



# GPS location and tracking

The Global Positioning System (GPS) consists of a network of satellite transmitters in orbit around the earth. Each of the satellites continuously broadcasts a reference signal. A ground-based GPS receiver can accurately determine its position on the earth if it receives a signal from three or more of these GPS satellites.

Using GPS, Codan's High Frequency (HF) technology now provides a modern, viable and cost-effective option for managing:

- Occupational health and safety: Know where your people are.
- Fleet management: Track and coordinate your fleet.
- Security: Protect your valuable cargo.
- Field coordination: Maximise efficiency and effectiveness.

## FEATURES

### Location reporting and logging

Transceivers in an HF network can use the GPS to report their current position to the base station or other transceivers.

- **Transceiver to transceiver:** Each transceiver can independently report its location to another transceiver or request the positions of other transceivers. These functions can also be performed via the computer control port on the transceiver.

- **Emergency location:** In the event of an emergency, an emergency call, which includes the current position, can be sent to other transceivers or tracking base stations.

- **Logging:** A computer or printer can be attached to the transceiver. This enables monitoring and recording of position reports, emergency calls and paging messages.

### Tracking

The GPS system can be configured so that the base station keeps track of the current location of all of the transceivers in a network.

- **Passive:** Position reports can be requested from or

supplied by transceivers and plotted on a map display at the base station. These displays can show the last reported position of hundreds of mobile units on a single computer map.

- **Active:** GPS tracking software enables the automatic polling of mobiles for their position, and plots the information on a map display. The speed and direction of mobile units can be calculated and recorded. It is also possible to determine the time of arrival at a given destination. In addition, warning messages can be issued if a mobile enters a no-go area, moves outside defined corridors or comes too close to another area.

## BENEFITS

As HF transmissions are free to air, the technology offers considerable price advantages over satellite communications systems, which usually charge a time-based fee.

In addition to lower ongoing costs, an HF GPS system will invariably involve lower start-up costs when compared with a satellite based system.





## EQUIPMENT

### To operate GPS via HF you will need

Mobile station	Fixed station
Codan transceiver NGT AR, NGT AR Voice, NGT SR fitted with Option GPS	Codan transceiver NGT AR, NGT SR fitted with Options GPS and Fan
GPS receiver with NMEA-0183 compatible output format	Codan 3020 transceiver supply
Vehicle antenna	Base station antenna
	Optional computer and logging printer

### For GPS tracking you will need

#### Computer: minimum configuration

- Pentium III processor or higher with 128 MB RAM (minimum)
- MS Windows 95, 98, NT or 2000
- SVGA monitor, 1024x768 High Colour graphics card recommended
- 100 MB Hard Disk Drive space (minimum)
- 1 free RS232 port for transceiver control
- 1 free parallel port for report printing if required

#### GPS tracking software

- Internav CHF tracking software

Equipment descriptions and specifications are subject to change without notice or obligation.

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