

AFIS

AERODROME FLIGHT INFORMATION SYSTEM

ELECTRONICS DIVISION



The Aerodrome Flight Information System is a rapidly deployable mobile ground-air-ground communication system designed to provide Air Traffic Control (ATC) communications.

The system is able to perform in any hostile environmental condition and is easily transportable by road or air via C-130J aircraft for remote operations. It is ideal for use in forward operational areas or in emergency situations where it is necessary to provide Armed Forces with timely aeronautical communications.

It is particularly effective in managing the critical phases of a flight including take-off, approach and landing. The system is designed to be transported via C-130J aircraft and road vehicles. Housed on a mobile cart, the system uses mechanical arms to deploy into a fully operational air traffic communications tower.

The Aerodrome Flight Information System consists of four radios for marine and aeronautical communications in the VHF and UHF spectrums, a TETRA radio system for land communications in the UHF band, a meteorological system and a GPS. Radio communications are handled through two operator workstations that connect via VoIP EUROCAE ED137B. The technical management of all systems within the Aerodrome Flight Information System are handled by ONM100, the company's network management suite which also allows remote network management.

Rain, snow, ice, dust, sand, humidity and extreme temperatures have no effect on the performance of the Aerodrome Flight Information System, which guarantees effective communications even in the harshest conditions.

KEY FEATURES

- › Equipped with 20 NM U/VHF and TETRA communications systems
- › Provision for up to three ATC operators
- › Capable of withstanding wind speeds of up to 50km/h (120km/h when fixed)
- › Operational at an altitude up to 3000m above sea level and at temperatures ranging from -20°C to +50°C at 100% humidity and in presence of ice
- › Sized to perform GAG type LOS communications with ITAF aircraft, within a 20nm radius
- › Powered by two 20kW Generators - each with a backup battery (UPS).

TECHNICAL DESCRIPTION

ATC communications equipment

The mobile cabin is equipped with a wide range of ATC communications systems, based on experience supplying complete, reliable and redundant ground-to-air voice and data multi-mode communications solutions worldwide.

Systems include:

- › Dual band RT 619 NV-IP with
 - › Rx Gd/VHF
 - › Rx Gd/UHF
 - › Automatic filter for ATC VHF and UHF and Rx Gd V/UHF communications
- › 2x dual band RT 619 NV-IP and filter for VHF T/T and IMO communications
- › TETRA base station
- › Operational Management with Voice Communication Switching System, M800IP® (SITTI)
- › Technical Monitoring with ONM100 (T3)
- › Digital recorder
- › 2x operator stations
- › IP router
- › Meteo station (VAISALA)
- › 4x Wideband VHF/UHF antennas
- › GPS antenna
- › Redundant air conditioning system
- › Accessory set.



Power system

The system is normally powered from the mains and is equipped with two diesel 20kW generators (master and slave) installed on an LD3-M1 IATA approved container with trolley. Each generator has a backup battery (UPS) and auxiliary battery charger to ensure an autonomy of 15 minutes to the operators.

The LD3-M1 containers (housing the generators) are special versions, designed to meet the requirements arising from the use of armies on the ground. The supplied trolleys are approved for transport on NATO and civil vehicles and loaded on C130J aircraft either with LD3-M1 on board or without.

The power systems are equipped with automatic control panel for the exchange the main power or generator. The continuity during the exchange mains/generator is ensured by UPS. Groups are connected in master and slave modes to ensure the power supply without intervention by the operator in the cab, that can monitoring the operation status.

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