



Spotsylvania County VOPEX 2008 Emergency Drill

ARES/RACES Support

July 2008

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27 May 2008

Spotsylvania VOPEX 2008 Emergency Drill

Introduction

VDEM will lead the Virginia Operations Plan Exercise with a simulated radiological emergency at the North Anna Power Station. This drill will help state and local governments test their response procedures in the unlikely event of a radiation release.

Response agencies and local government representatives will role-play their emergency operations functions from the state and local government emergency operations centers. Participating localities include the counties of Caroline, Hanover, Louisa, Orange and Spotsylvania.

The Federal Emergency Management Agency will monitor the progress of the drill and conduct an in-depth analysis of the results, detailing areas needing improvement. FEMA will review the success of the exercise at a public meeting.

Annual exercises rotate between the Surry and North Anna nuclear power stations and usually last about six hours.

The bi-annual VOPEX drill is scheduled for 22 July and will start at approximately 0800. The drill is expected to end at approximately 1300. Members of the Spotsylvania ARES/RACES team will provide communications support to the county Emergency Manager as part of the drill.

In Spotsylvania all members of the ARES team are also members of the county RACES organization and will automatically switch organizations as required by local, state or federal governments.

Following the drill, all members of the team are encouraged to provide feedback to the Emergency Coordinator as to what went well and what did not. Please keep the comments objective and if there was a problem, provide a possible solution.

Operations

Objectives

The ARES/RACES objective is to practice supporting Spotsylvania and the surrounding counties in the event of a radiological incident at the North Anna Nuclear Power Plant. The team will establish voice and digital communications between the Emergency Operations Center (EOC), evacuation shelter and the Rappahannock Area American Red Cross Headquarters. Additionally we will attempt to establish both voice and digital communications between the Spotsylvania EOC and the state EOC in Richmond.

Voice Operations

The primary operational communications between the EOC, shelter, field units and the ARC HQ will be conducted on the Spotsylvania Operations Simplex Channel (OPS1), 146.490 MHz. The RVARC repeater (147.015+) shall be used for administrative traffic (check in, station assignment, etc.) as well as the initial mobilization. Once mobilized, operational traffic shall be conducted on OPS1. All stations shall maintain a log of radio traffic received and sent from their location. Copies of the radio log should be forward to the Spotsylvania EC at the end of the exercise. All radio transmissions shall use plain language. Q signals should not be used in voice communications.

The EOC will also establish VHF voice communications with an HF liaison on either the OPS1 channel or the RVARC repeater. The HF Liaison shall check it with and monitor the Old Dominion Emergency Net (ODEN). The HF Liaison shall pass traffic between the Spotsylvania EOC and the state EOC

Digital Operations

A packet network shall be established between the EOC, the shelter at Massaponax High School and the ARC Headquarters. The frequency for the intra-county network shall be 145.550 MHz. The EOC will be using the Outpost Packet Message Manager software. Message traffic will be relayed via the Spotsylvania EC Mail Box (KI4AFE-1). The setup parameters for the Outpost software are given in Appendix A.

The packet data network is intended to provide a means to transfer relatively large amount of data, such as lists of names and addresses of people at a shelter that cannot be efficiently transmitted by voice. The packet network is not intended to be an alternative to voice therefore there will be no direct “chat” connections between packet stations (you must periodically log into the KI4AFE-1 mail box to retrieve traffic).

APRS Operations

A major part of this exercise is to track the field teams in real time using APRS. The purpose of the field teams is to provide an alternative communication path back to the EOC. APRS will provide not only a short message capability between the field team and the EOC, but will also allow the EOC to track the location of the alert route vehicle in near-real time. This will reduce the need for voice communication messages between the vehicles and the EOC on both the county communications system and on the ARES/RACES systems since the EOC will not have to ask “where are you” every few minutes.

Positions

The ARES/RACES team will man the following positions:

Position	Location	Tactical Call Sign	Packet Tactical Call Sign**
EC	Spotsylvania EOC	EC	--
County Liaison	Spotsylvania EOC	County	--
Operator 1	Spotsylvania EOC	EOC 1	--
Operator 2	Spotsylvania EOC	EOC 2	1SPEOC
Backup Operator 1	Spotsylvania EOC	--	--
Backup Operator 2	Spotsylvania EOC	--	--
Route 1 Team Member	Spotsylvania EOC*	Field Team 1	--
Route 2 Team Member	Spotsylvania EOC*	Field Team 2	--
ARC HQ	Rappahannock ARC Headquarters	Red Cross	1RAARC
Shelter 1 Operator	Massaponax HS	Massaponax	1MASHS
HF Liaison	Home Station		
EOC Packet Mailbox	--	--	SPEOMB

*Start at Spotsylvania EOC and join evacuation notification team as directed (APRS)

** Must conform to Outpost Packet Software requirements

Duties

Emergency Coordinator (EC) – Coordinate the activities of the ARES/RACES volunteers with the county Emergency Manager and other county officials.

County Liaison – Assist with coordinating the ARES volunteers with county agencies, particularly law enforcement.

Operator 1 – Net control for the primary repeater, monitor the primary simplex frequencies, primary APRS monitoring and act as secondary (digital) packet operator. Log all incoming and outgoing traffic in the station log.

Operator 2 – Monitor secondary repeater frequency or other frequencies as directed and serve as primary (digital) packet operator and backup APRS monitor. If the primary repeater fails, operator 2 becomes net control for the secondary repeater unless a net control has already been designated by another organization, in which case this operator becomes the liaison between the EOC and the net. Log all incoming and outgoing traffic in the station log.

Backup Operators – Provide relief to the primary operators and serve as the physical interface between the operators and other elements in the EOC for message traffic (i.e. receive message traffic from and deliver message traffic to others in the EOC).

Route Team Members – Ride with the team performing the evacuation notifications and provide backup communications between those teams and the EOC. Route team member will provide frequent position information to the operators at the EOC by APRS or voice reports.

HF Liaison – Monitor the state HF net (ODEN) and the primary repeater. Pass message traffic between the EOC and the ODEN as required.

Operator Logging Requirements

The radio operators shall maintain station logs of all incoming and outgoing traffic as well as other significant events. Each log entry will start with the time written in 24-hour clock format. Traffic will be entered identifying whom it is from, whom it is to and the verbatim message. Use of tactical call signs is preferred. Some examples of typical entries are below:

Time	From	To	Message
1305	Field Team 1	EOC	Started evacuation notification on route 1
1305	EOC	Field Team 1	Started evacuation notification on route 1, roger.
1310	Field Team 1	EOC	Position report, on Courthouse Road, passing Volunteer Dr, heading south, time 1310
1310	EOC	Field Team 1	Roger

Equipment Requirements

All operators are encouraged to take this opportunity to check your “go kit” and bring the kit to the exercise. The exercise will last from four to six hours so drinks and snacks may be appropriate. Equipment requirements for specific positions are below:

- EOC Operators – The EOC is equipped with two Kenwood TM-D700 transceivers. Operators do not need to bring additional equipment.
- Shelter Operators – Shelter operators should bring a mobile 2m transceiver with the necessary power supply and batter back up as well as an antenna and cable.
- ARC HQ Operators – The radio room in the ARC HQ is fully equipment for the purposes of this drill. Operators do not need to bring any additional equipment.
- Field Team Operators – Field team members should bring a mobile transceiver with an external magnetically mounted antenna and battery power supply for voice communications. An HT with and external amplifier may be sufficient, however these teams will be going to the far reaches of the county. Additionally, the field team member should also bring an APRS set up to include an APRS cable radio (such as the Kenwood TN-D700 mobile transceiver or the Kenwood TM-D7 HT transceiver) and a GPS unit cable of interfacing with the radio. You should also have a second magnetically mounted antenna for the APRS and sufficient battery capacity to support both voice operations and APRS operations.

Operator must ensure that their equipment is operational. *Operators should have the exercise frequencies programmed into their radios prior to the start of the drill. These are the same frequencies that Spotsylvania ARES/RACES will use in an actual emergency.*

Definitions:

VOPEX	Virginia Operations Plan Exercise
EOC	Emergency Operation Center
APRS	Automatic Position Reporting System 144.390 MHz
HF	High Frequency Frequencies between 1.8 kHz – 29 MHz
VHF	Very High Frequency 140 – 148 MHz
UHF	Ultra High Frequency 444- 448 MHz
Packet	Digital transmission of computer data over Radio Frequency HF, VHF & UHF
Route Alerts	Sheriff's Department notification zones within the county. Multiple routes exist to notify the county residents of an emergency

Frequency Plan

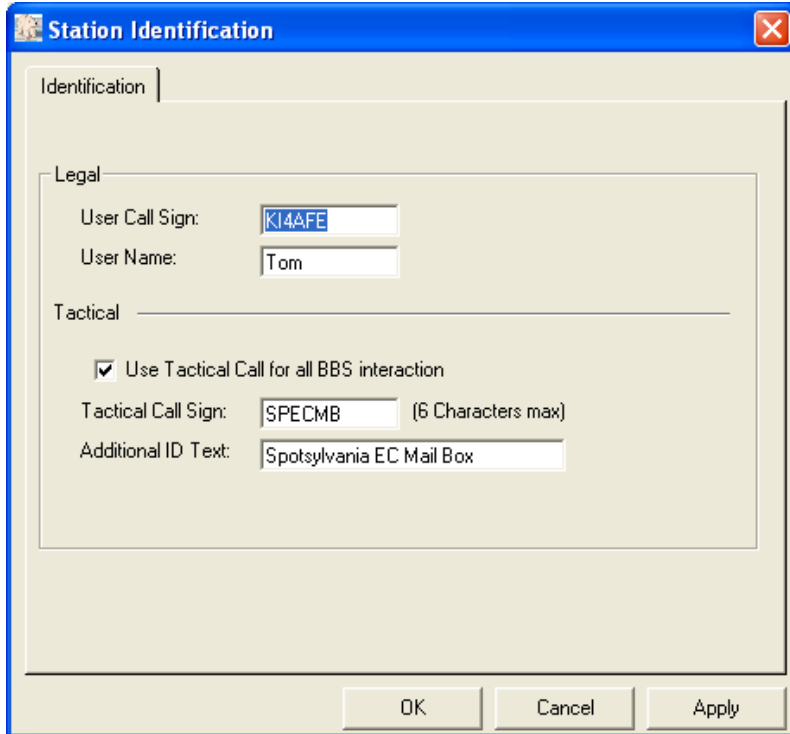
The Spotsylvania County frequency plan is as follows:

Primary Repeater:	147.015(+) MHz	Initial mobilization and administration traffic
Simplex (OPS1):	146.490 MHz	Primary simplex channel for operational traffic
Simplex (OPS2):	146.460 MHz	Secondary simplex channel for operational traffic
Intra-county Packet:	145.550 MHz	Packet communications between EOC, Shelters and ARC HQ
VDEN Packet:	145.730 MHz	Packet communications between EOC and state EOC
HF (ODEN):	3947 kHz	HF communications between EOC and state EOC via HF liaison

Spotsylvania Simplex Frequency Designations

Channel	Frequency	Name	Long Name
1	146.400MHz	SIMP00	Simplex 00
2	146.415MHz	LOG1S	Logistics 1 Simplex
3	146.430MHz	SIMP02	Simplex 02
4	146.445MHz	SIMP03	Simplex 03
5	146.460MHz	OPS2S	Operations 2 Simplex
6	146.475MHz	SIMP05	Simplex 05
7	146.490MHz	OPS1S	Operations 1 Simplex
8	146.505MHz	SIMP07	Simplex 07
9	146.520MHz	NCALL1	National Calling Freq 1 (2m)
10	146.535MHz	SIMP09	Simplex 09
11	146.550MHz	NCALL2	National Calling Freq 2 (2m)
12	146.565MHz	SIMP11	Simplex 11
13	146.580MHz	SIMP12	Simplex 12

Appendix A: Outpost Packet Message Manager Setup Parameters



Station Identification

Identification

Legal

User Call Sign:

User Name:

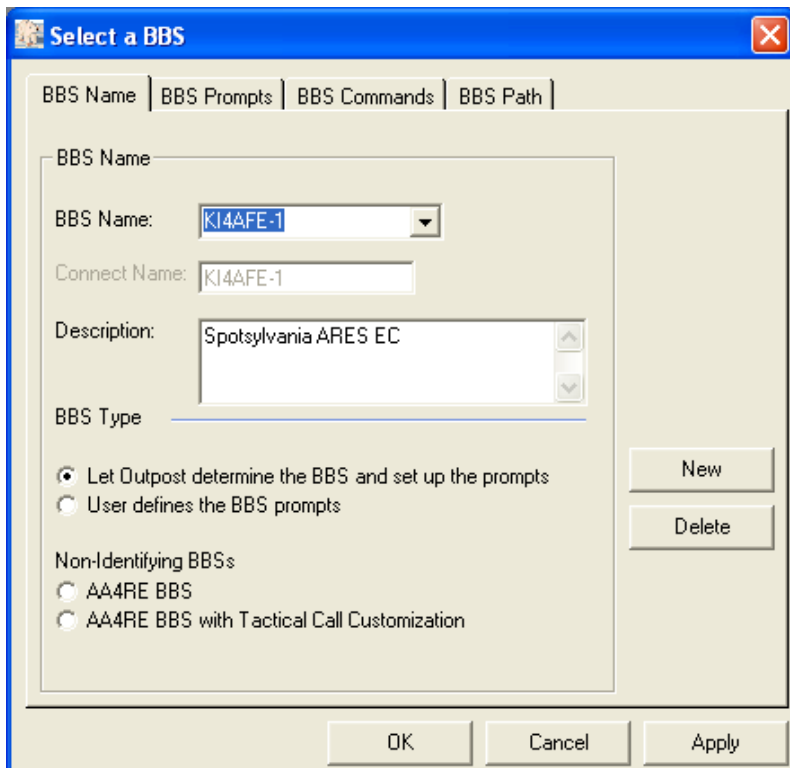
Tactical

Use Tactical Call for all BBS interaction

Tactical Call Sign: (6 Characters max)

Additional ID Text:

OK Cancel Apply



Select a BBS

BBS Name | BBS Prompts | BBS Commands | BBS Path

BBS Name

BBS Name:

Connect Name:

Description:

BBS Type

Let Outpost determine the BBS and set up the prompts

User defines the BBS prompts

Non-Identifying BBSs

AA4RE BBS

AA4RE BBS with Tactical Call Customization

New Delete

OK Cancel Apply

Select a BBS [Close]

BBS Name | BBS Prompts | **BBS Commands** | BBS Path

Commands

Send Private:

Send Bulletin:

Send NTS:

List Mine:

List Bulletin:

List NTS:

List Filtered:

Read Message:

Delete Message:

Bye / Log off:

OK Cancel Apply

Select a BBS [Close]

BBS Name | BBS Prompts | **BBS Commands** | BBS Path

Access method

Direct to BBS

Via digipeater(s):
(enter digipeater names separated by commas)

KA-NODE/Netrom Access

OK Cancel Apply

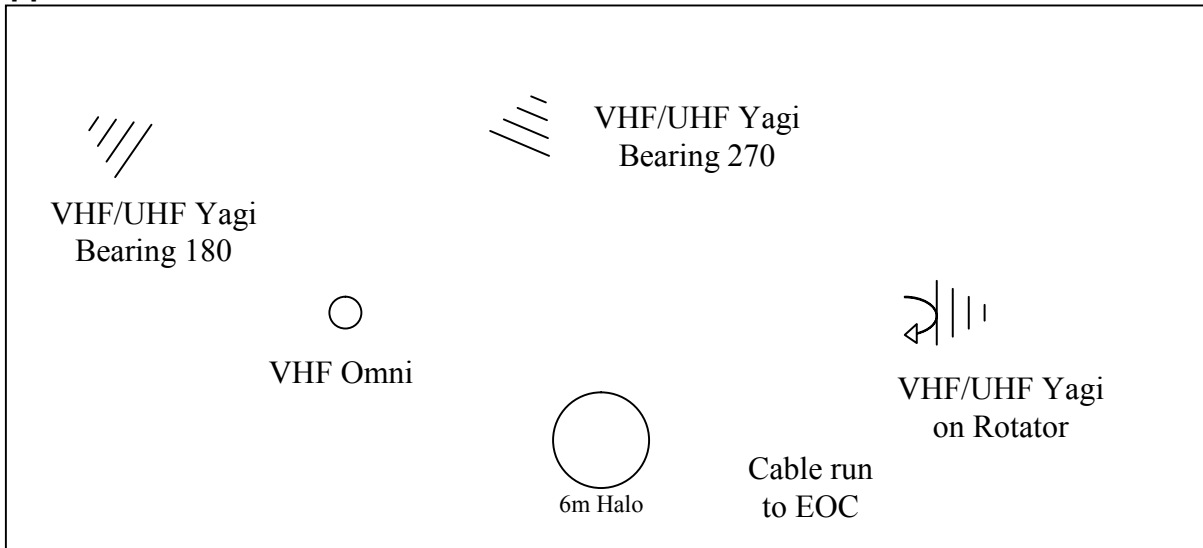
Appendix B: APRS Setup Parameters for Kenwood D700

TNC APRS : ON
My Callsign : <Your Call>
TX Interval : 2 minutes
Waypoint: 9 Digits NMEA
Digipeater: OFF
GPS unit: NMEA
Data Band : 'A' band
Icon: Car
Status Text 1: [Use]
Status Text 2
Status Text 3
Status Text 4
Status Text 5
Position 1: 00 00.00N, 000 00.000W Name: HOME [Use]
Position 2 : 38 12.06N, 077 35.250W Name: SPEOC
Position 3 : 00 00.00N, 000 00.000W
Position 4 : 00 00.00N, 000 00.000W
Position 5 : 00 00.00N, 000 00.000W
APRS Beep: Mine
Position Comment: Enroute
Status Tx Rate: 1/1
UNProtocol: APK101
Packet TX: Auto
Position Limit: 0050
Mile/kilometer: mile
Temperature: Degrees F
Position Ambiguity: OFF
UIDIGI :
Auto Reply Message: OFF
Reply Message:
Bulletin Group:
Message Group: ALL,QST,CQ,KWD,NWS
Packet Speed: 1200 bps
Packet Path : WIDE1-1, WIDE2-1

Appendix C: Schedule

10 May	APRS Test	Complete
31 May	Packet Test	
10 June	Shelter Drill	0800-1200
TBD	Packet Test 2	
TBD	APRS Test 2	
22 July	VOPEX 2008	0800-1200

Appendix D: Attic area above the EOC

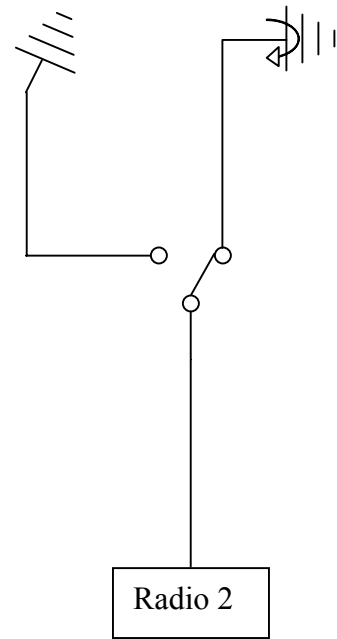
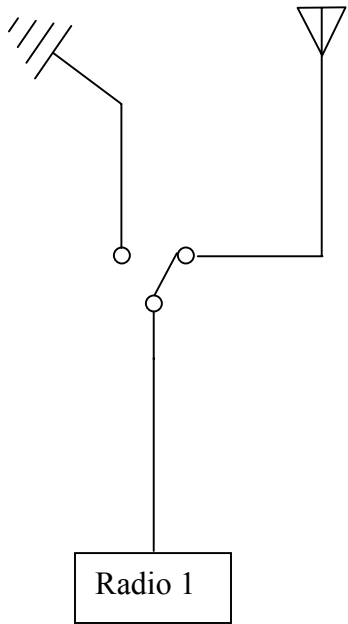


VHF/UHF Yagi
Bearing 180

VHF Omni

VHF/UHF Yagi
Bearing 270

VHF/UHF Yagi
on Rotator



VOPEX 2008 ARES/RACES Volunteer Roster (22 July 2008)

	Position	Location	Tactical Call Sign	Name	Call Sign	Phone
1	EC/RO	Spotsylvania EOC	Radio Officer	Tom Lauzon	KI4AFE	540-898-4787
2	County Liaison	Spotsylvania EOC	County	Mike Christie	W1ZFB	
3	EOC Operator 1	Spotsylvania EOC	EOC 1			
4	EOC Operator 2	Spotsylvania EOC	EOC 2			
5	Backup EOC Operator 1	Spotsylvania EOC	--			
6	Backup EOC Operator 2*	Spotsylvania EOC	--			
7	Field Team 1 Member	Spotsylvania EOC*	Field Team 1			
8	Field Team 2 Member	Spotsylvania EOC*	Field Team 2			
9	ARC HQ Operator 1	Rappahannock ARC HQ	Red Cross			
10	ARC HQ Operator 2*	Rappahannock ARC HQ	--			
11	Shelter 1 Operator	Massaponax HS	Massaponax HS			
12	Shelter 2 Operator*	Massaponax HS	--			
13	HF Liaison 1	Home Station or ARC HQs				
14	HF Liaison 2*	Home Station or ARC HQs				
15						

* Optional positions depending on the number of volunteers available

Evacuation Drill ARES/RACES Volunteer Roster (10 June 2008)

	Position	Location	Tactical Call Sign	Name	Call Sign	Phone
1	EC/RO	Spotsylvania EOC	Radio Officer	Tom Lauzon	KI4AFE	540-898-4787
2	County Liaison	Spotsylvania EOC	County	Mike Christie	W1ZFB	
3	ARC HQ Operator 1	Rappahannock ARC HQ	Red Cross			
4	ARC HQ Operator 2*	Rappahannock ARC HQ	--			
5	Shelter 1 Operator	Massaponax HS	Massaponax HS			
6	Shelter 2 Operator*	Massaponax HS	--			
7						
8						
9						
10						

* Optional positions depending on the number of volunteers available