



Getting the best out of satellite equipment purchased through the catalogue

This note has been produced in conjunction with regional and local users and is in response to questions received from the responder community.

Satellite Equipment

Satellite communications constitute an important part of our emergency response toolkit. Satellites provide the means to continue to communicate when terrestrial communication infrastructure becomes damaged or overloaded. Therefore including satellite connectivity within your emergency arrangements adds greater resilience and capability to your emergency response.

Storage of your satellite equipment.

The storage of your satellite equipment should reflect the way you intend to use it in an emergency. The security and storage of equipment should be balanced against the need for quick access by staff in an emergency. To this end equipment should be stored securely, however it is vital that the required staff (i.e. more than one or two people) can readily access to the equipment.

If you are using the equipment as a deployable option, we would recommend you do not store equipment in a vehicle, not only does this mean reduced security but winter temperatures could degrade the operational life. You may wish to consider purchasing a tough waterproof case to protect deployable equipment from the elements in transit.

Charging and Battery Life of your satellite equipment.

Satellite kit being used as an emergency fall back should be stored on charge. Systems will vary so you should refer to the manufacturer's guidelines.

Most satellite phones show the current battery life on the display panel. Battery life varies between manufacturers and models so you should refer to the manufacturer's guidelines. Battery life 'talk time' will depend on how intensively you use the equipment but average talk time per battery charge needs to be considered as part of your contingency planning.

Setup of your satellite equipment.

The fundamental point when setting up any satellite equipment is that the antenna must have line of sight to the geostationary satellite above. Practice in setting up the equipment will enable users to gain experience of typical bearings for their locality.

It is a basic requirement that a number of staff within an organisation are familiar with the set up and use of the equipment; this ensures resilience in case of staff absences or staff rotations.

You should use the manufacturer's quick guide or getting started book that came with the equipment. It is suggested that a laminated quick guide be attached to the equipment. If you are setting the equipment up indoors you will need to check if you have leaded seals around your windows, or a type of glass that does not allow the signal through which will affect the receive signal strength. When in use, one work around is to place the antenna in a protective tupper-ware container attached to the outside window ledge.

In case of difficulty include the AST service helpline number in your emergency plans in addition to storing it with the equipment. The helpline number should not take the place of regular set up and test calls by staff.

Plan how you are going to use your satellite equipment in an emergency. (Telecommunication Sub Group – Resilient telecommunication plan)

It is important to consider how you are going to use the satellite communications capability against the risks highlighted in your local risk register.

Any high risk areas (e.g. known flood prone areas) or pre-arranged control points should be highlighted and satellite communication equipment tested in these areas to identify, best positioning for equipment.

Remember the satellite equipment will need to have a clear path in the direction of the satellite in the sky, there should not be any large obstacle within 10- 15ft in the direction of the satellite; think about your surroundings and the direction of large buildings, woods etc

Making a call using the satellite kit is equivalent to an international call every time. Do not forget to include the international code in any calls to mobile or landline phones. Refer to your contract for your call charging structure; charges are normally structured differently for voice and data.

It may be possible to connect the satellite kit into your local PBX and thus make one satellite call at a time but from any phone in your ops room. PBX standards vary and you will need to take advice from your local provider, to set this up.

Compilation of a Satellite equipment phone directory

The Cabinet Office is currently in the process of producing a directory by region detailing organisation, equipment purchased, contact name and PSTN and Satellite numbers. This directory will cover the organisations and equipment that have been taken up through the Cabinet Office grant. This will be disseminated through the RRF gateway; it will be the responsibility of the Telecommunication Sub Group to co-ordinate the upkeep of the directory through individual organisations at the local level. The TSG should add Satellite numbers for other equipment that may have been purchased separately.

Testing your satellite equipment

It is vitally important that you test your satellite equipment regularly. To this end, the Cabinet Office has funded 3 minutes of air time a month in order for users to carry out a test phone call. We would also encourage you to include the emergency use of satellite equipment in your regional and local emergency exercise programme.

Billing Queries

Refer to your provider with any billing queries.

Specific to BGAN Explorer 300

Have a spare set of batteries for the handset stored with the equipment. It is suggested that you store with the batteries out of the handset. If the batteries are in the handset, the handset will register permanently on.

The guidance states that other handsets can be plugged into the satellite equipment, the socket connection is a RJ11 socket, many standard handsets have a RJ45 connection therefore you may need to purchase an adapter (readily available in stores) in order to connect alternative handsets. It may be worth considering a microphone headset if you are going to be operating the kit in a noisy environment.

It is recommended that you download and install the software BGAN launch pad from a landline connection; this will be considerably cheaper and faster than downloading over the satellite connection. Make sure the software is loaded on to more than one computer. Label or indicate which computers have the software loaded.

Download the getting started guide;

[Explorer 300 Getting Started Guide](#)

For a thorough User Guide, you can find this below;

[300 User Guide](#)