failure message within <u>10 seconds</u> .	Active	ADR	Actual	YES
5	220	This test will verify HazCollect acknowledgement of NWEM creation and pending dissemination within <u>10 seconds</u> .	Active	ADR	Actual	YES

Attachment H – WFO Pittsburgh PA OAT Test Sequence and Description

Seq #	Test #	Description	HazCollect Server Mode	Event Code Used	DMIS CAP status	Disseminated?
6	110	This test will verify NWEM message generation using different areas for local, state, and NATIONAL messages.	Active	ADR	Actual	YES
7	230	This test will verify the transmission of NWEM message to dissemination systems <u>within 2 minutes</u> of submission from EM interfaces. Perform this test using multiple EMs sending NWEMs at the same time.	Active	ADR	Actual	YES
8	200	This test will verify the EM authentication into HazCollect within <u>5 seconds</u> .	Active	ADR	Actual	YES
9	210	This test will verify the EM authorization failure message within <u>10 seconds</u> .	Active	ADR	Actual	YES
10	220	This test will verify HazCollect acknowledgement of NWEM creation and pending dissemination within <u>10 seconds</u> .	Active	ADR	Actual	YES

Attachment I – WFO Anchorage AK OAT Test Sequence and Description

Seq #	Test #	Description	HazCollect Server Mode	Event Code Used	DMIS CAP status	Disseminated?
11	110	This test will verify NWEM message generation using different <u>zones</u> for local and state. A NATIONAL message will also be generated and verified.	Active	ADR	Actual	YES
12	230	This test will verify the transmission of NWEM message to dissemination systems <u>within 2 minutes</u> of submission from EM interfaces. Perform this test using multiple EMs sending NWEMs at the same time.	Active	ADR	Actual	YES
13	200	This test will verify the EM authentication into HazCollect within <u>5 seconds</u> .	Active	ADR	Actual	YES
14	210	This test will verify the EM authorization failure message within <u>10 seconds</u> .	Active	ADR	Actual	YES
15	220	This test will verify HazCollect acknowledgement of NWEM creation and pending dissemination within <u>10 seconds</u> .	Active	ADR	Actual	YES

Attachment J – WFO San Francisco CA OAT Test Sequence and Description

Seq #	Test #	Description	HazCollect Server Mode	Event Code Used	DMIS CAP status	Disseminated?
16	110	This test will verify NWEM message generation using different areas for local, state, and NATIONAL messages.	Active	ADR	Actual	YES
17	230	This test will verify the transmission of NWEM message to dissemination systems <u>within 2 minutes</u> of submission from EM interfaces. Perform this test using multiple EMs sending NWEMs at the same time.	Active	ADR	Actual	YES
18	200	This test will verify the EM authentication into HazCollect within <u>5 seconds</u> .	Active	ADR	Actual	YES
19	210	This test will verify the EM authorization failure message within <u>10 seconds</u> .	Active	ADR	Actual	YES
20	220	This test will verify HazCollect acknowledgement of NWEM creation and pending dissemination within <u>10 seconds</u> .	Active	ADR	Actual	YES

Attachment K – WFO Sacramento CA OAT Test Sequence and Description

Seq #	Test #	Description	HazCollect Server Mode	Event Code Used	DMIS CAP status	Disseminated?
21	110	This test will verify NWEM message generation using different areas for local, state, and NATIONAL messages.	Active	ADR	Actual	YES
22	230	This test will verify the transmission of NWEM message to dissemination systems <u>within 2 minutes</u> of submission from EM interfaces. Perform this test using multiple EMs sending NWEMs at the same time.	Active	ADR	Actual	YES
23	200	This test will verify the EM authentication into HazCollect within <u>5 seconds</u> .	Active	ADR	Actual	YES
24	210	This test will verify the EM authorization failure message within <u>10 seconds</u> .	Active	ADR	Actual	YES
25	220	This test will verify HazCollect acknowledgement of NWEM creation and pending dissemination within <u>10 seconds</u> .	Active	ADR	Actual	YES