

SELEX

Sensors and Airborne Systems

a Finmeccanica Company

> Unattended Ground Sensor System

HALO Hostile Artillery Locating System

SELEX Sensors and Airborne Systems (S&AS) is the acknowledged world leader in Acoustic Weapon Locating (AWL) systems, and has been for more than forty years. More than twenty major armies worldwide maintain SELEX S&AS AWL in-service. With the Hostile Artillery Locating system (HALO), SELEX S&AS leads the way in fourth generation techniques of acoustic weapon locating.

HALO, in service with the British Army since December 2002, the US Marine Corps and several other armies worldwide, is a new type of acoustic weapon locating system. Using specially developed, advanced, data processing techniques HALO determines the location of mortars and artillery with exceptional accuracy, reliability and speed.

HALO employs unmanned Sensor Posts (SP), comprising clusters of sensitive microphones, to detect acoustic (pressure) waves generated by gun or mortar fire and other explosions. SP data is communicated to the HALO Command Post where it is processed and, almost instantaneously, the location of the source of the sound is presented to the operator.

The British Army is successfully using HALO. It has been deployed in both the urban areas and mountainous terrain of Bosnia and Kosovo, and is currently operating in the deserts and cities of Iraq.

HALO - No Hiding Place.



> HALO - Hailing a new era in acoustic weapon locating

KEY FEATURES

- > Detects gun breaks and impacts from artillery guns, mortars, tanks, heavy cannons, explosions of mines, bombs and improvised explosive devices
- > Highly accurate - typically 1% of range
- > Passive and covert
- > Low-cost, lightweight, rugged, easy to deploy and use
- > Monitors activity over a very large area - typically over two thousand km²
- > Provides 360 degrees coverage
- > Requires very low manning
- > Uses many distributed sensors - which continue to locate even if some are damaged
- > Does not saturate and locates multiple simultaneous firing locations
- > Operates effectively in extremes of terrain and climate
- > Is a stand alone target acquisition system which can alert and cue radar and other systems
- > Easily integrated into digital command and control systems



> HALO - Solving target locating problems in urban areas

> Passive and covert

> Easy to deploy

TECHNICAL SPECIFICATIONS

Equipment weights and dimensions

Description	Dimensions (mm)			Weight Kgs
Cluster Processor Mk2	590	340	260	22.5
Met Post Assembly Mk2	Ø60	-	324	1.0
Microphone Assembly (diameter)	335	370	160	4.2
Command Post Computer	500	385	130	16.5
Communications Processor Mk2	590	340	260	22.6
Radio Transceiver	250	250	100	4.0

Note:
CPC height with screen down is 130mm as shown in the table. With the screen up this height changes to 470mm.

HALO is an extremely versatile system which can be deployed in any configuration and in areas where there is limited space. Sensor Posts do not need to be laid out according to any particular template. GPS provides sufficient accuracy for HALO survey. A computer based deployment aid is provided to assist the user in optimising area coverage and communications. This flexibility enables HALO to be used successfully in cities and other complex terrain.

The use of HALO is not limited to standard artillery locating tasks. HALO is also suited to base protection tasks and its use in this way enables security forces to dominate the area for many kilometres around an installation. If a number of bases are to be protected in this way, and they are suitable distances apart, a coherent picture of activity over a large area can be formed.

Locations of the sources of explosions, whether from heavy weapons or bombs and mines, can be instantly passed to digital command and control systems for near real-time distribution to appropriate decision makers and counter fire assets. All information is stored and can be replayed or transferred for archive to CD-ROM. HALO provides the commander with displays that show trends of activity over time to allow pattern analysis and plan interdiction tasks.

HALO - No Hiding Place.

