
ARES

INSTRUCTOR'S

MANUAL

**Original version
written by
Peel ARES
Peel Amateur Radio Club
Brampton, Ontario**

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VERSION 1.2

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PREFACE / INTRODUCTION

In attempting to provide training for your group, it soon becomes apparent that while a wealth of information exists to serve this purpose, there has been no formalized way in which to convey it. Obviously, every ARES group and every individual has different methods to do this, but without some standardization there will be vast differences in the effectiveness of training, not only from group to group but from one training session to the next.

This manual was created to provide consistency and assure that all points are covered in a logical manner. It should be particularly beneficial to groups having little or no ARES experience. The courses are presented in no particular order.

Some of the material contained herein is specific to the PEEL ARES, who wrote the original manual. Other groups using this manual should substitute such material with information specific to your area and plan.

The format for each of the training courses is as follows:

- ☐ State the objective of the course - The participant will be clear as to the goal of the course and thus will understand the relevance of each of the individual points covered.
- ☐ Materials required - A list of overheads, handouts or other material intended to assist the instructor in presenting the subject matter.
- ☐ Points to cover - This contains the various items that need to be presented to the students. Without this section, the instructors often relate items based solely on their own experience, which may be limited. Slides to show are indicated throughout.
- ☐ The recap - To tie it all together, this is a brief summary of all points presented during the class.
- ☐ Slides - Material that may be used for overhead projection or copied and handed out to the class.

We welcome input from anyone who cares to provide suggestions on ways to improve the manual, either through style or content. These should be directed to the following address:

Field Services Manager
Radio Amateurs of Canada
720 Belfast Road, Suite 217
Ottawa, Ontario.
K1G 0Z5

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Peel ARES Training Team - Kathy Kerr Davidson	VA3KKD
Richard Sargent	VE3OYU
Vic Henderson	VE3FOX
David Friesen	VE3WTJ
Bob Spencer	VE3DHP

TYPICAL ARES OBJECTIVE

To establish and provide training for a core group of emergency communicators.

This group will provide emergency communications in time of need for Police, Red Cross, Municipal or other agencies as requested.

This group will consist of licensed Amateur Radio operators and other volunteers who will respond to training, exercises and public service activities which require radio communications, including declared emergencies.

This group will become the nucleus of skilled and trained radio operators who will establish the first line of communications at the emergency site and will assume supervision of the amateur communications network.

GENERAL INSTRUCTIONS

1. If possible, choose a presenter who is familiar with the topic. This way, he will be better able to field questions that arise.
2. At the end of each section, after the RECAP, is a set of sheets that can be used to create overhead slides. Each slide can be projected at the point indicated in the presentation to provide a visual reference for the material being covered. If an overhead projector is not available, the slides can be copied and handed out.
3. Don't just read from this manual, preview it ahead of time and only use it as a guide.
4. Involve the audience. Ask questions and solicit comments to avoid a one sided presentation.
5. Emphasize points with personal experiences or anecdotes.
6. Make use of any additional material (paperwork or hardware) or use local situations to illustrate the points being covered.

INTRODUCTION TO ARES

OBJECTIVE:

At the end of this session, the student will have a clearer understanding of what the ARES is, how it functions at the different levels and how it provides community service in times of need. .

CLASS MATERIAL:

- ☐ Organizational structure - *slide 1*
- ☐ Preplanning - *slide 2*
- ☐ Call up tree - *slide 3*
- ☐ Training - *slide 4*

OVERVIEW

- Amateur Radio Emergency Service (ARES) created by ARRL in 1935
- More than 70,000 ARES members throughout North America
- Canadian radio amateurs agree to provide communications for the Canadian Red Cross in 1980 agreement, following successful co-operation during Mississauga train derailment and evacuation.
- Radio Amateurs of Canada was formed in 1993 with the merger of Canadian Radio Relay League and Canadian Amateur Radio Federation. The Amateur Radio Emergency Service and National Traffic System, which were part of CRRL, are now both part of the Radio Amateurs of Canada Field Services Organization.

ORGANIZATIONAL STRUCTURE

ARES in Canada now falls under the guidance of RAC using a structure parallel to that in the US. Each of the positions down to the level of EC, being RAC officer functions, require membership in RAC.

(Slide 1)

Field Services Manager FSM

- elected
- carries out policies as set out by the RAC Board of Directors
- maintains liaison with other organizations at the national level.

Section Manager SM

- elected
- manages the field organization activities in a given RAC section, of which there are eight in Canada
- traffic handling, emergency communication and on-air bulletins

Section Emergency Co-ordinator SEC

- appointed by the SM
- responsible for the same RAC section but strictly for the emergency communications aspects (traffic is under the Section Traffic Manager)
- promotes ARES activities among local groups
- recommends policies and planning and encourages larger scale activities

District Emergency Co-ordinator DEC

- appointed by the SEC to supervise a group of ECs in a concentrated population
- coordinating EC activities, interfacing between ARES and local emergency plans
- recommends EC appointments

Emergency Co-ordinator EC

- appointed to handle the direction of all ARES activities in a given area
- promotes ARES, co-ordinates training and organization, conducts exercises
- establishes links to other organizations requiring assistance, sets up nets
- conducts pre-planning sessions and develops a local ARES manual

Assistant Emergency Co-ordinator AEC

- appointed by the EC to assist with all of the duties of the EC
- can be as many AECs as required to do the job
- does not require RAC membership.

ARES Members

- by far the most important
- active and dedicated members required to make it all happen
- ARES members need not be RAC members

BECOMING AN "ACTIVE" ARES MEMBER

- have a genuine desire to assist
- read all the literature about ARES
- attend ARES meetings
- participate in public service events and simulated exercises
- check into nets
- get involved in training others
- take on some specific role

PREPLANNING

(Slide 2)

It is essential that the ARES group does as much preplanning as possible to help reduce the last minute actions down to a manageable amount.

Establish a steering committee within the ARES group to make decisions and formulate plans that will be put into place in the event of an emergency. Issues to be resolved are:

- a call up tree for phoning all members (home and business)
- a list of names and phone numbers of ARES members in adjacent regions to assist in the event of a large or lengthy emergency
- repeater and simplex frequencies be used (including alternates)
- installation of equipment at predesignated emergency operation centres
- preparation of ready kits to assist in setting up stations
- checklists of equipment and personal articles required
- instructions on establishing stations
- interfacing with agencies being served to clarify our role
- establishing shifts for extended operations
- training of members

CALL UP TREE

(Slide 3)

- required for a "first-response"
- organize geographically
- consists of active ARES members who will be available for the initial call
- review often to assure that those listed meet this criteria
- relegate dormant members to a secondary list which can be activated as required
- not always necessary to activate all members on the call up tree
 - assess situation and determine manpower required
 - place others on standby
- many non ARES trained amateurs will respond to a real emergency
 - active ARES members will act as supervisors
- initiate a call up procedure on the designated emergency frequency in parallel with the phone call up

TRAINING

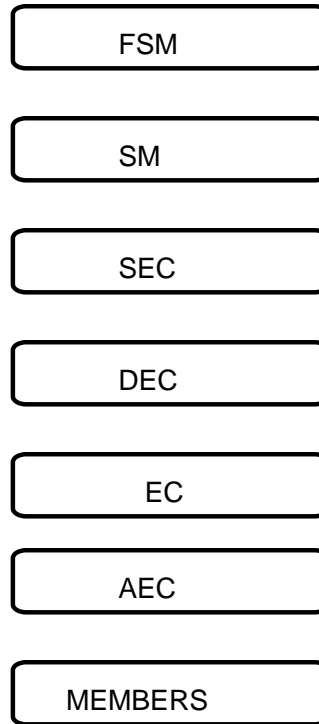
(Slide 4)

- initial training and maintaining of skills is required
- participate in the exercises to simulate "the real thing"
 - exercises with other agencies show how they interact
- public service activities allow net operation and message handling
 - parades, walkathons, goblin patrol, etc
- check into the emergency nets
 - informed of upcoming events
 - pass formal traffic
 - act as the net controller
 - familiarity with procedures
- attending meetings held by ARES
 - facilitate discussions concerning specific areas of concern
 - be part of the planning process for an emergency plan for your community.
- learn about agencies that ARES provides for
- read published articles on ARES

RECAP:

- ☐ **ARES - a national structure**
- ☐ **Planning done at the local level**
- ☐ **ACTIVE members are required**
- ☐ **Maintain a "first response" procedure**
- ☐ **Ongoing training is essential**

ORGANIZATIONAL STRUCTURE



PREPLANNING

- Call up tree
- Assigned frequencies
- Preinstalled equipment
- Ready kits
- Establishing stations
- Other agencies
- Shifts

CALL UP TREE

- First response
- Active members
- Review often
- Assess requirements
- Non ARES volunteers

TRAINING

- Initial / ongoing
- Exercises
- Public service events
- Nets
- Regular meetings
- Agencies serviced
- Published articles

THE BIG PICTURE

OBJECTIVE:

At the end of this session, the student will understand the hierarchy of the emergency structure for the local area and the sequence of actions that will serve to initiate the mobilization of the ARES in times of an emergency.

CLASS MATERIAL:

- ☐ Sequence of events - Slide 1

OVERVIEW

In any emergency situation, ARES will provide communications only for those agencies requesting assistance. Rarely would ARES provide any other service, although it could happen that ARES members may be asked to drive a vehicle or do some other chore if required and if it did not prevent them from performing their assigned communications task.

The specific agencies dealt with and the extent of the interaction with ARES should be spelled out in formal, predetermined understandings so that both parties are aware of each others needs and obligations.

As one of the support groups in any emergency operation, ARES does not normally initiate any action until notified by one of the agencies they are serving. At that time the local ARES will put their own emergency plan into affect, responding to the specific situation at hand.

DETAILS

Presented here is a sequence of events that would likely occur in the event of a declared emergency. Please note that this is a "text book" scenario and may change based upon the actual emergency.

(Slide 1)

- a disaster occurs within the community
- Police are notified and respond to the scene
- Police assess the initial situation and call for specific aid
 - more police
 - fire trucks
 - public utilities
 - ambulances and medical personnel
 - hazardous material containment team
- specific agencies would be notified and put on standby under the Emergency plan
 - Social Services become involved when people require food, clothing or shelter
 - Red Cross is called if shelters are to be established
 - ARES will be notified if communications are required
- the DEC, EC or AEC will be called with a request and initial assessment of the situation
 - DEC, EC and/or AEC quickly confer to assess requirements and actions required

- initiate call up tree to alert members -assign a temporary net controller to also make announcements on local emergency frequency
 - inform members of course of action
 - standby
 - report to a shelter or office
 - report to a central rally point for instructions
 - establish a permanent NCS
- DEC, EC and/or AEC actions
 - meet at EOC or where requested for further instructions and liason to other agencies
 - provide additional communications if requested
 - Police Department
 - Fire Department
 - Municipality Offices
 - provide long term plans
 - establish logistics net if required
 - determine manpower for additional shifts
 - designate a team to coordinate
 - call ARES members on standby

- call local non-ARES members
- call EC or AEC of adjacent ARES for assistance
- put out general on-air call for anyone to assist
 - establish alternate frequency to accommodate call ins
- continue until requested to stand down
- conduct a debriefing after the event to learn valuable lessons

RECAP:

- ☐ **Provide communications as requested**
- ☐ **Red Cross involved for sheltering only**
- ☐ **ARES called by Red Cross**
- ☐ **Alert members via call up methods**
- ☐ **Set up at EOC**
- ☐ **Establish scheduling and logistics support**
- ☐ **Learn from the event**

SEQUENCE OF EVENTS

- Disaster occurs
- Police respond
- Specific agencies respond
- Sheltering - Red Cross
- ARES alerted
- Call up begins
- Meet at EOC
- Communications as requested
- Scheduling
- Debriefing

CASE STUDIES

OBJECTIVE:

At the end of this session, the student will learn valuable lessons about emergency procedures through the review of real life emergencies.

CLASS MATERIAL:

- ☐ Slides or handouts appropriate to the example being used

A. Choose an example of an emergency (real or exercise) which can be used to illustrate lessons to be learned by ARES groups. These can be:

- Local exercises carried out by the group
- Personal experiences
- ARES columns in magazines
- Feature articles in magazines, such as TCA, CQ or QST

- B. Review the article and make a summary of the event, including:
- The scenario and conditions preceeding the emergency
 - The course of events
 - How ARES became involved
 - What ARES actions and responsibilities were
 - How the event concluded
- try to avoid just reading the article from the source
- C. Highlight points to be learned from the event, both good and bad. These may be detailed in the article or can be your own conclusions.
- D. Draw parallels to your local situation, including actions, preparations and facilities.
- E. Ask the students for their views on what happened and what they feel could have been done to improve the amateur's response.
- F. Ask the students what they would do in their own group to deal with a similar situation locally.

RECAP:

- ☐ Briefly outline the emergency
- ☐ Review failings in point form
- ☐ Review strengths in point form
- ☐ State local actions required

NET CONTROL PROTOCOL

OBJECTIVE:

At the end of this session, the ARES member will understand how to act as a net controller, directing call-in stations authoritatively and calmly. He / she will also know how to properly call into a controlled net and how to convey pertinent information in a concise manner.

CLASS MATERIAL:

- ☐ sample exchange with net control - *slide 1*
- ☐ tactical call signs - *slide 2*
- ☐ passing messages - *slide 3*
- ☐ suggested net controller log sheet - *slide 4*

POINTS TO COVER:

A. GENERAL

1. (SLIDE 1)

Radio operators must hold certificate qualifications appropriate to the frequency bands being used. A certificate with Basic qualification is adequate for a VHF net, but additional qualifications are required for HF nets. All nets will be controlled nets. This means that there will be one station, known as the **NET CONTROL STATION (NCS)**, into which all other stations will call. The NCS will then direct the actions of the calling station. This will provide organization, efficiency of operation, and a stable or familiar environment for the radio operators during a time of stress.

2. (SLIDE 2)

Stations involved in the net should use tactical call signs (e.g. CRASH SITE). These must be chosen to be clear and sensible to all and to avoid similarity in the calls. They should be rigorously used for the duration of the exercise / emergency. However, the use of tactical calls requires that stations identify periodically using a proper Amateur callsign in order to conform to radio regulations.

3. Speak in a calm and steady manner. A hastily given message saves no time if it is not understood and has to be repeated.

4. Leave a short pause after the previous station finishes transmitting. This allows other stations to call in if they have emergency traffic.

B. NET CONTROLLER

1. Announce the Net

When commencing a net, the controller should announce the purpose of the net and that the repeater will be taken out of regular use for the operations, the NCS should reannounce the net and request a clear frequency from stations not in the exercise/ emergency. This is recommended to alert stations, that have just turned on their radios during a quiet time, and may not be aware of the operation being conducted.

2. **Passing Messages**

(SLIDE 3)

The NCS frequency should only be used for coordinating purposes or the handling of short messages, when time permits. For the passing of lengthy messages, the NCS should contact both stations and request that they move to another frequency which the NCS assigns and which they both agree to. Both stations should acknowledge the move and let the NCS know when they return to the net. By assigning alternate frequencies, many messages can be passed at the same time.

3. **Unattended Radios**

The net controller must **never** leave the radio unattended. Always make sure that someone is acting as the NCS, even if it requires turning control over to a totally separate station.

4. **Training Opportunities**

Most radio clubs have their own weekly or monthly nets. ARES members should take turns acting as the net controller for these nets so as to gain experience and familiarity with being a net controller. They should run the net using the same format as would be used in an actual emergency. Simply monitoring other nets is also a good way to obtain the feel of how a net is run. Examples to listen to are the Ontario Phone Net (OPN) on 3742Khz at 7:00 PM each night or the local police frequency.

5. **Acknowledge Calls**

Always acknowledge all calls so that the calling station knows he was heard. If it is not possible to process the call immediately, at least tell the caller to stand by.

6. **Log Sheet**

(Slide 4)

With many stations passing messages on alternate frequencies, the NCS needs a way to track them. The log shown on the overhead demonstrates the information that should be recorded. Particular attention should be paid to recording which frequency the station has been directed to and when they have returned to the net.

C. **CALL-IN STATION**

1. **Calling the NCS**

- use ITU phonetics for clarity only if required
- when calling in an urgent request, announce your intentions BRIEFLY. e.g.: "Net Control this is Crash Site. I have a priority message for Red Cross Headquarters".
- if you don't receive a reply, call again in a few minutes; don't give up. If you still cannot contact NCS, check your equipment or location.

2. **Receiving a call from the NCS**

- give the NCS call then your own, followed by "OVER"
- when given instructions by the NCS, acknowledge them as understood and announce your intentions (e.g.: standing by, etc.)
- ask for clarification if you do not understand the net controllers instructions. Do not assume anything.
- if you require further instructions from the NCS, terminate your call with "OVER"
- if this is the end of your exchange with the NCS, terminate your call with "OUT"

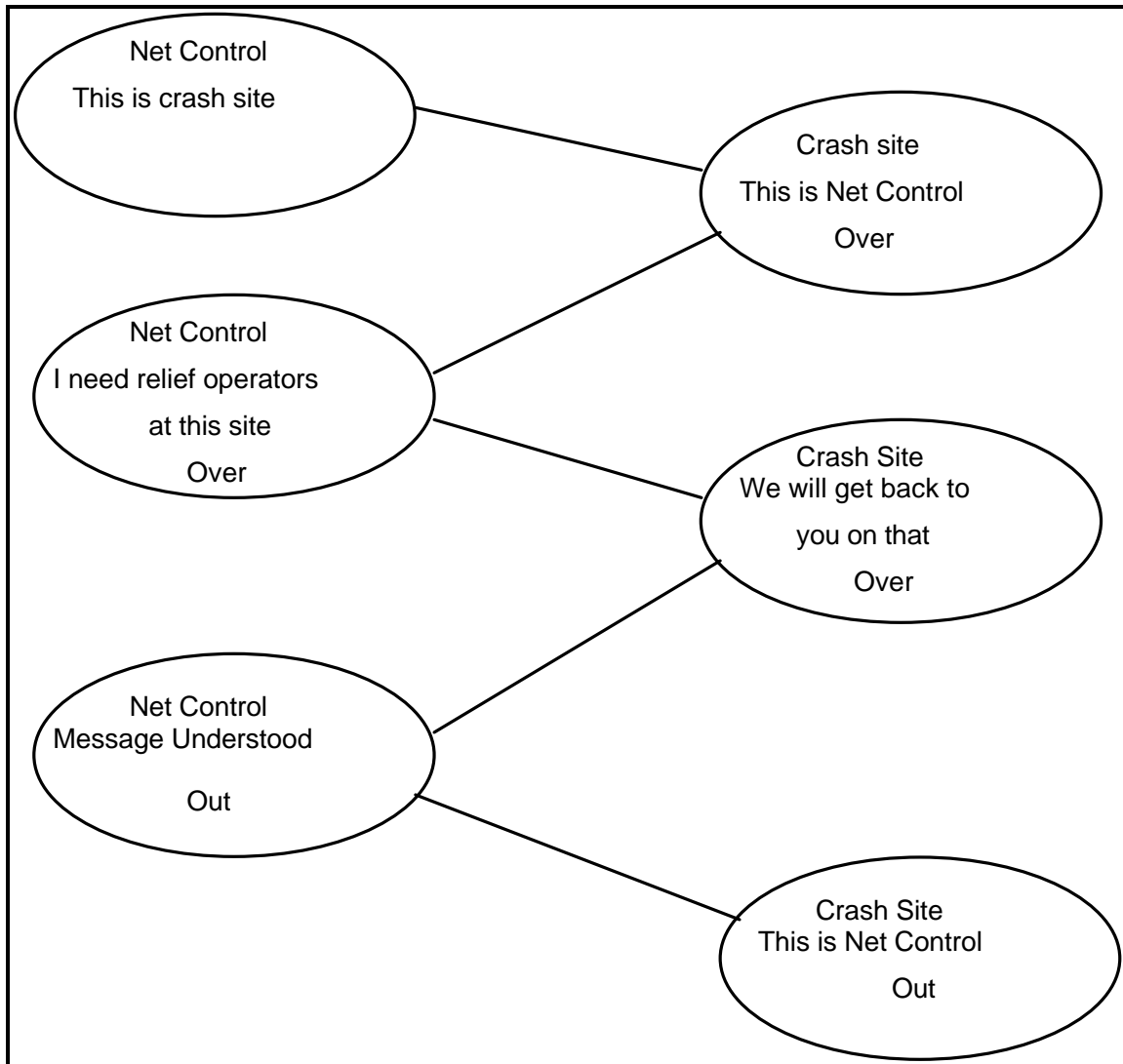
3. When leaving the net, always inform the NCS so that he does not waste valuable time attempting to contact you. When returning to the net, contact the NCS.
4. **Pass formal messages exactly as written**, unless it makes absolutely no sense, in which case you should ask for a clarification. Do not try to interpret what you think the writer meant. **Do not pass an unsigned message.**
5. **Do not engage in any extraneous talk** with the NCS or other stations; this only clutters the NCS frequency needlessly. Use crisp, clear, factual transmissions. Think about what you want to say before calling in. This will avoid lengthy transmissions. Remember also that anyone may be monitoring your frequency. The manner in which you conduct yourself can leave lasting impressions.
6. Don't say "BREAK" to gain access between transmissions; give your call letters. This way the NCS knows someone needs immediate attention and who it is.
7. Once a message is fully received, confirm it by saying "MESSAGE RECEIVED" or "MESSAGE ACKNOWLEDGED" or "I ACKNOWLEDGE YOUR MESSAGE NUMBER 17".

RECAP:

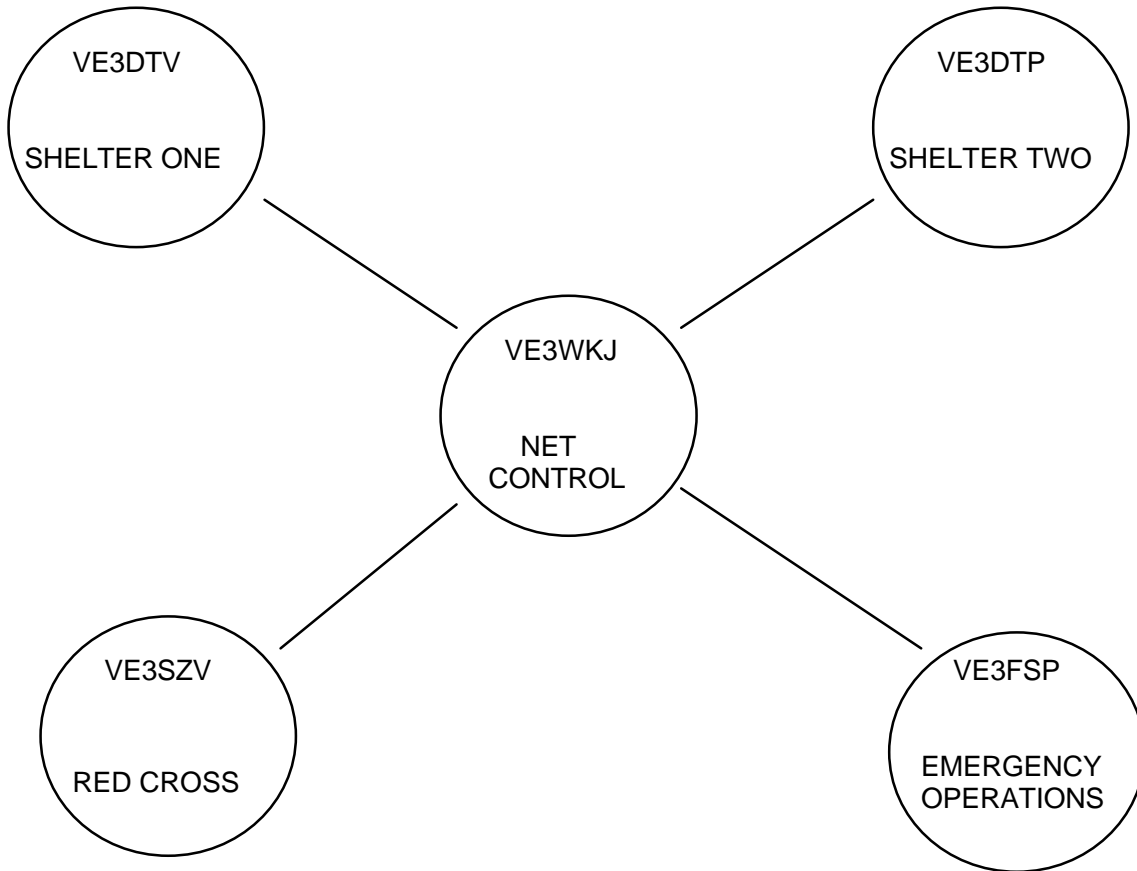
- ☐ All nets will be controlled. All calls will be directed by the NET CONTROL STATION.
- ☐ Stations using the net should use tactical call signs (e.g.: crash site). Amateur call signs should be used only periodically in order to conform to radio regulations.
- ☐ Speak in a calm and steady manner.
- ☐ Leave a short pause after the previous station finishes transmitting.
- ☐ Net Controller should announce the purpose of the net and that the repeater will be taken out of regular use for the duration of the operation.
- ☐ The Net Control Station should only be used for short messages. Lengthy transmissions should be re-directed to another frequency as assigned by the Net Controller.
- ☐ The Net Controller must never leave the radio unattended.

- ☐ **ARES members should be encouraged to act as Net Controllers during weekly or monthly training nets.**
- ☐ **Net Controller should acknowledge all calls made to the station.**
- ☐ **Use ITU phonetics for clarity only.**
- ☐ **Acknowledge any instructions given by Net Control. Ask for clarification if necessary.**
- ☐ **Inform Net Control if you are leaving or returning to the net.**
- ☐ **Pass formal messages exactly as written.**
- ☐ **Do not engage in extraneous talk.**
- ☐ **Acknowledge receipt of messages.**

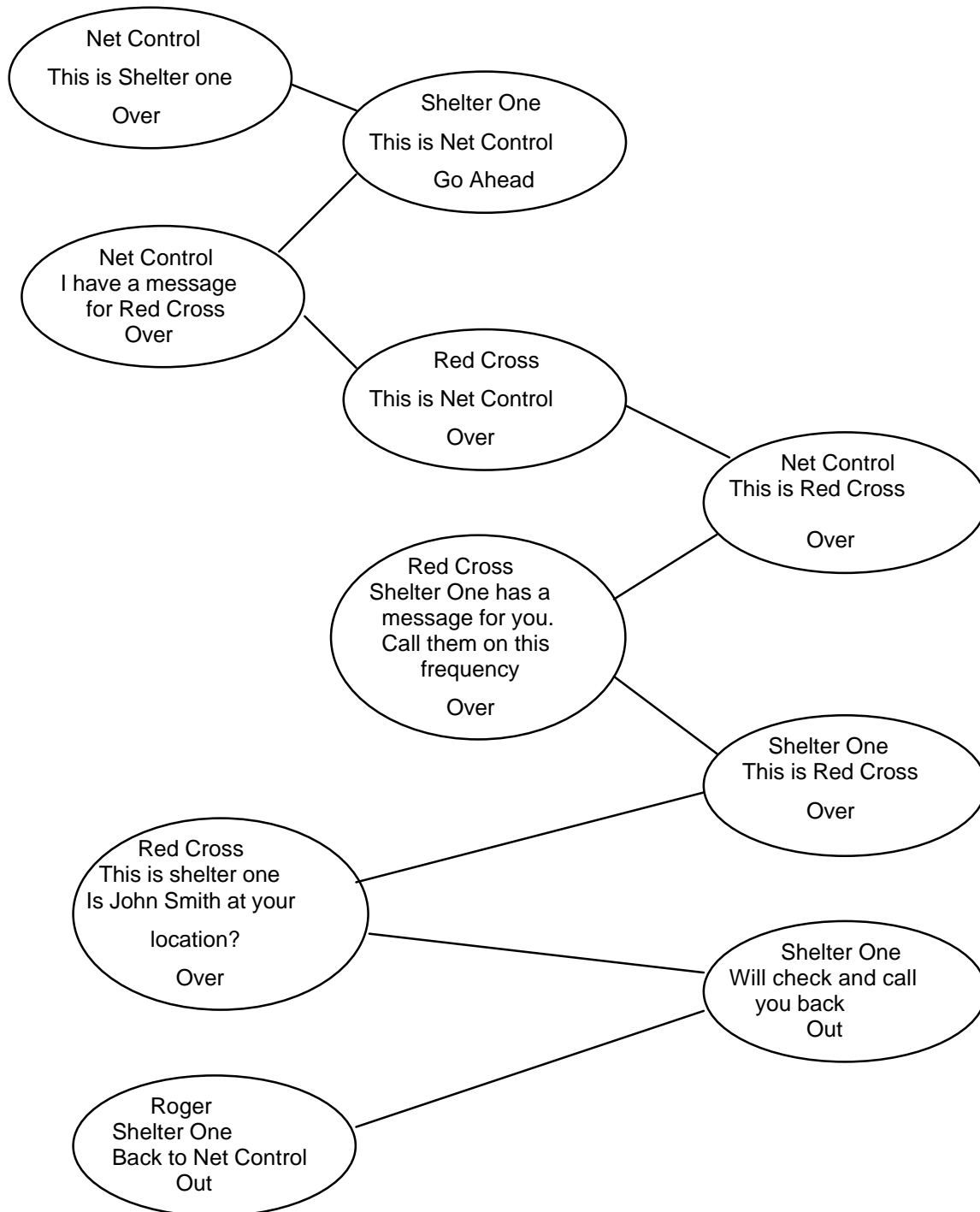
SAMPLE EXCHANGE WITH NET CONTROL



TACTICAL CALL SIGNS



PASSING MESSAGES



NET CONTROL CALL SIGN _____

FREQUENCY _____

TIME	STN CALLING	PRIORITY	RTN	STN CALLED	RTN	FREQUENCY	REMARKS

PERSONAL READINESS

OBJECTIVE:

At the end of this session, the student will have a clear understanding of what can be done, as an individual, to assure efficient operation during an emergency.

CLASS MATERIAL:

- ☐ Emergency Plan - *slide 1*
- ☐ Emergency Response Kit - *slide 2*

POINTS TO COVER:

A. General

Once an emergency situation is declared, it is the responsibility of the individual amateurs involved to perform in their most efficient manner. Their effectiveness will, in part, be determined by how well they have taken care of personal preparations, some of which are listed below.

1. Make sure all your equipment is in good working order. Faulty or intermittent equipment that is an annoyance in day-to-day operating can become a major impediment during an emergency (Remember, Murphy says things will only get worse).

2. (Slide 1)

Know what the emergency plan is for your area. This will be covered in your ARES communications manual, covering such points as:

- repeaters or frequencies to be used
 - do you know what your primary repeater will be in an emergency?
 - will you use a simplex frequency for your operations?
 - what is the contingency if your repeater fails?
 - what back-up repeaters will be used?
 - does the repeater have emergency power?
 - are you aware of any control codes required for the repeater?
 - who has access to the repeater for maintenance?
- emergency coordinators
 - who are the ECs and AECs?
- existing facilities
 - what buildings have antennas already erected?
 - what locations have radios permanently installed?
 - how do you get access to these locations?
- - is there a cache of supplies available?
 - where is it and how is it accessed?
 - what is available?
 - does someone periodically check it?
 - do you have a personal "ready kit" ?
(see item 6 below)
 - would it enable you to establish an emergency station?

- the call-up tree
 - do you have the latest copy?
 - is there a copy at work, home and in your car?
 - are your phone numbers and address correct?
 - do you know what to do when no one answers?
 - what if you get an answering machine?
 - the first alert
 - what do you do when alerted?
 - where do you go when alerted?
3. Have some form of emergency power. For hand-helds you should have a spare battery pack and keep in the habit of charging these on a regular basis. One of the "shell" battery packs is a handy item. These allow you to insert Alkaline batteries, which are recommended, since they don't tend to lose their charge when not in use, the way that a Ni-Cad battery will.
- does everyone have a spare battery pack?
 - do you have a routine for recharging batteries?

A car battery provides an excellent means of powering a base station for extended operation.

Make sure that you have a spare fuse for the radio in case the original one blows (tape it to the power cord).

- does everyone have a spare fuse?

4. Keep spare antennas at the ready. A magnetic mount antenna is a good choice since it can be attached to any metallic surface to form a ground plane. In case you must operate inside a building where reception is poor, a coax extension
5. (with appropriate connectors) should be available to assist you in mounting the antenna in a more ideal location.
 - does everyone have a spare portable antenna that can be easily transported and erected?
5. Hone your skills whenever possible. Participate in public service activities, handle messages and check into nets so that you can constantly practice activities that will be required in an emergency.
 - how many people check into nets regularly?
 - how many serve as net controllers?
 - how many monitor nets?
6. (Slide 2)

Prepare a ready kit. Common items such as pens, paper, message forms, repeater directory, flashlight, log sheets, candles, matches, etc stored in a handy container will assist you in quickly setting up a station if required. Don't assume that the other guy will be providing these items; you may be the only one there.
7. Register your availability. If you intend to be an active participant, make sure that your name is included in the call-up list which is vital for a speedy first response.
8. Monitor the local emergency frequency often. Whether at home or in your car, this will be the best way for you to have the soonest possible notification of an emergency condition.

RECAP:

- ☐ **always keep radio equipment in top operating condition**
- ☐ **stay familiar with the emergency plan for your area**
- ☐ **don't depend on regular power sources - have alternates**
- ☐ **practice operating skills regularly**
- ☐ **prepare a kit with items used to run an emergency station**
- ☐ **make your availability known**

EMERGENCY PLAN

- repeaters or frequencies to be used (primary and secondary)
- who the emergency coordinators are
- facilities having pre-erected antennas or availability of radios
- where emergency supplies are kept and who has the key
- the call-up tree
- where and how to respond to a first alert

EMERGENCY RESPONSE KIT

Radio Equipment

- Emergency Manual
- VHF radio/UHF radio/HF radio
- antenna(s) and (magnetic) mount(s), extension coax
- power supply, batteries, emergency generator
- extra microphone(s)
- external speaker/headphones (with Y connector)
- extension cords
- extra connectors/cables/patch cords
- tool box/soldering
- iron/solder/electrical tape/fuses/other tools
- Area Map with Zone Markings
- ARES/Red Cross/Emergency Volunteer identification
- Repeater List/Net Directory/Call-up Tree
- pen/pencil/eraser
- clipboard, notepaper, message pad,
- log sheets,
- post it note-pads
- copy of radio license
- flashlight with batteries (spare bulbs)
- candles/matches
- twine/tie wraps

Personal

- personal medications/aspirin
- snacks/candy/liquid refreshments
- extra clothing, gloves, etc.
- sleeping bag
- toiletries (towel, face cloth, razor, etc.)
- small First Aid kit

STATION SUPERVISOR DUTIES

OBJECTIVE:

At the end of this session, the ARES member will be aware of the role that the station supervisor plays in setting up and running an emergency radio station. He / she will also know how to interface with other workers at the radio site so as to facilitate an efficient flow of information between the agency being served and other radio sites in the operation.

CLASS MATERIAL:

- ☐ Example station log - (Slide 1)

POINTS TO COVER:

A. THE STATION SUPERVISOR

The person acting as the supervisor must be a trained and active ARES member. He must be familiar with the emergency plan and how to put it into effect.

B. INITIAL SET UP

As soon as possible after the initial shift supervisor arrives at the site, he should establish **where the station will be physically located**, taking into account **accessibility, antenna erection, privacy and facilities**. He must **contact the manager of the location**, the radio room is mutually agreeable and convenient for both. It must also be established early what the routing of messages is within the site. He should keep the location manager informed of any changes to the station which would affect the running of the location, such as shutting down the station or moving it.

C. BEGINNING OPERATION

Once the station is operational, call the NCS and announce your location, tactical call sign and state of readiness.

D. STATION LOG

(SLIDE 1)

The station manager should begin a **log of the activities** at the station. This should include time started, location and operators on duty. As the operation progresses, he should record any pertinent information, such as bands and equipment used, shift changes, informal traffic handled (parties involved and general topic), operators on duty for a shift and other events affecting communications and the actions taken to resolve them (if any). Formal message logging is not required as all details about the transaction are recorded on the message form. **Completeness of the log is important** for post emergency purposes. The ARES group itself may require it for self evaluation and improvement or the authorities may request it for an inquest or for legal matters.

Times on the station log should be stated using the 24 hour clock (e.g.: write 1500 hours and **not** 3:00 p.m.). Dates should be written month (in full, or three letter abbreviation), date and year (e.g.: Jan 15/94).

E. RADIO ROOM SECURITY

Make sure the radio room is kept **secure and occupied only by those on duty** for that shift. All other amateurs and shelter personnel should be kept from the room so as not to interfere operators with their talking. A separate room with a door should be used, if possible. This will aid in securing the area and also limit the amount of noise into and out of the room.

F. THIRD PARTY CONTACT

Any interfacing between the communications people and the location people, or anyone else, is done by the supervisor. This should be done outside the radio room to avoid disturbing the radio operators. **Do NOT release any information about the details of the operation to any third party.** This is often how the press get material for their articles. Much confusion can be caused if facts are taken out of context or misunderstood. Worse yet, the release of restricted information could reflect badly on the ARES group. Anyone requesting information should be referred to the person on location responsible for public information.

G. CHANGING NEEDS

It is the duty of the supervisor to recognize changing telecommunication needs within the location and act accordingly. If additional operators or equipment are required, the supervisor should initiate whatever action is required to remedy the situation, keeping in mind total resources available and the possible duration of the emergency situation.

H. CHANGING SHIFTS

Make sure that operators reporting for the next shift identify themselves by signing in on the log. Do not let the previous shift leave until the new one arrives. Attempt a **ten minute overlap** so that the new shift has a "feel" for the situation and what actions are pending. A formal briefing should take place for the hand-over from one shift to another. This briefing would include:

- basic procedure and policy;
- how messages are routed within the site;
- who the location manager is;
- any equipment concerns or issues;
- general activities within the location.

RECAP:

- ☐ **The Station Supervisor must be a trained ARES member familiar with the emergency plan.**
- ☐ **Upon arrival at the location, the station manager should identify himself to the location manager. The location of the station should then be identified.**
- ☐ **Once the station is operational, the station manager should contact the Net Control Station and announce location, tactical call sign and state of readiness.**
- ☐ **The station manager should begin a log of events.**
- ☐ **The radio room should only be occupied by those operators on duty. The room must be kept secure at all times.**
- ☐ **Interfacing with other location personnel will be done through the station manager only.**
- ☐ **No information should be released to third parties. Any request for information should be directed to the public information representative on location.**

RECAP:

- ☐ **The station manager must acknowledge and act upon changing telecommunication needs.**
- ☐ **There should be a 10 minute overlap of incoming and outgoing shift personnel. During this time, a briefing will take place.**

EXAMPLE OF STATION LOG

Jan. 26 / 94

1607

Established radio room at Red Cross West Drive office using call VE3RCP. VE3UXW Shift Supervisor, VE3WKJ and VE3HHA assisting. Began monitoring of VE3PRC repeater.

1622

Contact established with VE3RCO at Ontario Division Red Cross Branch on VE3PRC repeater.

1625-1653

Informal traffic between VE3RCO (Gamester/Metro E.S. Chairperson) and VE3RCP (Carole Jones. Exec. Director N.Peel) re: transportation of R&I forms between locations

Jan 27/94

0030

VE3WKJ, VE3HHA, VE3UXW relieved by VA3JAK (Shift Supervisor), VE3SZV, VE3XBE.

0321

Loss of electrical power at Red Cross West Drive office. Began operation on emergency power (car batteries).

0612

Electrical power restored, resumed normal operations.

MESSAGE HANDLING

NOTE:

Many ARES clients insist on ARES use of the client's own Canadian military format message form. Where this is not the case, use the RADIOGRAM form for all traffic. Client message forms may be used for all local traffic. For communication outside the local area, through stations in the National Traffic System, use of the RADIOGRAM form is necessary. The ARES Instructor should devise a separate lecture similar to this one, to deal with using the local message form.

OBJECTIVE:

At the end of this session, the ARES member will be familiar with the standard RAC message form, including what information is to be inserted in each field and the proper procedure for passing the message to another station.

CLASS MATERIAL:

- ☐ RAC message form - *slide 1*
- ☐ Preamble - *slide 2*
- ☐ Preamble - *slide 3*
- ☐ Addressee - *slide 4*
- ☐ Text & Signature - *slide 5*
- ☐ Rec'd & Sent - *slide 6*
- ☐ Message errors - *slide 7*
- ☐ Blank RAC message forms

POINTS TO COVER:

A. THE STANDARD RAC MESSAGE FORM

(SLIDE 1)

Whenever possible, formal traffic will be handled using the RAC RADIOGRAM form. This form is an adaptation of the standard Amateur radiogram form used by the ARRL and can be used for sending messages through the National Traffic System. Instructions for completion have been included on the form to assist users. Radio operators should be familiar with the form and the sections to be completed by them and those to be completed by the Sender.

NOTE TO INSTRUCTOR:

- explain what each field is for
- detail what entries can be put into each field and what each signifies
- explain how the address is to be completed
- explain how the text is to be filled out and by whom
- pay special attention to the *received from* and explain the importance of getting a signature from the sender

Remember that THE RESPONSIBILITY FOR ORIGINATION OF MESSAGES CONCERNING AN AGENCY OPERATIONS RESTS WITH THE AGENCY OFFICIALS.

THE RESPONSIBILITY FOR ORIGINATION OF MESSAGES CONCERNING AMATEUR RADIO OPERATIONS RESTS WITH THE AMATEUR APPOINTED RADIO SHIFT SUPERVISOR.

B. RADIO TRAFFIC: The RAC RADIOGRAM FORM

1. Transmission of Messages

There are four separate parts to a formal message:

- i) **PREAMBLE** - contains all the necessary operators information and occupies the top line of the radiogram. IT IS TO BE COMPLETED BY THE RADIO OPERATOR, OR DESIGNATE.

(SLIDE 2)

The **PREAMBLE** section contains the following:

☐ **MESSAGE NUMBER:** A sequential number is assigned to each message to be transmitted. This number will be used for the filing of all messages sent from the station. If you need to reply to a message or inquire about one of yours, refer to the message number in question.

☐ **PRECEDENCE:** The originator will indicate the PRECEDENCE by circling the Level of Importance of the message in section 4 of the instructions on the Radiogram Form. The radio operator, or a designate, will use this information to complete this section of the PREAMBLE.

PRECEDENCE IS TO BE ASSIGNED TO THE MESSAGE BY THE ORIGINATOR, AND MAY NOT BE ALTERED BY THE RADIO OPERATOR.

❑ **STATION OF ORIGIN:** Messages will indicate the call sign of the station of origin. Tactical call signs may be used provided the message is not sent through normal Amateur channels (i.e. the NTS). Otherwise, a regular Amateur call sign must be used.

(SLIDE 3)

❑ **WORD CHECK:** This indicates how many words, letter/number groups and punctuation signs there are in the text of the message. Closing remarks such as best wishes, yours truly, 73, and 88 are included in the text and the word count. **Try to keep the word count to 25 words or less.** However, longer messages can be handled.

❑ **PLACE OF ORIGIN:** The town name or location of the originator is the place of origin for the message. (This is not necessarily the same as the location of the station of origin.) An example: VE3RCO in Toronto is asked to originate a message on behalf of the Red Cross Branch in Oakville. The Station of Origin is VE3RCO, but the Place of Origin is Oakville since that is where the originator is located and where the reply is to go.

The name of the Province should be included in traffic being sent out-of-Province. Tactical call signs may be used provided the message is not sent through normal Amateur channels (i.e. the NTS).

❑ **FILING TIME:** Optional use by the operator. When used, the filing time should be local time (EDT/EST), unless message is destined for a different time zone, then UTC/GMT should be used. (Always specify system used.) **Twenty-four hour clock should be used.**

❑ **DATE FILED:** This will be the month followed by the day and the year. (e.g.: Jan 25/94)

Once a message has been transmitted, the operator on duty will complete the box at the bottom of the Radiogram Form by filling the field Sent , listing the station to whom the message was transmitted, and the date and time of transmission (local date and time may be used).

Once a message has been transmitted it is to be **filed** at the station of origin by the operator or the logger on duty.

(SLIDE 4)

ii) **ADDRESS** - section contains the full name of the addressee, including his title. Full street address, town, province and postal code is required. An alternative address may be the shelter, or other location where the addressee is to be found. Telephone number, including area code if possible, must be completed (may not apply to shelter locations). IT IS TO BE COMPLETED BY THE PERSON ORIGINATING THE MESSAGE.

(SLIDE 5)

iii) **TEXT** - the body of the actual message being sent. Each word, number-letter group, or punctuation is entered in a space (five per line). IT IS TO BE COMPLETED BY THE PERSON ORIGINATING THE MESSAGE.

- iv) **SIGNATURE** - may be one name or several names. Title of the person originating the message must be included. An address and phone number may be included. IT IS TO BE COMPLETED BY THE PERSON ORIGINATING THE MESSAGE.

The radio operator on duty, or a designate, should insure that the ADDRESS, TEXT, and SIGNATURE sections are **complete and legible** before accepting the message for transmission or send it back to the Originator.

The radio operator on duty, or a designate, should then complete the PREAMBLE section and add the message to the list for transmission.

2. Reception of Messages

(SLIDE 6)

Record an incoming message using the RAC RADIOGRAM form. (**Print all information legibly.**) Complete the bottom left field marked **RCV'D** and noting the station it was received from, the date and the time of reception. Local date and time may be used.

Deliver the message to the person designated for the reception of radio messages.

3. Informal Traffic

Informal traffic **should be restricted** to the provision of direct personal communications between officials of the agency being served. It should be carried out on an alternative frequency from the formal traffic when possible.

Contact should be established between the Amateur operators before handing over the microphone to the officials. Be sure the official is familiar with the operation of the equipment before the conversation begins. Once the traffic is completed the amateurs should sign off in the usual manner. The Radio Amateur is in charge of the station and responsible for all transmissions from that station.

The occurrence of informal traffic should be noted in the Radio Station Log, noting time of occurrence, participants, and general topic.

Informal traffic concerning Radio Operations should be carried out by the Radio Shift Supervisor, or designate, according to the procedures outlined above.

3. **Sample Error Message**

(SLIDE 7)

Note to Instructor: Have students view the slide and comment on possible errors contained therein.

EXERCISE:

- ☐ TRANSMIT A MESSAGE OVER THE RADIO SO THAT STUDENTS CAN FILL OUT AN ACTUAL FORM (message should contain difficult words, numbers and possibly errors)
- ☐ HAVE STUDENTS SEND PREPARED MESSAGES BACK AND FORTH TO EACH OTHER FOR PRACTICE IN BOTH SENDING AND RECEIVING.

RECAP:

- ☐ a formal message contains four parts:
 - i) **PREAMBLE:** The record keeping part.
 - ii) **ADDRESS:** Information about the party to whom the message is sent.
 - iii) **TEXT:** What the sender wants to tell the addressee.
 - iv) **SIGNATURE:** Identifies the person that is sending the message.
- ☐ Message forms must be legible and completed in full.

RADIOGRAM							
Number	Precedence	HX	Station of Origin	Check	Place of Origin	Time Filed	Date
To: _____ Phone: _____				This Radio Message Was Received At Amateur Station _____ Phone _____ Name _____ Street Address _____ City _____			
<div style="display: flex; justify-content: space-between;"> <div style="width: 20%;">_____</div> <div style="width: 20%;">_____</div> <div style="width: 20%;">_____</div> <div style="width: 20%;">_____</div> <div style="width: 20%;">_____</div> </div> <div style="display: flex; justify-content: space-between; margin-top: 10px;"> <div style="width: 20%;">_____</div> <div style="width: 20%;">_____</div> <div style="width: 20%;">_____</div> <div style="width: 20%;">_____</div> <div style="width: 20%;">_____</div> </div> <div style="display: flex; justify-content: space-between; margin-top: 10px;"> <div style="width: 20%;">_____</div> <div style="width: 20%;">_____</div> <div style="width: 20%;">_____</div> <div style="width: 20%;">_____</div> <div style="width: 20%;">_____</div> </div> <div style="display: flex; justify-content: space-between; margin-top: 10px;"> <div style="width: 20%;">_____</div> <div style="width: 20%;">_____</div> <div style="width: 20%;">_____</div> <div style="width: 20%;">_____</div> <div style="width: 20%;">_____</div> </div> <div style="display: flex; justify-content: space-between; margin-top: 10px;"> <div style="width: 20%;">_____</div> <div style="width: 20%;">_____</div> <div style="width: 20%;">_____</div> <div style="width: 20%;">_____</div> <div style="width: 20%;">_____</div> </div>							
REC'D From Date Time				SENT To Date Time			

A, B, C, D, E

Amateur Call Sign / Tactical Call Sign

Sequential

<div style="display: flex; justify-content: space-between; font-size: small; margin-bottom: 5px;"> Total words in text City 24 Hr. Local </div> <h2 style="margin: 0;">RADIOGRAM</h2>							
Number	Precedence	HX	Station of Origin	Check <div style="border: 1px solid black; border-radius: 50%; width: 40px; height: 20px; margin: 5px auto;"></div>	Place of Origin <div style="border: 1px solid black; border-radius: 50%; width: 40px; height: 20px; margin: 5px auto;"></div>	Time Filed <div style="border: 1px solid black; border-radius: 50%; width: 40px; height: 20px; margin: 5px auto;"></div>	Date <div style="border: 1px solid black; border-radius: 50%; width: 40px; height: 20px; margin: 5px auto;"></div>
To: Phone:				This Radio Message Was Received At Amateur Station _____ Phone _____ Name _____ Street Address _____ City _____			
REC'D			From	Date	Time	SENT	
						To	
						Date	
						Time	

RADIOGRAM							
Number	Precedence	HX	Station of Origin	Check	Place of Origin	Time Filed	Date
To: <div style="border: 1px solid black; border-radius: 50%; width: 150px; height: 40px; display: inline-block; vertical-align: middle;"></div> Phone:				This Radio Message Was Received At Amateur Station _____ Phone _____ Name _____ Street Address _____ City _____			
<div style="position: relative; height: 100px;"> <div style="position: absolute; left: -40px; top: 50%; transform: translateY(-50%);">Recipient</div> <div style="position: absolute; right: -40px; top: 50%; transform: translateY(-50%);">Your address</div> </div>							
REC'D	From	Date	Time	SENT	To	Date	Time

RADIOGRAM							
Number	Precedence	HX	Station of Origin	Check	Place of Origin	Time Filed	Date
To: Phone:				This Radio Message Was Received At Amateur Station _____ Phone _____ Name _____ Street Address _____ City _____			
<div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> <hr/><hr/><hr/><hr/><hr/><hr/> </div> <div style="width: 50%; text-align: center;"> <div style="border: 1px solid black; border-radius: 50%; width: 150px; height: 50px; margin: 0 auto;"></div> </div> </div>				Text			
<div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> <hr/><hr/><hr/><hr/><hr/><hr/> </div> <div style="width: 50%; text-align: center;"> <div style="border: 1px solid black; border-radius: 50%; width: 200px; height: 30px; margin: 0 auto;"></div> </div> </div>				Signature			
REC'D			From	Date	Time	SENT	
						To	Date
						Time	

RADIOGRAM								
Number	Precedence	HX	Station of Origin	Check	Place of Origin	Time Filed	Date	
To: Phone:				This Radio Message Was Received At Amateur Station _____ Phone _____ Name _____ Street Address _____ City _____				
REC'D	From	Date		Time	SENT	To	Date	
		<div style="border: 1px solid black; border-radius: 50%; width: 150px; height: 30px; margin: 0 auto;"></div>					<div style="border: 1px solid black; border-radius: 50%; width: 150px; height: 30px; margin: 0 auto;"></div>	

Routing

RADIOGRAM																																
Number	Precedence Routine	HX G	Station of Origin VE3FGK	Check 16	Place of Origin Ont.	Time Filed 1325	Date 2/4/94																									
To: John Smith 47 Main Street Kingston, Ont Phone: (555)492-3847				This Radio Message Was Received At Amateur Station _____ Phone _____ Name _____ Street Address _____ City _____																												
<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 25%; border-bottom: 1px solid black;">Having</td> <td style="width: 25%; border-bottom: 1px solid black;">fun</td> <td style="width: 25%; border-bottom: 1px solid black;">at</td> <td style="width: 25%; border-bottom: 1px solid black;">camp</td> <td style="width: 25%; border-bottom: 1px solid black;">tomahawk</td> </tr> <tr> <td style="border-bottom: 1px solid black;">Went</td> <td style="border-bottom: 1px solid black;">on</td> <td style="border-bottom: 1px solid black;">a tiring</td> <td style="border-bottom: 1px solid black;">five</td> <td style="border-bottom: 1px solid black;">mile</td> </tr> <tr> <td style="border-bottom: 1px solid black;">hike</td> <td style="border-bottom: 1px solid black;">yesterday</td> <td style="border-bottom: 1px solid black;">X</td> <td style="border-bottom: 1px solid black;">Please</td> <td style="border-bottom: 1px solid black;">send</td> </tr> <tr> <td style="border-bottom: 1px solid black;"></td> <td style="border-bottom: 1px solid black;">more</td> <td style="border-bottom: 1px solid black;">money</td> <td style="border-bottom: 1px solid black;">X</td> <td style="border-bottom: 1px solid black;"></td> </tr> <tr> <td style="border-bottom: 1px solid black;"></td> <td style="border-bottom: 1px solid black;"></td> <td style="border-bottom: 1px solid black;"></td> <td style="border-bottom: 1px solid black;"></td> <td style="border-bottom: 1px solid black;"></td> </tr> </table>								Having	fun	at	camp	tomahawk	Went	on	a tiring	five	mile	hike	yesterday	X	Please	send		more	money	X						
Having	fun	at	camp	tomahawk																												
Went	on	a tiring	five	mile																												
hike	yesterday	X	Please	send																												
	more	money	X																													
REC'D From Simcoe Date Apr 4/94 Time 1710				SENT To VE3DVK Date Apr 3/94 Time 0045																												

LOGGER AND OPERATOR DUTIES

OBJECTIVE:

At the end of this session, the ARES member will understand the role of the operator and the logger in the operation of an emergency station.

CLASS MATERIAL:

- ☐ General duties - *slide 1*
- ☐ Emergency response kit - *slide 2*
- ☐ Operator duties - *slide 3*
- ☐ Logger duties - *slide 4*
- ☐ Sample station log - *slide 5*

POINTS TO COVER:

(SLIDE 1)

A. GENERAL

1. All nets will be controlled nets. This means that there will be one station, known as the NET CONTROL STATION (NCS), into which all other stations will call. The NCS will then direct the actions of the calling station. This will provide organization, efficiency of operation, and a stable or familiar environment for the radio operators during a time of stress.

2. All stations should ideally be staffed by **three** amateurs having distinct roles, although more personnel may be enlisted for a particularly busy station. The positions are:
 - **Station Supervisor:** a trained and active ARES member who will take charge of the station;
 - **Operator:** the person who will do the actual radio operating and
 - **Logger:** the person who will handle the log and messages being passed.
3. Stations involved in the net should **use tactical call signs** (e.g. CRASH SITE). These must be chosen to be clear and sensible to all and to avoid similarity in the calls. They should be rigorously used for the duration of the exercise / emergency. However, the use of tactical calls requires that **stations identify periodically using a proper Amateur Radio callsign in order to conform to radio regulations.**
4. **Leave a short pause** after the previous station finishes transmitting. This allows other stations to call in if they have emergency messages.
5. **Report to the station about 10 minutes prior to your assigned time** to allow an overlap with the previous shift. This will enable you to get the "feel" of the operation and be made aware of any pending actions or situations that will carry over into your shift.
6. When taking a break and being relieved by someone, remove yourself from the station for a complete recess from the situation.
7. The operator and logger should not converse with anyone other than themselves or the supervisor. It is the supervisor's job to interact with other personnel at the location.
8. Sign in on the log when assuming shift duties.

9. Operator and logger positions may be rotated during the shift, however they may only act as the supervisor if they are trained and active ARES members.
10. Amateurs are expected to make available their equipment for use at the station they are participating at, although some stations may have permanent facilities. Hand-held radios, due to their low power and sensitivity should not be used if a base radio is available.

(SLIDE 2)

11. ARES members should have a "ready box" consisting of those items required to properly support station activities.

B. OPERATOR

(SLIDE 3)

1. Announce the Net (NCS only)

When commencing a net, the NCS operator should announce the purpose of the net and that the repeater will be taken out of regular use for the duration of the exercise. At periodic intervals, when there is a lull in the operations, the NCS should reannounce the net and request a clear frequency from stations not in the exercise / emergency. This is recommended to alert stations, that have just turned on their radios during a quiet time, and may not be aware of the operation being conducted.

2. Passing Messages

The NCS frequency should only be used for coordinating purposes or the handling of short messages, when time permits. For the passing of lengthy messages or several messages at the same time, the NCS should contact both stations and request that they move to another frequency which the NCS assigns and which they both agree to. Both stations should acknowledge the move and let the NCS know when they return to the net. By assigning alternate frequencies, many messages can be passed at the same time.

3. **Unattended Radios**

Never leave the radio unattended. Always make sure that someone is acting as the operator, even if it requires temporarily turning control over to a totally separate station. Obtain permission from the NCS before doing this.

4. **Acknowledge Calls**

Always acknowledge all calls so that the calling station knows he was heard. If it is not possible to process the call immediately, at least tell the caller to stand by.

5. Use ITU phonetics for clarity only if required.

6. Do not engage in any extraneous talk with stations on the net; this only clutters the NCS frequency needlessly. Use crisp, clear, factual transmissions. Think about what you want to say before calling another station. This will avoid lengthy transmissions. Remember also that anyone may be monitoring your frequency. The manner in which you conduct yourself can leave lasting impressions.

7. Speak in a calm and steady manner. A hastily given message saves no time if it is not understood and has to be repeated.

8. When first establishing a station at a location, inform the NCS just as soon as you are operable; don't assume he knows that you are operational.

C. LOGGER

(SLIDE 4)

1. It is the responsibility of the logger to keep track of all paperwork at the station, including the station log started by the station supervisor, messages sent by the station and messages received by the station.
2. Make sure that you are aware of the routing of the messages within the location.
3. Messages sent by the station should be quickly scrutinized by the logger for proper form and referred back to the originator, via the station supervisor, for any corrections or clarifications, if required. The message preamble, text and signature must all conform to standard RAC message form requirements. The message content must not be changed in any way without the agreement of the originator. **All messages must have the signature and position of the originator.**

4. Messages received by the station should be neatly printed and promptly passed to the addressee.
5. Transmitted messages should be filed by message number .

(SLIDE 5)

6. The station log should include time started, location and operators on duty. As the operation progresses, any pertinent information should be recorded, such as bands and equipment used, shift changes, informal traffic handled (parties involved and general topic), operators on duty for a shift and other events affecting communications and the actions taken to resolve them (if any). Formal message logging is not required as all details about the transaction are recorded on the message form.

Completeness of the log is important for post emergency purposes. The ARES group itself may require it for self evaluation and improvement or the authorities may request it for an inquest or for legal matters.

RECAP:

The logger and the operator at an emergency radio station are the two most "hands on" people in an emergency operation. They form the direct link to other stations and agencies involved in the operation. The operator will talk directly with all other operators, passing formal and informal messages in an efficient manner. The logger must keep track of all incoming and outgoing messages, making sure they follow the proper format and that they are relayed to the appropriate recipient.

GENERAL DUTIES

- One NCS (Net Control Station)
- Three personnel
- Tactical call sign
- Leaving a pause
- Reporting for duty
- Taking a break
- Three personnel
- Supervisors job
- Shift duties
- Rotating positions
- Equipment

EMERGENCY RESPONSE KIT

Radio Equipment

- Emergency Manual
- VHF radio/UHF radio/HF radio
- antenna(s) and (magnetic) mount(s), extension coax
- power supply, batteries, emergency generator
- extra microphone(s)
- external speaker/headphones (with Y connector)
- extension cords
- extra connectors/cables/patch cords
- tool box/soldering
- iron/solder/electrical tape/fuses/other tools
- Area Map with Zone Markings
- ARES/Red Cross/Emergency Volunteer identification
- Repeater List/Net Directory/Call-up Tree
- pen/pencil/eraser
- clipboard, notepaper, message pad,
- log sheets,
- post it note-pads
- copy of radio license
- flashlight with batteries (spare bulbs)
- candles/matches
- twine/tie wraps

Personal

- personal medications/aspirin
- snacks/candy/liquid refreshments
- extra clothing, gloves, etc.
- sleeping bag
- toiletries (towel, face cloth, razor, etc.)
- small First Aid kit

OPERATOR DUTIES

- Announce the net
- Passing messages
- Unattended radios
- Call ins
- Phonetics
- Conversations
- Manner
- Inform NCS

LOGGER DUTIES

- Paperwork
- Establish message routing
- Correct messages
- Delivering messages
- Filing messages

EXAMPLE OF A STATION LOG

Jan. 26 / 94

1607

Established radio room at Red Cross West Drive office using call VE3RCP. VE3UXW Shift Supervisor, VE3WKJ and VE3HHA assisting. Began monitoring of VE3PRC repeater.

1622

Contact established with VE3RCO at Ontario Division Red Cross Branch on VE3PRC repeater.

1625-1653

Informal traffic between VE3RCO (Gamester/Metro E.S. Chairperson) and VE3RCP (Carole Jones. Exec. Director N.Peel) re: transportation of R&I forms between locations

Jan.27 / 940030

VE3WKJ, VE3HHA, VE3UXW relieved by VA3JAK (Shift Supervisor), VE3SZV, VE3XBE.

0321

Loss of electrical power at Red Cross West Drive office. Began operation on emergency power (car batteries).

0612

Electrical power restored, resumed normal operations.

ITU PHONETIC ALPHABET

OBJECTIVE:

At the conclusion, the student will be able to: recite the ITU phonetic alphabet and verbally communicate a variety of emergency messages utilizing the phonetic alphabet.

CLASS MATERIAL:

- ☐ flash cards containing the letters of the alphabet
- ☐ exercise messages
- ☐ ITU alphabet - *slide 1*

POINTS TO COVER:

A. THE PHONETIC ALPHABET - WHAT IT IS AND WHY IT IS USED

- set of standardized words that represent each letter of the alphabet and individual numerals
- standardization makes it easier for radio operators from around the world to communicate
- call signs and messages sent using the phonetic alphabet are **clear, concise** and free of confusion regarding the identification of similar sounding letters and numbers (e.g. b,c,d,e,g,p,t,v, m and n)

B. WHEN THE PHONETIC ALPHABET IS USED

- the phonetic alphabet is to be used whenever a mistake in spelling may occur, particularly when sending messages
- ARES members are encouraged to identify their stations by spelling out their call signs using phonetics. Other non-ARES members will soon catch on to the practise.
- numerical figures should be sent as written e.g. 1093 should be sent as "figures wun zero niner three" and not as one thousand and ninety-three
- whenever sending messages using phonetics, only use the standard ITU phonetic alphabet - DO NOT MAKE UP CATCHY PHRASES OR USE NON-STANDARD WORDS

3. THE ITU ALPHABET

Note to instructor: Go through the alphabet a few times using the flash cards, then encourage students to provide the phonetics.

Mix up the flash cards and ask individual students to identify the phonetic that corresponds with the letter shown.

Develop an exercise message and recite it to the students. Ask the students to record the message exactly as given.

Ask individual students to recite given messages using the ITU phonetic alphabet.

RECAP:

- ☐ the phonetic alphabet is used to ensure the clear, concise, interpretation of messages
- ☐ the phonetic alphabet should only be used when there may be a mistake in spelling
- ☐ it is good practise to identify your station using phonetics
- ☐ figures should be sent as written
- ☐ when using phonetics, use the standard ITU alphabet - do not make up catchy phrases or use non-standard words

THE ITU PHONETIC ALPHABET

A - Alpha	T - Tango
B - Bravo	U - Uniform
C - Charlie	V - Victor
D - Delta	W - Whiskey
E - Echo	X - X-ray
F - Foxtrot	Y - Yankee
G - Golf	Z - Zulu
H - Hotel	
I - India	
J - Juliette	1 - wun
K - Kilo	2 - too
L - Lima	3 - tree
M - Mike	4 - four
N - November	5- fife
O - Oscar	6 - six
P - Papa	7 - sev-en
Q - Quebec	8 - ate
R - Romeo	9 - niner
S - Sierra	10 - ten or wun-zero

SIMULATED EMERGENCY TESTS

OBJECTIVE:

At the conclusion, the student will be able to identify and explain what a simulated emergency test is and why it is conducted.

CLASSROOM MATERIAL:

- ☐ sample simulated emergency tests

POINTS TO COVER:

A. WHAT A SIMULATED EMERGENCY TEST (SET) IS

- an SET is a training exercise designed to test plans, procedures, policy and equipment under conditions which most resemble those which may be present in a real-life emergency situation
- SET's are **not meant to test people** in their emergency roles - this may create undue stress
- SET's are meant to be a learning experience - if things go wrong, that is part of the experience
- lessons learned from conducting SET's will contribute to the overall state of readiness

- SET's may be conducted at varying intervals and at varying degrees, from simple table-top exercises involving only ARES members, to full-scale exercises involving other emergency service organizations
- SET's should be well-planned and depict scenarios that are relevant to the location

RECAP:

- ☐ Simulated Emergency Tests are meant to test plans, procedures, policies and equipment.
- ☐ SET's are **not** meant to test people.
- ☐ SET's are a learning experience - when things go wrong, lessons are learned

ESTABLISHING A STATION

OBJECTIVE:

At the conclusion of this lesson, students will understand the procedure for setting up an emergency station.

CLASS MATERIAL:

- ☐ Establishing a station - *slide 1*

POINTS TO COVER:

A. AUTHORIZATION TO ESTABLISH STATION

Establishing a station, or stations, for telecommunications during an emergency or exercise, should only be commenced upon authorization by the amateur radio Emergency Coordinator. The Emergency Coordinator will have a pre-arranged agreement with emergency service personnel in the area regarding when, where and how emergency telecommunications will be provided by ARES members. This agreement should be included in the area emergency plan.

The Emergency Coordinator will determine the ARES resources required and the initial plan of action. The Coordinator will relay this plan to respective ARES members through the use of the emergency notification system (e.g. telephone call-up tree). The message should include what action is required, by who and within what time frame.

Consideration should be given as to the estimated duration of the emergency situation in order to adequately deploy ARES resources. DO NOT deploy all resources at the outset of the

emergency. You may need people as a resource pool for the rotating of personnel. Some ARES members may be asked to remain on "stand-by".

B. **ESTABLISHING A STATION**

(SLIDE 1)

During emergency situations involving ARES members, one, or more stations may be established.

- ☐ Upon arrival at the station, identify yourself as an amateur radio operator.
- ☐ Proceed to the pre-determined station location or determine suitable locations. If you are inside a building, the area selected should be near an outside wall or window for best radio reception.
- ☐ The area should be accessible to destination of messages, however access to the area should be limited. Select an area with minimal noise.
- ☐ Identify the station with a large, clear sign identifying the area as a telecommunications room.
- ☐ The station will consist of a minimum of three amateur radio personnel: station supervisor, operator and logger. More personnel may be required depending of the volume of traffic. Consideration may be given to having an additional individual act as a runner for message distribution.

- ☐ The station supervisor will oversee operations and interface with the location manager. The logger will prepare and check messages and handle filing and distribution while the operator will be responsible for transmitting and receiving.
- ☐ All three positions can be rotated in order to alleviate undue stress on any one individual.
- ☐ The routing of messages within the location should be established as soon as possible. Message handling should conform to standard procedure.
- ☐ Shift changes should overlap by at least 10 minutes in order for personnel to brief incoming members.
- ☐ When shift personnel change, net control should be informed.
- ☐ All traffic must be done via the controlled traffic nets.
- ☐ The telecommunications room should be kept clear of all non-operating personnel.
- ☐ The telecommunications room should be kept in a neat, orderly fashion. Only equipment being used, or back-up equipment should be in the room. Personal radios or other equipment not used in the operation should be off and out of the way.

RECAP:

- ☐ **The ARES Emergency Coordinator will authorize the establishment of stations.**
- ☐ **The station location should be pre-determined in the emergency plan. Alternate locations should be considered.**
- ☐ **The station will consist of a station manager, operator and logger. Additional personnel may be added as required.**
- ☐ **Messages should be handled according to standard procedure.**

ESTABLISHING A STATION

- Identify yourself
- Select a location
- Station ID
- Staffing
- Routing messages
- Shift changes
- Controlled traffic nets
- Station housekeeping

WHAT DOES AN ARES VOLUNTEER LOOK LIKE?

OBJECTIVE:

At the end of this session, the student will understand what an ARES volunteer is and what is expected of them. This session may be used to recruit new members to the ARES team.

CLASS MATERIAL:

- ☐ Various types - *slide 1*
- ☐ Team players - *slide 2*
- ☐ Commitment- *slide 3*
- ☐ Enthusiastic - *slide 4*

POINTS TO COVER:

A. WHAT DOES AN ARES VOLUNTEER LOOK LIKE?

What an ARES volunteer is NOT:

- super-human

Being an ARES volunteer does not require a great time commitment. Nor does it require you to be an experienced radio operator with a lot of equipment and experience in emergency preparedness.

ARES volunteers:

(SLIDE 1)

- come in a variety of shapes, sizes, colours, backgrounds and have various skills and experiences
- are, or are about to become, licensed amateur radio operators - you do not need to belong to any particular club to be an ARES volunteer

(SLIDE 2)

- are team players
- have needs, goals, attitudes, strengths and weaknesses - just like anybody else
- are interested in utilizing their expertise in radio telecommunications in performing a public service

B. WHAT IS EXPECTED OF AN ARES VOLUNTEER?

ARES volunteers:

- are a group of dedicated, enthusiastic radio operators willing to assist the public during emergency and non-emergency times
- should be willing to work as a cohesive team player
- are interested in participating in a variety of training exercises including events such as nets, notification drills and simulated emergency tests

(SLIDE 3)

- are interested in expanding their knowledge and willing to share their knowledge and experience with other members
- are not required to commit a great deal of time

(SLIDE 4)

- are interested in meeting new friends and having fun while learning new skills

While in the event of an actual emergency, ARES volunteers may be asked to participate in telecommunication operations, it is recognized that first and foremost, volunteers must address their own personal safety needs and those of their loved ones. Once the volunteer's immediate needs are addressed, they are better able to serve the public as part of the ARES team.

A FRIENDLY SUGGESTION:

ARES operators share the disaster scene with various professional emergency personnel – police, fire, and other uniformed people. In the past, there has been criticism for the appearance and conduct of ARES volunteers. This has rarely related to their on-air activities or in the professional way they ran the station. It is just that they were completely out of place in the same Operations Centre with the professional staff. Remember that ARES operations are the public relations pinnacle of the Amateur Radio Service. Try to represent amateur radio to the skeptics who think that “amateur” means non-professional.

RECAP:

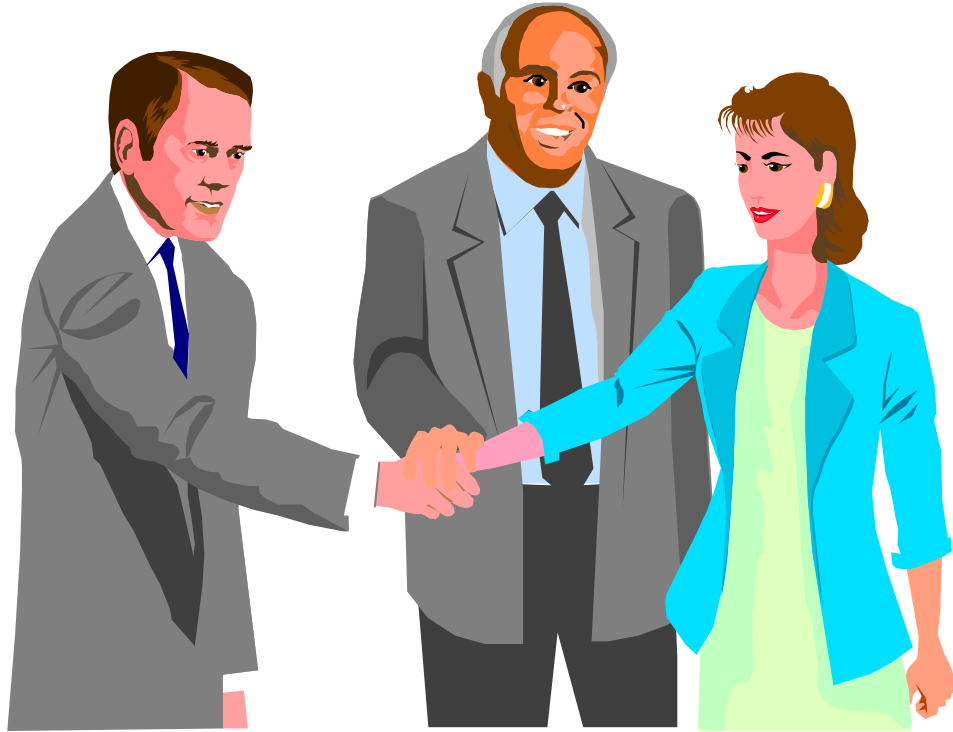
- ☐ **ARES volunteer are NOT super-humans**
- ☐ **being an ARES volunteer does not require a great time committment**
- ☐ **ARES volunteers come in all shapes and sizes and have varying backgrounds and levels of experience**
- ☐ **ARES volunteers are enthusiastic individuals who are interested in being part of a cohesive team**

ARES Volunteers...

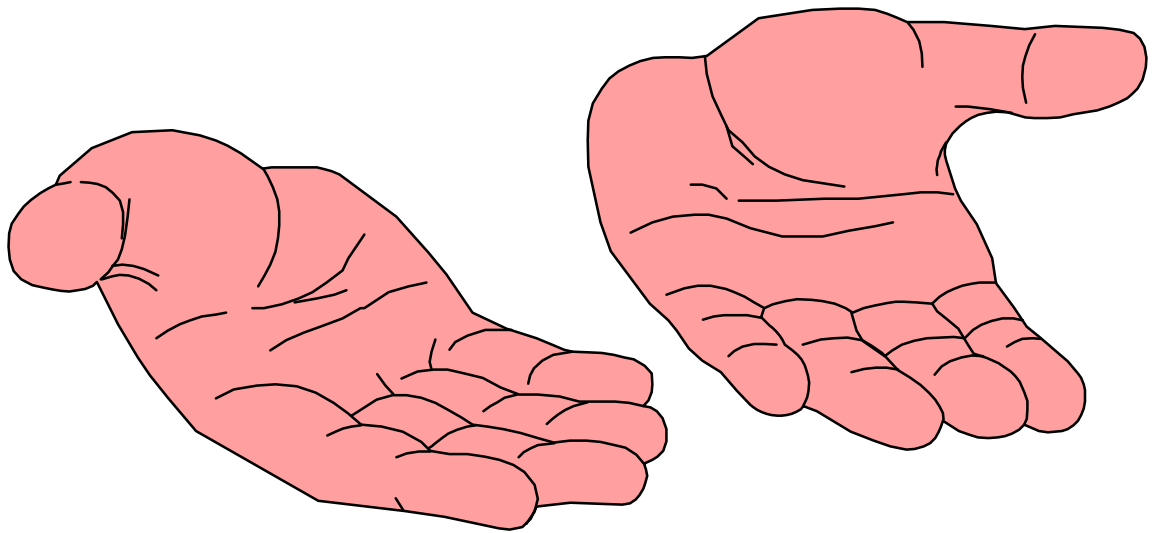


A variety of shapes, sizes, backgrounds,
skills and experiences.

ARES Volunteers are team players...



Who are willing to commit a minimal
amount of time to serve their community
during emergency and non-emergency
times...



**Who are enthusiastic, dedicated
and well-trained.**

