Vermont Division of Emergency
Management & Homeland Security
**RACES EMERGENCY
COMMUNICATIONS PROGRAM**

RACES STANDARD
OPERATING GUIDELINES

Radio Amateur Civil Emergency Services
http://DEMHS.vermont.gov/programs/races
1-800-347-0488

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RACES Standard Operating Guidelines

Introduction

This manual is written to provide a standard of operation and a guide for training and message handling techniques and net procedures for Radio Amateur Civil Emergency Service (RACES) operators in Vermont State RACES Nets for state-wide nets as well as local state and city RACES nets.

Instructions and general operating procedures presented in this Standard Operating Procedure (SOP) are applicable to message traffic handling by RACES and used in all RACES training. All amateur radio operators are encouraged to use this document in training and/or activated net operations.

Proficiency is developed by practice using good procedures. Since message handling is the primary function of a RACES net, efficiency in this regard is the major goal toward which this SOP is directed.

Description and Authority

RACES is an organization of Federal Communication Commission licensed amateur radio operators who volunteer to provide radio communications for state and local governments during times of emergency. Created in 1952 primarily to serve disasters occur, RACES provides essential communications and warning links to supplement State and local government agencies during emergencies.

RACES is organized to provide emergency communications for civil preparedness purposes only. RACES are a special part of the amateur radio service sponsored by the Federal Emergency Management Agency (FEMA), and is conducted by amateur radio operators using their primary station licenses or by existing RACES stations. In the event that the President invokes the War Emergency Powers Act, amateur radio operators enrolled with their local emergency management offices would be activated, while all other amateur operations would be silenced.

During an emergency, RACES is operated under the direct control of the State or local emergency management, as authorized by the Federal Communication Commission and the Vermont Emergency Management Office.

RACES is authorized by Section 606 of the Communications Act of 1934 as amended by Part 97.407 of the Federal Communications Commission. A copy of part 97.407 is in the appendix.

RACES guidance is also provided by FEMA document CPG1-15 March 1991. Part 97 still applies to all RACES stations and RACES operators participating in RACES operations (http://wireless.fcc.gov/rules.html). A copy of this document is available at the FEMA web site: http://www.fema.gov/library/civilpg.shtm

RACES Eligibility

Any United States citizen who possesses a valid FCC Amateur Radio Operator License, Technician Class or higher, is eligible to apply for membership in the State RACES program. All RACES operators are required to operate within the restrictions of their license class, as per FCC part 97.

RACES Membership

Membership in RACES is on a State level. Individual members will be approved by the DEMHS RACES program and issued identification

cards. The Office of Emergency Management in Waterbury Vermont will maintain this list.

RACES members should be registered in one state only. If a member is registered in more than one state, and there is a need for RACES volunteers in multiple states, it would be impossible for individual state emergency managers to know the number of volunteers available.

RACES members under 18 years of age:

It is recognized that RACES members who have attained an amateur radio license may not be 18 years of age or younger. In light of these the following conditions are required:

- Any RACES member under the age of 18 must have parental / guardian consent for RACES membership on the RACES application.
- RACES members under the age of 18 are not permitted to conduct emergency RACES activities in hazardous or potentially hazardous environments.
- RACES members under the age of 18 must be accompanied by a member 18 y/o during RACES operations.
- A hazardous or potentially hazardous environment is one in which there are circumstances where life safety may be in jeopardy.

Insurance

DEMHS RACES members when activated are acting as agents of the state of Vermont and are covered under Vermont liability insurance and workman's comp. The DEMHS RACES officer or standard Duty Officer (1-800-347-0488) **must** be informed of the activation in order to activate this clause under State Statute Title 20.

RACES Activation

DEMHS and or the local emergency management director (EMD) will activate RACES personnel. This may be initiated via telephone (1-800-347-04880, email, radio or pager. If not already advised, DEMHS must be informed of the activation.

Initially Radio Nets will be commenced at the DEMHS-RACES Waterbury radio room with Net Control operating at that location. In his/her discretion Net Control Responsibility may be passed to another RACES Operator at any location in Vermont. RACES Net Control shall use his/her own Call Sign while making transmissions but shall identify traffic and transmissions as DEMHS-RACES Communications. In the case of drills, all traffic shall be prefaced and followed by the announcement **"This is a RACES drill".**

VHF Simplex Frequencies will be announced on 146.520 simplex OR various 2 meters repeaters within the State of Vermont.

HF Frequencies will be announced on the following frequency via SSB lower sideband phone:

40 Meters: 7280 [+/- 5 depending on activity]

80 Meters: 3980 [+/- 5 depending on activity]

RACES stations operating in any of the frequency bands listed in this SOP shall not cause harmful interference to other services that might share the frequencies.

UHF Frequencies will be announced on the following frequency: to be determined. Currently networked repeaters are: 444.600+ (PL. 110.9) Williamstown; 444.650+ (PL. 110.9) Monkton; 444.700+ (PL 110.9) Newfane (Brattleboro- Windham); 444.050+ (PL 100.0) Manchester & Bennington Cty; 444.550+ (110.9) Killington; 447.175- (PL 100.0) Mt. Mansfield;448.125 – (PL 110.0) Mt. Ascutney.

VHF 2 Meter Repeaters: [to be determined following field tests]
Simplex: 146.520 or 146.550

NET structure will be determined by the Net Control.

NETS will be initiated on the hour or at any 5-minute interval thereafter.

The Phonetic Alphabet will be used in RACES Communications

VT RACES and ARES

The Amateur Radio Emergency Service (ARES) consists of licensed amateurs who have voluntarily registered their qualifications and equipment for communications duty in the public service when disaster strikes. Every licensed amateur, regardless of membership in ARRL or any other local or national organization is eligible for membership in ARES. The only qualification, other than possession of an Amateur Radio license, is a sincere desire to serve. Because ARES is an amateur service, only licensed amateurs are eligible for membership.

In general, RACES is organized and authorized to serve the government, and ARES is organized to serve the public. It is desirable for RACES members to also be enrolled in the ARES program. The additional training received during ARES public service events can be of great value during times of emergency. In addition to this, there are times of emergency when ARES will be the first organization to activate for communications assistance. As an emergency escalates, the local or State Emergency Management representative may call for RACES activation. At this time, with radio operators already activated, the operation can smoothly transition from an ARES operation to a RACES operation**. It must be noted that when this happens, the RACES members are now under the supervision of the local or State Emergency Management representative, and are no longer directly involved with the ARES operation.** At this point, operations will usually

move to the State EOC if the radio operators are not already there. It is suggested that one operator on each shift remain with the ARES operation to act as liaison between RACES and the non-RACES stations which may be involved supporting other agencies or organizations. Whenever possible, RACES and ARES communications should be on different net frequencies. Cooperation between the ARES and RACES organizations is of high importance, and cannot be understated.

Communications Unit Trailer mission, activation and use policy

The Communications Unit Trailer mission is to serve as a remote emergency radio communications unit for civil health and safety information trafficking during times of long-term communications failure. Deployment of the Communications Unit Trailer will be initiated by DEMHS-RACES in Waterbury, Vt. RACES Operating Personnel will be assigned by DEMHS-RACES in Waterbury, Vt. The Communications Unit Trailer may be deployed during any RACES activation. Additional use for the trailer includes field day participation and outreach appearances for the purpose of education and networking with other communities and organizations.

Location of RACES Operations

Since RACES serves the government with a means of supplemental communications, it is vital that **RACES radio operators be available at the Emergency Operations Center** or local command post, as requested by DEMHS or the local EMD. The EMD or DEMHS will determine additional deployment of RACES operators. In most situations, RACES operators will be working "in the field", and not from their homes.

No RACES volunteer may travel to any disaster site without prior approval of Vermont Emergency Management. Travel into an area

under a "declaration of emergency" may actually violate certain laws in effect by the declaration of emergency.

Inter-State Operation

As of this date, there is no statewide "Mutual-Aid" agreement for inter-state operation. Any inter-state operational details must be determined between the states involved. If a state has chosen to provide insurance coverage for RACES volunteers, it must be determined from the state's insurance carrier if the insurance will cover a RACES volunteer for "out-of-state" operations.

Vermont State RACES Nets

A list of the RACES training nets is in the appendix of this document. Non activation nets are intended for training. Up to date information on HF as well as local VHF nets can be found on the Vermont State Emergency Management Office website: http://www.dps.state.vt.us/DEMHS/races

DEMHS RACES identification cards and insignia items

At no time should DEMHS RACES identification items be displayed in inappropriate circumstances or environments.   In 2003 the DEMHS RACES program adopted the DEMHS RACES emblem for its membership for public appearances and event response identification. Since the Vt. RACES emblem represents the State of Vermont, use of RACES emblem and apparel is restricted to official RACES activities such as, but not limited to:

- During times of RACES activation
- Public outreach activates such as meetings and presentations
- Work related RACES activities
-

Radiotelephone (Voice) Procedures

Specific instructions for the conduct of communications employing radiotelephone procedures are found in the appendix of this document. Departures from these procedures may result in confusion, and thus reduce accuracy and efficiency of message handling.

Radiotelegraph (CW) Procedures

Currently, Vermont State is NOT conducting scheduled RACES net with the use of Morse code.

Procedures for Other Digital Modes

Other digital modes such as Packet, Pactor, Pactor II, Airmail, Winlink etc., may also be used for the transmission of RACES messages. **Due to the built-in error checking in these modes**, **plain language will be used at all times**. If an error is discovered in a message sent to a bulletin board, the message will be withdrawn if possible. If this is not possible, a subsequent service message outlining and correcting the error will be sent.

A message is not considered as delivered until the receiving station acknowledges receipt of the message. A message left on a "public bulletin board" or a "personal bulletin board" is not considered as delivered until acknowledged by the station it was intended for.

RACES Message Format

Message form DEMHS-11 is the standard form used by DEMHS and RACES.

We must also be familiar with message forms used by our customers such the National Traffic (NTS) and Vermont Yankee (VY) forms.

Specific instructions on these message forms are in the appendix.

RACES Tests and Training Sessions

On a weekly basis RACES radio checks will be conducted on local frequencies to ensure equipment operability. At least once a month the RACES program staff will conduct radio checks with other FEMA region 1 states to ensure New England wide communications capability.

RACES HF training nets will be held as noted in the net schedule in the appendix of this document. This will be conducted to improve the efficiency and operation of net procedures and message handling,

The Net Control Station (NCS) of any RACES net will provide reports of net activities to DEMHS, the report will include:

- Date and time of each training session.
- Roll call of all stations in the net, indicating NCS and assistant NCS.
- Copy of "drill" message sent.
- Any other remarks or comments deemed necessary by NCS.
- The time permitted for RACES training is listed in FCC Part 97.407 E 4. A copy is in the appendix.

Net Control Station Duties and Authority

RACES nets are directed nets. The authority of the NCS extends only to the operation of the net on the air. However, within this scope, and while the net is in session, the authority of the NCS is absolute. It is the duty of the NCS to maintain strict discipline and adherence to standard operating procedures. The decisions of the NCS are final and its instructions must be strictly and immediately complied with.

The NCS will clear traffic within the net, and dispatch traffic to points outside the net as is required.

The NCS derives authority from the State Emergency Management Director (or, in a local net, the local emergency management director, and is responsible to that Officer for the conduct of the net. The success or failure of net operations depends on keeping the net in order and operating swiftly and smoothly by use of the powers invested in the NCS for this purpose. The NCS may break into the net at any time, if it is the opinion that it is necessary to aid in the functioning of the net. NCS must keep a written record of all stations in the net and the traffic they have for transmission.

Questions, Comments, and Updated RACES Information

Questions or comments regarding the Vermont State RACES program can be directed to   via e-mail to Vermont State Emergency Management Office at or through the DEMHS RACES web at: http://DEMHS.vermont.gov/programs/races.

Net schedules and general information about the Vermont State RACES program will be found at this site.

Appendix I

FCC Rules Governing RACES

97.407 Radio Amateur Civil Emergency Service

A) No station may transmit in RACES unless it is an FCC-licensed primary, club, or military recreation station and it is certified by an emergency management director organization as registered with that organization, or it is an FCC-licensed RACES station. No person may be the control operator of a RACES station, or may be the control operator of an amateur station transmitting in RACES unless that person holds a FCC-issued amateur operator license and is certified by a emergency management organization as enrolled in that organization.

B) The frequency bands and segments and emissions authorized to the control operator are available to stations transmitting communications in RACES on a SHARED basis in the amateur service.

C) A RACES station may only communicate with:
1. Another RACES station;
2. An amateur station registered with a emergency management organization;
3. A United States Government station authorized by the responsible agency to communicate with RACES stations;
4. A station in a service regulated by the FCC whenever such communication is authorized by the FCC.

D) An amateur station registered with a emergency management organization may only communicate with:
1. A RACES station licensed to the emergency management organization with which the amateur station is registered;
2. The following stations upon authorization of the responsible Emergency Management Director for the organization with which the amateur station is registered:
i. A RACES station licensed to another emergency management organization;

ii. An amateur station registered with the same or another emergency management organization;

iii. A United States Government station authorized by the responsible agency to communicate with RACES stations; and

iv. A station in a service regulated by the FCC whenever such communication is authorized by the FCC.

E) All Communications transmitted in RACES must be specifically authorized by the emergency management organization for the area served. Only emergency management communications of the following types may be transmitted:

1. Messages concerning impending or actual conditions jeopardizing the public safety, or affecting the national defense or security during periods of local, district, or national civil emergencies;

2. Messages directly concerning the immediate safety of life of individuals, the immediate protection of property, maintenance of law and order, alleviation of human suffering and need, and the combating of armed attack or sabotage and/or terrorist.

3. Messages directly concerning the accumulation and dissemination of public information or instructions to the civilian population essential to the activities of the emergency management organization or other authorized governmental or relief agencies; and

4. Communications for RACES training drills and tests necessary to ensure the establishment and maintenance of orderly and efficient operation of the RACES as ordered by the responsible emergency management organization served. Such drills and tests may not exceed 1 hour per week. With the approval of the DEMHS RACES Officer (1-800-347-0488), however, such tests and drills may be conducted for a period not to exceed 72 hours no more than twice in any calendar year.

>   All other rules governing operation in the Amateur Radio Service must also be followed.

Appendix II

International Telecommunications Union (ITU) phonetic alphabet

LETTER	WORD	PRONUNCIATION
A	ALPHA	AL-FAH
B	BRAVO	BRAH-VOH
C	CHARLIE	CHAR-LEE
D	DELTA	DELL-TAH
E	ECHO	ECK-OH
F	FOXTROT	FOKS-TROT
G	GOLF	GOLF
H	HOTEL	HOH-TELL
I	INDIA	IN-DEE-AH
J	JULIET	JEW-LEE-ETT
K	KILO	KEY-LOH
L	LIMA	LEE-MAH
M	MIKE	MIKE
N	NODEMHSBER	NO-DEMHS-BER
O	OSCAR	OSS-CAH or OSS-KER
P	PAPA	PAH-PAH
Q	QUEBEC	KAY-BECK or KEH-BEK
R	ROMEO	ROW-ME-OH
S	SIERRA	SEE-AIR-RAH
T	TANGO	TANG-GO
U	UNIFORM	YOU-NEE-FORM
V	VICTOR	VIK-TAH or VIK-TOR
W	WHISKEY	WISS-KEY
X	X-RAY	ECKS-RAY
Y	YANKEE	YANG-KEY
Z	ZULU	ZOO-LOO

NUMBER PRONUNCIATION OF NUMERALS
0 ZEE-ROW
1 WUN
2 TOO
3 TREE or THREE
4 FO-WER
5 FIFE or FY-EV
6 SIX
7 SE-VEN
8 AIT
9 NIN-ER or NINE

Appendix III

Vermont State RACES HF Training Nets

Vermont State RACES HF SSB Net

40 Meters: 7,280 KHz LSB (+/- 5 depending of activity).

80 Meters: 3,980 kHz, LSB (+/- 6 depending on activity).

Remember: Frequencies are SHARED with the Amateur Community.

Vermont State RACES HF CW Net

None authorized at this time.

Appendix IV

Radiotelephone (Voice) Procedures

Operators are required to **maintain a log of all RACES messages** during all activations. Log form 15 (see appendix XI) may be used or any standard traffic log.

All operators will transmit messages exactly as written or received unless standard abbreviations are appropriate (Vermont abbreviates to Vt.). Prosigns, prowords, operating signals, or abbreviations **will not** be substituted for text words or groups as written by the message originator.

An operator who receives a message is responsible for the timely delivery or relay of that message. Any long delay in delivery or relay of the message, or non-delivery of the message, must be immediately reported to the message originator. (Service message.)

The speed of transmission will be attained by employing standard voice phraseology and authorized prowords. Operators will transmit messages only as fast as the receiving operator can record the message. In a net operation, the speed of the slowest operator will normally govern the speed of all stations in the net. The inherent break-in capability of modern equipment makes it possible to adopt CW break-in methods for voice transmissions. The break-in procedures outlined here are basically the same as for CW operation. Break-in is a procedure whereby a receiving station may interrupt a transmitting station to request the transmitting station to wait, repeat, shift frequency, etc. Break-in will not be used when more than one station is receiving a message. To enhance this capability, the transmitting operator should occasionally pause for two or three seconds to permit the receiving operator to break in as needed. Any transmission ending with the proword **"OUT"** will also be followed by a 5 second pause for possible "breaking" stations. During the transmission of a message, short pauses should occur between the heading and the text, at the end of phrases or sentences, and every ten groups in long messages. An operator requiring a "break-in" will do so by transmitting his or her call sign or the word "break". In a more urgent situation regarding "Immediate" or "Priority" traffic, the word "break" followed by the call sign will be used. (For example, BREAK W1ZYZ).

VOX (Voice Operated Relay) operation will not be used in any RACES operation. Standard push-to-talk methods will avoid inadvertent keying and interference from extraneous station noises.

<u>Use of "DRILL" terms</u>

Since there is the likelihood that non-RACES radio stations will be listening to RACES communications, during communications drills it is essential to clearly state with each transmission **"<u>this is a drill</u>"**. Operators must assume that listeners may not consistently understand a drill is underway. To avoid a potential public distress, the term "this is a drill" should be used frequently.

Procedure for Voice Operation of a RACES Net

A) Open with net prologue. The Net Control Station (NCS) will ask for any stations with traffic "**of PRIORITY or higher**". If any traffic is present, NCS will ask for stations able to handle the traffic to check in. After clearing any such traffic, stations will call into the net in the order as designated by the NCS.

B) After station call-up, NCS will **appoint an assistant net control station**.

C) Upon completion of the net, the RACES net closure will be used.

D) All stations in the net will maintain a written log, and be prepared to assume the duties on NCS or assistant NCS if the need arises.

Prowords and Radiotelephone (Voice) Net Techniques

Operating Signals -

> **Operating signals (Q Signals) will not be used for voice operation.** In all voice operation, the operating information will be conveyed by concise phrases, procedures, and prowords as described in the following pages.

Signal Strength and Readability -

> **A station assumes it has a readability of "loud and clear" unless otherwise notified.** Signal strength and readability reports will not be exchanged unless communication is unsatisfactory.

> When a report is necessary, concise phrases such as "weak but readable" or "strong but distorted" or "loud and clear" are to be used. Reports such as "Q5" or "59" will not be used (**except when specific radio checks radio checks, such as comparing two antennas and is usually done net "Free Time"**). A station

suspecting a problem and desiring a signal report should transmit "RADIO CHECK".

Test Signals for Receiver or Transmitter Adjustment -

When it is required for a station to perform "on-the-air" testing for transmitter or receiver adjustment, such signals should not continue for more than fifty seconds and will be followed by the call sign of the transmitting station and the proword "out". If this is to be done on a net frequency, permission must first be obtained from the NCS. As good operating practice dictates, tune up should be done "off- the-air" with a "dummy load" whenever possible.

Phonetic Alphabet -

The standard (ITU) phonetic alphabet will be used (see appendix II pg.14) when necessary for purposes of clarity, to spell difficult words or groups, or to identify any letter of the alphabet. The word or group to be spelled will be preceded by the words **"I Spell"**. If the operator can pronounce the word or group to be spelled, this will be done before and after the phonetic spelling to identify the word. Names should always be spelled to avoid confusion, such
As between Smith and Smyth.

A single letter of the alphabet will be identified phonetically, preceded by the proword **"initial".**

The phonetic alphabet is in the appendix of this document.

Use of Numbers -

(1) When radio conditions are satisfactory and confusion will not arise, figures in the text of a message may be spoken as in normal speech. Numbers between 10 and 20 may be spoken as a single word. For example, the number 16 can be spoken as "FIGURES SIXTEEN".

(2) During difficult conditions when there is a need to distinguish between numerals and words similarly pronounced, or when extra care is necessary to avoid misunderstanding, numbers are sent digit by digit preceded by the proword "FIGURES".
This proword warns that figures follow immediately and help distinguish them from other similarly pronounced words. Single digits may be preceded by the proword "FIGURE" in order to alert the receiving station that a single digit follows. Decimal points within the number are spoken as "DAY-SEE-MAL" and exact multiples of hundreds and thousands are spoken as such.

(3) Exceptions to this rule, when figures are spoken digit by digit whenever they appear, and without the proword "FIGURES" are:
• Call signs
• Message date time groups
• When preceded by the prowords "NUMBER", "TIME", or "GROUPS".

(4) Roman numerals are spoken by spelling out the characters making up the numeral. Spelling the letters avoids confusion and requiring an operator to convert Roman numerals to their numerical equivalent. For example, the Roman numeral "IX" will be spoken as "...FIGURES ROMAN I SPELL INDIA X-RAY."

(5) The proword "PERIOD" may be used to indicate the end of a sentence during voice communications.
k. E-mail addresses that include the "at sign" (@) and periods are spoken as "AT SIGN" and "DOT". For example, the e-mail address JIM.JONES@US.ARMY.MIL is spoken as "JIM DOT JONES, AT SIGN, US DOT ARMY DOT MIL". In poor conditions or where unpronounceable words appear the entire address may be spelled out phonetically.

l. Abbreviations. Although originally designed to save time in writing, abbreviations will often save time in speech. Many abbreviations are so commonly used in normal speech they are more familiar than their original unabbreviated form. The use of such abbreviations in radio transmissions is encouraged provided that:

(1) They are quicker and easier to use than the full word.

(2) They are sufficiently well known to avoid confusion and eliminate subsequent transmissions in order to confirm their meaning.

(3) Where an abbreviation has more than one meaning, the intended meaning is obvious to the receiving station from its context or frequent usage.

(4) Whether abbreviations are spoken as such, spelled phonetically or expanded to their unabbreviated form, will depend on radio conditions and the circumstances in which they are used. The following common sense rules should be applied to take account of conditions:
(a) Satisfactory Conditions. For brevity in satisfactory conditions abbreviations will be spoken in normal speech. Examples:
• "DEMHS " as "DEMHS" instead of "I SPELL VICTOR, ECHO, MIKE
• "ETA" as "ETA" instead of "I SPELL ECHO TANGO ALPHA" [Estimated Time of Arrival]
(b) Difficult Conditions. In conditions that require amplification of common abbreviations normally spoken as such, it is usually quicker and easier to use the full word than to waste time and effort in spelling. Abbreviations should only be spelled phonetically when it is quicker and easier to do so, the spelling will be more readily received and understood than the full word or phrase, or when relaying the verbatim text of a message.

Rules for Groups and Mixed Groups. A group is a continuous string of characters preceded and followed by a space (for example words in a sentence).
Acronyms, abbreviations, and groups that contain both alpha and numeric characters are known as mixed groups. Mixed groups are spelled out phonetically preceded by the proword "I SPELL" (regardless of whether the first character of the group is a letter or number). This serves to alert the receiving station that letter characters follow and the use of "FIGURE" or "FIGURES" as necessary throughout the group helps differentiate between numeral and letter characters.

(1) Common abbreviations, such as states, months, and days of the week, are interchangeable with their full spelling. They can be read as words and do not have to be transmitted by voice phonetically.

(2) Station and net call signs are not considered mixed groups; they are transmitted phonetically and are not preceded with the proword "I SPELL

Prowords -

        Prowords are pronounceable words or phrases, which have been, assigned a very specific meaning for the purpose of expediting message handling where radiotelephony (voice) procedure is used. A list of prowords authorized for general RACES use is in the appendix of this document.

Note on Prowords "Over" and "Out" -

"Over and out" are never used together to end a transmission. Every transmission will end with either "over" or "out". The proword "over" is to be used when an answer is requested or expected. When no answer is expected, transmissions will end with the proword "out".

ARRL Numbered Radiogram Messages -

The use of ARRL Numbered Radiogram Messages is authorized for RACES use. A list of these messages is in the appendix.

Tactical Callsigns -

Tactical callsigns will be employed for all multi-state and statewide emergency nets and drills. The use of tactical callsigns does not relieve the operator from station identification requirements as listed in Part 97.
These tactical callsigns will identify the location of the station, rather than the individual RACES operator. This is especially important when operations extend for more than one operational period or operator shift.

Appendix V

Format for a RACES Radiotelephone (Voice) Training Net

This is *(NCS Callsign),* Vermont State Office of Emergency Management, operating on 3980 kilohertz *(or other frequency of operation)* by authority of the Federal Communications Commission and the Director of the State Office of Emergency Management. This is a directed net, alerted for the purpose of a RACES training drill. Those not directly concerned with this RACES exercise are requested to keep this frequency clear. I will pause for 30 seconds to allow stations to adjust equipment……..Out.

Any stations with traffic of higher than routine precedence, call……..Over

If any traffic higher than routine is present, NCS asks for stations able to handle the traffic to check in, and the traffic is now handled.

This is *(NCS Callsign),* net control. I now request stations to check in by district. Stations in District A, call…….Over

NCS will record all stations checking in from District A

I roger *(calling stations are acknowledged, callsigns are given phonetically).* Are there any other stations in District A, or relays from District A?…….Over

(Additional stations are acknowledged).

This procedure is repeated for Districts B, C, and D..

Any station, in any District, wishing to check in, give your District followed by your callsign.

Acknowledge these stations, and give callsign of station they will follow and be followed by in the net listing.

Appoint an assistant NCS.

ANCS Assignment. The NCS acknowledges the presence of a station scheduled to act as ANCS or, if unavailable, assigns ANCS duties to another station present. He does this as follows:
"(Station call sign) **THIS IS** (NCS call sign). **REQUEST YOU ACT AS ALTERNATE NET CONTROL STATION. OVER**." The station called responds: "**THIS IS** (Station call sign). **WILL COMPLY (WILCO), OVER**." This indicates to the NCS that the ANCS accepts the assignment and has properly copied the net roster to that point. If for some reason the ANCS does not have a complete net roster he/she will request it from the NCS at this time.

Give the entire net lineup, moving the ANCS to position #2.

All stations, prepare to copy drill message…..Out.

Drill message is now given.

(Callsign of assistant NCS, or any other station in the net) read back the message…..over.

Are there any stations requiring fills………..Over.

(Do necessary fills for message)

All stations beginning with *(callsign)* in District *(first district in net)* roger the message…Over.

After stations have rogered the message, verify the station count with the assistant NCS.

Release any stations that have requested to secure after the message.

This is *(callsign of NCS),* net control for the Vermont State RACES net. Are there any other stations wishing to check into this net? If so, call…..Over.

Have assistant NCS critique the session.

Add any additional information deemed necessary by the NCS.

Ask for additional comments or words for the net.

Closing:

This is *(callsign of NCS),* Vermont State Emergency Management Office Net Control in the Radio Amateur Civil Emergency Service, operating on 3980 kilohertz by authority of the Federal Communications Commission and the Director of the State Emergency Management Office. All units close station. This is *(NCS callsign)* closing net and station…..Out.

Appendix VI

Net Prologue and Closure for an <u>*Emergency Net*</u>

This is *(NCS Callsign),* Vermont State Office of Emergency Management Net Control operating on 3980 kilohertz *(or other frequency of operation)* by authority of the Federal Communications Commission and the Director of the State of Vermont Emergency Management Office. This is a RACES net activation. This is not a drill. I say again, this is not a drill. Those not directly concerned with this RACES activation are requested to keep this frequency clear. I will pause for 10 seconds to allow stations to adjust equipment……..Out.

Any stations with traffic of higher than routine precedence, call……..Over

Any traffic higher than routine is now handled.

NCS will now take check-ins and appoint an assistant net control station.

Net business will be conducted as required.

Closing:

This is *(callsign of NCS),* Vermont State Office of Emergency Management Net Control, operating on 3980 kilohertz *(or other operating frequency)* by authority of the Federal Communications Commission and the Director of the State Emergency Management Office. All units close station. This is *(NCS callsign)* closing net and station…..Out.

Appendix VII
Prowords

Proword Meaning

Affirmative: Permitted, granted, yes, approval

All after: Say again all that part of your transmission after _____

All before: Say again all that part of your transmission before _____

ARRL: ARRL numbered radiogram message follows

Break: I hereby indicate the separation of the text from other portions of the message. This is used at the beginning and end of text in a message. Also used to mean, " I desire you to stop your transmission".

By Authority Of;_____ Name of Official authorizing transmission.

Correct; You are correct, that is correct
Correction: An error has been made in this transmission, transmission will continue with last word correctly transmitted; an error has been made in the transmission (or message indicated), the correct version is _____; that which follows is a corrected version in answer to your request for verification.

Disregard this transmission;. This transmission is in error, disregard it. (This proword will not be used to cancel any transmission that has been completed and receipted for).

Figure(s); Number(s) to follow.

From: The originator of this message is indicated by the designation immediately following. When handling traffic "Say again" from Jones to Boston, etc.

Groups; This message contains the number of groups indicated by the numeral following.

Incorrect; you are incorrect; that is incorrect; the correct version is _____.

Initial; A single letter or initial follows.

I read back; The following is my response to your instructions to read back, meaning , I read back <u>everything exactly as transmitted</u>.

I say again; I am repeating transmission or portion indicated.

I spell: I shall spell the next word phonetically

I verify: That which follows has been verified at your request and is repeated (to be used only as a reply to "verify")

Message follows: A message which requires recording is about to follow (transmitted immediately after the call).

More to follow: I have more messages, traffic, or information for you.

Negative: Not received, no, disapproval.

Out: This is the end of my transmission to you. No response is required or expected. After the proword "out", all stations will **pause for a 5-second interval** to listen for stations desiring to break-in.

Over: This is the end of my transmission to you; a response is required or expected.

Read back: Repeat this entire transmission exactly as received. (Read Back. In situations where it is imperative that maximum guarantee be made of message integrity the transmission instruction "READ BACK" may be used. In this case the receiving station will not acknowledge receipt for the message, but will repeat back the sending station's transmission verbatim in its entirety. If the message has been received correctly, the SENDING station will respond "This is W1XXX, correct, out.

Relay: Station called transmit to _____

Roger message number X: I have received your last transmission satisfactorily. (The receiving station now "Owns" this message and He/She must deliver it by whatever means available.

Roger: I have received your last transmission satisfactorily. .

Roger only signifies that you understand the information transmitted to you without indicating approval or disapproval.

Say again: Repeat all of your transmission. Followed by identification data means: "Repeat ------ (portion indicated).

Speak faster: Your transmission is too slow. Increase speed of transmission.

Speak slower: Your transmission is too fast. Decrease speed of transmission.

This is: This transmission is from the station whose designation follows

Time: That which immediately follows is the time or date-time group of the message

To: The addressees, whose designations immediately follow, are to act on this message

Unknown station: The identity of the station with whom I am attempting to establish communications is unknown.

Verify: Verify entire message (or portion indicated) with the originator and send correct version. To be used only at the discretion of the addressee to whom the questioned message was directed.

Wait: I must pause for a few seconds (not to exceed 30 seconds). Net standbys during this period.

Wait , Out: I must pause over 30 seconds..

WILCO, The proword word "WILL COMPLY" or its contraction "WILCO" may be used interchangeably. It is used in response to a request and means that you understand the request (thus no need to use in conjunction with the proword "ROGER" and agree to accomplish the task.

Word after: Repeat the word after _____.

Word before: Repeat the word before _____.

Word twice: Communication is difficult. Transmit(ting) each word twice. This proword may be used as an order, request, or as information.

ADDITIONAL: NOTE:
"AFFIRMATIVE signifies yes or approval and NEGATIVE signifies no or disapproval. Additionally, since it only signifies understanding, the proword ROGER is not used as an action word. For example, it is inappropriate to say "I ROGER YOU INTO THE NET" or "I ROGER YOUR TRANSMISSION", when "ROGER" spoken alone will suffice.

Appendix VIII

DEMHS 11 and ICS 213OS Standard Message Form as adapted for Vermont State Races

Drafting Message Text. It takes some thought to construct a good message. Vague and ambiguous text can be misinterpreted. If the addressee doesn't understand what the originator meant, it may then require an exchange of additional explanatory messages. A poorly crafted message may seem simple and appropriate to the originator but be interpreted entirely differently by the addressee. The message must state exactly what is meant; putting the "Bottom Line Up Front" is a good technique. At the same time, brevity in message preparation is important to maintain efficient networks. Commonly used conjunctions, prepositions, and articles ("for example", "and", "but", "for", "in", "on", and "the") can be eliminated unless they are essential to the meaning. Common abbreviations and short titles are used in messages in order to shorten the text, thereby saving transmission time.

Number:

This is the message number as assigned by the originating operator and should be sequential.

See appendix for message numbering protocol.

Precedence:

This is the order of transmission of messages. The following sequence will be used:

A) **Emergency:**

Any message having life or death urgency to any person or group of persons, which is transmitted by Amateur Radio in the absence of regular commercial facilities. This includes official messages of welfare agencies during emergencies requesting supplies, materials, or instructions vital to relief of stricken populace in emergency areas. During normal times, it will be *very rare. When in doubt, do not use this term.*

B) **Priority:**

> Important messages having a specific time limit. Official messages not covered in the Emergency category. Press dispatches and other emergency-related traffic not of the utmost importance. At no time will notification of death or injury be transmitted by radio. This is handled by the Red Cross.

C**) Welfare**:

> A message that is either:
>
> 1. An inquiry as to the health and welfare of an individual in the disaster area.
>
> 2. An advisory or reply from the disaster area that indicates all is well should carry this precedence.
>
>   These messages are handled after Emergency and Priority traffic, but before Routine.

D**) Routine:**

> Most traffic in normal times will bear this designation. In disaster situations, traffic labeled Routine should be handled last, or not at all when circuits are busy with Emergency, Priority, or Welfare traffic.

HX Message Designators:

HX (Optional) If no handling instructions then HX will not be transmitted.

    These are the handling instructions, and are optional.

HXA - (followed by number):

Collect landline delivery authorized by addressee if within _____ miles. (If no number, authorization is unlimited)

HXB – (followed by number):

Cancel message if not delivered within _____ hours of filing time; service originating station.

HXC:

Report date and time of delivery to originating station.

HXD: **This is in effect a message "TRACER" request.**

Report to originating station the identity of station from which received; plus date and time. Report identity of station to which relayed, plus date and time, or if delivered report date and time and method of delivery.
HXE:
Delivering station get reply from addressee, originate message back.
HXF – (followed by number):

Hold delivery until _____ (date).

HXG:

Delivery by mail or landline toll call not required. If toll or other expense involved, cancel message and service originating station.

Station of Origin:

This is the callsign of the station originating the message.

Check:

This is the "word" count of the message. To maintain accuracy of transmitted messages, each transmitting station must assign an accurate word count to the message. All messages will include a word count. The following rules are used for counting word groups.

A) Count the word "Test", "Exercise" or "Drill" as one word.
B) Count text groups
C) Punctuation and symbols are not counted unless spelled out. Punctuation or symbols included in web

names or chemical names are an integral part of the name and will not be counted as separate groups (see items "D", "F" and "H" below. The use of an "operator's note" may be of assistance in sending web addresses or long chemical names.

D) Any sequence of characters not interrupted by a space is counted as one group.

E) The proword "Break" which precedes and follows the text is NOT counted in the word count.

F) An internet address or web site address will count as one word group.

Examples:

John.Doe@anynet.com (Group count = 1)

http://www.abcde.com/~def (Group count=1)

G) Each word and initial of the proper names of persons and places (countries, states, state, cities, streets, etc.) consisting of two or more separate words will be counted. Examples:

Vermont (Group count = 1)

E. Main St. (Group count = 3)

Robert A. Jones (Group count = 3)

12AU7 (Group count = 1) **Use "I SPELL" not "Figures."**

48 dash 321A (Group count = 3) Here, a space is on either side of the dash (48 – 321A), therefore making this example 3 word groups.

Telephone numbers will count as 3 words (area code, prefix, number)

H) Chemical names and formulas

Chemical names and formulas will follow the protocol listed in item "D". **If NO spaces then count as ONE word.**

Examples:

Sulfuric Acid (Group count = 2)

1,3-Dichloropropanol-2 (Group count=1) Said as "figures 1 comma figures 3 dash delta india charlie …etc… dash figures 2)

H_2SO_4 (Group count=1) Said as "hotel subscript figures 2 sierra oscar subscript figures 4"

Punctuation:

Punctuation will NEVER be used unless it is absolutely necessary to attain clarity. If used in other than an internet address or URL, punctuation will be spelled out. If used in an internet address or URL, punctuation may be spelled out if required (operator discretion). At times, the letter "X" in place of specific punctuation may appear in messages originated by military and non-RACES stations. In this case, the letter "X" will be counted as one group. This will not be used by originators of RACES messages in lieu of punctuation.

Place of Origin:

All RACES operators will use this field as the "From" field for the location requesting the message to be sent. For example:

DEMHS

Greene State EOC

Time Filed:

The <u>local</u> time the message is generated. This will be given in 24-hour notation.

Date:

The month and date the message was created. The use of the year in the date is optional.

To:

Person or Agency the message is being sent to.

OR SOMETIMES BOTH: DEMHS, ATTN ROBERT SCHELL

Body of Text:

The text will be given as plain language whenever possible. ARRL numbered radiograms are permitted, and are encouraged in times of poor propagation conditions. A list of these ARRL numbered radiograms is in this appendix. This list should be posted at all radio operating positions.

Signature:

This is the name of the person requesting the message to be sent. This name will be followed with the prowords "By Authority Of", followed by the name of the Emergency Manager or other official authorizing the message to be sent.

Use of Operator's Note:

If the sending operator believes that a clarification is needed within a message, an "operator's note" may be added to any message being sent. This will be added after the signature, and will not be counted in the word count.

The use of an operator's note may be useful when sending long chemical names or web addresses. Care must be taken by the operator to be certain that the operator's note does not in any way or manner infer a change in meaning of the text as written by the originator of the message.

Message Records.

DEMHS / RACES members are required to retain file copies of messages they receive, relay, and originate as follows:

Appendix IX
ARRL Numbered Radiogram Messages

The letters ARRL are inserted in the preamble in the check and in the text before spelled out numbers, which represent texts from this list. Note that some ARRL texts include insertion of numerals

Group One--For Possible "Relief Emergency" Use

ONE--Everyone safe here. Please don't worry.

TWO--Coming home as soon as possible.

THREE--Am in _____ hospital. Receiving excellent care and recovering

fine.

FOUR--Only slight property damage here. Do not be concerned about

disaster reports.

FIVE--Am moving to new location. Send no further mail or

communication. Will inform you of new address when relocated.

SIX--Will contact you as soon as possible.

SEVEN--Please reply by Amateur Radio through the amateur delivering

this message. This is a free public service.

EIGHT--Need additional _____ mobile or portable equipment for

immediate emergency use.

NINE--Additional _____ radio operators needed to assist with

emergency at this location.

TEN--Please contact _____. Advise to standby and provide further

emergency information, instructions or assistance.

ELEVEN--Establish Amateur Radio emergency communications with _____

on _____ MHz.

TWELVE--Anxious to hear from you. No word in some time. Please

contact me as soon as possible.

THIRTEEN--Medical emergency situation exits here.

FOURTEEN--Situation here becoming critical. Losses and damage from

_____ increasing.

FIFTEEN--Please advise your condition and what help is needed.

SIXTEEN--Property damage very severe in this area.

SEVENTEEN--REACT communications services also available. Establish

REACT communication with _____ on channel _____.

EIGHTEEN--Please contact me as soon as possible at _____.

NINETEEN--Request health and welfare report on _____. (State name,

address and telephone number.)

TWENTY--Temporarily stranded. Will need some assistance. Please

contact me at _____.

TWENTY ONE--Search and Rescue assistance is needed by local

authorities here. Advise availability.

TWENTY TWO--Need accurate information on the extent and type of

conditions now existing at your location. Please furnish this

information and reply without delay.

TWENTY THREE--Report at once the accessibility and best way to reach

your location.

TWENTY FOUR--Evacuation of residents from this area urgently needed.

Advise plans for help.

TWENTY FIVE--Furnish as soon as possible the weather conditions at

your location.

TWENTY SIX--Help and care for evacuation of sick and injured from

this location needed at once.

Group Two--Routine messages

FORTY SIX--Greetings on your birthday and best wishes for many more

to come.

FIFTY--Greetings by Amateur Radio.

FIFTY ONE--Greetings by Amateur Radio. This message is sent as a

free public service by ham radio operators at _____. Am having a

wonderful time.

FIFTY TWO--Really enjoyed being with you. Looking forward to getting

together again.

FIFTY THREE--Received your _____. It's appreciated; many thanks.

FIFTY FOUR--Many thanks for your good wishes.

FIFTY FIVE--Good news is always welcome. Very delighted to hear

about yours.

FIFTY SIX--Congratulations on your _____, a most worthy and

deserved achieDEMHSent.

FIFTY SEVEN--Wish we could be together.

FIFTY EIGHT--Have a wonderful time. Let us know when you return.

FIFTY NINE--Congratulations on the new arrival. Hope mother and

child are well.

* SIXTY--Wishing you the best of everything on _____.

SIXTY ONE--Wishing you a very Merry Christmas and a Happy New Year.

* SIXTY TWO--Greetings and best wishes to you for a pleasant _____

holiday season.

SIXTY THREE--Victory or defeat, our best wishes are with you. Hope

you win.

SIXTY FOUR--Arrived safely at _____.

SIXTY FIVE--Arriving _____ on _____. Please arrange to meet me

there.

SIXTY SIX--DX QSLs are on hand for you at the _____ QSL Bureau.

Send _____ self addressed envelopes.

SIXTY SEVEN--Your message number _____ undeliverable because of

_____. Please advise.

SIXTY EIGHT--Sorry to hear you are ill. Best wishes for a speedy

recovery.

SIXTY NINE--Welcome to the _____. We are glad to have you with us

and hope you will enjoy the fun and fellowship of the organization.

* Can be used for all holidays.

Appendix X

The following plan was provided by FEMA in CPG 1-15 March 1991 as a guide for the establishment of a local RACES plan.

RACES Service Plan for the Support of Local Government during Emergencies

APPROVALS

This plan has been reviewed and approved by the following authorities:

Name & Date:

FEMA District Communications Officer

Director, State Emergency

Management Office

State RACES Officer

State Emergency Manager

1. Introduction.

a. Scope. This plan provides guidance for the Radio Amateur Civil Emergency Service (RACES) to support local government officials during certain emergency conditions.

b. Purpose. This plan is intended to provide coordinated operation between the State of Vermont and the RACES organization during times when there are extraordinary threats to the safety of life and/or property. Maximum benefits from a RACES organization can be obtained only through careful planning which identifies the organizations, agencies, and individuals concerned and assigns a definitive role to each. This plan enables agencies and organizations having emergency responsibilities to include the RACES organization in local emergency plans and programs.

c. Operations. This plan becomes official for DEMHS when signed by the Federal Communications Commission (FCC); Director of Emergency Services; Chairman of the State Emergency Area Emergency Communications Committee; and authorized RACES representatives. Under this plan, the Director of Emergency Services is empowered to request the use of available volunteer communications facilities and personnel. Acceptance of or participation in this plan shall not be deemed as a relinquishment of license control, and shall not be deemed to prohibit an amateur radio service licensee or broadcast licensee from exercising independent discretion and responsibility in any given situation under the terms of its license.

2. Authority. Part 97 Subpart A, Federal Communications Commission Rules and Regulations.

3. Authentication. The form of authentication that will be used between the activating official and the RACES organization is personal identification or knowledge of the individuals involved.

4. Identification. The methods used to identify a RACES member and key personnel during a communications support operation are the following:

- Vermont RACES Identification Card, and
- Implementation Procedures.

a. Procedures for Government Officials. Upon notification or determination of an emergency condition or situation posing an extraordinary threat to life and/or property, the local emergency management director shall contact their RACES representative or DEMHS RACES for assistance.

The Emergency Management Director will use the following format when contacting the RACES representative:

"This is Mr. Smith, Emergency Management Director for town of abc. I request that the RACES organization be activated for my town because of (description of emergency situation)."

As the emergency subsides, a termination notice shall be issued by the appropriate government officials.

b. Procedures for Amateur Radio Operators. Upon request by authorized authorities, the designated RACES member(s) will report to the town or state EOC and activate the required emergency nets using the frequencies below:

Shelter net 29.5 MHz USB
In a net supporting Red Cross shelter activities, the use of Nationally Coordinated Red Cross frequencies is advised.
Evacuation net 146.TBA MHz FM
Hospital and Health Department Nets - see RACES activation frequencies – pg.7.

Local coordination and discretion will be used in all frequency choices.
RACES members missing a designated assignment by the EOC network control are encouraged to check in at any time.
In the event that assistance is offered by amateurs not living within the immediate area, amateurs will contact the EOC on the previously listed simplex frequencies or locally used repeater frequencies for assignment and dispatch.
At the cessation of the emergency, authorized officials initiate roll call from the EOC using one or more of the previously listed simplex frequencies and local repeater frequencies. RACES members will then acknowledge and confirm receipt of the termination message.

6. Tests. Tests of the system include:

a. One test per week of the RACES organization.
b. Monthly FEMA Region 1 contacts
b. Annual emergency exercises.

Appendix XI

DEMHS RACES MESSAGE FORMS

General Message (ICS FORM 213-OS)

Purpose. The General Message is used by:

Incident personnel to record incoming messages which cannot be orally transmitted to the intended recipients;
Command Post and other incident personnel to transmit messages to the Incident Communications Center for transmission via radio or telephone to the addressee;
Incident personnel to send any message or notification to incident personnel which requires a hard-copy delivery;
Incident personnel to place resource orders.

Preparation. This form is prepared by any incident personnel needing to transmit a hard-copy message. The recipient should send a timely reply to the originator, as necessary.

Distribution. Upon completion, the General Message may be hand-carried to the addressee or to the incident Communications Center for transmission. Originator retains a copy of the form. All completed original forms MUST be given to the Documentation Unit.

Item #	Item Name	Instructions
1.	Incident Name	Enter the name assigned to the incident.
2.	Date and Time of Message	Enter the date and time of message origination.
3.	To	Enter name and ICS position of message recipient.
4.	From	Enter name and ICS position of message sender.
5.	Subject	Indicate the message subject.
6.	Message	Enter message.
7.	Reply	This section to be used by the unit/person who receives the message to reply to your message.
8.	Signature/Position Date/Time of reply	Enter name and position of person replying to this message. Enter date (month, day, year) and time of reply (24-hour clock).

1. Incident Name	2. Date and Time of Message	GENERAL MESSAGE ICS 213-OS

3. TO: ICS Position

4. FROM: ICS Position

5. Subject:

6. Message

7. Reply

8. Signature / Position (person replying)	Date / Time of reply

EMERGENCY OPERATIONS CENTER
<u>MESSAGE</u>

Message # _____

TIME:	DATE:
TO:	FROM:
AGENCY:	AGENCY:

MESSAGE:

ACTION TAKEN:

VEM 11 Town Form   Rev 2   December 2004

EMERGENCY OPERATIONS CENTER
<u>MESSAGE</u>

Message # _____

TIME:	DATE:
TO:	FROM:
AGENCY:	AGENCY:

MESSAGE:

ACTION TAKEN:

VEM 11 Town Form   Rev 2   December 2004

Appendix XII

DEMHS RACES Strategic Station Locations
Hospitals, District Health Department Offices, DEMHS EOC,
Vermont Yankee Response locations
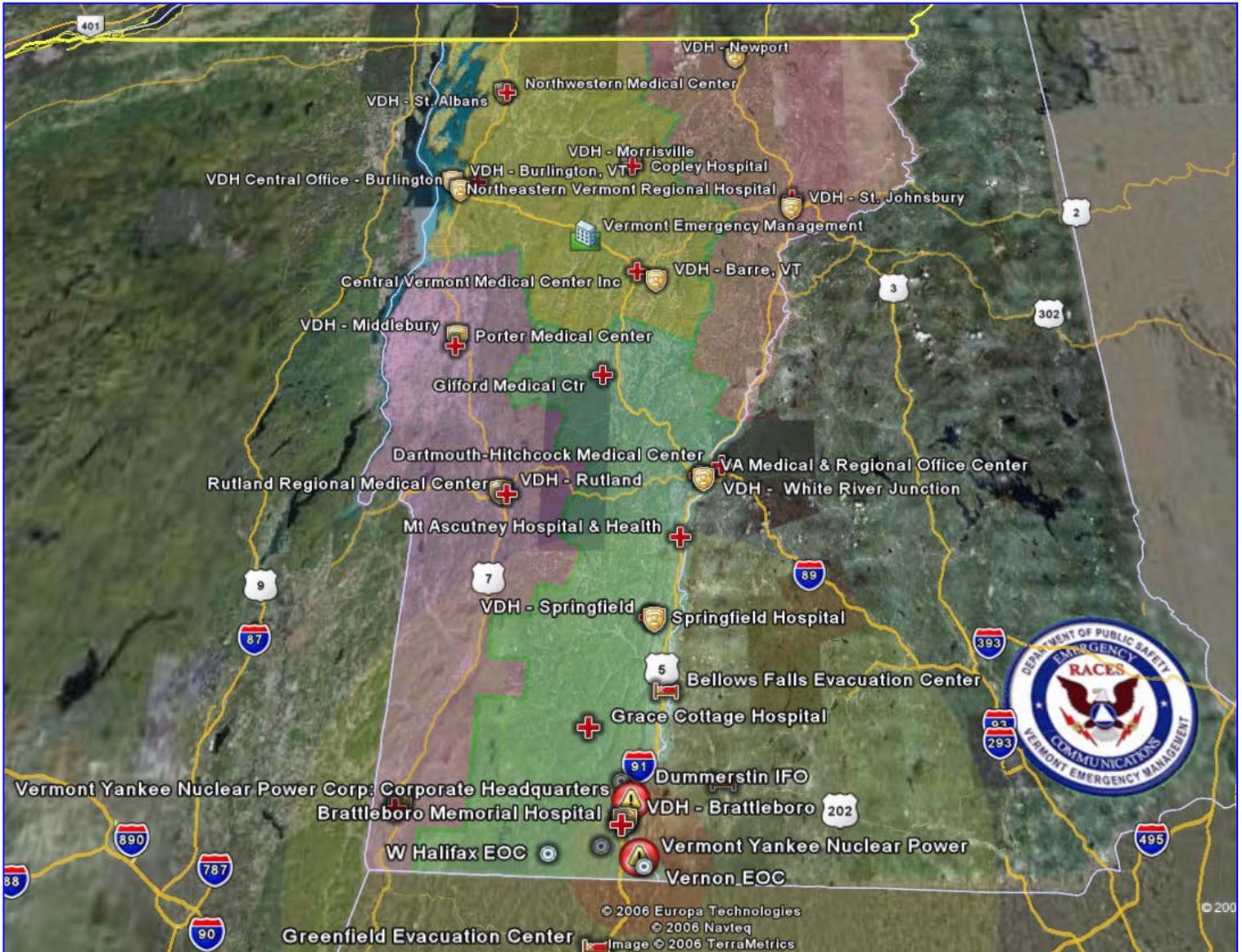
Appendix XIII

RACES EMERGENCY COMMUNICATIONS PROGRAM

Response and Activations Levels

Level 0: - There is no current or anticipated need for a RACES activation or RACES operators may now stand down from a higher activation level.

Level 1: A potential for a communication emergency exists. All DEMHS RACES members (regional or statewide) are put on stand-by status and should monitor their local DEMHS RACES net frequencies and email for information on the anticipated condition and possible activation notices.

Level 2: An unusual condition, event, or non-declared emergency exists that has caused state or local officials to declare a warning. All DEMHS RACES members (regional or state wide) are put on Alert status and should monitor the local net and email for additional information on activation. Members may be instructed to check into their local DEMHS RACES nets and be prepared for deployment to the affected areas. A level 2 situation is likely to develop into Level 3 activation where assignments will be made.

Level 3: A communications emergency exists to cover an unusual condition, event, or declared emergency and volunteer operators and radio resources have been requested. All DEMHS-RACES members (regional or statewide) are put upon deployed status. Within an effected area, a designated Regional Team Leader will initiate local area DEMHS RACES nets and provide liaison communications with DEMHS RACES Waterbury. Local members will be instructed to check into their local DEMHS RACES net, be prepared to volunteer their services, and will be given assignments. The DEMHS RACES Waterbury Headquarters will activate the EOC RACES station and establish statewide HF nets, VHF/UHF nets, and Winlink 2000 contacts as necessary. This level of activation may include the state or local government declaring a state of emergency where DEMHS RACES members may participate in operations at certain facilities.

Appendix XIV

RACES Instructions for Digital Operations

1. Introduction.

Winlink 2000 is a versatile digital network messaging technology that allows radio operators to send e-mail message over HF, VHV or UHF frequencies to other radio operators, and virtually every e-mail address available. *Winlink 2000* is the name of the network system, but the software that you will use to connect to the system is Airmail. Airmail acts like an e-mail client such as MS Outlook ™, or Outlook Express™.

2. About Winlink 2000

The Winlink 2000 systems use a variety of components to do its job. The major term you will hear is the RMS Relay (Radio Message Server). The RMS Relay is a computer with special software connected to a HF Transceiver. The RMS Relay is the station that you will connect to for sending and receiving e-mail via HF. These RMS Relay Stations are located throughout the world.

3. Scope. This plan provides Instructions for the Radio Amateur Civil Emergency Service (RACES) Operators to operate the digital communications systems installed throughout the State in Hospitals, Health Departments, Camp Johnson, Joint Operations Center and the EOC at Vermont Emergency Management. This document does not cover the installation of the Airmail/Winlink 2000 systems. That process is covered in other supporting documents.

4. Operating Instructions

A. Connecting an RMS relay station on HF -

Open up Airmail from your desktop. The "Message Index" screen will open. This is where all of your inbound and outbound messages will be displayed.
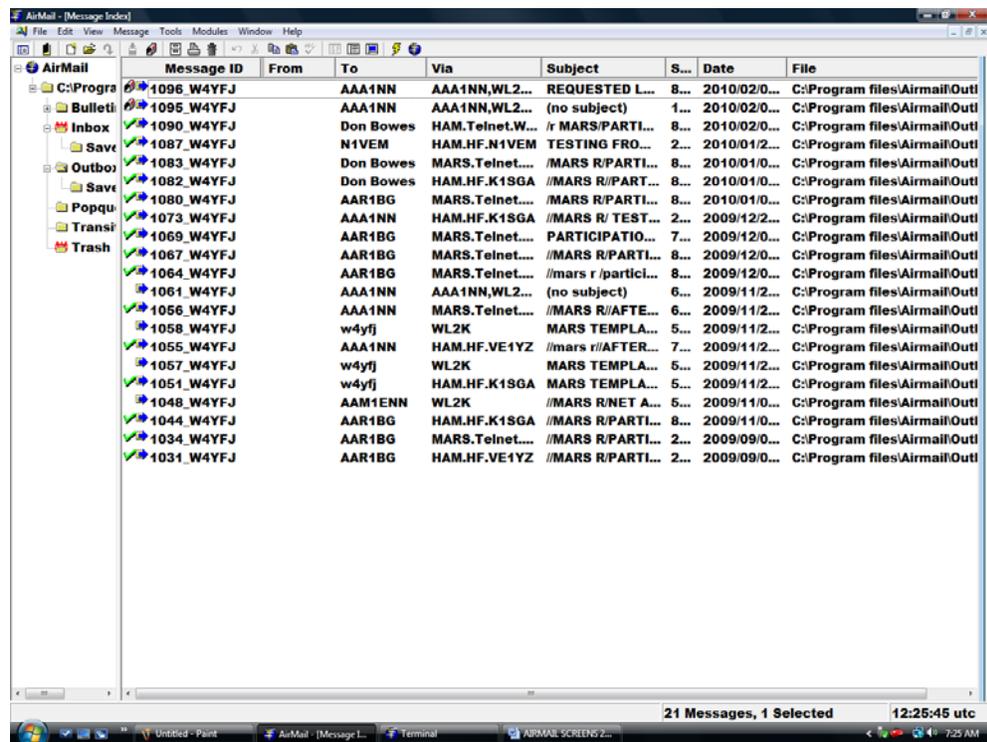
1. To compose a message you would open up a message window by clicking on the ⬜ (blank paper icon on the tool bar). You will then see the address book displayed in the center of a blank message screen. This screen is a handy way to keep e-mail addresses or Airmail user addresses such as N1DEMHS-2 (Camp Johnson) for frequent use. You can pick an address from the address book or enter an address by typing it in directly.

Message Form

Address Book
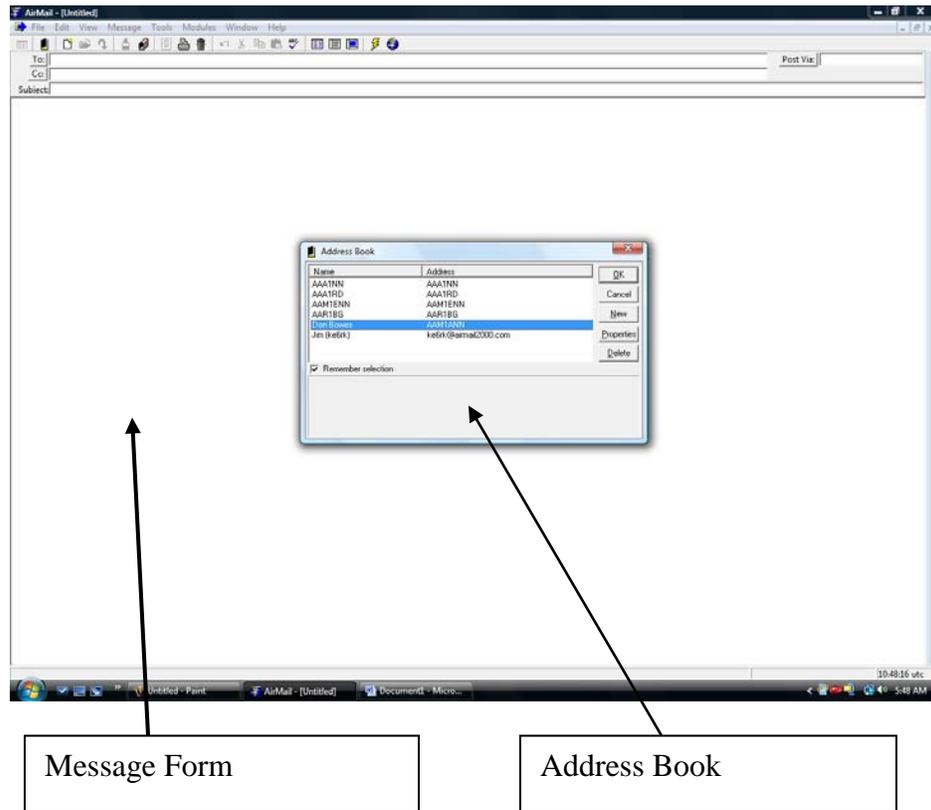
2. Insert or type the address of the message and then enter or paste the text of the message as seen below:
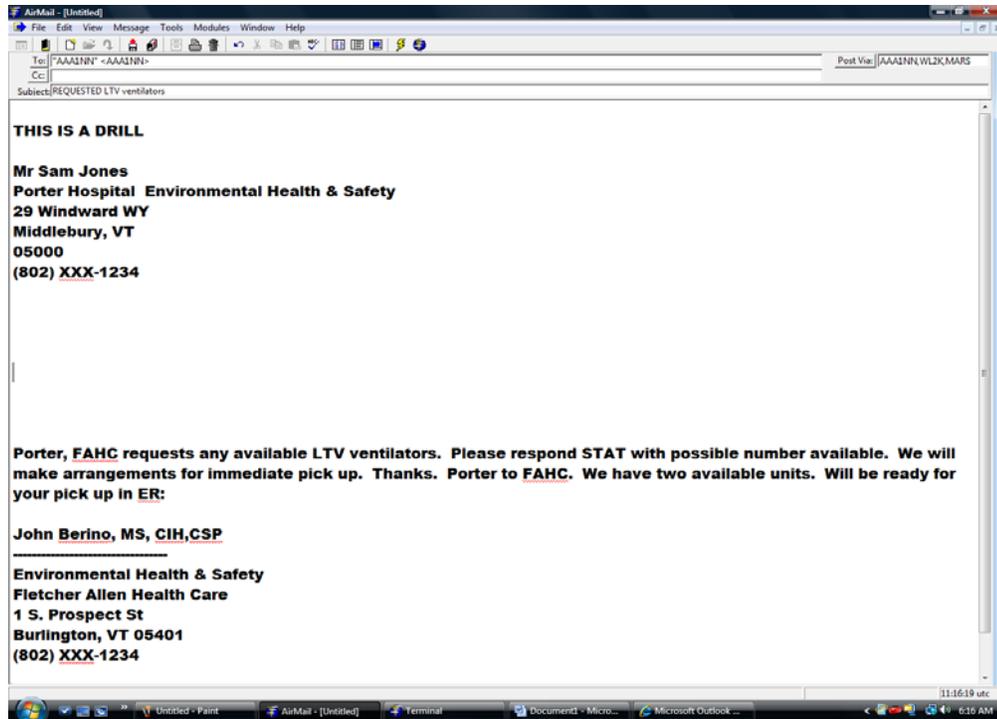
Call Sign addresses of Stations within the DEMHS/Health Care Network are listed in Table 1.

3. You now need to post the message in the "Mailbox' by clicking in the toolbar. You will then see the following message screen:
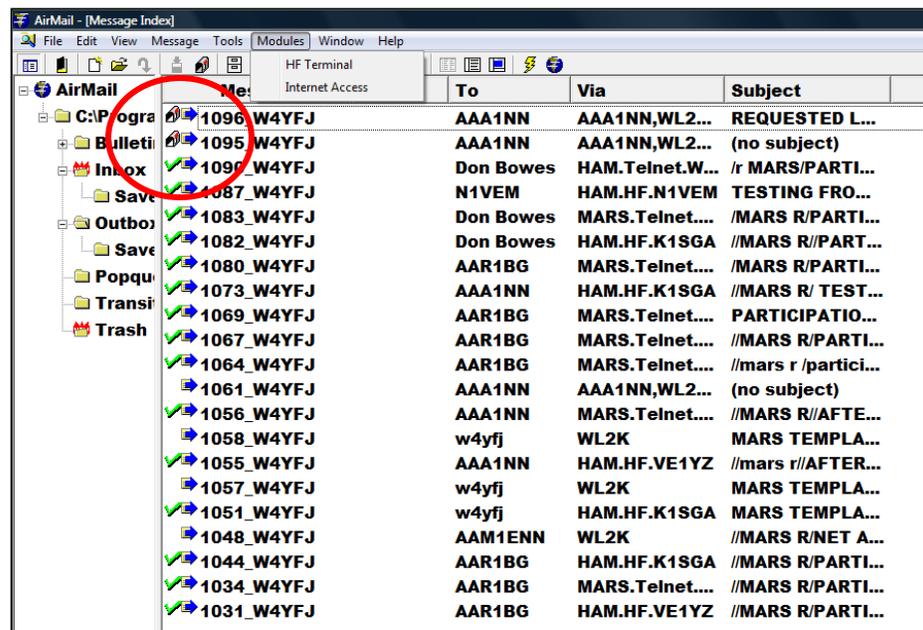
Notice that there are two messages with the symbol to the left of the message indicating that they are posted for mailing. You then need to establish connection with the Remote RMS in order to transmit the message.

4. To establish connection with a Remote RMS or directly to a station within the network, you will need to click on the terminal control icon on the right side of the menu bar.

5. You will then see the following window. Notice that we will have a choice of 4 sets of RMS stations (HAM, MARS, DEMHS RACES and DEMHS MARS).

DEMHS
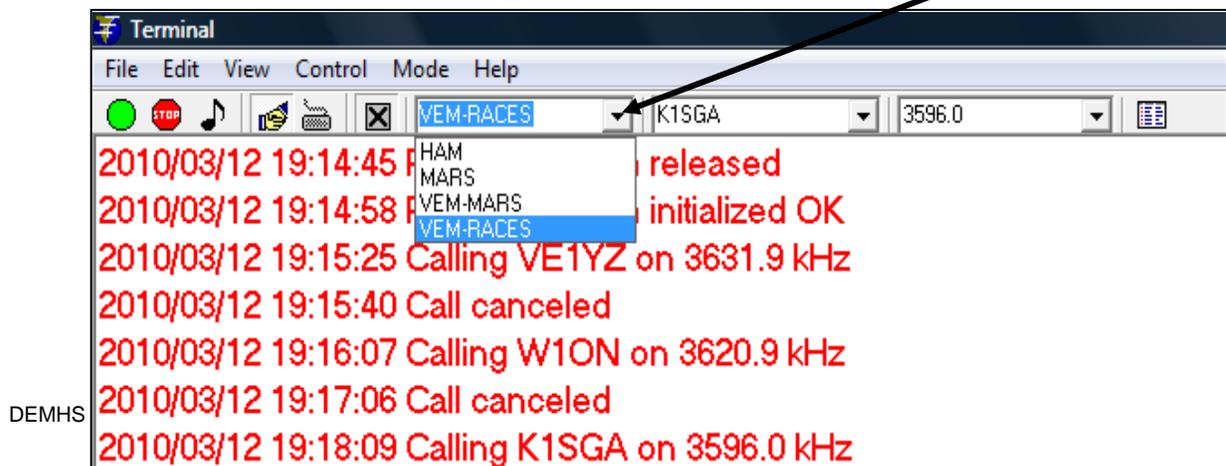
6. Once the RMS station category is selected, the user only has to click on the station call sign. The BEST frequency will be selected automatically by Airmail / ICEPAC software. The operator can also manually select another frequency if necessary.
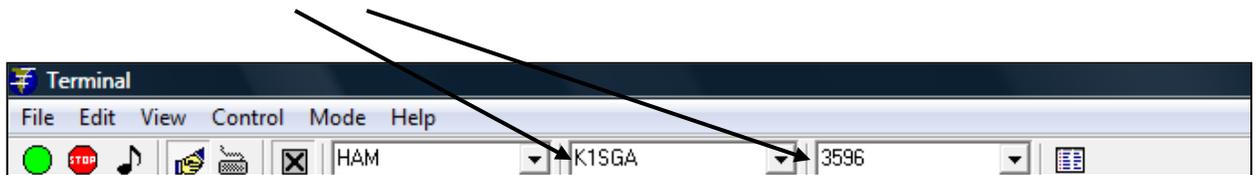
Click on the ⬤ icon and the system will call the remote RMS and you will see if the system has connected and when the message starts sending.
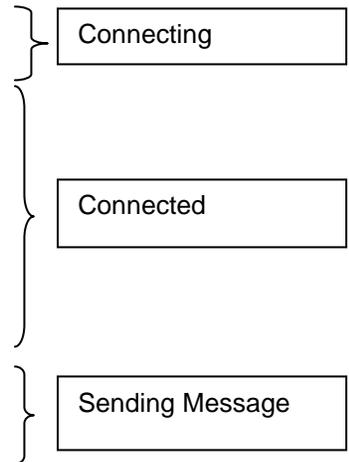
Click on the ⬤ icon and the system will call the remote RMS and you will see if the system connected and will start sending the message.

You can see the progress of the message being sent via the Terminal screen. Notice that at this point in time 274 bytes have been sent from a total of 604 bytes in the message.

7. Messages coming into your station will then be sent by the remote RMS and you will see the progress as follows:
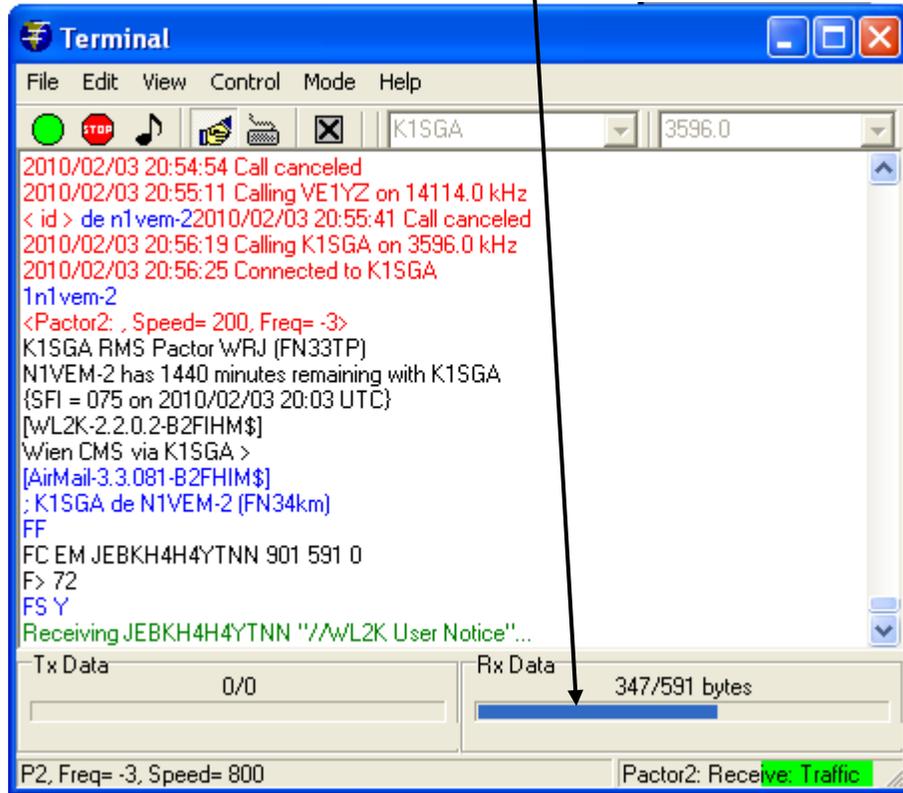
8. Another feature of airmail is Telpac which can be used in the event that the terminal system is also connected to the internet. To activate this capability you need to return to the Message Index page by clicking the ⊞ icon. This action will bring you to the following page:
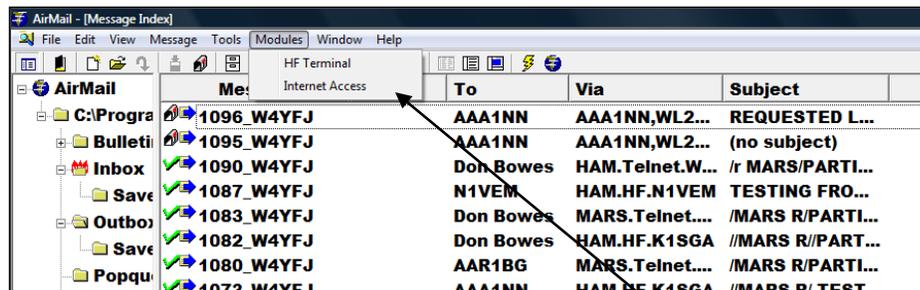
You then need to click on the "Module" segment of the tool bar and then click on Internet Access. This action will bring you to the following screen:
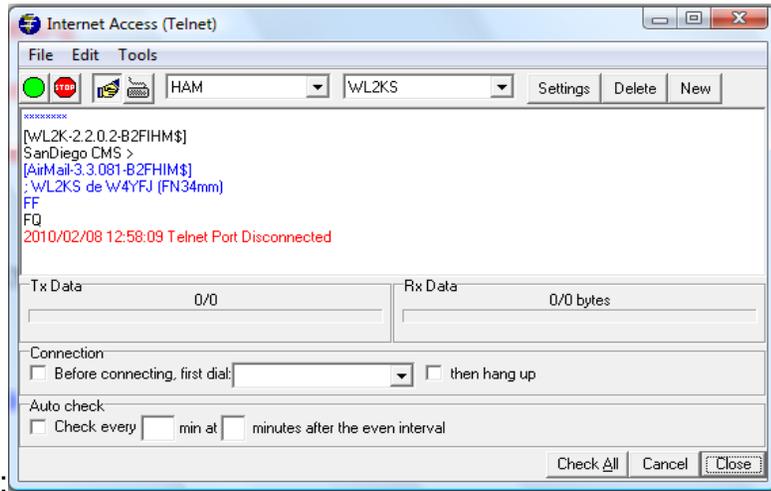
Click on the ⬤ icon and the message will be sent by (Telpac).

TABLE 1

DEMHS RACES Winlink Call Sign Designations

Information for DEMHS RACES Operators Only

Call Sign	Station Location	Town
	Hospitals	
N1VEM	Vermont Emergency Management, Waterbury	Waterbury, VT
N1VEM-1	Brattleboro Memorial Hospital	Brattleboro, VT
N1VEM-2	VTANG Camp Johnson	Colchester, VT
N1VEM-3	Central Vermont Medical Center	Berlin, VT
N1VEM-4	Copley Hospital	Morrisville, VT
N1VEM-5	Fletcher Allen Health Care	Burlington, VT
N1VEM-6	Gifford Medical Ctr	Randolph, VT
N1VEM-7	Grace Cottage Hospital	Townshend, VT
N1VEM-8	Mt Ascutney Hospital & Health	Windsor, VT
N1VEM-9	North Country Health System	Newport, VT
N1VEM-10	Northeastern Vermont Regional Hospital	St Johnsbury, VT
N1VEM-11	Northwestern Medical Center	St Albans, VT
N1VEM-12	Porter Medical Center	Middlebury, VT
N1VEM-13	Rutland Regional Medical Center	Rutland, VT
N1VEM-14	Southwestern Vermont Medical Center	Bennington, VT
N1VEM-15	Springfield Hospital	Springfield, VT
	VT. Department of Health	
W1VDH	VDH Central Office - Burlington	Burlington, VT
W1VDH-1	VDH - Barre, VT	Barre, VT
W1VDH-2	VDH - Bennington	Bennington, VT
W1VDH-3	VDH - Brattleboro	Brattleboro, VT
W1VDH-4	VDH - Burlington Lab	Burlington, VT
W1VDH-5	VDH - Middlebury	Middlebury, VT
W1VDH-6	VDH - Morrisville	Morrisville, VT
W1VDH-7	VDH - Newport	Newport, VT
W1VDH-8	VDH - Rutland	Rutland, VT
W1VDH-9	VDH - St. Albans	St Albans, VT
W1VDH-10	VDH - St. Johnsbury	St Johnsbury, VT
W1VDH-11	VDH - Springfield	Springfield, VT
W1VDH-12	VDH - White River Junction	White River Jct, VT
W1VDH-13	Dartmouth-Hitchcock Medical Center	Lebanon, NH
W1VDH-14	Brattleboro Retreat	Brattleboro, VT
W1VDH-15	VA Medical & Regional Office Center	White River Jct, VT

MARS Call Sign Designations
Hospitals

AAN1VH	Vermont Emergency Management, Waterbury	Waterbury, VT
AAN1VH-1	Brattleboro Memorial Hospital	Brattleboro, VT
AAN1VH-2	Brattleboro Retreat	Brattleboro, VT
AAN1VH-3	Central Vermont Medical Center	Berlin, VT
AAN1VH-4	Copley Hospital	Morrisville, VT
AAN1VH-5	Fletcher Allen Health Care	Burlington, VT
AAN1VH-6	Gifford Medical Ctr	Randolph, VT
AAN1VH-7	Grace Cottage Hospital	Townshend, VT
AAN1VH-8	Mt Ascutney Hospital & Health	Windsor, VT
AAN1VH-9	North Country Health System	Newport, VT
AAN1VH-10	Northeastern Vermont Regional Hospital	St Johnsbury, VT
AAN1VH-11	Northwestern Medical Center	St Albans, VT
AAN1VH-12	Porter Medical Center	Middlebury, VT
AAN1VH-13	Rutland Regional Medical Center	Rutland, VT
AAN1VH-14	Southwestern Vermont Medical Center	Bennington, VT
AAN1VH-15	Springfield Hospital	Springfield, VT

Mobile Units

AAN1VM	Vermont Emergency Management – Comm. Trailer	Mobile
AAN1VM-1		
AAN1VM-2		
AAN1VM-3		
AAN1VM-4		
AAN1VM-5		
AAN1VM-6		
AAN1VM-7		
AAN1VM-8		
AAN1VM-9		
AAN1VM-10		
AAN1VM-11		
AAN1VM-12		
AAN1VM-13		
AAN1VM-14		
AAN1VM-15		

VA Hospital

AAN1VA	VA Medical & Regional Office Center	White River Jct, VT
AAN1VA-1		

VT. Department of Health

AAN1VD	VDH Central Office - Burlington	Burlington, VT
AAN1VD-1	VDH - Barre, VT	Barre, VT
AAN1VD-2	VDH - Bennington	Bennington, VT
AAN1VD-3	VDH - Brattleboro	Brattleboro, VT

AAN1VD-4	VDH - Burlington Lab	Burlington, VT
AAN1VD-5	VDH - Middlebury	Middlebury, VT
AAN1VD-6	VDH - Morrisville	Morrisvile, VT
AAN1VD-7	VDH - Newport	Newport, VT
AAN1VD-8	VDH - Rutland	Rutland, VT
AAN1VD-9	VDH - St. Albans	St Albans, VT
AAN1VD-10	VDH - St. Johnsbury	St Johnsbury, VT
AAN1VD-11	VDH - Springfield	Springfield, VT
AAN1VD-12	VDH - White River Junction	White River Jct, VT
AAN1VD-13		
AAN1VD-14		

VT. Agency of Transportation

AAN1VT	VTRANS - Administration Office - Montpelier	Montpelier, VT
AAN1VT-1	VTRANS - District 1 - Bennington	Bennington, VT
AAN1VT-2	VTRANS - District 2 - Dummerston	Dummerston, VT
AAN1VT-3	VTRANS - District 3 - Rutland	Rutland, VT
AAN1VT-4	VTRANS - District 4 - White River Jct	White Rvier Jct, VT
AAN1VT-5	VTRANS - District 5 - Colchester	Colchester, VT
AAN1VT-6	VTRANS - District 6 - Berlin	Berlin, VT
AAN1VT-7	VTRANS - District 7 - St Johnsbury	St Johnsbury, VT
AAN1VT-8	VTRANS - District 8 - St Albans	St Albans, VT
AAN1VT-9	VTRANS - District 9 - Derby	Newport, VT
AAN1VT-10		

VT. Emergency Management (DEMHS)

AAN1VR	Vermont Emergency Management, Waterbury	Waterbury, VT
AAN1VR-1		
AAN1VR-2		
AAN1VR-3		
AAN1VR-4		
AAN1VR-5		

DEMHS Radiological Response

AAN1VY
AAN1VY-1
AAN1VY-2
AAN1VY-3
AAN1VY-4
AAN1VY-5
AAN1VY-6
AAN1VY-7
AAN1VY-8
AAN1VY-9
AAN1VY-10
AAN1VY-11

AAN1VY-12

DEMHS Rapid Assistance Team

AAN1SP
AAN1SP-1
AAN1SP-2
AAN1SP-3
AAN1SP-4