

FLYINGFISH™

AIRBORNE SATELLITE MONITORING SYSTEM

NSN: 5895-99-373-0913

3rd GENERATION (S)



FLYINGFISH™ IS A PROVEN, AFFORDABLE SIGINT SOLUTION
FOR MANNED AND UNMANNED ISR PLATFORMS.



www.horizontechnologies.eu

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AIRBORNE SATELLITE MONITORING SYSTEM



PASSIVE Monitoring of:

- Thuraya
- IsatPhone Pro
- L-Band Uplink and Downlink Signals
- Integrated AIS/GPS Receiver for Maritime Operations
- Integrated Airborne LNA/Filter Set

FlyingFish™ Airborne Satellite Monitoring System, 3rd Generation (S) enables governments to passively monitor satellite communications from airborne ISR platforms. FlyingFish™ is a UK Commercial Off The Shelf (COTS) product, and is non-ITAR.

The main advantage of FlyingFish™ as an airborne system is increased interception ranges up to 400 km or 250 nm (altitude and environment dependent) of the satellite terminal uplink due to better line of sight. FlyingFish™ can also be used for vehicular and shipborne applications.

FlyingFish™ 3rd Generation (S) is able to monitor Thuraya and IsatPhone Pro SAT phones. The system is capable of monitoring a total of 32 duplex channels.

The system now has a full remote control option via datalink/ethernet. Due to the powerful embedded processor in FlyingFish™, users are now able to run their own tactical mission software on FlyingFish™, and no longer need a separate LRU.



FlyingFish™ System Architecture



System Overview Modes of Operation

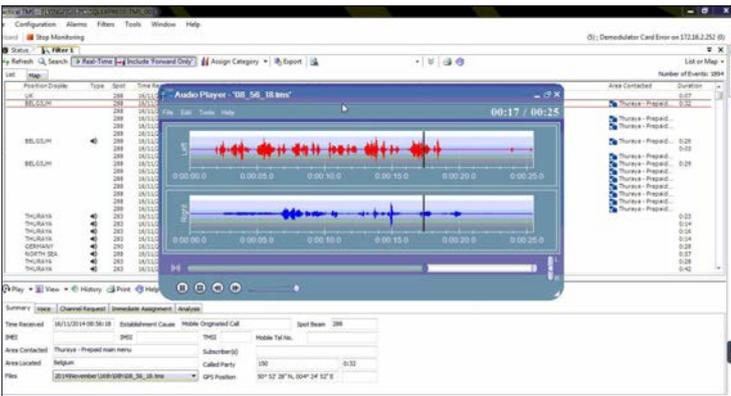
Used to passively monitor communications on the Thuraya, or IsatPhone Pro networks, FlyingFish™ is completely passive and cannot be detected by either the mobile user or the satellite network, making it ideal for covert operations.

Thuraya Monitoring

For every event monitored on a Thuraya terminal, the GPS position of the originating terminal is recorded and its position can be displayed on an interactive map within the Graphical User Interface (GUI). This mapping functionality is based on the industry standard ArcGIS software produced by ESRI. Maps with finer detail and even satellite images can be incorporated into the interface. In addition to intercepting content from the L-band downlink side of the call, FlyingFish™ is also able to extract the channel assignment for the matching uplink side of the call to intercept both sides of the duplex call in full.

IsatPhone Pro Monitoring

In this system, a GPS signal is transmitted within the encrypted part of the call by the handset. Thus, a third-party decryption unit is required to obtain content of the call and GPS position. The rest of the monitoring capability remains the same, with interception of both sides of the duplex call. FlyingFish™ can be used to intercept and monitor terminals using the original ACeS Garuda satellite service, or the Inmarsat IsatPhone Pro service being operated through recently updated service for the Inmarsat's I-4 EMEA or Asia-Pacific satellites. Recently (2014) migrated from the 4F2 to the Alphasat satellite.



Technical Specifications:

Part Number:

FF3-S-LW20-793193

System Capability:

- Analyzes Thuraya, IsatPhone Pro traffic
- 32 Duplex Channels
- Single sealed unit with internal cooling
- Software control of all Front Panel functions
- DC Input: 10V - 36V
- Omni-directional interception
- All software protected by licensed dongle
- Remote control optional
- System Erase function
- No shock mounting required

System components:

- FlyingFish™ unit including
- Downlink antenna (1524 - 1560 MHz)
 - Target antenna (1626.5 - 1660 MHz)
 - Thuraya: LHCP/Inmarsat/IsatPhone Pro: RHCP

Airborne Configuration Includes:

- FlyingFish™ unit including
- 1x Dual Integrated Downlink Filter/LNA
 - 1x Dual Integrated Uplink Filter/LNA
 - 2x Dual mode Antenna (Optional)
 - Mouse, keyboard, set of cables, and connectors
 - Ruggedized display with USB Hub

FlyingFish™ Dimensions:

W398mm | D411mm | H178mm
Weight: 10Kg

Power requirements:

AC PSU EXTERNAL: 90V-264VAC, 47/63Hz O/P 500W at 28V
DC PSU INTERNAL: 28V, 350W

Environmental standards:

- DO-160D (Emissions)
- MIL STD 704E (Power Quality/Voltage Spike)
- DO-160E (Vibration)
- DO-160D (Altitude and Temperature)
- Altitude: 30,000 ft.
- Operating Temperature: -20C +50C, Storage: -40C +85C
- Color: 60% Matte Black

NOTE: FlyingFish™ is subject to EU Dual-Use export control under section 5A001.f of the EU Dual-Use control list. An export license is required for shipment outside the EU. All specifications subject to change without notice.

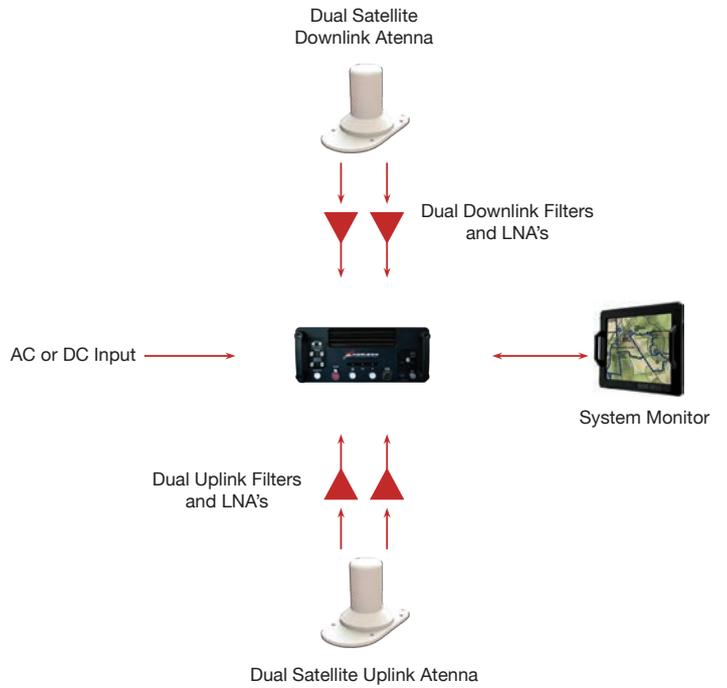


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FF3/S™ System Diagram

