

Report on the Massachusetts Amateur Radio Statewide Emergency Communications drill of March 23, 2002

On Saturday March 23, 2002 the Massachusetts RACES, Eastern Massachusetts ARES and NWS Taunton SKYWARN groups held an emergency communications drill. The premise of the drill was a fictional hurricane Xavier, striking Eastern Massachusetts and causing heavy flooding across the entire state. Amateur Radio operators and groups from across the state were invited to participate with announcements during local net operations, email, on the air, and in a national Ham radio magazine.

We had media coverage from two local newspapers, one radio station and one TV station.

The main purpose of the exercise was to get the players to practice originating and receiving messages in Massachusetts RACES Radiogram or National Traffic System (NTS) format messages.

Individual communities were invited to participate by means of participation in monthly RACES nets.

All players were invited to attend an informational meeting at the State EOC on February 23 where groups and individuals were given the drill package, a refresher overview of how to originate RACES Radiogram or NTS messages. Sixty two packages of briefing materials containing four envelopes containing the scenario and actions to be taken, a copy of the Massachusetts State RACES plan, Sample messages, blank message forms, information on who to send messages to (MEMA Region directors as well as ARES DECs and SECs) and a MEMA Training calendar.

Participating stations were asked to originate one formal message for each hour of the drill.

Statistics:

A total of 164 amateur radio operators participated in this drill across the state of Massachusetts.

Region 1: 85 Messages received, 28 ARES Messages received.

There was an ARES operator at Region 1 Headquarters to facilitate the delivery of the messages. 21 Region 1 Communities participated. Radio operators at Region 1 were Terry Stader, Den Connors, Ed Berg.

Region 2: 84 Messages were received, 10 Messages were originated. Operators were Bob Mims, Bill Foster. 19 Communities participated, 2 ARES DEC's participated on Region 2 nets. Communities:

- Acushnet – KB1DFD/N1XRS
- Attleboro – W1SMH
- Norton – K2TGX
- Plainville – N1SEC/N1OFC
- Bridgewater – W1MV
- Brocton – N1PYN/KA1GDQ
- Plymouth – KA1PES
- Marshfield – KA1PS/K1BS
- Falmouth – K1WCC
- Provincetown – WA1KZT
- Sandwich – W1RBF
- Marthas Vineyard – KB1QL
- Medfield – W1LIO
- Needham – N1TPU
- Walpole – K1HRV
- Wellesley – WA1UMA
- Wrentham – KB1GSR
- Millis – AJ1W
- Hingham – N1VPR

Region 3: 55 Checkins across the region. 31 Messages received. Did NWS Tactical Relay of weather reports. Had stations participating from NY, CT and NH.

Region 4: Received 12 messages, Originated 1, 0 Relay. 6 Tactical messages. 8 Communities participated and 9 unaffiliated people participated.

HF: In order to promote HF activity, the town of Framingham RACES group offered to be HF net control. The net control was given the choice of which HF net frequency to use with the RACES plan as a guideline. 7.246 MHz was chosen due to interference on 7.245 MHz. On HF the net control station, WA1R in Framingham had 17 stations participating during the drill. They were:

- N1CPE – MEMA Headquarters
- K1NHS – Natick High School
- KD1CY – National Weather Service - Taunton
- WC1AAR – MEMA Region 3 HQ
- KB1ERQ – VA Medical Center Leeds Ma.
- N1QOV – Pittsfield EOC
- WA1NVS – Northboro
- K1YO – American Red Cross - Southwick, Ma
- N1XUK – American Red Cross – Mass Bay – Waltham Ma.
- WA1GEP – Lincoln Ma. – Emergency Power
- N1XQK

W1DRT – AF MARS outlet Hampden CTY
WX1L – Shrewsbury
WE1C – ARES – Holden Mass
K1OEM – Pittsfield EOC
W1TGE – Savoy Ma.
WA1R – Net Control – Framingham RACES

General Feedback received:

People appreciated the chance to learn how to originate messages. In general, people were talking too fast when sending messages. We need to identify methods to get people to send at writing speed, not reading speed, and get them out into the field. We continue to have repeater interference between the Westford and Dennis repeaters used by Region 1 and 2 respectively. This is an ongoing problem, but seemed to be more of a region 1 issue this time. They were testing generators at the Tewksbury state hospital during the drill, and the repeated power cycles killed a 2m radio.

In Region 3, they report that the 2 Alinco HF/6M radios are still out of service, nearly a year after they were originally reported and returned to HQ. This puts Region 3 off the air on 6m (our primary link) and HF without operators bringing in their own equipment. I'd like to find a way to solve this problem once and for all, let's fix them, or replace them. When we purchased Alinco DR 605 radios for 2m/440MHz, we thought we were doing well, but now it's clear the DR 610 would have been a better choice, since the 610 while also dual band can listen on 2 VHF frequencies at the same time, which the 605 cannot. We need to find a way for all stations to participate, especially those unaffiliated with RACES, ARES or SKYWARN.

For Suffolk County/Metro Boston which operated on the Boston 145.23 repeater, Bill Ricker reports 8 NTS messages received, 1 SKYWARN message, and 5 groups operating on that frequency. They were: Salvation Army, Boston ARC Emergency Response Team, American Red Cross of Mass Bay, Newton RACES and Somerville RACES.

In general, we got people to format messages, I think people were participating that didn't come to the meeting where we discussed the drill. As a result, they really didn't understand why they were sending messages. The messages were often sent without a destination, perhaps because the receiving station was assumed to be the destination, or because they didn't know why they were doing it. The intention was to send status updated to MEMA from communities where messages should be addressed to the region director, or to send a message to you ARES District Emergency Coordinator indicating your status/availability to participate in responding to the emergency.

Some people missed the point of originating the formal messages, and put drill messages indicating immediate response which would have been best in tactical form into the formal form and delaying a potential response for 30 minute formatting and passing the message.

In general, the station(s) sending or receiving the bulk of the traffic should NOT be the net control. In this case, nominate one of the stations on the frequency to keep tabs on things, while the main stations involved in the traffic (Region HQ stations, ARES DECs) can be moved off frequency to pass traffic etc. Specifically, there were complaints that there were too many stations sending traffic to Region 1 HQ (the NCS) on the same frequency. Region 2 Stations complained that they couldn't always reach a net control because Region 2 had 2 operators and were supporting 4 frequencies (and ignoring 2 frequencies at a time). The technique of having the NCS different than the stations with the bulk of the traffic was also proven in NYC with the 9/11 events.

Forty Meters worked out very well for our HF net, all signals were strong from all parts of the state.

What we learned:

- 1) Get the net control physically away from the stations handling the majority of the traffic. (Action item: update RACES Plan to address this)
- 2) We still need more training on when and how to initiate formal traffic for all participants. (Action item: Develop training program for traffic handling and implement before March of 2003)
- 3) We still haven't communicated our current plans and procedures well since many stations commented that they wanted an HF backup, but didn't realize it was already there, or couldn't find the frequency because they asked for and received incorrect information during the drill. (Action item: ?)
- 4) Most of the "RACES" stations were really bluffing it. I mean that they were not really communicating on behalf of any EMA Director, and ended up with unrealistic responses in the messages they were sending. Very few EMA directors were participating in the drill. I can only conclude that either most RACES operators are not very close if connected at all with EMA directors. (Action Item: Market the RACES program to EMA Directors better)
- 5) Pass traffic on a different frequency than the net, unless it's lightly loaded. I think we did overload many of our local 2 meter nets with this drill. (Action Item: Update RACES plan with this procedure)

Respectfully submitted,

Tom Kinahan N1CPE

Below are email comments I've received to date:

The SET went quite well I thought. Only need to make sure you have the attention of the skywarn traffic passer when you pass traffic that needs immediate relay. (I.E. tornado on the ground etc.).

Also the NTS formal message method is useless for this kind of traffic. It delayed some of the urgent traffic up to 20 mins. If its urgent, it should be relayed to skywarn in plain text form, and on to NWS in the same form, like is normally done during summer events.

Formal message form doesn't work for urgent traffic.

Other than that, they ran me thru my paces, and we had one issue with radios and several simulated ones, and went to total non commercial power with no issue.

There is even a 3 day 4 person supply of MRE's here :))

Ray KA1JJM

Comments on SET 3/23/02

I had a set of envelopes that contained my input to the drill:

I was tasked to generate a message concerning my ability to be on emergency power and how long it would last (envelope 2).

I was also tasked to generate a message concerning my ability to setup shelter communications (envelope 3).

Also during the event, NWS / Skywarn requested observations about the storm: I generated 2.

Comments / Observations

Neither of the messages I generated had a reason for existence:

I was an independent station not affiliated with an agency.

There was no request from Net Control asking for this information.

(under these conditions, I should not have generated these messages at all, ARES stations don't generally CREATE traffic. In fact, this probably would have been tactical, not formal traffic).

The Skywarn traffic I (and 2 others) generated did not appear to meet NWS expectations. In fact, the third station had generated a wind speed value that NWS responded to with a comment to the effect about one-upmanship is not needed here (the wind speed was within the sustained speeds I had on my worksheets). The attitude I perceived from NWS discouraged me from generating further Skywarn messages without a context upon which to base them.

Net Control had one operator with problems copying traffic. This delayed getting messages through and reducing throughput.

Recommendations:

Stations with independent status, like mine was, should have a context. you could:

 Create an agency/shelter being manned,
 Improvised / unplanned shelter; I.E. I get stuck at a mall and setup a station there,
 (I am Red Cross trained to be a shelter manager and filling both roles).

 Net Control actually requests the messages I generated.

NWS / Skywarn

 Have them issue weather bulletins as is normally done during the usual Skywarn activation. This would give a better context for the impromptu messages that were requested.

Personally, I learned several things:

 My station needs some changes
 I need to practice copying traffic (I only copied about 70% of the traffic sent)
 I need to find a way to copy using a computer (I type better than I write)

 This was a very useful exercise for me and the training I have (I NEED MORE PRACTICE)

Kudos to all setting up and running the SET. I am looking forward to the next one.

Bob Boucher
N1KTT
Lexington

Feedback and comments from Town of Marshfield, MA
Operators George McCarron, KA1PS
Norby Comeau, K1VS

1. The primary frequency for Region 2 was listed in the Drill Packet as 146.865 mhz which was OK for Sector 2D but led to some initial confusion for Sector 2B which normally uses the Norwell Repeater on 145.250 mhz. Ultimately it was announced that Sector 2B would use it's normally assigned frequency.

2. One net control operator was used for both Sectors 2B and 2D using separate frequencies which was not very efficient and resulted in significantly long delays for communities trying to report to Region 2 Headquarters. Hopefully the staffing will be increased at Region 2 Headquarters for future drills and certainly for a real emergency.

3. On the plus side it was nice to see MEMA's efforts noted on the 11 PM news on Channel 5. The public should be made aware of what the state and local communities are doing for emergency preparedness.

KA1PS and K1VS

Tom,

I WAS thinking of myself as an ARES station. However, from the beginning of the drill today, I was led to think that all traffic was to be sent to MEMA Region 1 / WC1ABL with WC1ABL doubling as the ARES addressee. Next time I will know better and address them to the appropriate ARES DEC (eg Ed Burg N1VSJ).

Part of the confusion was that ALL of the traffic on .64 was addressed either to MEMA or to WC1ABL. This implies that all of the other stations were RACES. Was that true or were others confused also?

Because this was my first ARES on-air activity, much less a drill, I was mostly following everyone else. There is obviously a sharp learning curve for me in this area. Still, it was a great deal of fun for me.

Thanks for clearing up my confusion about generating messages.

This is, after all, what drills are about.

Bob
N1KTT

After Action Report
RACES/ARES/SKYWARN S.E.T.

Region II, M.E.M.A. Bridgewater Mass.

An initial prologue was broadcast on all four of the Normal Region II RACES/ARES frequencies at 11:00 am. There were several communities that were confused as to the check-in procedure because the briefing documents listed only one of the four Region II frequencies. Several calls were received prior to the opening especially from Cape Cod. They were concerned that they would be unable to make the initial contact on the Sharon Repeater. Check-ins were then taken from the communities. The following communities checked in:

Sector II A (mostly Bristol Cty.)

Acushnet	KB1DFD/N1XRS
Attleboro	W1SMH
Norton	K2TGX
Plainville	N1SEC/N1OFC

Sector II B (Mostly Plymouth Cty.)

Bridgewater	W1MV
Brockton	N1PYN/KA1GDQ
Plymouth	KA1VAX (note: corrected call)
Marshfield	KA1PS/K1BS

Sector II C (Cape and Islands)

Falmouth	K1WCC
Provincetown	WA1KZT
Sandwich	W1RBF
Tisbury (Martha's Vineyard)	KB1QL
Cape Cod ARES/Red Cross	K1PBO

Sector II D (mostly Norfolk Cty.)

Hingham	N1VPR
Medfield	W1LIO
Millis	AJ1W
Needham	K1TPU
Walpole	K1HRV
Wellesley	WA1UMA

Wrentham KB1GSR
E Mass ARES N1UEC
E Mass ARES W3EVE

After initial check-in, communities were instructed to open envelope #1. Region II had decided to add some realism to the scenario, in that instead of bringing in a full staff for Region II, only two operators were used. This meant that each operator had to handle two nets at the same time. This is not the first time this has happened at Region II, both in simulations and in real situations. It was excellent training for the two operators at Region II. Due to the compressed nature of the test it did get very hectic at some times and some towns were asked to stand by until messages were handled on other frequencies. Both in Sectors II C and II D, the ARES staff stepped in and acted as net control while we were on the other frequency. Their assistance was very much appreciated. In a real emergency situation, where the situation spanned a much longer time frame, it would not be as hectic, but the assistance of the ARES personnel would still be a very valuable asset to the situation.

Responses were received from all communities to envelope #1 by 10:50am. At 11:00am they were instructed to go on to envelope #2, and so on through out the exercise. All communities were able to complete the assigned exercises from each envelope within the allotted time. Several communities in Region II took it upon themselves to report using the Region II Form AR-2. This is a reporting form used by us as a Situation Report (SitRep). It uses 19 categories (ie. status of electrical power, status of medical services. etc.) to describe the status of the community. All communities in Region II have several copies of the instructions for using the AR-2 which describe the codes used. As an example

Item 10 Number of people in shelters

Item 11 STATUS OF ELECTRICAL POWER

Code A	Electrical Power in community unaffected
Code B	75% of the city/town HAS electrical power.
Code C	50% of the city/town has electrical power.
Code D	25% of the city/town has electrical power.
Code E	None of the city/town has electrical power.
Code 1	MAY need MEMA Assistance
Code 2	Will need MEMA assistance.

Prior to an incident a typical response would be
Item 10, Zero Item 11, Alpha

After a major incident, a typical response might be
Item 10, One Hundred, Item 11 Delta or Delta One.

We received a total of 16 SitReps from communities. We got in 67 messages in the regular RACES format. Of those 67, eight of them were requests for assistance from MEMA in one form or another. The Region II Director, Tom Rodger, was in the Radio Room and able to formulate responses immediately. Eight response messages were Issued. One message was received and relayed to Region IV. It was a Health and Welfare type of request that should have gone through American Red Cross, but since they were not involved in that Sector, we relayed the traffic.

All stations did an excellent job of using "This is a Drill" on their traffic, there were only a few situations where we or someone else forgot, overall net discipline was excellent. Everyone was courteous and responded excellently.

Overall, Region II considered this to be an excellent exercise. One of our biggest concerns' was the 146.955 repeater on Cape Cod, because this is not only RACES, but also ARES, and SKYWARN, and also used by Region I from another repeater. There were no major problems, I believe SKYWARN had some problems with capture of the other repeater, but we were using low power and did not have any problems with the other machine or with all three Services using the repeater.

Robert Mims
WA1O EZ
Region II RACES Radio Officer.

> From: Fligormv@aol.com
> To: n1cpe@amsat.org
> Subject: RACES
> Date: Sunday, March 24, 2002 9:10 PM
>

Hi Tom;

Great drill yesterday. For some of us on the Vineyard, it was the first time passing formal traffic. We do have a very great NTS teacher here (Marcia

KW1U) who will be giving us a class soon!

I have a RACES question.

You know we have six towns here on the Vineyard and at this moment have about a dozen Hams signed up for our newly formed Martha's Vineyard ARES/RACES Team.

Do I have all the members join every town on the island as a RACES operator or should each member join only in the town he/she lives in? There might be one or two towns with no member living there.

After much discussion yesterday, we feel with our limited numbers that in the event of a hurricane or similar event, that the island would be best served if we were all together in one EOC running any traffic that the island had to send off-island. As our numbers grow as we run our Tech. class we will be able to spread out to shelters and town EOCs. Any thoughts?

Thanks again for a great learning experience.

73's

Brad Fligor KB1QL
Dukes County RACES Radio Officer
Martha's Vineyard ARES Emergency Coordinator

03-23-02 Cape Cod ARES After Action Report

Region 2 initiated their drill commencement as scheduled at apprx. 10:00am. Cape area RACES stations checked in promptly.

Towns included: Falmouth Sandwich Provincetown Edgartown/Tisbury Martha's Vineyard

For further RACES reference see: After action Report by WA1O EZ Region 2 RO Cape Cod ARES/ Martha's Vineyard ARES initiated ARES nets at 10:17am (we felt the lag time was appropriate in order for priority to be given to the RACES stations to send back traffic promptly at the top of each hour, as well as, cut down interference potential of RACES and ARES conducting simultaneous operations). ARES frequencies for FM simplex use were as follows: 147.420, 445.400, ARES repeater use was as follows: 146.955(PL 88.5), 443.500(PL 141.3) ARES single side band 144.230 USB Packet Radio operation 145.010

Number of NTS Messages passed between ARES stations: 29

* Number of tactical messages passed between ARES stations: 22

*Number of Packet radio NTS format messages passed between ARES stations: 8
Number of reports passed to NWS Taunton via KD1CY inquiry: 4
Number of mobile units used to simulate damage assessment and assist evacuation comms: 2
Number of emergency field teams dispatched for comms coverage at Dennis repeater site: 1
Number of simulated shelters open with ARES operators: 2

Highlights and notes of interest: Field team was dispatched after last message for realism(hard to set up outside during Hurr.) The field team tested 2m, 440, 6m, using FM and SSB. Results were superb as we expected from our last 3 drills using this area. We simulated our mobile units having to evacuate to higher ground during storm surge(this was for the exercise only to practice tactical messages, it is our policy that no one will be intentionally put in an unsafe area).

We sustained actual intentional radio interference at 10:32 am. We responded just as we did during our last 2 drills which featured simulated interference. 2 mobile units were dispatched to start RDF operations(for real). After we closed in within a 1/4 mile, the interference ceased(no surprise). Mobiles were withdrawn before the onset of the simulated full force of the storm.

Observations:

CCARES performed in a nominal way as expected due to our policy of frequent drills. Traffic handling skills improved greatly over the last 3 drills. The use of multi mode comms and the use of specific radio area zones by CCARES was beneficial to maintaining structure and ability to hand off Command and control operations. Go-kits, improvised antennas, and portable emergency power gave us the needed flexibility to move on short notice. We believed that Region 2 staff performed extremely well and we were pleased to see them drill with skeleton staff only. They conducted themselves in a professional and well directed manner just as they have done for actual operations with us. My congrats and thanks to WA1OEZ and his staff for a job well done. I was also glad to see that the Vineyard ARES group has come a long way since last year.

Recommendations: Only a couple.

1. When using this format, it may be wise to read the messages aloud on the region RACES repeaters after being instructed to open the envelopes. This would allow simultaneous distribution of the information to field and other units. It would also save from local RACES ROs from having to read it again over the repeater using valuable time. If we don't, then the field units(RACES and ARES mobile and shelter teams) would have no way to know what's going on until the message was widely circulated.

2. In future wide area drills, we should consider maintaining an NVIS, long range VHF, or digital link between ARES districts. If something catastrophic were to

occur in actuality, it could be some time before the adjacent districts would become aware of the problem. This may slow ARESMAT and other operations. We have discussed this issue before and know we have the technical capabilities to do so. I think a more concrete plan on this issue should be looked at and incorporated into future drills. This is especially true of the extreme north shore, south coast and the Cape & Islands area. Perhaps in all districts in EMA. We are currently planning drills using these methods to communicate with the Islands and possible back to the other ARES district, if needed.

All in all, I think it was a good and worthwhile drill. It generated a lot of interest here on the Cape. I'm glad I could help in getting a few more of the RACES stations to play. This opens up more opportunities for RACES and CCARES down here. I want to take this opportunity to thank the RACES and ARES leadership, clubs, individual participants, and MEMA for all their help in making the drill a success. It is good for the community and benefits amateur radio at the same time. That's what it's all about.

Respectfully Submitted, Frank O'Laughlin WQ1O
Cape Area ARES DEC [[cid:780031802@25032002-2934](mailto:780031802@25032002-2934)>]

Did I send this last Night? I don't think so.

- * Need EC SET reports & stories for Newington, cc DEC/SEC [FORM A]
Net Managers [FORM B] -- link on webpage
- * EC Activity reports too?
- * NTS Traffic reports ... OSRD tallies, PSHR, BPL for Area 1?

Suffolk/Metro ARES -- Communities & Group tallies -- 4 groups

- * 8 NTS messages from 4 sources received as ARES DEC
- * Salvation Army/SATERN/BERT(BARC) - W1BOS/NG1L-EC 7 ops @ SA EOC
Boston + 6
available in 4 other towns (Newton Everett Somerville Cambridge)
- * Am.Red Cross (skywarn report only so far) (at least 2 ops, N1XUK with N1ZKR)
- * Newton ARES/RACES -- 3 Ops as WC1ABI, WA1IDA-RO-EC, operating
remote [EMD
invited but not attending]
- * Somerville RACES (Metro ARES) 1 op KB1CVH-RO-AEC, 2 sites
- * One solo ARES op KB1GLK Boston.

Middlesex/Suffolk Skywarn

- * 1 NTS Msg rcd for Skywarn on Relay, Delivered as Tactical.
- * 14 Skywarn calls: ka1mom wa1ida kd1le n1ktt kb1dfn kb1cvh n1llg/relay kb1glk
aa1xs? n1tptu n1xuk(ARC) wc1abi/wa1ida kb1cvh

Division of NTS formal format vs Tactical based on urgency and point-to-point vs relay. Needs more discussion.

Lessons...

- * A lot of wordy fills among the RACES ops.
- * Test-Emergency not authorized in the drill.
- * Using an NTS-experienced op to take & receive traffic is smooth.
- * More ARES RACES ops could use NTS practice between drills.
- * Finepoints of NTS preamble structure need work
- * Handle messages by precedence!
- * SKYWARN traffic is TACTICAL not NTS ... unless you need to relay it through non Skywarn nets.
- * Precedence Priority is used for Official traffic.
- * TEST goes on precedence, not on the message number
- * Messages given at Reading speed should have been at writing speed. 3 or 5 words at a time and drop?
- * More move-off-and-pass would be good.
- * multiple operator stations need headphones ... both so each op can hear and also can be heard when other stations transmit.
- * Overloaded 64 with all of R1 -- too busy for any Skywarn.
- * Need more/bigger batteries _ in _ position _
- * read it back by fives for check, reading speed -- good.
- * Tactical traffic should take precedence over NTS.
- * Is "Emergency power will last 12 hours" enough?
- * Preamble includes the Going To:, frequently omitted.

[Above list of lessons-learned in Net report, will go in newsletter; send more for newsletter]

W1MPN was in observer mode. Expecting overload, wanted to see how we handled it. Lot of new people was encouraging. Response to surprises was encouraging.

73 N1VUX

Amateur radio operators find vital role in drill

Sunday, March 24, 2002

By Bradford L. Miner
Telegram & Gazette Staff

SPENCER-- Hurricane Xavier swept across Massachusetts yesterday with damaging winds and torrential rain, leaving extensive property damage and

scores of injuries in its wake.

If you missed it, don't be alarmed.

Anyone who ventured out yesterday can attest to the brisk winds and bone-chilling temperatures for late March, but for a handful of people here and in other Central Massachusetts communities, the weather conditions were quite different.

The simulated natural disaster was the basis of a four-hour drill orchestrated by the Massachusetts Emergency Management Agency.

While testing the overall readiness and capability of community-based emergency management agencies, the annual drill was designed primarily to test communications between cities and towns and the MEMA command bunker in Framingham.

At 10 yesterday morning, James E. Sniffen, director of the Spencer Emergency Management Agency, summoned his volunteer amateur radio team to the operations center at Town Hall and opened an envelope that set the stage for a hurricane with sustained winds of 120 mph bearing down on Central and Eastern Massachusetts.

When it was all over, Mr. Sniffen said, the simulation resulted in 30 buildings destroyed, 98 buildings damaged, no loss of life, shelters filled to capacity, and four bridges swept away.

"My message to the bunker ended with the words, 'Situation under control,' " Mr. Sniffen said.

At the beginning of the disaster drill, the director dispatched Mark A. Corbin, SEMA communications officer, and several others to the west end of town, where the agency's truck was established as a mobile command post.

"This drill allows us to test all of our radio equipment, as well as the ability of our team members to improvise on short notice," Mr. Sniffen said.

In the event of a terrorist attack or other disaster, Mr. Sniffen said, the best location for an emergency communications command post would be the hill behind David Prouty High School, one of the highest accessible places in town.

"In the event of a hurricane, however, I'm not so sure that's where we'd want to be," he said.

Lest anyone hearing the radio traffic think otherwise, each transmission was accompanied by the words, "This is a drill."

Messages were sent to Framingham from the SEMA emergency operations center at Town Hall and from the mobile command post, which moved to higher ground at the Lake Street School parking lot as the Sevenmile River quickly reached flood stage and inundated the parking lot of the nearby shopping plaza.

“In light of today's drill,” the director said, “one of the recommendations I'll be making to MEMA is that they beef up the amateur radio side of their operation. We tried to reach them from our mobile command post via HF (high frequency) and couldn't. I checked with net control, and they said they weren't monitoring HF.”

Mr. Sniffen suggested that in the event of a real emergency or disaster, the state should pull out all stops to be able to communicate with amateur radio operators working with the local emergency management agencies.

During the planning stage for this year's drill, representatives from 50 communities had signed up to participate, and at least a quarter of those were municipal emergency management agencies, he said.

Spencer's last emergency that required intervention, Mr. Sniffen said, was a two-day snowstorm in the mid-1990s and before that, a hurricane in the early 1990s.

He said the town has three emergency shelters and as many command posts that could be staffed in the event of a disaster.

“The Town Hall is our first-response shelter for 50 people or less. For the next 50 people, we open up the high school, and if we need a third shelter, we would use the Knights of Columbus hall,” Mr. Sniffen said.

As part of a local emergency response team that includes the Police Department, Fire Department and Spencer Rescue Squad, Mr. Sniffen believes the four agencies have what it takes to work together as one team in the event of a disaster.

“Based on what I saw and heard ..., I'm very pleased with our response capability. None of us are looking forward to having to deal with, say, a hurricane of this magnitude and the destruction it can cause, but it's comforting to know that if that day does come, that we're ready,” Mr. Sniffen said.

He said SEMA members and those amateur radio operators taking part in the drill would meet in coming weeks to discuss the results and make recommendations.

* BARC/SATERN -- "W1BOS" - -7 Operators at SA(NG1L/EC, KB1GLF/Dir, 5 others),

plus 6 in 4 towns reporting available. NG1L reporting.

Operators at Salvation Army:

KB1GLF-Bill Foley (SA/EDS dir)

NG1L-Rick DeSisto (EC/BERT)

N1DHW-Frank Murphy (EC/SATERN)

N1NHZ-Arthur Ashley

KB1FX-Mike Harmon

N1LRT-Paul Katz

KB1EKN-Mark Duff (BARC/President)

KB1FCW-Bob Wilson

Operators checked in from various communities available for assignment:

KA1RDZ-Dan Malloy-Everett

AA1XS-James Sullivan-Blue Hills

KA1MOM-Bill Mcininch-Brookline

KA1LN-Leo Burke-Boston

KB1GLJ-Jim Robbins-Quincy

KA1TUZ-Dick Doherty-Newton [counted twice, also active with NEWTON]

* NEWTON RACES/ARES -- "WC1ABI"/"WA1IDA" -- WA1IDA + 2 (KA1TUZ and N1ICN) at

KA1TUZ-QTH, the EMD invited but not attending. WA1IDA Reporting.

"The third op at Newton was Jim, N1ICN. He was simulated assigned to the hospital."

"For RACES traffic we used WC1ABI; for ARES traffic we used WA1IDA."

* MASS BAY RED CROSS -- "N1XUK" -- N1XUK +1 (N1ZKR) at ARC Boston.

Were there more? Verbal report from N1ZKR only.

I screwed up, forgot to make opportunity to proseytyze to the college clubs.
(As if Spring Break was a good time to get them ;-)

73

Bill N1VUX

Bill,

Red Cross Operators were N1XUK and N1ZKR as shown. Two non-ham participants were also present: Larry Rosenberg, Lead Disaster Officer (Volunteer Leader) and Chris Vreeland Disaster Specialist, Logistics (Paid Staff)

I think the drill went OK, my only comment is that on .64 there was a lot of traffic being passed on freq which meant it was tough to get in and get a turn. HF worked well, our setup was temporary but we were able to communicate with WA1R net control, MEMA HQ, NWS Taunton, and a station in Pittsfield.

Please let me know if there is more info I can provide.

73,
Tom N1XUK

Terry, Tom,

I just wanted to check, and see if both of you survived the drill!

I'll see you/talk to you in/from Tewksbury next Monday for the monthly net.

Shortly after last week's drill, Stan Pozerski KD1LE, Ralph Swick KD1SM and I met to discuss the drill from three different perspectives. Stan was operating on both the Area One Net (146.64) and the Middlesex ARES Net (146.955) as a RACES operator representing Pepperell. Ralph was an observer on these frequencies, and was able to monitor virtually all of the time. I was running the Area One Net, or monitoring the net out of Area One, of course. Some possibly interesting observations follow from that meeting, and it is hoped that this information could be added to the data already reviewed, and used to plan for the upcoming SET drill, and other training opportunities.

- 1) The most obvious problems observed seemed to stem from incorrect transmission of NTS radiograms. It was apparent that the majority of stations did not have enough training in traffic handling. [Suggestion: Allow on-the-air training DURING the drill, and better yet, in preliminary nets BEFORE the drill.] See also 9) below.
- 2) Missing from the net control was any serious attempt to move stations off frequency to pass traffic, and then have them report back. As the drill progressed, one artifact of the nature of the traffic, one-way only, was that we simply split the traffic for ARES onto a separate frequency, and allowed stations to pick which net to check into to pass traffic, either ARES or RACES. This meant that it was not known what frequency stations were at any time. In our defense, ALL traffic was going either to MEMA ONE HQ or ARES Middlesex, sitting five feet apart, and the two NCS were able to pass stations back and forth verbally (off the air). [Suggestion: Have a network procedure in place before the next SET.]

- 3) Stations were never asked to clearly identify their affiliation, so non-RACES stations were representing town entities. This was fine for a drill, but liaisons should be identified in a real net. N1VUX even advised us on the air that a Boston station who checked in was NOT representing RACES. [Suggestion: Have a network procedure in place before the next SET.]
- 4) We did not identify what information we were looking for at any time during the net. At different times during the drill, we could have partitioned out requests for information, formal and tactical, RACES, ARES or SkyWarn. We should have kept asking for information. [Suggestion: Include this in a network procedure as well.]
- 5) It would be good to have a list of official RACES stations, ARES appointees, etc. on hand for all NCS BEFORE The drill.
- 6) At times there was no differentiation between handling Test Priority and Test Routine traffic. The incoming traffic was typically mislabeled, in that virtually ALL of the Test Routing traffic was actually Test Priority. We lost the opportunity to train future NCS on the way to handle the priorities differently. [Suggestion: Have stations qualify the priority of test traffic for future drills.]
- 7) It took too long to get all stations checked into the net at the start of the net. NCS wanted to get all stations identified, and more importantly, all towns participating identified before starting, since virtually all of the initial traffic would be incoming, and probably best handled on frequency (for training purposes, giving stations the chance to listen to how traffic is passed). [Suggestion: have experienced stations start moving off frequency and passing traffic, AND keep a few experienced stations on frequency passing the first few messages on frequency, during future drills.]
- 8) It was noticed that NCS used the procedural phrase, "NET WAIT";. This seemed to be a good way to keep the net under control, for this kind of net. NCS also did engage in gentle corrections of traffic errors, and in training on particular procedures. However, this NCS was caught innumerable times using the phrase AT THIS TIME, I THINK WE WILL
- 9) There were a number of other traffic handling issues, including
 - a. The phrase "THIS IS A DRILL";, was used all over the place, even inside the text of formal messages, where some hams included it in the count, some didn't, and some even changed the number of times the phrase was included in the reading back of the text, making any check count impossible! [Suggestion: standardize on using the phrase exactly once, perhaps as the first four words of every message.]
 - b. The number FOUR THOUSAND was treated as a count of 2 words. This should be handled as "FIGURES FOUR ZERO ZERO ZERO" one word. [Suggestion: Jump on correct counts at the start of the net, or have special training nets BEFORE the drill.]
 - c. Little attempt was made to shorten messages to match the medium too many words were used.
 - d. Most of the preambles were sent poorly, with many excessive words, like "CHECK", etc. [Again, prior training is warranted.]

e. Tom it's been noticed that the message count from RACES HQ each month is routinely wrong, i.e., the NTS Heavies notice that numbers aren't always counted correctly, or phone numbers, etc. Perhaps we could have one of these guys look at our traffic before it goes out, or something;

10) Finally, some suggestions for future drills were discussed, including

- a. Smaller drills more often
- b. On-the-air training of traffic passing
- c. Having packet to handle back-bone traffic
- d. Experiment again with multiple nets, but have stations formally move between the nets
- e. Have OUTBOUND traffic from NCS, possibly with a second operator on site generating reply traffic to INBOUND traffic, as if there were served agencies on site.

DE KD2S SK CL

> From: wq1o <wq1o@gis.net>
> To: n1cpe - Tom Kinahan MA RACES Officer <n1cpe@amsat.org>
> Cc: MA-ARES RACES Skywarn
<mass_races_ares_skywarn@yahoogleroups.com>
> Subject: [mras Leaders] Participation list for 3-23 Drill per request
> Date: Saturday, March 30, 2002 6:52 PM
>

Hello Tom. Here is the list of known operators participating in the 3-23 drill for the Cape District.

Cape Cod Area RACES Operators

1. Richard Farrar W1RBF (Sandwich Emergency Manager, Races RO, CCARES)
2. Brad Fligor KB1QL (Edgartown/Tisbury RACES RO, Martha's Vineyard ARES EC)
3. Lyman Mix WA1KPE (Falmouth RACES)
4. Henry Brown K1WCC (Falmouth RACES RO, CCARES)
5. Earl Chaddock WA1KZT (Provincetown Emergency Manager and RACES RO)

Cape Cod ARES Participants

1. Frank O'Laughlin WQ1O (Cape Cod area DEC/ CCARES EC)
2. Jim Bradbury WA1KCC (Cape Cod ARES primary AEC)
3. Chris Black N1CP (CCARES)
4. Paul Finnegan WA1JSE (CCARES)
5. Kent Bradshaw KB1ESG (CCARES)
6. Ritchey Guild KB1EAJ (CCARES)
7. Mark Avery N1ZPO (CCARES)
8. Wayne Sellin KG4FRL (CCARES)
9. Chris Lynch W1PPY (CCARES)
10. Bob Daniels W1WQ (CCARES)
11. Bud Bramer N1MDA (CCARES)
12. Trenor Goodell N1PIV (CCARES)

BACK BAY

A new gravity fills their air

By Ron Fletcher, Globe Correspondent, 3/31/2002

The four envelopes opened with more anticipation than anxiety in the basement of the Salvation Army headquarters on Berkeley Street contained no news of Oscar, only Xavier, a Class III hurricane with its eye on Boston.

Well, sort of.

A day before the Hollywood honors, the Massachusetts Emergency Management Agency and three ham radio organizations simulated a natural disaster to test area radio communications.

"You can't depend on cell phones or computers today," says Mark Duff, Director

of Hingham's Department of Emergency Management and an avid member of the Boston Amateur Radio Club. "Ham radio operators are usually the people who communicate when no one else can. That was the case during the infamous hurricane of 1938 and that was the story on Sept. 11."

A portrait of calm in a cramped room astir with the motions of men marking maps and the sounds of squawking radios, Duff oversees the drill, advising and applauding his less-experienced colleagues. He instructs one member to respond to an incoming call with "affirmative" rather than "no problem," then compliments another's precise charting of Hurricane Xavier's northern progress.

"Since 9/11 there has been a lot more interest in emergency assistance," says Duff, who traveled to New York days after the terrorist attacks to assist with communications. "Exercises that would usually attract 10 to 15 people now get 40 to 50. There's a resurgence in public service. People want the chance to do something, and amateur radio provides an opportunity to help others." That opportunity explains Arthur Ashley's involvement. The 70-year-old Cambridge resident found his way to ham radio a decade ago. Faced with the blank canvas of post-retirement days, the former Harvard Cooperative Society employee says he was "looking for a social and educational" experience. For going a return to the violin he abandoned at age 11, he heeded a friend's suggestion to check out amateur radio. The hobby soon moved to the center of his life.

"There's a certain esprit de corps among hams that I love," says Ashley, a portrait of preparedness in his well-stocked multi-pocketed vest and cargo pants. "It comes from the sense of being part of a team that is doing some good for somebody somewhere."

One of the 175-plus and growing number of members, Ashley also counts himself among the 160,000 who make up the American Radio Relay League, this country's largest organization for hams. While his profile - retired male - is one shared by many hams, it belies the increasing diversity among amateur radio operators.

"I recently attended a science fest for the Brookline public schools," says Frank Murphy, a Cambridge emergency radio operator, "and the real interest in ham radio came from the young girls. The boys are more interested in going on the Net and seeing the nudes."

Hams see their distinct medium as complementing rather than competing with the Internet or cell phones. Much interest now centers on "packet radio," which allows e-mail to travel via a radio signal rather than an unreliable phone line. Who mans the giving and receiving sides of this technology? Licensed hams.

Although amateurs, they follow their avocation these days with a new sense of purpose.

"We used to think in terms of a hurricane every few years and a blizzard every now and then," says Ashley. "Now, since 9/11, we see these drills in a different light."

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