



# **HAMNET**

**Amateur Radio Emergency Service  
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SA Radio League**

## **Net Protocols**

1. Check all equipment prior to the day of the event.
2. Please be on time to all events. Call the Provincial Director or Assistant if you are going to be late or if you can not attend the event.
3. Wear the correct uniform.
4. Remember to make a good impression when assisting at an event or an emergency.
5. Be at your position prior to the start of the event.
6. Upon arrival at your post or assignment, check in with the (NCS) Net Control Station.
7. Follow all net instructions.
8. If you are unable to get into the net, try another location at your post.
9. All traffic must go through the (NCS) Net Control Station
10. Remember KPS - Key, Pause, Speak.
11. Be brief. Know what you are going to say before you say it.
12. Be patient. Do not interrupt the net unless there is an emergency
13. Please no comments or unnecessary chatter during the net.
14. Pass only the information requested of you.
15. Pass the correct information. Do NOT make it up. Do not be afraid to say "I do not know"
16. Use tactical signs correctly. Do not forget your call sign as well.
17. Be prepared to stay at your position until the event / emergency is finished.
18. Do not leave your post without informing the (NCS) Net Control Station.



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## OPERATORS RESPONSIBILITIES

All operators need to know what to do and how to do it when it comes to operating on a Hamnet net. Each operator has a duty to be self-disciplined. One operator, who does not make the effort to do their best, could cause the net to be less effective than expected.

1. Make sure you go to the correct frequency. Delays caused in getting all operators on frequency affect the whole net.
2. Be on time and handle traffic on the net in a timely manner. Do not let yourself get too informal and waste time.
3. Respond to the instructions of the (NCS) Net Control Station. Always go through the NCS for any of your requests. Let the NCS run the net, resist the temptation to help.
4. Insure that your equipment and antennas are in good working condition. You always need to be heard by every station possible. Use the minimum transmitter output power required to maintain a solid contact. Keep batteries fully charged.
5. Know your equipment. Understand its operation. You may have to adapt to an unusual situation. Have a mini check list for every piece of equipment you may use in the field. Another operator may have to use your equipment while you are not present. Be prepared.
6. Know your area of responsibility.
7. Do not leave the net without permission of the NCS. When time off is required or you wish to close your station, check with the NCS first.
8. be brief when transmitting to the NCS. Keep everything short and simple.
9. Know how the net runs. Learn the recommended net and traffic handling procedures. Participate in training sessions and exercises. Practice will help you to become a better operator.
10. **REMEMBER AS OPERATORS, WE PASS ON TRAFFIC EXACTLY AS WE RECEIVE IT.** If you have a question to ask, ask it. Do not assume anything where a message is concerned.
11. Know the priority for each piece of traffic.
12. Insure, where possible, that you have each piece of traffic in writing. A later reference or correction may be required. We can not remember, exactly, the content of each piece of traffic which we sent.
13. Remember K. P. S. - Key - Pause - Speak



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## Principles of Repeater Operation

1. Use minimum power - low power also saves batteries
2. Do NOT tie up the repeater, when one on one comms can be done on simplex.
3. Observe the pause between exchanges - count to 3 before pressing the ptt to talk so as to give time for any stations to break in with emergency traffic.
4. Listen much, transmit little - announce your presence on the repeater when you are certain of being able to assist in an emergency.
5. Monitor the emergency frequency - when you are not busy talking
6. Think before you talk - Stick to facts, control your emotions. Remember, during an emergency is the time when you are most apt to act and speak rashly.
7. Articulate, do not slur - speak across your microphone, not into it. Keep your voice down. In an emergency one often gets excited and tends to shout.
8. Talk slowly and calmly. This is the mark of an experienced communicator.
  - If you get overly excited, then this feeling is transmitted to others on the net
  - Speak clearly and make sure your directions are clear
  - Have authority in your voice
  - Giving unclear instructions or information can confuse the station being addressed.
  - Save all your logs and notes, as they may be important for report back meetings later.

Amateur radio operators value their ability to operate in adverse conditions. We have a combination of skills that can be of use and value to the community. This value can multiply when common sense and proper procedures are followed.



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## **Procedures to follow at an accident**

First aid techniques with regards to the procedures used at a major incident or a multiple motor vehicle accident. No two incidents will be the same. Each will be different and will have to be handled accordingly.

### **Major incidents.**

A quick reconnaissance of the scene will need to be made and the number and types of injuries ascertained and this information must be passed on to the authorities as to what the emergency is, where, describe the location, road name, direction of travel, etc, who is calling in the information, give your name and details, etc, in order to minimize delays and the response of the various services.

### **To treat those injured on site whilst awaiting the paramedics.**

Remove the danger away from the casualty and not the casualty away from the danger unless absolutely necessary. (i.e. if vehicle is on fire). If they have to be removed then careful consideration must be paid to the removal and support of the patient. They might have suffered spinal, neck or internal injuries.

Where possible, when coming across an accident, make every effort to disconnect the battery or at least turn the ignition off to minimize the risk of fire. This act might very well save the life of someone trapped in the vehicle.

Put the vehicle in gear and apply the handbrake if possible.

If goods vehicles have been involved, look for hazardous or leaking chemicals.

Stop bystanders from smoking near leaking fluids as this could ignite any petrol or inflammable liquids leaking onto the roadway.

Most importantly, if the accident has taken place on a highway where the vehicles will be travelling at high speeds, get someone to stand a few hundred metres from the accident to warn approaching traffic.

Make a careful search of the interior of the vehicle as small children might have been trapped under blankets, seats and / or luggage, etc.

Also check the surrounding area for any injured persons who might have been thrown out of the moving vehicle.

Do not transport the injured to hospital but rather wait until the ambulance arrives.

If a motorcyclist is involved it is better to leave his helmet on unless he is unable to breathe or is vomiting. If you have to remove it, do so very gently and get someone to assist you by supporting the neck of the injured party and remove it with a slow continuous movement and not jerk it off.

If a person is trapped in the vehicle it is usual that the first aid person gets into the vehicle to assist with the stabilizing of the patient until the ambulance arrives.

Where possible, when coming across an accident, make every effort to disconnect the battery or at least turn the ignition off. This act might very well save the life of someone trapped in the vehicle.

Do not transport the injured in your vehicle rather wait for the ambulance to arrive. You might cause serious injury or even death of an injured victim and leave yourself open to a civil claim.

**And remember your safety at the scene of the accident / incident is paramount.**

**You are of no use to the patient or the authorities if you are also injured.**



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## **RELAY STATION PROCEDURES**

Operating a relay station is one of the most difficult tasks in emergency communications.

A relay station serves as a "go between" between two stations who can not receive one another, making absolutely sure that the meaning of the messages that you are relaying is not changed - and do so quickly, usually under stress.

**All Hamnet members should be proficient in performing the relay function.**

You may find yourself being assigned as a relay, either as a planned assignment or an on the spur of the moment one. Relay may not be your original assignment, but with the loss of a repeater due to whatever reason, the need for someone in the right position to facilitate communications between stations that can not receive one another. Relays may be needed either within - band or cross-band or even cross-mode. For instance, it may be necessary for you to monitor an HF net and relay important traffic to a Joint Operation Centre which does not have HF capabilities. You may need to pass formal messages from a voice net and send them into a cw network to enable the messages to be forwarded to the JOC.

**It is absolutely essential that the established rules be followed, because relays often involve life and safety issues.**

The objective is not just to ensure that all relayed traffic is accurate as received, but also to operate as efficiently as possible, to enable a "transparent and professional" function of the net as seen from the agency's view. Always keep these two points in mind at all times: accuracy and efficiency.

**The indication that a relay is required is when the message or call is not acknowledged by the called station.**

When this occurs the relay station should be prepared to offer immediate assistance. This is done simply by identifying your station and saying 'relay', i.e. 'zs5xyz relay' and waiting for the control station to acknowledge you. When required to operate as a relay station, you must listen to all traffic on the channel or frequency and anticipate when a relay may be required. If operating conditions are poor, or the signal of the transmitting station is weak, or when the control has to request more than two or three repeats of the message, then the relay station will assist the control station.

## Relay Procedures

If there is no assigned relay station, then all members on the net should be prepared to offer assistance. Whenever you hear a relay request, often simply 'relay please', respond with your call sign.

1. Alert the called station to listen: "Control, standby for relay from ??"
2. Tell the calling station, "zs5xyz ready to relay"
3. Copy down the message, with all details on the Hamnet message form.
4. Read back the traffic to the calling station: "I copy (then read the message), confirm?" Wait for the confirmation: "(message) confirmed, over." Or make any corrections which need to be made, read the corrected message back and also request the number of words in the message.
5. Call the called station and ask if they copied the message: most of the time they will have, which is part of the reason for the read-back. If they did not copy the message, then repeat the message. The called station should also do a read-back and ask for confirmation.
6. If there is a reply, handle it in the same way, but in reverse.

**There may be occasions when one of two parties can hear the other, but not vice-versa.**

This often happens during daytime, the short-path HF operation on 40 metres when there are 'short skip' conditions, or when the band is fading or when one station is mobile and the other station is fixed. If one of the operators indicate that this is happening, tell them that one side of the transmission will be direct, and that you will relay the other half. This reduces the potential for error.

**Remember: your job as a relay is to TRANSMIT, not TRANSLATE!  
Send all traffic exactly as written, even if you think it makes no sense to you.  
Always transmit exactly what is said, not what you think is meant.**



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## **REPORTING SUSPICIOUS ACTIVITY**

Residents in your neighbourhood should increase their awareness in their surroundings and report any suspicious activity to the police. Many people do not report activities because they are not sure what they are observing is worth reporting. Types of activities that people should report include people, vehicles or circumstances that appear unusual or out of place, *such* as:

1. A stranger or a strange vehicle parked in your neighbourhood for a long time.
2. Someone looking into cars or houses.
3. Recurring appearance of strange vehicles in the neighbourhood.
4. Someone tampering with the electricity or water supply without an identifiable vehicle.
5. An unusually large amount of traffic coming or going from a house or apartment.
6. Houses or buildings where no owner or tenant is apparent and no work in the yard is being maintained.
7. Any strange people knocking at front doors.
8. People standing around, possibly acting as lookouts.
9. Be alert and aware of your surrounding areas.  
If you suspect a crime is being or is about to be committed, make the call to the police.  
Do not panic and never put yourself at risk.





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## **STORING PETROL AND OTHER FLAMMABLES**

Many of us store some petrol around our homes to operate lawnmowers, chainsaws and so on. But if stored improperly, a fire or explosion could result, destroying the house and causing injury and or death. Petrol is a product designed to fuel internal combustion engines. It is a highly volatile liquid, and its vapours can be ignited easily by a spark, flame or other hot object. When mixed with air in the right proportions, the vapour of one cup of petrol has the explosive power of about five pounds of dynamite, enough destructive force to destroy any house or car.

Of course there are other dangers which can be presented by the improper handling and storage of petrol and other flammable materials, such as using these materials in the wrong engine or appliance and poisoning.

Let's look at some of the safe ways to handle and store petrol.

### **Proper Containers**

How many times have you seen people at the garage pumping petrol into plastic milk bottles, or into a plastic 2 litre cold drink bottle and then putting it into the boot or the front of the car or on the back of the bakkie to take it home? Have you ever wondered how they get home without setting the vehicle on fire, or how they keep the house from burning days later when the fuel expands, possibly rupturing the bottle or blowing the top off? Plastic milk or cold drink bottles, glass containers and many "gas cans" are not suitable for carrying or storing petrol.

Some plastics become brittle with age and are incompatible with petrol. Other containers are not strong enough to withstand the pressures of expansion and contraction caused by temperature changes. In addition, some containers sold as gas cans usually cannot be sealed well enough to prevent spillage.

The best containers for handling petrol are 'jerry cans' or 5 litre oil cans. Funnel spouts can be used to make pouring easier and reduce spills. Although the cost is somewhat more than plastic bottles they are much safer and will last.

### **The primary features of a safety can are:**

**Stability:** when filled and placed on the floor, the can must remain stable and not lean to one side.

**Leakage:** when a filled can is inverted, the lid must not leak. In addition the seams and joints should also not leak.

**Abuse:** a full can of petrol should be able to withstand a three foot drop onto a concrete floor without sufficient damage to cause leakage.

**Non Metallic Materials:** If the can is not made of metal, additional test should have been carried out by the manufacturers and must be compatible with various flammable liquids, impermeable to petrol.

### **Carrying Petrol in a Vehicle:**

Obviously there will be times when you will have to carry a container of petrol in your car or truck, but try to keep it to a minimum. Carrying petrol can be dangerous. When you have to carry petrol, secure the can so that it will not slide around or tip over if you make sudden turns or stops. Remove the container as soon as you get where you are going.

### **When You Get Home:**

Storing petrol and other highly inflammable liquids at home is also dangerous if not done properly. The best way to store it is in a well ventilated area separate from the house. The location should have no electrical equipment, open flames or other sources of ignition present. In addition, the location should be protected from the heat of the sun to keep evaporation to a minimum.

Always keep petrol and other flammable liquids under lock and key. This practice will prevent children from getting to the material and being accidentally poisoned.

Never smoke when handling petrol and never refuel a hot engine or running engine. If fuel is spilled, wipe it up immediately. If you are going to have a smoke, then move about 30 feet away from the area to avoid igniting fuel vapours which are heavier than air and may linger for some time.

Never use petrol or any highly flammable liquids as a starter because they can explode.

If a flammable liquid is used to start the fire, then first douse the briquettes / wood with the liquid, and wait until liquid has soaked in, before lighting. Always place the fluid container at a safe distance from the braai area.

## **Storing of Propane Gas cylinders.**

A large number of people have gas braais or gas stoves in their homes. The following are some of the safety tips on the usage and storage of propane gas cylinders, which may save someone's life.

Always transport and store cylinders upright

Always shut off the outlet valve when not in use

Always store LP gas cylinders upright and in areas where temperatures will not exceed +- 35 degrees centigrade.

Never store a gas cylinder indoors.

If possible, keep a fire extinguisher within reach, as well as a garden hose.

Check for gas leaks every time you connect or disconnect the regulator to the gas cylinder.

Never use a gas cylinder if it shows signs of dents, gouges, bulges, fire damage, leakage, corrosion, excessive rust or other forms of visual external damage: it should be checked by a LP gas supplier.

Check for gas leaks, deterioration, proper assembly, and burner obstructions before using after a period of storage and / or disuse.

Visually inspect hoses for abrasion, wear and leaks. A soap and water solution may be used to test for leaks. Never use a flame to check for gas leaks.

Replace faulty hoses, using a parts replacement kit before operating.

When lighting a gas grill, always keep the lid open to prevent an explosion from gas build up.

Turn off gas if burners do not ignite. Wait a while then try again. If burner goes out during operation, close valves, wait a while and then relight burner again.

Never use a gas braai in a house, garage, tent or any enclosed area because of a build up of carbon monoxide which can kill.



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## **WHEN ELECTRICAL POWER IS LOST**

Disruption of the electrical service can occur as a result of many things, including lightning, high winds and equipment failure. For most times, the service is normally restored within a short time. However, major outages can happen for extended periods of time.

When power is lost, you should do the following:

1. Check and see if your neighbours have power. The power loss may be only in your home due to a tripped circuit.  
If your neighbours are also without power, call the electricity department.  
If you have to go outside, take a torch and watch for any obstacles.  
Report any lines that are down immediately.
2. Use torches or battery operated lanterns for lighting. Candles and paraffin lanterns are not recommended because of the fire hazard.
3. Turn off all major appliances as they could cause the system in your home to overload when the power is restored, causing a second power failure.
4. Keep fridges, freezer doors and deep freezes closed as much as possible to maintain the low temperatures.
5. Use portable generators cautiously as they pose a serious threat as far as a fire and carbon monoxide.
6. If you use a well or borehole for your water supply, be prepared to use an alternative source for your water supply until the power is restored.
7. If you use gas operated appliances for cooking, do NOT place on top of stove plates, as this could cause an explosion, if the plates were left on, when the normal power is restored.



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## **Telephone Techniques for Dispatchers Part 1**

### **The Art of Public Dispatching**

These tips can also be applied to radio dispatchers as well.

Each call that is received must be treated as a potential emergency call.

The following acronym is used to stress these points **S.P.E.E.C.H.**

- S. Speak clearly. use voice inflection
- P. Point out the important factors
- E. Elicit feedback (seek the feedback)
- E. Eliminate distractions (at both ends of the call)
- C. Choose the right words
- H. Have the answers available.  
Listen well; remember 65% of your time is used to listen, 35% in talking

Are you a SELECTIVE listener or are you an ACTIVE listener.

### **SELECTIVE LISTENER**

- Typecasting or stereotyping. The caller is a Kid, a Drunk, a Bum, etc
- Second guessing. Interrupting which is a nasty habit
- Tuning out. Only selecting certain information and discarding the rest or not waiting for the caller to finish before you react.
- Distractions. Not listening well, not fully concentrating on what is being said. ALWAYS TAKE NOTES.
- Assumptions. Do not make assumptions, only use the facts.
- Pushed buttons. We all have them, could be political, racial, etc e.g. "I am a tax payer", "1 pay your salary" etc. Just deal with the situation and the facts.
- Opinions and Viewpoints. This leads to an argument. The best way to win is to loose!

## **ACTIVE LISTENER**

- Block out distractions. Tell those in the room to be quiet or use headphones. Concentrate on the speaker and take notes.
- Be and Act Attentive. This will help you to react effectively.
- Provide Feedback. e.g. "I need you to do this, do you understand me." etc
- Separate the Emotional from the Informational. e.g. Sometimes a caller will lack any type of emotion or is hysterical.
- Resist the Temptation to do all the talking. Remember time wasted might mean death to someone.

## **Communication Styles.**

- Flexible. Adjust to his or her behaviour
- Attentive. Listens very closely to the other person. This is a 2 way conversation. Friendly. Kindly informs and uses goodwill
- Precise. Is unbending and only goes by the book.
- Dominant. Talks frequently and always interrupts. This then becomes a 1 way conversation.



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## **Telephone techniques for Dispatches Part 2**

### **Calming techniques / guide.**

Use authority and direction to take control, remember you are in charge. Get the caller's attention. Be firm but not overbearing.

If the caller is hysterical, ask to speak to someone else.

Suggest activities - change helplessness into helpfulness e.g. "unlock the door"

### **Screen multiple calls.**

Some incidents are highly visible i.e. (fire) or highly audible (explosion / gunshots) Key question method / approach. Don't be too rigid - this wastes valuable time.

### **Four pieces of information that saves a lot of time.**

- a. Where - is the occurrence
- b. What - is happening
- c. When - is it in progress
- d. Who - did it and who is reporting it?

### **Addresses**

Don't get hung up, ask them. Use geographical terms like north, south, east or west Not up or down.

### **Process information**

Have a systematic approach, in that all do the same thing. Not each person with their own way. This can cause confusion and delay. (time saved, might just save a life)

### **Painting a physical description of a suspect ..**

Use the top to bottom method. Start with the colour of the hair, height, clothing, etc

### **Separate the clerical need from the critical need.**

E.g. Clerical = he has a blue Smith and Wesson firearm with a black handle.

Critical need = He has a handgun.

### **Vehicle description**

Use a symbols format. colour, year, make, body, style, occupants, & any additional information.

Hope this part 2 will be of help to the members.