GA ARES Incident Operating Frequencies and Modes

Operating Summary Information

In case of a major incident, GA ARES members should use the following guidelines to establish contact with the leadership teams. Each local group should have standard operating guidelines for making initial contact. The purpose of the initial contact is to convey initial incident information to operators and determine the availability and capability of the station.

In a widespread communications outage, the GA ARES statewide net may be activated. Use the following bands, frequencies, and modes.

HF Frequency	Usage	Designation	Mode
3.9750 MHz	Tactical	Primary - 80m Band	SSB
7.2850 MHz	Tactical	Primary - 40m Band	SSB
3.9825 MHz	Tactical	Secondary - 80m Band	SSB
3.5830 MHz	Tactical	Primary - 80m Band	Digital
5.3305 MHz	Calling	Secondary usage for amateur operators. Priority for government & private users.	SSB

To reduce the possibility of missing critical information while trying to monitor multiple modes, use the schedule below to know when to monitor traffic for initial instructions at the beginning of the incident. If traffic volumes are not sufficient for continuous operation, the NCS will transmit on the schedule below. Note: nn:00 represents any hour at 00 minutes.

HF Frequency	Usage	Designation	Mode
3.9750 MHz	Tactical	Primary - 80m Band	SSB
7.2850 MHz	Tactical	Primary - 40m Band	SSB
3.9825 MHz	Tactical	Secondary - 80m Band	SSB
3.5830 MHz	Tactical	Primary - 80m Band	Digital

Schedule	Mode	Traffic Type
nn:00	SSB	Voice
nn:15	Digital	Fldigi
nn:30	SSB	Voice
nn:45	Digital	Fldigi

Georgia ARES Net Operations - HF (Draft)

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Normal Net Operations

Purpose

This standard operating guide (SOG) for normal net operations establishes times and frequencies for normal and routine net operations using the High Frequency (HF) portion of the Amateur Radio spectrum. In addition, this SOG provides guidance for emergency operations to include operations when normal modes of communication services are unavailable. (see section *Georgia ARES Emergency Communications Protocol).*

Standard Operating Frequencies

The standard frequencies and modes used by Georgia ARES are:

Frequncy	Mode	Function
3.9750 MHz	LSB	Primary 75-meter SSB Frequency
7.2850 MHz	LSB	Primary 40-meter SSB Frequency
5.3305 MHz	USB	Primary 60-meter SSB Frequency
5.3570 MHz	USB	Primary 60-meter DIGITAL P2P DIAL Freq
1.9750 MHz	LSB	Primary 160-meter SSB Frequency
3.5830 MHz	USB	Primary Digital Mode Frequency for Digital (FLDigi / Winlink P2P)
7.0820 MHz	USB	Primary 40-m SSB Frequency for Digital (FLDigi / Winlink P2P)

Note: the digital frequencies are DIAL frequencies, not Center Frequencies

Other Operating Frequencies and Modes

Winlink Messaging – Via either Telnet (Internet connection) or over the air email system with established RMS gateways located around the world. Messages passed to this system then utilize internet and radio to move the message to its destination. Frequency is based upon which gateway is accessed depending on radio wave propagation and band. The RMS system uses a variety of modes.

Winlink Vara HF Peer-to-Peer (P2P) – A Winlink Express mode where two stations operating in Peer-to-Peer sessions connect directly to one another to pass P2P messages. No internet is required and no gateways are used. Georgia ARES P2P operators use Vara HF Peer-to-Peer sessions for this operation. Although any two stations can connect via P2P, the normal Net Control Station callsign is WG4PTP.

D-Star – D-Star is primarily a VHF/UHF system with access by repeater, access point, or Hot Spot. Frequency is dependent on local availability.

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Standard Routine and Emergency Net Times

Winlink Net – each Sunday from 0001 Local to 1600(EST) or 1700 (EDST). Messages are addressed to GAARES-NET and sent via Winlink RMS or Telnet and normally a check-in net

Winlink P2P Net – each Sunday, normally from 0800 Local to 1400 Local. Schedule, unless specified different in weekly updates is 0800-1000 on 80m and 1000-1400 on 40m. Normally a check-in net but during Emcomm events, serves as Emcomm traffic relay. NCS callsign is WG4PTP and messages should be addressed to GAARES-P2P. With P2P traffic, the receiving station must relay or forward traffic on to its intended destination by any means available.

D-Rats Net – each Sunday from 1600 hrs. To 1700 hrs. Local. Reflector: gaares.ratflector.com:9000

Traffic Net – each Sunday at 1600 hrs (EST) or 1700 (EDST). Digital MT63-1KS, 2000 on the waterfall

HF SSB Net – each Sunday 2200 hrs. UTC. 75- meters

Georgia ARES Emergency Communications Protocol

Purpose

This methodology will be used to establish communication links (nets) when normal modes of communication such as cell or internet service become unavailable. This protocol establishes times, modes, and frequencies to allow the establishment of High Frequency (HF) links throughout Georgia. This protocol will go into effect when normal means of communication are unavailable during an emergency and will remain in effect until either directed by the ARES Net Manager, the assigned Net Control Station (NCS), or either the emergency has resolved itself or normal means of communication has been restored.

Frequencies

The following frequencies and modes will be used for this protocol.

Frequency	Mode	Function
3.9750 MHz	LSB	Primary 75-meter Frequency
7.2850 MHz	LSB	Primary 40-meter Frequency
5.3305 MHz	USB	60-meter Calling Frequency (Amateur Radio Secondary Use)
3.5830 MHz	USB	80-meter digital frequency MT63-1KS or PSK31

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3.5830 MHz	USB	80-meter (Primary) digital freq Winlink P2P (DIAL Freq)
7.0820 MHz	USB	40-meter (Secondary)digital freq Winlink P2P (DIAL Freq)

Times and Timing

To conserve battery power, this protocol will begin at 0800 hrs., 1200 hrs., and 1600 hrs. Local time. Each time slot will last for one hour using the following format.

HH:00 to HH:15 – listen on 3.9750 MHz LSB

HH:15 to HH:30 – listen on 7.2850 MHz LSB

HH:30 to HH:45 – listen on 5.3305 MHz USB

HH:45 to HH:00 – listen on 3.5830 MHz USB PSK31 and Winlink Vara HF P2P via NCS WG4PTP

During these periods, attempt to make contact if another station is heard. Be sure to copy (write down) any information heard at these times and frequencies. Stations on battery or generator may wish to shut down between sessions to conserve power. In the case of Winlink P2P, send P2P message to NCS WG4PTP with availability and other pertinent information.

Winlink Message

If possible, send a "Winlink Message" via Telnet or RMS to GAARES-NET. Include as much information as possible about your situation. Describe in detail your station setup, capabilities, available power, and any immediate needs. If power is critical, send a message at 0800 or 1200 hrs. and check for incoming messages at 1200 hrs. or 1600 hrs. During actual Emcomm events, Telnet (if available) is preferred in order to conserve RMS station capacity.

Winlink Peer-to-Peer (P2P)

If possible, prepare a "Winlink P2P Message" addressed to GAARES-P2P. Transmit the message to NCS WG4PTP using a Winlink Express Vara HF P2P Session. Message should be brief but include information about your situation. Describe your station setup, capabilities, available power, and any immediate needs. If power is critical, send a message and then reconnect to WG4PTP for responses every hour, if possible.

PSK31

Normal digital modes for GA ARES are Winlink and MT63-1KS. However, during an emergency, stations in the affected area may be operating with damaged equipment. PSK31 has a higher success rate with average operators and many of today's radios have the capability to send and decode PSK31 without a computer. While PSK31 may be the lowest common denominator it may be the only mode available. As a part of the emergency protocol, stations not in the affected area should listen for and be capable of handling PSK31 traffic.

Stations not Affected

Stations not affected by the emergency should continue monitoring these frequencies as much as possible. Often stations under the emergency may not be operating at full power or may have other compromised systems which may reduce their output. It is important to have all available stations listening to capture the traffic and relay traffic as needed. Propagation may shift, and the emergency station may have to be handed off from one listening station to another station.

Conclusion

One of the most important aspects of emergency communications is the communications plan. The plan need not be elaborate, but one that can be easily implemented and published to all concerned. Along with the plan, there should be plenty of practice exercises and to reinforce the amateur radio communication skills during an emergency situation.

Revision – 2.0

Distribution – Unlimited

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