

Operations

Net Control Stations

1. Introduction

To provide a basis for carrying out the mission of the Gwinnett County, Georgia Amateur Radio Emergency Service® (ARES®), guidelines must be in place to meet the communications requirements of Served Agencies. This document defines procedures Gwinnett County ARES® Net Control Stations (NCS) and Alternate Network Control Stations (ANCS) use, following guidelines of the ARRL National Traffic System (NTS).

2. Responsibilities

The Assistant Emergency Coordinator for SKYWARN and Net Manager is responsible for maintaining this document.

Each NCS and ANCS in Gwinnett County ARES® nets are responsible for having reviewed and for following the procedures defined in this document.

All stations involved in Gwinnett ARES® should be familiar with this document. Knowing the basics will provide an understanding of basic net operation and the definition of Net Condition levels. Every member should be prepared, if required, to serve in the capacity of NCS or ANCS if needed. Typically, the roles will be filled by those “comfortable” in the roles, but situations may arise where other operators are needed to fill NCS responsibilities.

3. Related Publications

NET 1-2 Net Operations

4. Definition of Terms

AEC Assistant Emergency Coordinator

ANCS Alternate Net Control Station

ARES® Amateur Radio Emergency Service® (ARES® and Amateur Radio Emergency Service® are registered service marks of the American Radio Relay League.)

GARS Gwinnett Amateur Radio Society

GCEMA Gwinnett County Emergency Management Agency

NCS Net Control Station

NTS National Traffic System

PIO Public Information Officer

Served Agency A public service agency with which Gwinnett ARES® has established a support agreement through the implementation of a formal Memorandum of Understanding.

SIT REP(S) Situation Report(s)

5. Guideline

5.1. General Guidelines

When required to support emergency situations or during routine training in net operations, all Gwinnett ARES® nets will function as directed nets using a net condition defined in Section 5.2 as appropriate to the situation. All nets are to be opened using a suitable preamble from the Appendix of this document. If one is not available, use one close to what is needed and adjust the verbiage as required.

5.2. Net Operation

5.2.1. Appointment of Other Functions

Don't forget to appoint an ANCS. Should your station become inoperable due to equipment problems, loss of power or some other event, the ANCS needs to immediately step in and assume control of the net as soon as it's determined the NCS is not available.

Also, be sure to appoint liaison stations as required by the Operations Plan under which the net is activated and/or as directed by Planning Committee actions to respond to the particular situation. This relieves the Net Control Station from doing it all.

5.2.2. Maintain a Log

Maintain a log of all stations checking into the net. Identify the time you assume net control, the call sign of the ANCS and any liaison stations designated.

Record the calls of each station checking in and their geographic location. If someone gets in trouble and needs assistance, you know where they were last.

Record traffic passed showing quantity and basic location "from" and "to" information.

Be sure to put a time down on each event. Use local time to preclude confusion if later correlation of information is required.

5.2.3. Take Breaks

The AEC for SKYWARN and Net Management will immediately begin to establish a NCS rotation for what may be long duration events. NCS operators get tired. When that happens, you become less efficient and may begin to make mistakes in judgment. When you feel conditions are such that you need a break, turn over operation to the ANCS.

5.2.4. Situation Reporting

During start of nets supporting major events and during the course of an event, it may be necessary to perform roll calls of locations to determine the status of stations, to routinely test connectivity, or to collect other routine information. This type of reporting is referred to as Situation Reporting, or SIT REP for short. SIT REP is performed by conducting a roll call of all stations during which each station will respond, as called by the NCS, with the information requested.

The NCS can use a SIT REP to request the status of any facet of the operation. Examples would be a report of all operators available at the site, the status of establishing various aspects of the installation of communications equipment, the occupancy of open shelters, etc.

A sample preamble for a SIT REP sequence is provided in the Appendices.

5.2.5. Close the Net When Appropriate

As soon as the event is over, begin closing the net. This action will generally be at the direction of the Served Agency. If the Served Agency is apparently slow in releasing resources, escalate this information to ARES® leadership.

When releasing participants, log their release as part of the closing process.

5.2.6. Hints and Kinks

The following are taken from various emergency communications training materials, particularly from the ARRL Emergency Communications courses.

- If it is a scheduled net, start on time!
- Use a script when/where possible. If you have time, make notes to yourself to help with the information in the script – before you start the net.
- Be friendly, yet in control – speak slowly and clearly with an even tone, not a monotone. Sound confident, even if you are not. Above all, don't worry. Just give it an honest try.
- Ask SPECIFIC questions, give SPECIFIC instructions! You can make it much harder on yourself with nebulous questions and instructions.
- Have pencil/paper ready and write down ALL calls. It helps to practice with writing down calls when you are not the NCS.
- Read your owner's manual and understand how to use your microphone. The worst sounding NCS is one that cannot be heard or sounds like a train huffing and puffing in the microphone as they speak. From the ARRL Field Resources Manual: Articulate, don't slur. Speak close to your mike, but **talk across it, NOT into it.**
- When there is a double, try to get something unique from one or more of the stations. Then call for clarification from those stations ONLY.
- During check-ins, recognize participants by name whenever possible.
- Acknowledge check-ins and ALL messages.
- Be sure to frequently identify the purpose of the net (let people know what they are checking in to!) and advise all listeners of the subaudible frequency required if applicable.
- Ask for assistance if/when you need it. If this is not a weekly net, delegate responsibilities. You cannot do it all.
- If this is an emergency net, remind listeners to listen and tell them where the staffing net is. Someone checking in to say they are listening only slows the net.
- Don't be afraid to say "OOPS" if you get flustered and mumble a bit. Pause, take a deep breath, and go back at it. If you make a mistake, remember this is

not Brain Surgery. Do your best to CALMLY recover. Nothing more will ever be asked of anyone.

- DON'T THINK ON THE AIR! If you need a moment to consider what is needed next, say something like "Stand by" and unkey your mic.
- Keep transmissions as short as possible. Resist the tendency to ragchew or ramble.
- Transmit only facts! If there is need to make an educated guess or speculate, make sure it is VERY clear that it is speculation. **First choice is to not speculate at all.**
- If a report comes from an unidentified source, it should not be treated as creditable and should be ignored.
- If a station does not identify, ignore the station.
- Avoid becoming the source for general information about the event. If it is an emergency, refer event status questions to the served agency Public Information Officer (PIO).
- When necessary, use standard ITU phonetics. There is no such thing as "common spelling". Send all numbers as individual numbers, e.g., 334 is three three four, not three hundred thirty four.
- Speak in first person. It is "recognizing w4xxx, ...", **not** "NCS would like to recognize ..."
- For voice nets, use plain English. "Q" signals are for CW.
- If the net has been quiet for more than ten minutes, check on operator status. This keeps the net running more smoothly and insures you know about equipment failures as soon as possible.

5.3. Condition Levels

The Increased Readiness Conditions described below are used in the operations of Gwinnett County ARES® Emergency Nets. The nets will follow these designations as a way of establishing net discipline and a way of providing more effective communications. The descriptions below are for guidance purposes. It is possible that certain situations may require the handling of various net conditions in a manner that does not exactly fit these descriptions. Such decisions are the responsibility of the Net Control Station (NCS).

5.3.1. Net Condition 4:

Condition 4 is the lowest level of Increased Readiness. It marks a higher degree of disaster possibilities within the county. It exists to provide a presence on the frequencies and serve as a structure for potential elevation of the net into higher levels or readiness and increased net discipline. The net is conducted in a directed fashion but is open to all reports concerning weather in the area, reports of other emergency situations that may exist in a multi hazard condition, or the status of responding stations. Situation Reports (SIT REPS) may be conducted during this condition.

5.3.2. Net Condition 3:

Condition 3 identifies the condition where situations exist that present a greater potential threat than Condition 4 to life and/or property. In weather related situations, Condition 3 is the equivalent to a National Weather Service "watch" condition. Open reporting, except in the case of emergencies or the existence of extremely dangerous conditions,

is ceased. The net is conducted in a limited reporting and more highly directed fashion. The NCS will manage the net in a more highly restricted fashion with reports being taken under NCS direction only unless a true emergency exists. Instead of acting to control report taking as in Condition 4, the NCS is truly in control of the deployment and management of all communications resources that are to be used. SIT REPS may be taken during this condition, but without returning the net to background operation.

5.3.3. Net Condition 2:

Condition 2 exists when a very hazardous situation exists that poses an immediate threat to life and/or property. In weather related situations, Condition 2 is related to a National Weather Service "warning" condition. No reports will be taken or given unless the NCS specifically requests them. The only exception to this would be the report of a situation where human life or major injury is eminent. At that time the pro-word "Break – Break" is to be used and all other net operations will cease. The net will resume under Condition 2 after the situation is under control. The actions the NCS will take in this condition can, in a very real way, impact the safety of those involved in the situation and impact the responsiveness of emergency services to those in need. This is why net communication is limited to only responses and requests from the NCS except in the situation described above. The NCS cannot allow random and un-requested communications to take place during this condition. SIT REPS may be taken during this condition, but without returning the net to background operation. No request for "Floaters" will be made.

5.3.4. Net Condition 1:

Condition 1 exists at a time when a major disaster **has** occurred. The most extreme form of net discipline is required at this time. Only the highest priority traffic or transmissions will occur. Information being handled will fit either emergency or priority classifications. The net in this condition will not handle welfare or routine traffic. Such traffic will be delayed in its handling or handled by another net set up for that express purpose. If conditions warrant, SIT REPS may be requested to gather specific information as needed.

5.4. Post-Event Reporting

After completing an event, each NCS should file a report, via E-mail if possible, with the Gwinnett County Emergency Coordinator and the Assistant Emergency Coordinator for SKYWARN and Net Management. The information should include frequency(s) used, start time, a listing of the ANCS and any liaison stations, the number of reports/traffic handled, number of stations participating and end time. In addition, list any significant events and problems encountered.

If requested, provide a copy of logs maintained during the course of the event. These may be used during a post mortem conference.

6. Release Information

Stan Edwards. WA4DYD, Emergency Coordinator, is the author of this document.

The date of publication for this document is June 24, 2005. This revision revises the preamble for the Training Net.

Appendices

Net Preambles

- **Weekly Training Net**
- **SKYWARN Net**
- **Gwinnett County Emergency Management Support Net**
- **Situation Reports**

Weekly Training Net Preamble

Net Opening

CQ, CQ, CQ. Calling the Gwinnett County Amateur Radio Emergency Service Net.

This is **<name>**, **<call sign phonetically>**, in **<city/grid square>**, your Net Control Station this evening. This net meets every Monday evening at twenty-one hundred hours local time for the purpose of planning, practicing, and discussing those activities of Gwinnett County Amateur Radio Emergency Service or ARES for short.

This is a directed net. Please do not transmit unless directed to do so by Net Control. Any emergency traffic will be handled with top priority during this net. We break now for emergency traffic. Emergency traffic only, please call Net Control, **<call sign>**.

(PAUSE for Emergency Traffic)

If you need to pass emergency traffic, please do not hesitate to notify Net Control. This net is open to anyone licensed to operate on this frequency, and interested in ARES, SKYWARN and supporting emergency communications.

Before we begin regular check-ins, is there anyone on frequency who would be willing to serve as Alternate Net Control? Please call **<call sign>**.

(PAUSE for Alternate Net Control response)

Is there anyone on frequency who can serve as liaison with the Gwinnett Emergency Service packet net on 145.03 MHz? Please call **<call sign>**.

Check ins

At this time we will take check-ins with announcements. Check in by giving your call sign phonetically, name, and location. Stations with announcements only, please call **<call sign>**.

(PAUSE for stations with announcements)

At this time we will begin taking check-ins from ARES members by Response Team. Please check-in when your Response Team is called. Following Response Team check-ins, we will accept regular check-ins for those who do not know their Response Team assignment or other amateurs who have not been assigned to Response Teams. Proxy check-ins are not permitted to encourage all participants to practice proper net operating procedures.

Check in by giving your call sign phonetically, name, and location using your ADC map grid number, and indicate if you have any traffic or announcements for the net. Response Team leaders should identify themselves as such to allow other members to contact them for any information.

- We will now accept check-ins from ARES Administration and Planning Committee members.
- We will now accept check-ins from the Emergency Communications Trailer Response Team.
- We will now accept check-ins from the Emergency Operations Center Response Team.
- We will now accept check-ins from the Gwinnett Health System Response Team.
- We will now accept check-ins from the Emory Eastside Medical Center Response Team.
- We will now accept check-ins from the Lilburn Response Team for Fire Station 3.
- We will now accept check-ins from the Buford Response Team for Fire Station 14.
- We will now accept check-ins from the Lawrenceville Response Team for Fire Station 15.

- We will now accept check-ins from the Norcross/Duluth Response Team for Fire Station 23.
- We will now accept check-ins from all other amateur stations. If you do not know your Response team assignment or have not been assigned to a Team, please check-in now.

<packet liaison call sign>, are there any packet check-ins? Please indicate packet only check-ins and any that also checked in on voice.

(Repeat announcements after all check-ins)

Net Closing

I'd like to thank everyone who participated in tonight's net. This concludes this evening's activities. We wish to thank the GARS club for the use of the repeater this evening. The next scheduled net will be **<date>**. This is **<call sign>** through the W4GR repeater closing the net at **<time>** hours and returning the repeater to normal operation.

(Call ANCS and confirm number of check-ins)

SKYWARN Net Preamble

Severe Thunderstorm or Tornado Watch:

CQ, CQ, CQ. Calling the Gwinnett County Amateur Radio Emergency Service Net.

This is <name>, <call sign phonetically>, your Net Control Station. This net is being activated under Net Condition 3 due to the threat of severe weather. The National Weather Service has issued a <indicate information known about the warning issued by NWS, i.e., "tornado watch until 1515 local time">. Please review the Gwinnett County ARES SKYWARN Operations Plan for information on reportable weather conditions and only report according to the plan.

This is a directed net. Tactical communications will be used during this net to expedite the reporting of severe weather conditions. Tactical call signs will be used as prescribed in the SKYWARN Operations Plan.

Please do not transmit unless directed to do so by Net Control. Any emergency traffic will be handled with top priority during this net. We break now for emergency traffic. Emergency traffic only, please call <call sign>.

If you need to pass emergency traffic, please do not hesitate to notify Net Control. This net is open to anyone licensed to operate on this frequency, and participating in the National Weather Service's SKYWARN Spotter program.

Before we begin check-ins to identify available Spotters, is there anyone on frequency who would be willing to serve as Alternate Net Control? Please call <call sign>.

Is there anyone on frequency who would be willing to serve as liaison with the National Weather Service linked repeater system or via telephone, with preference to direct contact through the ARES operating positions at the National Weather Service? Please call <call sign>.

At this time we will take Spotter check-ins. If you have conditions meeting any reportable criteria, you may indicate those conditions for general information to the net. Only conditions in the Urgent or High Priority categories will be reported to the National Weather Service. Check in by giving your call sign phonetically, and location. Please call <call sign>.

Severe Thunderstorm or Tornado Warning:

CQ, CQ, CQ. Calling the Gwinnett County Amateur Radio Emergency Service Net.

This is <name>, <call sign phonetically>, your Net Control Station. This net is being activated at the request of the National Weather Service under Net Condition 2.

If anyone has Urgent or High Priority reportable weather conditions please call now.

(If there are reportable weather conditions, ask if there is anyone on frequency who can relay the information to the National Weather Service and handle in the most expedient way possible.)

If no response:

This is <call sign>. The National Weather Service has issued a <indicate information known about the warning issued by NWS, i.e., “severe thunderstorm warning until 1515 local time”> and has requested Spotter activation. Please review the Gwinnett County ARES SKYWARN Operations Plan for information on reportable weather conditions and only report conditions according to the plan or as instructed by the NCS or weather service liaison station.

This is a directed net. Please do not transmit unless directed to do so by Net Control. Tactical communications will be used during this net to expedite the reporting of severe weather conditions. Tactical call signs will be used as prescribed in the SKYWARN Operations Plan.

If you need to pass emergency traffic, please do not hesitate to notify Net Control. This net is open to anyone licensed to operate on this frequency, and participating in the National Weather Service’s SKYWARN Spotter program. We will break for anyone with Urgent or High Priority reportable events. Please call <call sign>. (If so, handle as above.)

Is there anyone on frequency who can serve as liaison with the National Weather Service linked repeater system or via telephone, with preference to direct contact through the ARES operating positions at the National Weather Service? Please call <call sign>.

Is there anyone on frequency who would be willing to serve as Alternate Net Control? Please call <call sign>.

(If there is a reportable event to GCEMA, ask for someone willing to relay information to Gwinnett County personnel.)

Periodic Announcement:

This is <name>, <call sign phonetically>, Net Control Station. This net is operating under Net Condition <2 or 3> due to the threat of severe weather. The National Weather Service has issued a <indicate information known about the warning issued by NWS, i.e., “severe thunderstorm warning until 1515 local time”>. Please review the Gwinnett County ARES SKYWARN Operations Plan for information on reportable weather conditions and only report according to the plan unless otherwise directed. (If Net Condition 3, add:) At this time we will take Spotter check-ins. Check in by giving your call sign phonetically, and location. Please call <call sign>.

Net Closing:

At this time, we would like to take general check-ins of stations that have not previously identified themselves. Please check in by giving your call sign phonetically, name and location. Please call <call sign>.

After all check-ins are complete:

I'd like to thank everyone who participated in this severe weather net. This concludes this emergency activation of the ARES net for severe weather activities. We wish to thank the GARS club for the use of the repeater during this threat condition. This is <call sign> through the W4GR repeater closing the net at <time> hours and returning the repeater to normal operation.

Gwinnett County Emergency Management Support Net Preamble

CQ, CQ, CQ. Calling the Gwinnett County Amateur Radio Emergency Service Net.

This is <name>, <call sign phonetically>, your Net Control Station. This net is being activated under Net Condition <give net condition as prescribed by the activating ARES representative> at the request of Gwinnett County Emergency Management. Please review the Gwinnett County EMA Operations Plan for instructions relative to activation of this net in support of Gwinnett County EMA.

This is a directed net. Tactical or formal communications will be used as appropriate during this net. Review precedent descriptions in the Net Operations SOP to correctly define the precedence of formal traffic to expedite traffic handling. If possible, use ARL numbered radiograms to minimize handling time.

Tactical call signs will be used as prescribed in the Operations Plan.

If Net Condition 4:

Please do not transmit unless directed to do so by Net Control. Any emergency traffic will be handled with top priority during this net. We break now for emergency traffic. Emergency traffic only, please call <call sign>.

If you need to pass emergency traffic, please do not hesitate to notify Net Control. This net is open to responding Amateur Radio Emergency Service members and others designated by the Net Control. Further instructions will be provided as resources are required.

Before we begin check-ins to identify available personnel, is there anyone on frequency who will serve as Alternate Net Control? Please call <call sign>. (If no response, designate first check-in to act as ANCS if not mobile or in a key assignment category as defined in The Plan.)

(If applicable) Is there anyone on frequency who can serve as liaison with <indicate required liaisons>? Please call <call sign>.

At this time we will take Gwinnett ARES member check-ins. Check in by giving your call sign phonetically, and location. Please call <call sign>.

If Net Condition 3, 2 or 1:

Gwinnett County Emergency Management has requested supplemental communications due to <BRIEF reason for activations>.

Please do not transmit unless you are initially entering a location into the net, you have traffic that must be passed in support of this emergency, or as directed by the NCS. Please state the quantity, precedence and destination of the traffic that must be passed when listing traffic.

Is there anyone on frequency who can serve as Alternate Net Control? Please call <call sign>.

(If liaison station(s) is required) Is there anyone on frequency who can act as liaison to the <list liaison requirements>? Please call <call sign>.

Periodic Announcement:

This is <name>, <call sign phonetically>, Net Control Station. This net operating under Net Condition <1, 2, 3 or 4> in response to an emergency declared by Gwinnett County Emergency Management. Please review applicable Gwinnett ARES Operations Plans and SOGs for operational information. (If Net Condition 4, add:) At this time we will take check-ins from Gwinnett ARES members. Check in by giving your call sign phonetically, and location. Please call <call sign>.

Net Closing:

At this time, we would like to take general check-ins of stations present that have not previously identified themselves. Please check in by giving your call sign phonetically, name and location. Please call <call sign>.

After all check-ins are complete:

I'd like to thank everyone who participated in this emergency net. This concludes this emergency activation of the ARES net in support of Gwinnett County Emergency Management. We wish to thank the GARS club for the use of the repeater during this emergency. This is <call sign> through the W4GR repeater closing the net at <time> hours. You may secure your stations. The repeater is returned to normal operation.

Situation Report Preamble

CQ, CQ, CQ. This is <you call sign>, Net Control. This is a SIT REP roll call:

[Call all locations, one at a time. If operating in Net Conditions 3 or 4, conclude the list with “Floaters”, stations that are available for duty but not part of the roll call. Record all locations and their responses (or lack thereof). Specific information may be requested at the time stations report, such as call signs of all operators present, etc.]

The next Sit Rep will be at <time of next SIT REP roll call - (on the hour and half-hour or as appropriate)>. (If scheduled reporting.)

Returning the net to background operation. (Only if operating in Net Condition 4.) This is <your call sign>, Net Control Station.

Note:

Situation Reports (Sit Reps) are a means of collecting routine information needed during the event as well as verifying all stations are functioning properly.