WICEN (Northern Rivers)

FIELD OPERATIONS

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Webmaster's Notes:

The following information has been extracted from the WICEN (NSW) Inc. Manual -
WICEN Training Manual, Operator (NTS001) Ver. 1.5 of 15/1/2000.
The text has been retained but the formatting has been condensed to reduce the number of pages for downloading.

The ability to operate independently is very important.
Particularly so is the ability to mobilise and set up with minimum delay.
To be able to maintain this station for 24 hours without outside assistance.

Often assistance from the client authority will be available earlier but this should be a capability.
Check your gear for access and mobility, your stores and rations for 24 hours duration.
There could be a delay slotting you into the client's feeding and logistics system.
Particularly if, for propagation reasons, you are distant from the main activity.

WICEN (originally Wireless Institute Civil Emergency Network) is an organisation of Amateur Radio operators throughout Australia. Their time and facilities are made available to the authorities in times of emergency and also for civil benevolent and safety operations at other times.

This extract is by WICEN (Northern Rivers) Region based in Lismore, North Eastern New South Wales.
See our page and associated pages at -

WICEN (NR) http://www.nor.com.au/community/sarc/wicen.htm
And http://atom.spot.com.au/wicennr
Also SARC http://www.nor.com.au/community/sarc/sarc.htm
Phonetics at http://www.nor.com.au/community/sarc/phonetic.htm

Please send feedback or comment to - jalcorn@nor.com.au

I hope you find this useful, 73, John Alcorn, VK2JWA
Local Coordinator,
Lismore, 2480.
NSW. Australia.

FIELD OPERATIONS

The WICEN Operator would normally operate in a location that is not the home station address.

In the home station all radios, antennas, cables, adaptors, food, clothing, power etc are either connected or on hand.

1. FIELD OPERATION is defined as operating a station away from the normal location.

This includes a Communications Centre **(COMCEN)** of the local SES or BFB or DEMO to a vehicle parked alongside a forward command vehicle or tent.

With field operations it is necessary to have all the required equipment on hand. This will only occur if proper planning has been done by each individual Operator and is familiar with the equipment he will be using.

The "equipment" falls into eight categories:
Power sources
Radios
Antennas
Clothing
Food
Fuel
Stationery
Safety of Operation

Or **PRACFFSS. (practice)**

2. POWER SOURCES:

These vary from mains supply available to bringing your own.
The power source may be in the form of:
240 volt mains using a regulated 12 volt power supply.
Batteries including gel cells, Nickel-cadmium, Car batteries, Generators etc.
Portable Packet requires lap-top computers that operate on non-standard voltages.
In this case, a special power supply may be required to maintain a charge in the internal batteries.

3. RADIOS:

The type of radios used would be dependent on the band in use for the propagation required for the event.
We do not wish to speak "all over the world" but to a station in a particular location.
The Amateur Operator is fortunate in having bands available to suit every possibility.
HF, VHF, UHF and perhaps, SHF.

The correct microphone, Headset and external speaker should be part of "the kit".
The operator would be well advised to use a headset particularly in a closed environment.
There is nothing more tiring than several radios and people talking when an operator is trying to do his job.
Most radios have an adjustment on the output power. Use a level of power that will maintain a good signal level but conserve power.
There is no need for 400 watts when 5 watts will do the job.

4. ANTENNAS:

The antennas chosen must suit the band of operation and the need. ie: would a directional beam on UHF be more suitable than an omnidirectional antenna?
A point to point contact is perhaps required.
Listed under antennas is the mast, guys, brackets and associated hardware.

5. CLOTHING:

Clothing is an important part of the operation.
The Operator must be comfortable if he is to work for long hours.

If the period of operation is over several days, he would be well advised to bring several changes of clothing and include wet weather gear.
Toilet gear, towels etc should also be carried.

6. FOOD:

Where an operator is working from a base the food will normally be supplied by the client.
It would be reasonable to assume that he may be asked to leave the camp or base for several hours or even spend the time on a hill top.

The food carried by an operator should contain sandwiches, or other substantial meals and also "nibbles" ie chocolate, chips, cake, fruit and plenty of liquids such as orange juice, Coke, etc in sufficient quantity for the time away from the base. Do not drink alcohol before or while on the job.

7. FUEL:

Where an Operator is using his own vehicle he should refuel before arriving at the base for briefing.
He may not know to where he will be allocated and it will save time to have the vehicle refuelled prior to the briefing.
This also includes any fuel for a generator that may be required. All Fuel should be kept in approved containers and stored away from fires, stoves and any dangerous locations.
Maintain at least 2 metres clear around the fuel. It is wise to cover fuel containers from rain and the sun.

8. STATIONERY:

A field, as a base station will require stationery to operate effectively.

The minimum requirements would be message forms, carbon paper, log sheets, map of the area, compass, spare pens, pencils etc. Basically, the field station would be a small office.
All this can be kept in a Stationery box that holds A4 sheets and is 5 cm high.
A white board is handy to maintain a net diagram and other information.
These are available from K-mart and other outlets at a very reasonable price.

9. SAFETY OF OPERATION:

WICEN personnel are there to assist an operation not to be part of the injured.
All operating should be conducted so as no injury shall occur to himself, others or to property.

The work area should be tidy. Cables should be placed out of the way.

Power cables should be threaded so as damage to the cable will not occur. The cables should be anchored on each side of a walkway or covered to prevent it lifting and tripping people.
Do not run cables across a roadway. a minimum height of 10 feet should be observed over a walkway.
Some WICEN regions have some phone systems with extension lines. This is handy to connect services in a search area or on an exercise.
Regional members should practice setting up such a system.

A generator should be placed so that no exhaust fumes are directed towards people.
The Generator should be placed in a safe area and directed so as the noise of operation is at a minimum to operators. It may be possible to use a long extension lead thus placing the generator some distance away.
Keep the fuel for the generator in an approved container and a safe place. Cover if necessary.

Where 240-volt equipment is used in the field it would be wise to have and use a "Safety switch" at the beginning of the line. These items are relatively in expensive and really should be in the kit.

A First Aid kit should be standard equipment. This should be kept in readiness.
The operator should be familiar with the contents of it.

When operating in a "front line" situation, vehicles should be parked in an orderly fashion in such a way that they can be moved forward and out of the area immediately.
The operator must have in his mind a plan of withdrawal from the area. In a bushfire, conditions may change quickly and urgently.
The operator must be able to pull out with out having to untangle his vehicle from cables, antennas etc. Make sure that no one parks across his path thus blocking him in.

Practice is important for the operator. It is vital that the operator is familiar with his gear and knows the limitations of it. Practice setting up and closing a portable station can be conducted in the back yard at home without trouble. The operator can also take part in field day contests to enhance his skills.
This is a good opportunity to check the equipment under prolonged operation.

Practice also includes care and maintenance of the equipment.

Learning Outcome 3: Operate in the field.

Assessment: Continuous assessment.
Practical test.

Performance: a. Attain a 70% pass mark in the written test.

b. Describe environmental considerations.

c. Describe administrative requirements.

d. List typical equipment requirements.

FIELD OPERATIONS

SAMPLE QUESTIONS

1. Field operation is generally described as operating away from …….....

2. The Stationery box should contain a number of items including:

   a) ……. b) …….....

   c) ……. d). ……..

3. When parking a vehicle in a "front line" position always park so as …….....

   …….....

4. The use of headphones are recommended because ..…….....……

   ……

5. The acronym PRACFFSS stands for:

   P …….....

   R …….....

   A ……

   C ……

   FOOD ……....

   FUEL …….....

   S …….....

   SAFETY ……

6. When transmitting, use the .....……..... Power level to give reliable communications.

7. One item in "the kit" should be a 240 volt …….....…….. switch.

8. As an operator may be tasked to operate away from a headquarters, it is advisable that the kit includes water and some …….

9. The minimum height for cables over a walkway is ……..... Metres.

10. The first aid kit should include ..…….....…….....