New York State

Radio Amateur Civil Emergency Service (RACES)

Standard Operating Procedure

2015

Introduction

This manual will 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 New York State RACES Nets for statewide nets as well as local county 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 events. All amateur radio operators are encouraged to use this document in training and/or activated net operations.

This RACES SOP will be followed for all drills and activations. Proper procedures and proword use will help to avoid confusion and will be used by all RACES participants.

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 (FCC) 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 in civil defense emergencies, 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 is 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 become limited to certain frequencies, while all other amateur operations would be silenced.

During an emergency, RACES is operated under the direct control of the activating emergency management office, as authorized by the FCC and the Commissioner of the New York State Division of Homeland Security and Emergency Services (NYS DHSES).

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 FCC Part 97.407 can be found in Appendix I of this document. RACES guidance is also provided by FEMA document CPG1-15 March 1991.

NOTE: FCC rules, Part 97, still apply to all RACES stations and RACES operators participating in RACES operations.

NYS RACES and ARES

The Amateur Radio Emergency Service (ARES) is the national amateur radio emergency preparedness organization sponsored by the American Radio Relay League (ARRL). This organization is completely different from RACES, although many goals are in common. In many cases, ARES will be used as a public service organization to assist with communications during non-emergency events such as parades, foot and bicycle races, and community events.

Membership in the ARRL is not required for amateur radio operator to be an ARES member. In general, ARES is organized to serve the public, while RACES is organized to serve the government. It is desirable for RACES members to 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, there are times of emergency when ARES will be the first organization to activate for communications assistance.

As an emergency escalates, the emergency manager may call for a RACES activation. At this time, with radio operators already activated, the operation can smoothly go 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 RACES Radio Officer and the Emergency Manager, and are no longer directly involved with the ARES operation. At this point, operations will usually move to the 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.

RACES Eligibility

Any United States citizen who possesses a valid FCC Amateur Radio Operator License – Technician Class or higher – is eligible to become a member of RACES. 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 both on a county as well as a state level. Membership in either one is not dependent on membership in the other.

New York State RACES Volunteer Program

A state level RACES program will provide a cadre of trained RACES radio operators to be used in state facilities or other local government facilities when regular communications methods are either overloaded or not available.

RACES members at a state level may also provide supplemental radio operation of state deployed communications assets. For example, RACES operators could assist a state employed driver with the operation of the DHSES communications vehicles or Command vehicle. RACES volunteers will not be authorized to drive a state owned vehicle unless they are a current state employee.

New York State RACES volunteer members could also be used when a local county or municipality does not have sufficient radio operators during a disaster. While most counties have a RACES organization, additional RACES operators may be needed for large scale, long term, or multi-county disaster operations. County requests for additional RACES operators will be done in the same manner currently used to request any state assets.

New York State RACES volunteer membership

Amateur radio operators who wish to participate in the New York State RACES volunteer program must complete the uniform membership form used for New York State RACES volunteer membership. RACES membership at a county level does not provide membership in the New York State RACES volunteer program.

Dismissal of New York State RACES radio operators

Any member found to be in violation of FCC amateur radio rules and regulations will be immediately dismissed from the RACES program. In addition, any member who has not completed the required ICS and NIMS training in the allowed time period will have their membership suspended until the required training has been completed. The New York State RACES radio officer has the right to remove any RACES member at any time for any reason.

Identification of New York State RACES volunteers

State issued ID cards will be issued to all New York State RACES volunteers. These cards will remain New York State property and must be surrendered if the volunteer leaves the RACES program for any reason.

Associated Costs for New York State RACES volunteers

If an operator is deployed away from his or her home area, meals and lodging may be provided according to the current New York State travel rules and regulations. As per FCC regulations, no additional compensation may be made to any RACES volunteer.

Defense and Indemnification for New York State RACES Volunteers

New York State Public Officer's Law § 17 provides for defense and indemnification for employees of public entities acting within the scope of their public employment or duties.
Employee is defined as "any person holding a position by election, appointment or employment in the service of the state, including clinical practice pursuant to subdivision fourteen of the public health law, whether or not compensated, or a **volunteer expressly authorized to participate in a state-sponsored volunteer program**…."

The volunteers recruited by NYS DHSES OIEC and who are members of the State RACES volunteer program will be provided this protection as the State RACES volunteer program is a **state-sponsored volunteer program**.

County Membership.

Individual members will register with the RACES Radio Officer of their county. The Radio Officer will provide a list of RACES members to the county emergency manager, who will

approve the individual's membership in RACES. The County Radio Officer, as well as the county emergency management office, will maintain this list.

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

Insurance for County RACES members

The county where the RACES member is registered may elect to provide insurance for RACES volunteers. This is solely at the discretion of each individual county's legislature or board of supervisors.

Duties and Responsibilies of New York State RACES Volunteers

1. Operate amateur radios already installed on site or in a vehicle. These radios may consist of radios in all amateur bands. The volunteer operator may only operate within their amateur license class privileges.
2. Operate government radios in multiple bands. These are operated under the license authorization of the government agency.
3. Operate as a net control on amateur radio frequencies.
4. Handle formal message traffic (ARRL Radiogram message form).
5. Provide mobile communications on scene. This may either be done with a hand held unit or a temporary installation of an amateur radio mobile unit. If performed in a government vehicle, a government employee will be the driver.
6. Temporary installation of radios and antennas. Tower climbing is prohibited.
7. Perform basic troubleshooting with regard to the use of RACES amateur radio equipment. This can include use of an SWR meter, multi-meter, or other pieces of test equipment as directed by the Communications Chief or State Radio Officer.
8. Use of basic hand tools. This includes, but is not limited to, soldering (or crimping) antenna connections, making and repairing DC power connections and making ground connections.
9. Assist members of the Emergency Communications Tactical Response Team as needed.
10. When operating in an Incident Command environment, the Safety Officer will have the complete authority regarding safe operations.
11. Any item of questionable safety should be brought to the attention of the safety officer, or in his absence, the incident commander.
12. RACES volunteers are not authorized to drive any state vehicles unless they are current NYS employees.

Training for New York State RACES Volunteers

As per FCC regulations, all RACES operators must possess a current amateur radio license. A minimum license class of technician is required. The HF RACES Net requires a General Class or higher.

All amateur radio operators registering as New York State RACES volunteers will be required to take the following training:

1. ICS 100
2. ICS 200
3. NIMS 700
4. NIMS 800

These classes must be successfully completed within 6 months of becoming a member of the New York State RACES volunteer program. These classes are available on-line and may be done either as on-line training or in a classroom environment. NYS DHSES will provide volunteers with information regarding the availability of classroom based ICS/NIMS training. It is the volunteer's responsibility to provide certificates of course completion to the State RACES Radio Officer.

A list, with verifying documentation, of any additional skills possessed by the radio operator should also be provided. This includes, but is not limited to, ARRL EmComm training, ComL, ComT, Red Cross certifications, generator repair capabilities, MARS licensing, EMS training, etc.

Documentation of current amateur radio license class and all training completed will be provided to the State RACES Radio Officer. A list of completed training will be maintained by the State RACES Radio Officer.

Specialized training on the use of the STR vehicles, operation of equipment in the OIEC headquarters radio room, and other equipment, as needed, will be provided by personnel from the NYS Emergency Communications Tactical Response Team.

County RACES Activation

All RACES activation and deployment must be through the appropriate civil defense (emergency management) office. Only the Senior Civil Defense Official (county emergency manager in most counties) or the person acting directly on behalf of this official has the authority to activate RACES on a county level. This is in accordance with FCC part 97.407(E).

Activation and deployment of New York State RACES personnel will be made by the State RACES Radio Officer (or that person's designee) under the direct authority and supervision of the Commissioner of the New York State Division of Homeland Security and Emergency Services. This is in accordance with FCC part 97.407(E).

Duration of Activation

New York State RACES volunteers should be prepared to operate for 12 hour shifts (the typical Incident Command System operational period).

Due to the varied nature of activations, deployment can vary from a single operational period of 12 hours to several days at a time. Where possible, the volunteer will be notified of the approximate length of deployment when activated.

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 command post, as requested by the emergency manager. The emergency manager or the County Radio Officer will determine additional deployment of RACES operators. In most situations, RACES operators will be working in the field, and not from their homes.

Deployment Locations for New York State RACES volunteers

When activated, New York State RACES volunteers will report to and be under the direct supervision of the Communications Chief or his designee.

RACES volunteer operators may be required to operate equipment in any of the following locations:

1. State OIEC radio room (1220 Washington Ave, Building 22, Bunker, Albany)
2. Other state facilities as required (i.e. NYS OEM regional offices)
3. County or other municipal owned facilities.
4. State or county communications vehicles
5. Field locations. This can include incident command posts and other field locations as required.
6. Operator's home station. This will not usually be the point of operation, but could occasionally provide a point of operation for a net control station.
7. Other locations as determined by the New York State OIEC.

Transportation to and from a deployment location is the responsibility of the RACES volunteer.

No State RACES volunteer will ever travel to any disaster site without prior approval of the emergency manager through the State Radio Officer. Travel into an area under a declaration of an emergency may violate certain laws in effect by the declaration of emergency.

Inter-County Operation

As of this date, there is no statewide mutual aid agreement for inter-county operation. Any inter-county operational details must be determined between the counties involved. If a county has chosen to provide insurance coverage for RACES volunteers, it must be determined by the county's insurance carrier if the insurance will cover a RACES volunteer for out-of-county operation.

When inter-county operations are required, it is suggested that the county emergency manager request assistance from the New York State RACES volunteer program.

New York State RACES Nets

A list of the HF RACES training nets can be found in Appendix III of this document. Updated information on HF and local VHF nets can be found on the **New York State Office of Interoperable and Emergency Communications website.**

Radiotelephone (Voice) Procedures

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

Procedures for Other Digital Modes

Other digital modes such as Packet, Pactor, Pactor II, 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. The use of Q-Signals and Prowords are to be avoided. If an error is made during a keyboard-to-keyboard digital transmission, the sending operator will send: "The following was sent in error," followed by the words sent in error. This will be followed by the words "correction follows," followed by the proper text. 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 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 or personal bulletin board is not considered as delivered until acknowledged by the station for which it was intended. For this reason, keyboard-to-keyboard transmission is encouraged whenever possible.

RACES Message Format

New York State RACES must use the standard message form as used by the American Radio Relay League (ARRL) and the National Traffic System (NTS). At the option of the net manager, individual nets may use this format immediately. The use of the pre-printed ARRL Radiogram message form is suggested, but not mandatory.

Specific instructions on the ARRL Radiogram message form can be found in Appendix VIII of this document.

RACES Training Sessions

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

The Net Control Station (NCS) of any RACES net involving more than one county will provide a weekly report of net activities to the State Radio Officer (this may be bi-weekly if the same station is NCS for both weeks).

This report will include the following:

a. Date and time of each training session
b. Roll call of all stations in the net, indicating NCS and assistant NCS
c. Copy of drill message sent
d. 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 can be found in Appendix I of this document.

Net Control Station Duties and Authority

RACES nets are directed nets and will be treated accordingly. 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 complied with strictly and immediately.

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 New York State Division of Homeland Security RACES Radio Officer (or, in a local net, the County Radio Officer). The Radio Officer is responsible 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 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.

Items Not Covered By This SOP

For all items not covered by this SOP, stations will follow established "on the air" RACES net procedures wherever possible.

Questions, Comments and Updated RACES Information

Questions or comments regarding the New York State RACES program can be directed to the State RACES Radio Officer via e-mail at the New York State Office of Emergency Management (OEM) web site. The internet address of the OEM web site is http://www.dhses.ny.gov/oem/state-ops/ Net schedules and general information about the New York State RACES program can 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 a civil defense 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 civil defense 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 with the amateur service. In the event of an emergency which necessitates invoking the President's War Emergency Powers under the provisions of section 706 of the Communications Act of 1934, as amended, 47 U.S.C. 606, RACES stations and amateur stations participating in RACES may only transmit on the frequency segments authorized pursuant to part 214 of this chapter.

C. A RACES station may only communicate with:

    1. Another RACES station;
    2. An amateur station registered with a civil defense 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 civil defense organization may only communicate with:

    1. A RACES station licensed to the civil defense organization with which the amateur station is registered

    2. The following stations upon authorization of the responsible civil defense official for the organization with which the amateur station is registered:

        i. A RACES station licensed to another civil defense organization;
        ii. An amateur station registered with the same or another civil defense 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 civil defense organization for the area served. Only civil defense 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, regional, 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;

3. Messages directly concerning the accumulation and dissemination of public information or instructions to the civilian population essential to the activities of the civil defense 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 civil defense organization served. Such drills and tests may not exceed 1 hour per week. With the approval of the chief officer for emergency planning in the applicable State, Commonwealth, District or territory, 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
Phonetic Alphabet

Alpha
Bravo
Charlie
Delta
Echo
Foxtrot
Golf
Hotel
India
Juliet
Kilo
Lima
Mike
November
Oscar
Papa
Quebec
Romeo
Sierra
Tango
Uniform
Victor
Whiskey
X-Ray
Yankee
Zulu

Appendix III
New York State RACES HF Training Net

New York State RACES HF SSB Net
Sundays at 0900 local time
3993.5 kHz, LSB

Appendix IV
Radiotelephone (Voice) Procedures

All operators will transmit messages exactly as written or received. Prosigns, prowords, operating signals or abbreviations will not be substituted for text words or groups as written by the message originator.

An operator who receipts for 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.

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. This rule may be suspended by the Net Control Station (NCS) when practical reasons dictate urgency and a higher speed.

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 five-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 for every ten groups in long messages. An operator requiring a break-in will do so by transmitting his or her call sign. In an urgent situation regarding "Immediate" or "Priority" traffic, the word "break" followed by the call sign will be used. For example: "Break K C 2 F T D."

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

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. 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 "good" 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. A station suspecting a problem and desiring a signal report should transmit "How do you read?" or "How is my signal?" or "What is my readability?"

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 fifteen seconds. Testing 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 phonetic alphabet will be used 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. A single letter of the alphabet will be identified phonetically, preceded by the proword "initial." The phonetic alphabet can be found in Appendix II of this document.

Use of Numbers: Numbers may be either sent as digits or spelled out. When spelled out, numbers are expressed in words for each digit except even hundreds or thousands. Examples: 123.4 is said as "one two three decimal four" and is thus unmistakable. However, if this were said as "one twenty-three decimal four," it could be mistaken as 1203.4. Cardinal numbers rather than ordinal numbers will be used whenever practical (i.e., for the number 62, "six two" will be said instead of "sixty-two").

Prowords: Prowords are pronounceable words or phrases, which have been, assigned a very specific meaning for 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 either with "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."

ARL Numbered Radiogram Messages: The use of ARL Numbered Radiogram Messages is authorized for RACES use. A list of these messages can be found in Appendix IX of this document.

Tactical Call Signs: Tactical call signs will be employed for all multi-county and statewide emergency nets. The use of tactical call signs does not relieve the operator from station identification requirements as listed in FCC Part 97. These tactical call signs 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 call sign*), New York State Division of Homeland Security and Emergency Services Net Control in the Radio Amateur Civil Emergency Service, operating on 3993.5 kilohertz (or other frequency of operation) by authority of the Federal Communications Commission and the Commissioner of the State Division of Homeland Security and Emergency Services. 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 10 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 call sign*), net control. I now request stations to check in by region. Stations in Region 1, call … Over.

> *NCS will record all stations checking in from Region 1.*

I roger (*calling stations are acknowledged; call signs are given phonetically*).

Are there any other stations in Region 1, or relays from Region 1? … Over.

> *Additional stations are acknowledged as above, with the proword "I roger"……*

> *This procedure is repeated for Regions 2, 3, 4, and 5.*

Any station, in any Region, wishing to check in, give your Region followed by your call sign.

> *Acknowledge these stations as above and give call sign of station – they will follow and be followed by in the net listing.*

> *Appoint an assistant NCS.*

All stations, prepare to copy drill message … Out.

> *Drill message is now given. All drill messages will begin with the proword "drill".*

(*Call sign 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 (*call sign*) in Region (*first region 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 (*NCS call sign*), net control for the New York 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 (*NCS call sign*), New York State Division of Homeland Security and Emergency Services Net Control in the Radio Amateur Civil Emergency Service, operating on 3993.5 kilohertz by authority of the Federal Communications Commission and the Commissioner of the New York State Division of Homeland Security and Emergency Services. All units close station. This is (*NCS call sign*) closing net and station … Out.

Appendix VI
Net Prologue and Closure for an Emergency Net

This is (*NCS call sign*), New York State Division of Homeland Security and Emergency Services Net Control in the Radio Amateur Civil Emergency Service, operating on 3993.5 kilohertz (*or other frequency of operation*) by authority of the Federal Communications Commission and the Commissioner of the New York State Division of Homeland Security and Emergency Services. 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.

Traffic of precedence higher than routine is now handled.

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

Any routine traffic is now handled.

Additional net business will be conducted as required.

Closing: This is (*NCS call sign*), New York State Division of Homeland Security and Emergency Services Net Control in the Radio Amateur Civil Emergency Service, operating on 3993.5 kilohertz (*or other operating frequency*) by authority of the Federal Communications Commission and the Commissioner of the New York State Division of Homeland Security and Emergency Services. All units close station. This is (*NCS call sign*) closing net and station … Out.

Appendix VII
Prowords

Proword	**Meaning**
Affirmative	Permitted, granted, yes
All after	Say again all that part of your transmission after _____
All before	Say again all that part of your transmission before _____
ARL	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 who is authorizing the 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)
Drill	The proword *drill* will be the first word given in the body of all drill messages. This proword will be included in the word count.
Figure(s)	Numeral(s) or number(s) to follow
From	The originator of this message is indicated by the designation immediately following
Groups	This message contains the number of groups indicated by the numeral following
Incorrect	You are incorrect; that is incorrect; the correct version is _____

Proword	**Meaning**
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 everything exactly as transmitted
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
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 five-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
Relay	Station called transmit to _____
Roger	I have received your last transmission satisfactorily. The proword *roger* is also used by stations confirming receipt of a message and by NCS when checking stations into a net.
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

Proword	Meaning
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)
Wait _____	I must pause for _____ minutes (expressed in numerals)
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

Appendix VIII
ARRL Standard Message Form as Adapted For New York State Races

Number: This is the message number as assigned by the originating operator.

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 that 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 it.

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. Notification of death or injury in a disaster area, personal or official.

C. Welfare: a message that is either

   1. An inquiry as to the health and welfare of an individual in the disaster area; or
   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 (optional): 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
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 call sign 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 proword word "Drill" in the word count.

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. 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.
   a. 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, counties, cities, streets, etc.) consisting of two or more separate words will be counted.
    a. Examples:
        i. New York (group count = 2)
        ii. 123 Main Street (group count = 3)
        iii. Robert A. Jones (group count = 3)
        iv. 12AU7 (group count = 1)
        v. 48 dash 321A (group count = 3); here, a space is on either side of the dash (48 – 321A); therefore, this example equals three word groups
        vi. Telephone numbers will count as three (3) words
        (area code, prefix, number)

H. Chemical names and formulas
    a. Chemical names and formulas will follow the protocol listed in item D
    b. Examples:
        i. Sulfuric Acid (group count = 2)
        ii. 1,3-Dichloropropanol-2 (group count = 1); said as "figures one comma figures three dash delta india charlie … etc … dash figures two)
        iii. H_2SO_4 (group count = 1); said as "hotel subscript figures two sierra oscar subscript figures four"

Punctuation: Punctuation will not be used unless it is 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. Example: "STATE EOC" or "Greene County EOC"

Time Filed: The local time the message is generated. This will be given in 24-hour notation.

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

To: Person or agency the message is being sent to.

Body of Text: The text will be given as plain language whenever possible. ARL numbered radiograms are permitted, and are encouraged in times of poor propagation conditions. A list of these ARL numbered radiograms can be found in Appendix IX of this document. 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 infer a change in meaning of the text as written by the originator of the message.

Appendix IX
ARL Numbered Radiogram Messages

The letters “ARL” 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 ARL 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 is 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 achievement.
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
RACES Service Plan for the Support of Local Government During Emergencies

(Based on the plan developed at Tacoma, Washington)

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

To convert this plan for use in your community, replace the appropriate portions of the sample plan with the information you compile in completing the worksheets, and provide annexes applicable to your community.

For statistical information purposes, it is requested that a copy of your community's amateur plan be sent to the FEMA region and the State RACES Radio Officer. Limited planning assistance is also available by contacting the FEMA Region that supports your state.

APPROVALS

This plan has been reviewed and approved by the following authorities: (name and date)

FEMA Regional Communications Officer

Director, State Office of Interoperable and Emergency Communications

State RACES Officer

County Emergency Manager

County RACES Radio Officer

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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 City of Tacoma government officials 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 the City of Tacoma, Washington 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:

   a. Local Emergency Services Identification Card; and
   b. Personal Acquaintance.

5. 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 City of Tacoma, Washington Director of Emergency Services will contact the RACES Liaison Officer.

      The Director of Emergency Services will use the following format when contacting the RACES Liaison Officer:

      "This is Lee Clark, Director of the City of Tacoma Department of Emergency Services. I request that the RACES organization be activated for Tacoma, Washington because of (description of situation)."

      In order to speed personnel activation during emergency conditions or provide other announcements, an authorized official may contact the Tacoma / Pierce County Operational Area emergency broadcast system station and request that a

public service announcement be made to assist activation of the RACES organization.

Upon request of the emergency condition, a termination notice will be issued by appropriate government officials.

b. Procedures for Amateur Radio Operators – upon request by authorized authorities, the designated RACES member(s) will report to the 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	146.52 MHz FM
Hospital net	223.5 MHz FM

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 any one or more of the previously listed simplex frequencies and local repeater frequencies. RACES members will then acknowledge and confirm receipt of termination message.

6. Tests – tests of the system include:

   a. One test per week of the RACES organization
   b. Annual emergency exercises

7. Annexes

   a. Annex A: Lists agencies supported, key personnel and their telephone numbers
   b. Annex B: Lists authorized RACES radio frequencies
   c. Annex C: Lists RACES members, telephone numbers and resources
   d. Annex D: Functional block diagram of agencies that interface with the emergency organization
   e. Annex E: Local checklists
   f. Annex F: Glossary of terms

Last update: February 26, 2015