



ARRL PLAN



**Alabama Department of Homeland Security
American Radio Relay League,
Amateur Radio Emergency Service
Communications Interoperability Exercise
Catastrophic Hurricane Landfall
Exercise Plan (EXPLAN)
May 7th 2009**

Preface

Amateur Radio as a communications resource

For nearly one hundred years, headlines have periodically praised Radio Amateurs as heroes in disasters, providing radio communications when normal means were rendered unusable or inadequate. It's useful to ask what might contribute to such an enviable record. The answers are simple and direct, and have remained essentially constant throughout the existence of the Amateur Service since it became regulated by Federal Law in 1912.

- Amateur Radio is both hobby and public service. The hobby and public service components of Amateur Radio complement one another. When exercising their privileges as an enjoyable avocation, Amateurs maintain equipment and skills through constant use; and when serving the public interest, they justify their spectrum allocations, technical flexibility, and freedom to self-regulate as provided under their Federal Communications Commission Charter.
- Amateur Radio is Local, Regional, and Global. The broad range of frequency bands, power levels and transmission modes used by Amateurs support communications over distances useful in small, medium, and large-scale disasters. Amateur Radio support during Katrina, for example, effectively integrated local and regional coverage for both tactical and strategic operations.
- Amateur Radio Communications are Multi-Modal. From simple voice operation to sophisticated digital modes, Amateurs are capable of employing communications modes optimized for needs. Using Katrina, again, as an example, simple hand held radios which were used extensively and effectively during the early stages were later supplemented with digital capability for transmission of bulk data with high accuracy and internet connectivity from the affected areas to outlying unaffected regions.
- Interoperability of the Amateur Radio Service.
The Amateur Radio service provides two categories of interoperability: equipment and operator. Because individual Amateurs purchase equipment at random times and from various vendors, market pressures drive manufacturers to standardize hardware and software interfaces, resulting in equipment that is functionally compatible across both time and manufacturing sources. Thus, an amateur wishing to use his or her modern, sophisticated equipment to contact an old friend with thirty-year-old equipment can easily do so. Likewise, system components from one vendor are easily integrated with components from competing manufacturers world wide. This market-based interoperability enables the traditional resourcefulness of Radio Amateurs.

Alabama Amateur Radio Emergency Service Communications Exercise Plan

Radio Amateurs routinely use, integrate, and maintain a variety of equipment types, and are familiar with many different modes. Thus Amateurs can make the transition to an unfamiliar system with little or no additional training, adding the human factor to interoperability with other radio services.

- Amateur equipment is flexible and frequency-agile. While some amateur equipment is channelized by operational choice, most Amateur equipment is designed to be frequency-agile. Amateur radio hardware is designed to allow an operator to easily reconfigure operating parameters from the front panel, including frequencies, repeater offsets, modulation modes, bandwidth, etc.
- Amateurs are proficient communicators, operators and technicians. To keep budgets within reasonable bounds, and because it's an enjoyable aspect of the hobby, Amateurs usually act as their own engineers, technicians, operators and communicators. Rather than being a constraint, this is a tradition with deep roots that serves public service activities by providing a "one-stop-shopping" resource. Amateurs are justifiably proud of their proven ability to improvise, operate and communicate "WHEN ALL ELSE FAILS".
- Amateurs are organized, disciplined, trained, and available. Tens of thousands of Amateurs have registered their equipment, their stations, their knowledge and their skills and train regularly as part of a national volunteer organization, the Amateur Radio Emergency Service, ARES. ARES is a function of the American Radio Relay League, ARRL, which has been the National Organization for Amateur Radio since 1914. ARES/ARRL maintains formal agreements with all major national and international disaster relief organizations. National, regional and local ARES organizations regularly test their mobilization and operations plans during both planned and unplanned exercises. In fact, many amateurs, their stations, their plans and organizations have already been thoroughly tested in real events.

Alabama Amateur Radio Emergency Service Communications Exercise Plan

Signature Page

Review/Approval Checklist	
Alabama Section Manager	
Signature:	Date:
Jay Isbell, KA4KUN	

Section Emergency Coordinator	
Signature:	Date:
Les Rayburn, N1LF	

County/District Emergency Coordinator	
Signature:	Date:
Patti Link, KI4JEO	

Exercise Plan Author	
Signature:	Date:
Greg Sarratt, W4OZK	

Exercise Plan Editor	
Signature:	Date:
Chuck Lewis, N4NM	

Alabama Amateur Radio Emergency Service Communications Exercise Plan

Table of Contents

Preface.....	1
Amateur Radio as a communications resource.....	1
Signature Page	3
Introduction.....	5
Goals	6
Objectives	6
Objectives (continued).....	7
ARES Leadership.....	10
Figure 1: ARRL ARES Section Leadership Org Chart.....	10
ARES Members	11
NETS.....	11
Personnel.....	12
Local ARES operation	12
Figure 2: Local ARES Operations	12
National ARES operation	13
Figure 3: National ARES Operations.....	13
Local and National ARES Operations	15
Figure 5: Local and National ARES Operations.....	15
ARRL ARES Exercise Timeline	16
Exercise Concept and Scope.....	17
Exercise Scenario.....	17
Scenario Tools	17
Scenario Confidentiality	17
Exercise Control and Evaluation	18
Evaluators	18
Time Tracking	18
Lessons Learned	18
Final Report.....	18
Exercise Participants.....	18
Table 1 Exercise Participants	19
Exercise Schedule/Crosswalk.....	20
Appendix.....	21
Appendix A: Acronyms	22
Appendix B: References	23
MT63 Technical Description	30
Appendix C: Forms.....	24
ARRL ARES Radiogram	24
ICS-213	25
ICS-205	26
ICS-216	27
Appendix D: Alabama ARES Emergency Coordinators.....	28
Appendix E: Alabama D-STAR Coverage map	29
Appendix F: Links	30
Appendix G: DHS Training and Coordination Week Overview	31

Alabama Amateur Radio Emergency Service Communications Exercise Plan

Introduction

This plan, initiated in response to an invitation from Alabama Department of Homeland Security, serves as the defining and enabling document, Incident Action Plan for the subject exercise. In addition, it is intended to provide a model and a point-of-departure for a plan structure supporting similar such Amateur Radio Service exercises in the future.

This exercise will encompass the Orientation, Table-top and Full-Scale types of exercise. A simulated Category 4-5 Hurricane tracking from the Gulf of Mexico, through Mobile Bay Alabama then north through the entire state is the basic scenario. This plan and exercise will test multiple levels of Communications Interoperability with numerous served agency partners within Alabama, FEMA and Florida. All Alabama Amateur Radio Emergency Service operators are encouraged to participate and provide an After-Action Report to your EC and SEC.

The Amateur Radio Emergency Service is a unique partner that provides communications in Emergency Support Function #2, ESF-2 and will utilize Incident Command System (ICS) practices.

The following paragraphs include goals, objectives, procedures, processes, constraints, and expectations for the subject exercise. Participants should attempt to operate within the guidelines and constraints established herein, but will be ready to innovate as necessary to meet the goals and objectives.

Alabama Amateur Radio Emergency Service Communications Exercise Plan

Goals

- Validate Plans and Capabilities to execute effectively in a large-scale disaster
- Test normal local and regional disaster communications
- Interface/operate with multiple Local, State and Federal partners
- Test new digital modes in disaster situations
- Test updated ARRL field and HQ coordination protocols

Objectives

Demonstrate:

- Amateur radio value in Emergency/Disaster
- Amateur radio understanding of overall CONOPS system
- Timeliness, Responsiveness, and Resourcefulness
- Breadth of skillset
- Professional attributes
- Ability to operate effectively within a broader organizational matrix
- Leadership capability
- Technical capability
- Ability to execute and test call down list
- Ability to execute and validate plans
- Ability to adjust to changing situations
- Ability to provide detailed lessons learned, reports, and path ahead
- Ability to participate in partner training and presentations
- Ability to use partner communications forms
- Ability to transmit Digital forms and information

Evaluate:

- Capability to interoperate with other agencies
- Capability to interoperate within Amateur Radio community
 - Technically
 - Operationally
 - Administratively
- Operational and administrative interfaces
 - Internal
 - External
- Incident Command System knowledge, use and practices
- Potential failure modes, mitigation approaches
- Capability to self-evaluate, improve

Alabama Amateur Radio Emergency Service Communications Exercise Plan

Objectives (continued)

Generate:

- Hotwash notes, “Lessons-Learned”, reports, and recommendations
- Roadmap to better interagency collaboration and effectiveness
- Revised ops plans and EOP
- Strategies for optimizing use of volunteers

Communicate Results:

- To partner agencies
- To Amateur Radio leadership
- To Amateur Radio community-at-large
- To general public

Scenario

A Category 4-5 Hurricane tracks up Mobile Bay, with massive impact on EMA Region 1 and damaging impact on rest of state; and having drastic effect on communications infrastructure.

The Alabama Department of Homeland Security invited the amateur radio service to participate in the exercise along with multiple other state agencies, organizations and FEMA. This exercise will test communications among all of the participating agencies. This will provide high visibility for amateur radio and give amateur radio the opportunity to interface with other Alabama communications organizations.

The Incident Command Post (ICP) will be located in a 20ac field adjacent to the Baldwin County EOC. Multiple other sites will be networked/communicated with during the exercise.

The Communications Interoperability exercise is a limited duration exercise of not more than eight hours.

Amateur radio will exercise normal Local, State and Region 1 emergency communications capability, passing traffic, interfacing with various agencies, including several “want to try/demonstrate” new communications modes. Normal modes include FM repeater, FM simplex, HF out-of-area and to-state EOC.

Amateur radio will exercise/test new or extended communications, multi-modes, multi-bands, VHF/UHF and HF digital data.

Alabama Amateur Radio Emergency Service Communications Exercise Plan

Scenario (continued)

The following locations are spread around Region 1 for the exercise:

1. Incident Command Post
2. Shelter
3. Reception center
4. Staging Area
5. Base
6. SAR Dauphin Island
7. SAR Orange Beach
8. Site _____
9. Site _____
10. Site _____

Additional locations with which we plan to establish communications:

1. Alabama State Emergency Management EOC
2. ARRL Headquarters
3. Region 1 EOCs
 - I. Baldwin
 - II. Choctaw
 - III. Clark
 - IV. Conecuh
 - V. Escambia
 - VI. Mobile
 - VII. Monroe
 - VIII. Washington
 - IX. Wilcox
4. Mobile National Weather Service
5. Hospital X
6. Hospital XX
7. Select Counties outside Region 1
8. Florida (one or more counties connected to Alabama)
9. Mobile Stations
10. American Red Cross
11. Southern Baptist Disaster Relief
12. The Salvation Army
13. Others

Alabama Amateur Radio Emergency Service Communications Exercise Plan

Scenario (continued)

NETS to activate/establish communications with:

1. State EOC
2. ARRL Headquarters
3. HF Region 1 NET
4. 10 Incident sites
5. Each County NET
6. Mobile National Weather Service
7. Florida ARES
8. 3965 HF, Alabama state-wide Emergency NET
9. 7240 HF, Alternate Alabama state-wide NET
10. D-STAR

New or extended communications modes to test/include:

1. D-STAR
2. MT63
3. Winlink2000
4. PSK
5. Online Blog
6. Updated SMS/e-mail/telephone notification tree

The Alabama Department of Homeland Security created an exercise design team that followed a detailed timeline and milestone process to design this exercise. Alabama ARES had a member on the design team.

ARES Leadership

The leadership structure in ARRL/ARES Field Organization is as follows. Most all disasters occur locally and the ARES structure is designed to work from bottom up but can also work in both directions. The Section Manager appoints and leads all functions within this structure.

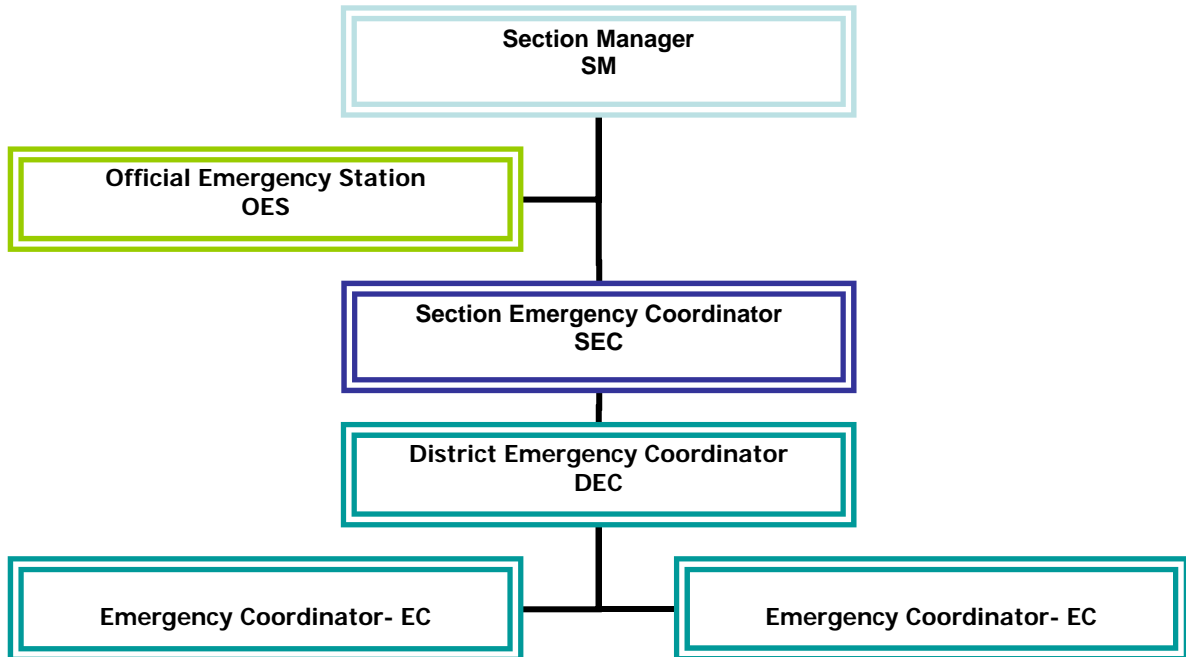


Figure 1: ARRL ARES Section Leadership Org Chart

Alabama Amateur Radio Emergency Service Communications Exercise Plan

ARES Members

Amateur Radio Emergency Service, (ARES) and the leadership structure will exercise and use notification, call tree, ARES Mutual Assistance Teams (ARESMAT).

Only authorized personnel will be permitted access into the exercise play areas. The site security team will be responsible for maintaining the integrity of the exercise site and any other security requirements that may arise during preparation or conduction of the exercise. This is an unclassified exercise; however, participants must take appropriate security measures to safeguard information and material they deem sensitive throughout the exercise.

ARES members will need to be totally self-sufficient. Bring water, food and anything you will need throughout the exercise.

Precede and follow ALL exercise messages and communications, where applicable, with the phrase, *“This is an Exercise.”*

NETS

ARRL/ARES will test various communication methods and try new modes during the exercise. Network circuits will be tested and messages passed to evaluate the methods and coverage of various modes and frequencies.

Local:

- 147.090 FM repeater, Robertsdale, AL
- 146.685 FM repeater, 82.5PL, Weeks Bay, AL
- 145.310 D-STAR Digital repeater, Magnolia Springs, AL
- 145.390 D-STAR Digital repeater, Mobile, AL
- 146.520 FM simplex

HF*:

- 3.965 LSB Alabama emergency primary frequency
- 7.243 SSB Alabama emergency backup frequency
- 3.950 LSB Regional net frequency
- 3.570 USB Alabama emergency digital primary frequency

* Nominal frequencies; move up or down to avoid interference

Alabama Amateur Radio Emergency Service Communications Exercise Plan

Personnel

ARES communications personnel are recommended and vetted by the EC or DEC for incidents and are participants in this exercise. All operators will have a valid amateur radio license issued by the Federal Communications Commission. Trained and experienced operators are desired for the exercise and less experienced operators will be paired with more experienced operators. A desire is to have at least two operators assigned to each site.

Local ARES operation

Local ARES works with served agencies to provide communications before, during and after events. The impacted EC generates an Incident Action Plan (IAP) and coordinates all ARES activities for the incident. Figure 2 depicts Local ARES operations during the exercise ARES will provide communications links to multiple agencies in the incident area, coordinate with the ARES District Emergency Coordinator (DEC) and the Section or State Emergency Coordinator (SEC).

If the incident is larger than the county the DEC will work with ECs to coordinate ARES activities. In the event the incident is larger than the district or impact the State the SEC coordinated ARES activities. During all incidents the EC will work with the DEC and/or SEC.

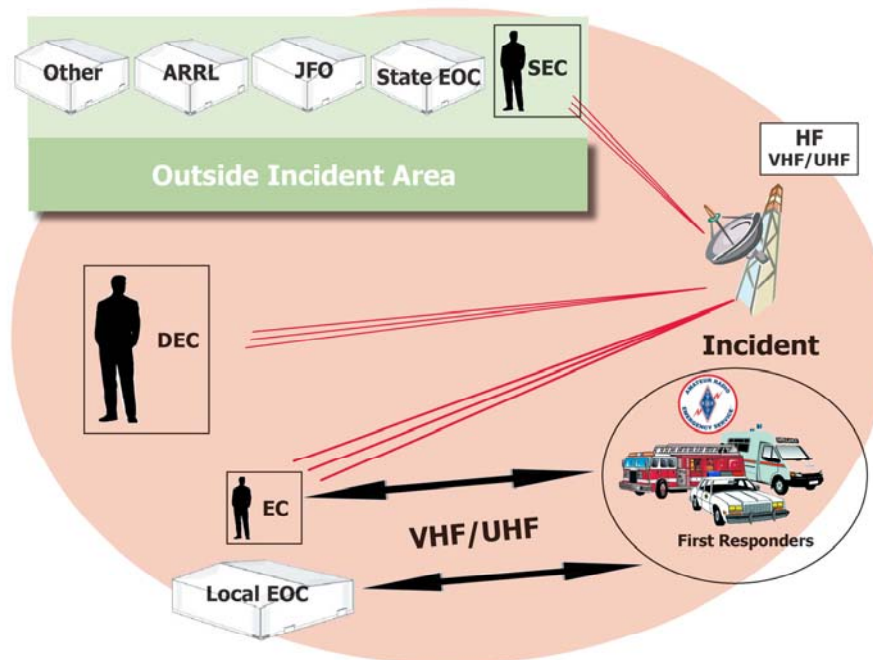


Figure 2: Local ARES Operations

National ARES operation

During this exercise, and all incidents, Local/State ARES communicates and coordinates with the National ARRL Headquarters site. National ARRL Headquarters provides coordination, resources, Public Relations, and connections to National served agency partners and interfacing with other Section ARES resources. Figure 3 shows the National ARRL Headquarters operations in Newington, Connecticut, the resources and connections available to them.

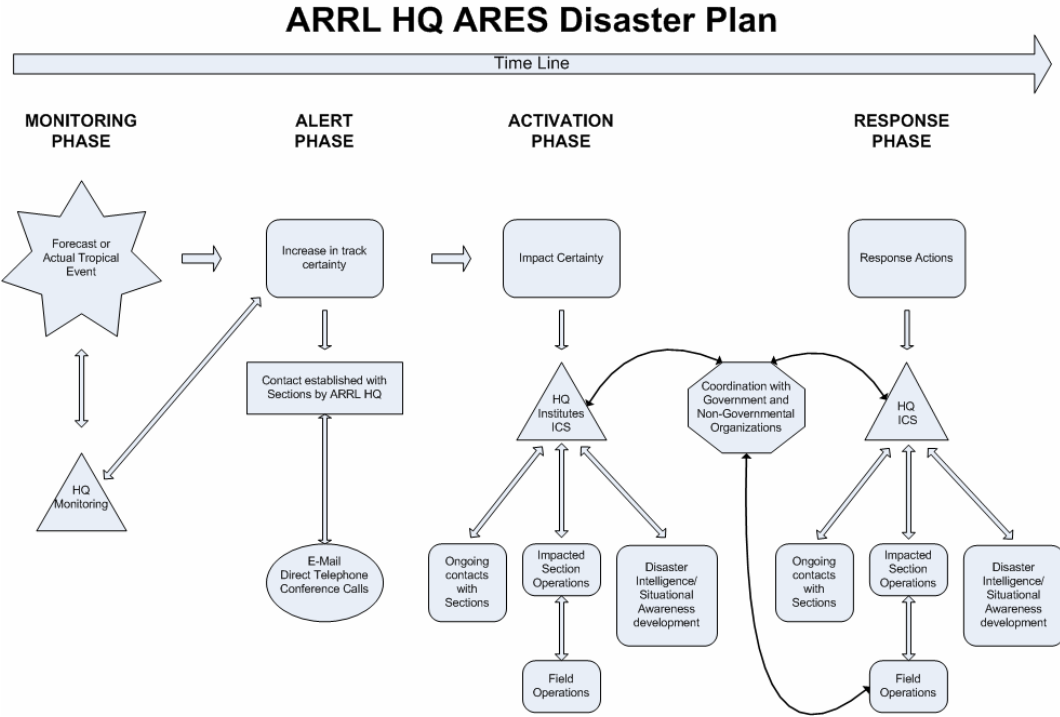
ARRL headquarters has many resources at its disposal. A lesson learned from Hurricane Katrina is the addition of the Major Disaster Emergency Coordinator (MDEC) position. The MDEC is a person who coordinates field disaster activities on a large scale.



Figure 3: National ARES Operations

ARRL HQ has an EOP and COOP for support to the Field Organization for incidents or large scale disasters. Figure 4 shows how National ARES operations work to support the affected Section. ARRL HQ uses an internal ICS and will scale up or down activities as need to support the Field Organization.

Alabama Amateur Radio Emergency Service Communications Exercise Plan



ARRL HQ ARES Disaster Plan

ACTIVATION / RESPONSE PHASE

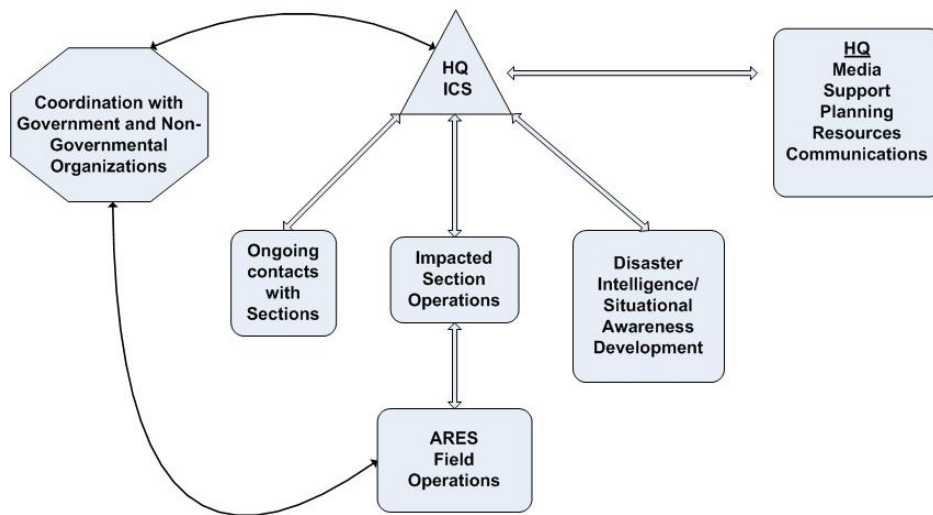


Figure 4: National ARES ICS Flow charts

Local and National ARES Operations

The Local, Section and National ARES work together and are connected as shown in Figure 5. National ARRL Headquarters and Section organizations coordinate together as a team on medium to large scale incidents or when the Section needs support from National.

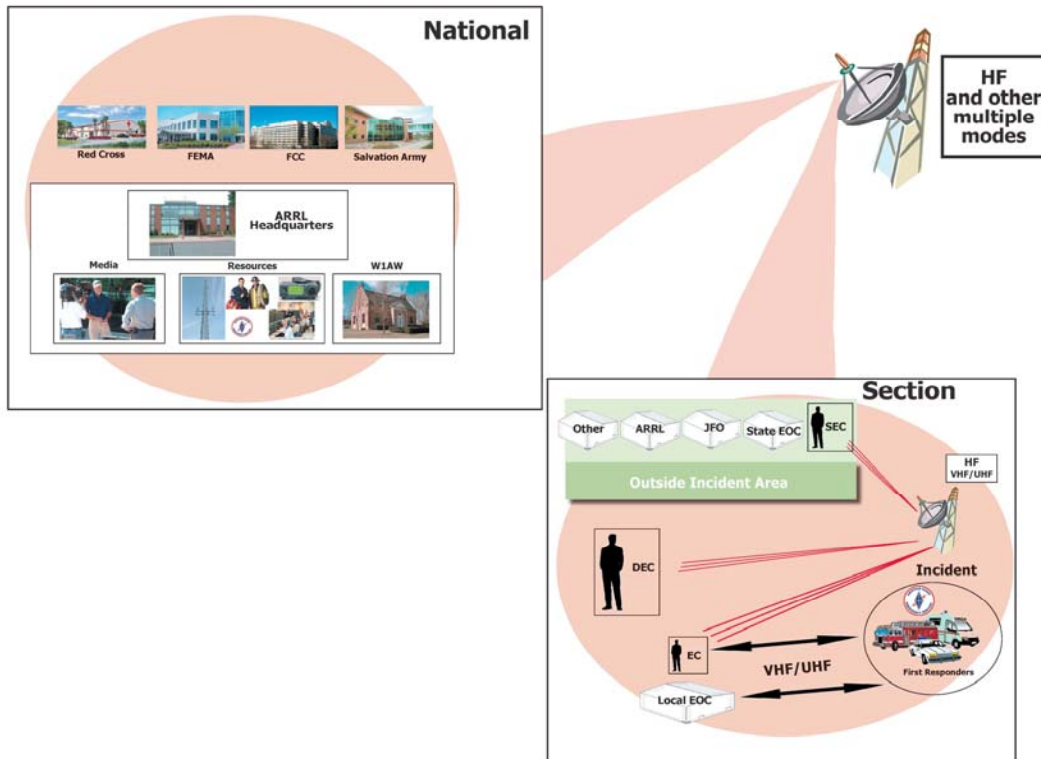


Figure 5: Local and National ARES Operations

Alabama Amateur Radio Emergency Service Communications Exercise Plan

ARRL ARES Exercise Timeline

Sunday May 3rd: Tropical Storm in Gulf of Mexico

- Baldwin County EC and ARRL HQ watching Tropical Storm

Monday May 4th: Tropical Storm turns into Category 1 Hurricane

- ARRL Alabama Section EC and Region 1&2 DEC contact
- ARRL Alabama Section EC and ARRL Emergency Preparedness and Response Manager contact
- ARRL HQ activates tropical disaster response plan

Tuesday May 5th: NWS predicts now Category 2 Hurricane headed to Mobile, Alabama

- ARRL Alabama Section EC activates AL emergency plan
- Affected EC contacts local partners and ARES and starts Incident Action Plan
- ARRL Alabama Section EC notifies statewide ECs/ARES of potential threat
- ARRL HQ initiates conference call with AL and NFL Section and Division leadership
- ARRL HQ initiates Major Disaster Emergency Coordinator (MDEC)

Wednesday May 6th: Now Category 4 Hurricane still on track for Mobile, Alabama

- Daily ARRL HQ conference call with AL and NFL Section and Division leadership
- Affected EC updates Incident Action Plan
- Baldwin and Mobile County ECs request additional personnel and resources
- Alabama Section EC requests from ARRL HQ that additional personnel and resources be put on standby
- Alabama Section EC starts HF emergency HF net and exercises notification call tree

Thursday May 7th: Category 5 Hurricane tracks up Mobile Bay, impacting entire state

- Conduct Region 1 exercise, move personal, resources, set up stations, conduct NETs, crosswalk, injects
- County/Region Incident Action Plan enacted
- Daily ARRL HQ conference call with AL and NFL Section and Division leadership.
- Entire state of Alabama ARES conduct drills and exercises to support Local and State objectives In Accordance With EOPs.

Friday May 8th: After Action Review meeting. All personnel.

This exercise will test, evaluate and provide triggers that initiate actions in the Alabama Emergency Operations Plan and ARRL National ARES plan.

Alabama Amateur Radio Emergency Service Communications Exercise Plan

Exercise Concept and Scope

Scope of Play - The exercise will be conducted through a functional format and will focus on the response efforts of communications assets tasked with the re-establishment of communications.

Assumptions - Communications personnel who respond to the exercise scenarios will operate in accordance with existing plans, procedures, and practices during this exercise. The goals and objectives of the exercise will be consistent with functional area operations and technical plans and procedures, whenever possible, as long as safety, cost effectiveness, and prudence are not compromised.

Exercise Scenario

Scenario Tools - Scenario tools are used to initiate and stimulate the exercise play and inject scenario events. These include a Master Scenario Events List (MSEL) that outlines benchmarks or actions anticipated during the exercise. Part of the MSEL may include scripted messages, known as injects, for introduction into exercise play. A summary timeline will also be available for use by controllers and evaluators.

Scenario Confidentiality - This exercise may pose politically sensitive issues and may portray detailed response plans and potential response shortcomings. Planners and participants must treat exercise-related information as sensitive. Information related to the exercise may not be reproduced or released without the express written consent of the Alabama Department of Homeland Security.

This is an unclassified exercise. The control of information is based more on public sensitivity regarding the nature of the exercise than on actual exercise content. To meaningfully evaluate current plans and policies, normal operating procedures are used for all player communications during the exercise. Media guidance is pre-coordinated in the event of public inquiries.

All written or typed material generated during the planning and conduct of this exercise should be treated as sensitive. All material generated during this exercise should be disposed of as sensitive waste when no longer needed to maintain exercise security and confidentiality.

Some exercise material is intended for the exclusive use of exercise planners, controllers, and evaluators; while players may view other material. All exercise participants may view the EXPLAN, but the CE Handbook is not intended for exercise players. All exercise participants should use appropriate guidelines to ensure the proper control of information within their areas and protect this material in accordance with current Alabama Department of Homeland Security directives.

Alabama Amateur Radio Emergency Service Communications Exercise Plan

Exercise Control and Evaluation

Evaluators

Evaluators work as a team with controllers and should have limited interaction with players. Evaluators will record events and ensure documentation is submitted for review and inclusion in the After Action Report (AAR) / Improvement Plan (IP). Evaluators will not interfere with the integrity of the exercise or players. All questions raised during the exercise will be addressed by the onsite controllers.

Time Tracking

The DEC for District 1 will designate a time keeper to log and track all the hours of the Amateur Radio Emergency Service volunteers. The information in Table 1 will be the minimum data kept on each volunteer. For other areas of the State, ECs should track volunteer hours and data and provide an after action report to the SEC.

Lessons Learned

The Alabama ARRL will participate in the exercise hot wash and will conduct an Amateur Radio Service lessons-learned review then conduct update and correction activities.

Final Report

The Alabama ARRL will generate a comprehensive report of the Amateur Radio Emergency Service activities before and during the Communications Interoperability Exercise and provide an action item and path ahead for ARRL/ARES improvements. We will keep in mind the sensitive issues for report generation and distribution.

Alabama ARES will thoroughly evaluate and report on every aspect of the training and exercise week.

Exercise Participants

There will four types of exercise participants. Players, Controllers, Evaluators, and Observers. Players are agency/department personnel who have an active role in responding to such an emergency.

Controllers are exercise participants who plan and manage the exercise play; setup and operate the exercise incident site; and act in the roles of response individuals and agencies not actually playing in the exercise.

Evaluators are chosen from various agencies to evaluate and comment on designated functional areas of the exercise. Observers view all or selected portions of exercise play. Observers do not participate in exercise play or in exercise control functions.

Alabama Amateur Radio Emergency Service Communications Exercise Plan

Exercise Schedule/Crosswalk

See Excel worksheet

Alabama Amateur Radio Emergency Service Communications Exercise Plan

Appendix

- A. Acronyms
- B. References
- C. Forms
- D. AL EC map
- E. AL D-STAR map
- F. Links
- G. DHS Training and Coordination Week Overview

Alabama Amateur Radio Emergency Service Communications Exercise Plan

Appendix A: Acronyms

ARES	Amateur Radio Emergency Service
ARESMAT	ARES Mutual Assistance Team
ARRL	American Radio Relay League
ARS	Amateur Radio Service (Title 47 CFR Part 97)
ASM	Assistant Section Manager
CE	Controller/Evaluator
CONOPS	Concept of Operations
COOP	Continuity of Operations Plan
DEC	District Emergency Coordinator
DHS	Department of Homeland Security
D-STAR	Digital Smart Technology for Amateur Radio
EC	Emergency Coordinator
EMA	Emergency Management Agency
EOC	Emergency Operations Center
ESF	Emergency Support Function
EXPLAN	Exercise Plan
FCC	Federal Communications Commission
FEMA	Federal Emergency Management Agency
FM	Frequency Modulation
HF	High Frequency
HQ	ARRL Headquarters, Newington, CT
IAP	Incident Action Plan
IC	Incident Command, Incident Commander
ICP	Incident Command Post
ICS	Incident Command System
MDEC	Major Disaster Emergency Coordinator
MSEL	Master Scenario Events List
MT63	Digital Modulation mode featuring Forward Error Correction
NFL	North Florida Section (ARRL section designation)
NWS	National Weather Service
OES	Official Emergency Station (ARRL designation)
SAR	Search and Rescue
SEC	Section Emergency Coordinator
SEMA	State Emergency Management Agency
SEOC	State Emergency Operations Center
SM	Section Manager
SSB	Single-Sideband (modulation mode)
UHF	Ultra High Frequency
VHF	Very High Frequency
W1AW	ARRL Headquarters Station, Newington, CT

Appendix B: References

Alabama Department of Homeland Security Communications Interoperability Exercise Catastrophic Hurricane Landfall Exercise Plan (EXPLAN)

Alabama Department of Homeland Security Communications Interoperability Exercise Catastrophic Hurricane Master Scenario Events List (MSEL)

Alabama ARRL Section Emergency Communications Plan

Alabama ARES exercise crosswalk

[ARRL message form instructions](#)

[ARES Information](#)

[ARES FIELD RESOURCES MANUAL](#)


[Blank ARRL message form](#)

[Online ARES Registration Form](#)

Alabama Amateur Radio Emergency Service Communications Exercise Plan

Appendix C: Forms

ARRL ARES Radiogram



The American Radio Relay League
RADIOGRAM
 Via Amateur Radio

Number	Precedence	MX	Station of Origin	Check	Place of Origin	Time Filed	Date

TO:

This Radio Message was received at:

Amateur Station _____ Date _____

Name _____

Street Address _____

City, State, Zip _____

Telephone Number:

_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

REC'D	From	Date	Time	SENT	To	Date	Time
A licensed Amateur Radio Operator, whose address is shown above, handled this message free of charge. As such messages are handled solely for the pleasure of operating, a "Ham" Operator can accept no compensation. A return message may be filed with the "Ham" delivering this message to you. Further information on Amateur Radio may be obtained from ARRL Headquarters, 225, Main Street, Newington, CT 06111.				The American Radio Relay League, Inc. is the National Membership Society of licensed radio amateurs and the publisher of QST Magazine. One of its functions is promotion of public service communication among Amateur Operators. To that end, The League has organized the National Traffic System for daily nationwide message handling.			

Alabama Amateur Radio Emergency Service Communications Exercise Plan

ICS-205

Sample Incident Communications Plan, ICS Form 205

INCIDENT RADIO COMMUNICATIONS PLAN			1. Incident Name	2. Date/Time Prepared	3. Operational Period Date/Time
4. Basic Radio Channel Utilization					
System/Cache	Channel	Function	Frequency/Tone	Assignment	Remarks
E. Prepared by (Communications Unit)					

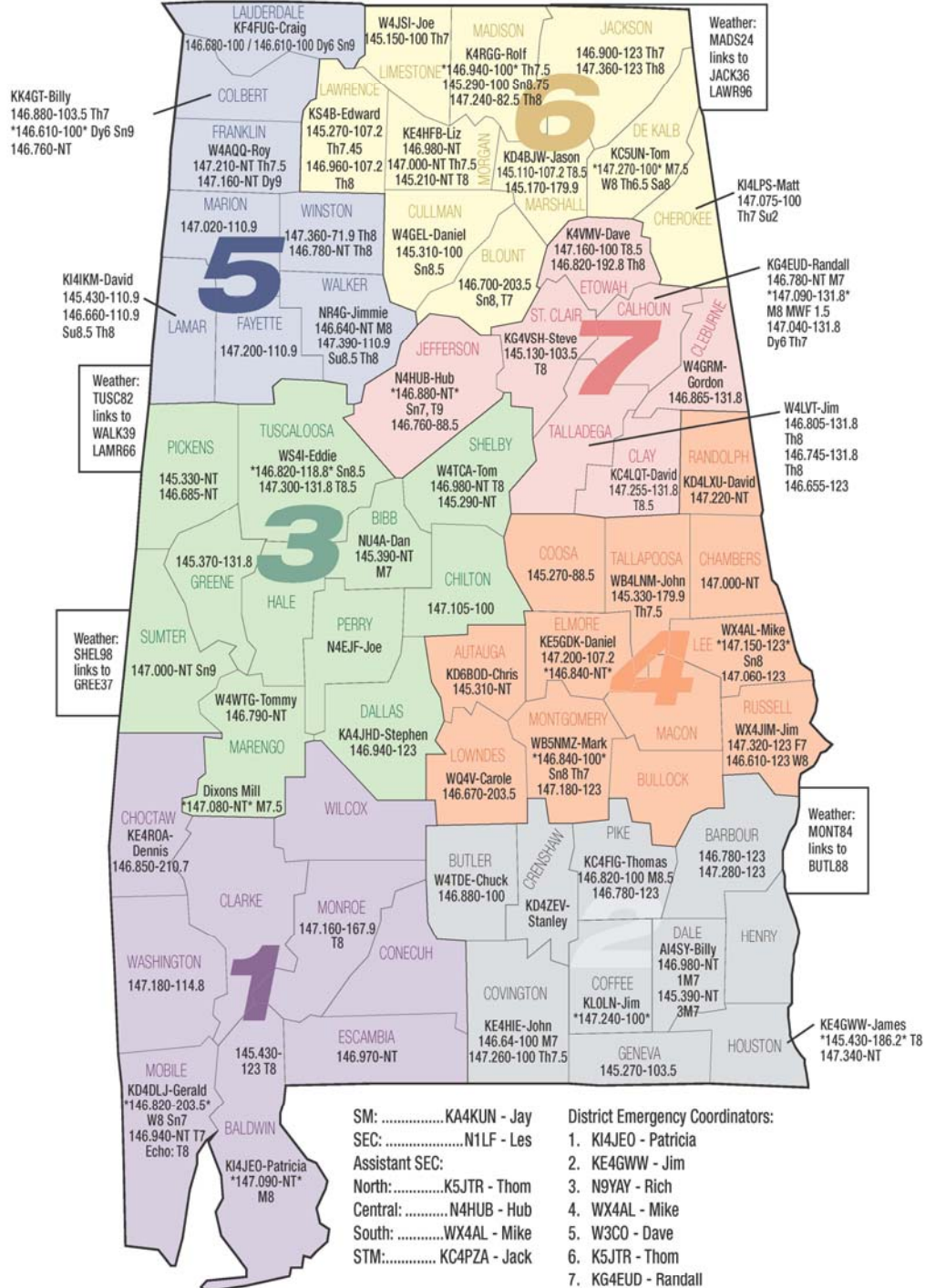
Alabama Amateur Radio Emergency Service Communications Exercise Plan

Appendix D: Alabama ARES Emergency Coordinators



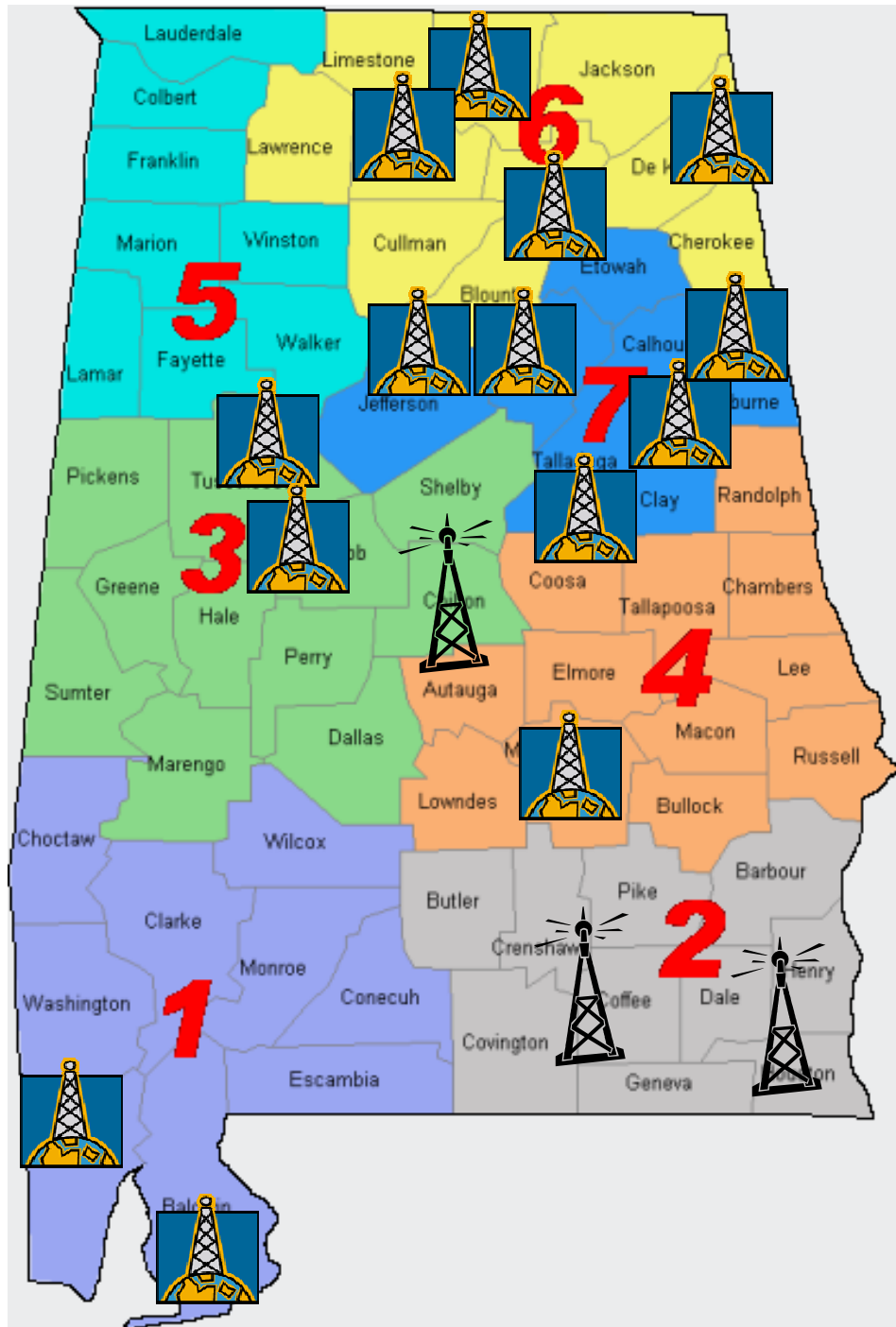
Amateur Radio Emergency Service Emergency Coordinators

Repeaters: Frequency-Tone. If Local Net: Day of Week/Time.
Asterisks (*) surrounding call letters indicate a regional or area primary repeater.



Key repeaters by county. Last updated 4/29/09. Please send updates to: N4HUB@ARRL.NET

Appendix E: Alabama D-STAR Coverage map



Appendix F: Links

www.arrl.org

www.arrl-al.org

<http://al-ares.blogspot.com/>

<http://www.arrl-al.org/ARES.html>

http://www.arrl-al.org/ARES_maps.html

<http://dhs.alabama.gov/Default.aspx>

<http://www.hurricane.alabama.gov/ham.htm>

<http://ema.alabama.gov/>

http://www.co.baldwin.al.us/PageView.asp?edit_id=368

[MT63 Technical Description](#)

http://www.arrl-al.org/Alabama_link.htm

Alabama Amateur Radio Emergency Service Communications Exercise Plan

Appendix G: DHS Training and Coordination Week Overview

Monday 4May09

Equipment and Personnel Check In

Welcome and Week overview

Quantum Research Team training to include any equipment updates, overview of current system capabilities, and Q&A with operators.

JPS – Raytheon Training to focus on new WAITS project and layout of systems software.

Tuesday 5May09

Alabama EMA Training to include overview of the states CONOPS for interoperable Communications Include use of National Op frequencies

COM-L Overview

Overview Presentations from participating agencies

Discuss items for table top

Wednesday 6May09

AEMA overview of ICS Forms and Communications Plan in IC

Table Top AEMA exercises to stress data and voice InterOp procedures

Review and fill out ICS Forms

Mobilization Overview

Discuss exercise script and timeline

Notify local agencies/responders about the exercise

Thursday 7May09

*** Activation of Exercise ***

Friday 8May09

Hot Wash

De-Mobilization

Travel home