Watchdog Detection System

The Watchdog system was developed to help protect assets in the field. It became available in YE 32.

About the Watchdog Detection System

The Watchdog system is first and foremost a Gunshot Location Detection System. Designed specifically to detect enemy fire, and rapidly determine the source. It can be used alone or with the Reprisal Defense System.

The Watchdog works by using a series of seven high sensitivity microphone sensors mounted on a column. The inputs from these are fed into an Isolated Computer Pad for analysis. Each microphone will hear the shot differently, and that is how Watchdog can work. Watchdog then uses complex formulas and algorithms to accurately compute the direction a bullet is coming from, distance above the ground and range to the shooter in less than one second. Watchdog can provide the shooter's range, elevation, and azimuth. Additionally Watchdog has a flash detector array to detect muzzle flash in weapons that produce one.

The Watchdog also is capable of ignoring outgoing fire from friendly troops, and sounds similar to that of a gunshot.

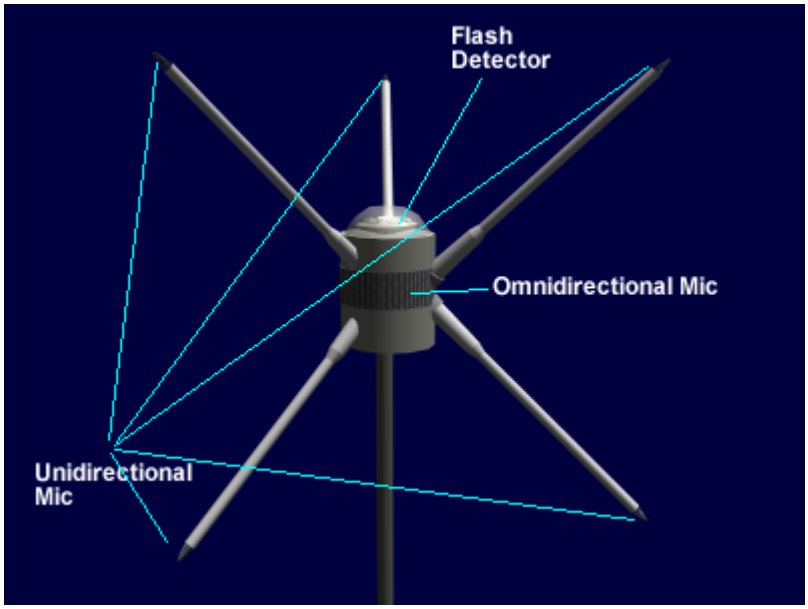
Specifications

The Watchdog is capable of:

- determining the shooters location with a ± 2.5°
- provide information via, audio, visual and transmit to power armor and vehicle systems
- accurately work in urban and rural environments
- projectile must pass within 50 to 100 meters of a sensor

Appearance

The Watchdog main component is the sensor mast. It is adjustable from 1 to 2 meters. There are six small booms that hold a unidirectional microphone. In the center of the boom is a unidirectional microphone. There is a flash detector array in the top of the sensor.



When setup in in a stationary configuration, the mast is attached to a tripod.

There is also a control unit with a keypad and display, and the signal processing unit.

Installation

The Watchdog system can be set up in two fashions; mounted to a ground vehicle, and stationary.

Vehicle

When the Watchdog system is mounted on a vehicle, additional parameters must be supplied to the system. The vehicles sound/vibration profile must be loaded, and a connection made so that the system can factor in vehicle speed and direction.

Stationary

The Watchdog system when mounted on a stationary platform, can be paired with a Reprisal Defense System. When mounted in stationary configuration, it is possible to network the units to achieve a higher degree of accuracy.