Heart of TN.
A. R. E. S., Inc.

Heart of Tennessee
Amateur Radio Emergency Service®

Net Operations
NET 1-3

Operations
Net Frequencies

1. Introduction

The purpose of Heart of TN. Amateur Radio Emergency Service® (ARES®) is to provide communications services to Served Agencies. This document defines the Amateur Radio frequencies to be used during the operation of training nets as well as during times of emergency operations.

2. Responsibilities

The Heart of TN. ARES® Planning Committee is responsible for development of this Standard Operating Guideline (SOG).

Each participant in Heart of TN. ARES® nets is responsible for being familiar with and following the procedures defined in this document. Each member of Heart of TN. ARES® should program these frequencies into their radios to permit rapid frequency changes to the desired frequency.

3. Related Publications

NET 1-1 Net Control Station Procedures
NET 1-2 Net Operations

4. Definition of Terms

ARES® Amateur Radio Emergency Service® (ARES® and Amateur Radio Emergency Service® are registered service marks of the American Radio Relay League.)
NCS Net Control Station
Served Agency A public service agency with which Heart of TN. ARES® has established a support agreement through the implementation of a formal Memorandum of Understanding.
UHF Ultra High Frequency – generally considered from 300 MHz to 3000 MHz. This Includes the frequencies in the 440 MHz amateur radio band.
VHF Very High Frequency – generally considered from 30 MHz to 300 MHz. This includes the frequencies in the 6-meter, 2-meter and 220 MHz

amateur radio bands. It is more commonly considered as referring to the 2-meter band.

5. Guideline

5.1. Frequencies

The following frequencies will be used by Heart of TN. ARES® during training and emergency operations as prescribed by the appropriate Operation Plan.

Frequency Usage Repeater Provider Call

FREQUENCY LIST 1 VHF				
	FREQUENCY	OFFSET	TONE	LOCATION
1	145.230	-	114.8	LaVergne
2	145.170	-		Lynch Hill
3	147.360	+	114.8	Short Mountain
4	145.370	-		Joelton
5	146.955	-	114.8	Sullivan's Ridge
6	145.490	-		Short Mountain
7	146.670	-	114.8	DVDSNCO
8	146.640	-	114.8	DVDSNCO2
9	146.700	-	114.8	Manchester
10	146.910	-		W4YXA-MDTNHOSPNET
11	147.300	+	114.8	Gallatin
12	147.105	+	100.0	Lebanon
13	147.090	+	114.8	Ruth. Co. Port. Rptr.
14	145.130	-	156.7	Leipers Fork
15	145.210	-	173.8	Brentwood
16	146.550			Simplex 1
17	146.520			Simplex 2
18	146.580			Simplex 3
19	147.420			Simplex 4
20	146.490			MdTNHospNet
21	145.050			Packet Link Primary
22	145.690			Packet Link BU
23	144.990			Winlink

FREQUENCY LIST 2 UHF				
	FREQUENCY	OFFSET	TONE	LOCATION
24	443.725	+	107.2	TEMA HQ.-MTEARS
25	443.975	+	107.2	Pasquo-MTEARS
26	444.650	+	114.8	Short Mountain-MTEARS

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27	444.450	+	107.2	Gallatin-MTEARS
28	442.725	+	100.0	Lawrenceburg-MTEARS
29	444.600	+	107.2	Cookville_MTEARS
30	443.875	+	88.5	Hinch Mountain-MTEARS
31	444.100	+	107.2	Fayetteville
32	443.950	+	107.2	Tullahoma-MTEARS
33	444.075	+	127.3	Mnchstr/Deer Run-MTEARS
34	444.025	+	110.9	Franklin
35	443.875	+	107.2	College Grove
36	443.300	+	100.0	Lobleville-MTEARS
37	442.700	+	100.0	Deason-MTEARS
38	443.075	+	156.7	Heritage-MTEARS
39	443.425	+	107.2	Culleoka/Maury-MTEARS
40	446.420			Emerg. Smplx. 1

FREQUENCY LIST 3 HF

	HF EMERG. NET FREQ.	NAME
1	7.238	TNEMTRFC(D)
2	3.980	TNEMTRFC(N)
3	3.965	ALEMTRFC
4	3.862	MSEMTRFC
5	14.325	HWN
6	7.290	HWN(BU-D)
7	3.935	HWN(BU-N)
8	7.285	WGLFEM-D
9	3.873	WGLFEM-N
10	14.265	SATERN
11	7.180	CUSEC NET - D
12	3.810	CUSEC NET - N
13		
14		
15		

ACRONYM EXPLANATIONS

TENNESSEE EMERGENCY TRAFFIC - DAY/NIGHT
ALABAMA EMERGENCY TRAFFIC
MISSISSIPPI EMERGENCY TRAFFIC
HURRICANE WATCH NET - (BACK UP DAY/NIGHT)
WESTERN GULF EMERGENCY NET - DAY/NIGHT (HURRICANE)
SALVATION ARMY EMERGENCY TRAFFIC NET
CENTRAL US EARTHQUAKE CONSORTIUM EMERGENCY TRAFFIC NET

If other frequencies are required for specific functions, they will be announced and coordinated at the time required if not included in specific

operating plans.

5.2. Frequency Usage

Actual frequency usage and channel designations will be defined in the appropriate operating plans.

5.3. Repeater Recovery

With the dependency on repeaters for broad coverage in the VHF and UHF bands, consideration must be given to the possibility that a repeater may fail or become unusable for various reasons. The following procedure is to be used in the event a repeater becomes inoperable:

1. The NCS will begin operating in simplex mode on the output frequency of the used repeater. That is the frequency being listened to by the members of the particular net.

2. The NCS should request a station with the best elevation/coverage to assume net control responsibilities. This will provide maximum coverage to all other members of the net. If the new NCS does not have a roster of stations involved in the net, the net roster (by tactical call signs if used) will be provided to the new NCS by the NCS relinquishing net control responsibilities.

3. The new NCS will attempt to contact each station in the net. If problems exist in contacting every station, stations located in positions that may be able to relay will be asked to determine if they can contact the station(s) that cannot communicate directly with the NCS. This process will continue until all stations are accounted for. (NOTE: Any priority traffic that is presented must be handled if at all possible and takes precedence.)

4. If an alternate repeater is available, the original NCS should move to the alternate repeater after transferring control to the new NCS. The NCS operating in simplex mode on the original repeater frequency will begin moving stations one at a time to the alternate frequency, beginning with the ones that must have a relay to contact the NCS. This will verify transition of all stations to the alternate repeater and do so in a controlled fashion.

5. Participants that may not be able to hear instructions from the NCS or

Its relays should periodically monitor any alternate repeater frequency(s) that may be designated in the applicable operating plan to determine if the net has moved. If not successful the participant should attempt to contact someone on an a different net that may be operating to support the applicable operating plan to solicit instructions.

Always remember – The NCS is always in charge of the net for which he/she is responsible, including the move to an alternate frequency. All members of the net are to follow the NCS's instructions.

5.4. FM Cross-band Repeat Simplex (NBFM)

Based on standards established by the SouthEastern Repeater Association, Inc., the following frequencies are authorized for use in mobile cross-band repeater operation as might be found in a mobile being used to cross-band a lower power 70 cm radio used inside a facility to a 2 m repeater system. Care should be taken to avoid interference with others using a similar capability closely located.

445.7375 445.7625 445.7750 445.7875
445.8125 445.8250 445.8375 445.8500
445.8625 445.8750 445.8875 445.9000

In addition, the following VHF simplex frequencies may be used when cross-band operation is needed to access UHF repeaters:

146.400* 146.415* 146.430* 146.445*
146.460* 146.475* 146.490* 146.535
146.550 146.565 146.580 146.595
147.405* 147.435* 147.450* 147.465*
147.480* 147.495* 147.510 147.525
147.540 147.555 147.570 147.585

- These frequencies may be coordinated for repeater inputs and care should be taken to prevent interference to repeaters using these input frequencies.

Please note: DO NOT use 146.520 for emergency operation as this frequency is the national calling frequency. It may be monitored for transient operators that may be responding and providing instructions on the frequency(s) to be used.

6. Release Information

Keith Miller, N9DGK, Emergency Coordinator, is the author of this document.

The date of publication for this document is February 18, 2008, and includes the HOTARES® portable VHF repeater and a list of VHF simplex frequencies. This document has been revised to reflect the addition of a PL tone to the 145.230 repeater April 23, 2009.