Iridium Global Voice & Data Communications System

- Enhanced Communications
- Track & Monitor your Aircraft
- Improve Dispatch Reliability
- Lower Operating Costs

FLYHT'S AUTOMATED FLIGHT INFORMATION REPORTING SYSTEM (AFIRS™) 228 PROVIDES AIRLINES WITH RELIABLE VOICE AND DATA SERVICES USING IRIDIUM'S GLOBAL SATELLITE NETWORK.

AFIRS is an Iridium based SATCOM device installed on the aircraft that uses FLYHT's proprietary software to acquire and transmit aircraft data to the ground in real time, where it is then processed and distributed to the customer using FLYHT's ground server network called UpTime™. A separate Aircraft Configuration Module contains the SIM card, system configuration information and user-stored information making the AFIRS 228 a true line replaceable unit. The AFIRS 228 has extensive and expandable interface capabilities that allow it to connect to numerous aircraft systems and comes complete with a built in QAR.

Data-based services include enhanced global flight tracking, event triggered FDR streaming, two-way text messages (iPad, MCDU), real-time proactive aircraft health monitoring solutions including fuel management, plus a whole lot more.

FLYHT™
INSIGHT • ACTION • CONTROL

Product Overview

FLYHTVoice™

FLYHTVoice provides a rapid, dependable, private communication channel for your flight deck using the Iridium satellite network. Empower your dispatch to communicate updated information to the flight crew as soon as it's available. FLYHTVoice is especially useful for managing irregular operations such as weather diversions, mechanical breakdowns and any other unforeseen situations as well as when operating in remote regions with little to no VHF/HF coverage.

FLYHTMail™

Make it easy for the flight crew and dispatch personnel to keep each other updated on the progress of their flight. FLYHTMail offers extended character-rich, two-way text messaging capabilities fully integrated through the MCDU, iPad and aircraft situational display for ease of use. From departure to arrival, FLYHTMail ensures your airline is capable of communicating in a timely and effective manner.

FLYHTLog™

FLYHT offers enhanced global flight tracking capabilities that meet and exceed ICAO's Global Aeronautical Distress and Safety System definitions for both normal and abnormal tracking. Specific features include built in visual and audible alerts along with email/text notifications, access to historical data, as well as fully configurable automated, manual and autonomous distress tracking capabilities down to a minimum resolution of 20 seconds. With FLYHT's technology, our customers are able to remotely configure their software directly from their custom ground user interface.

AFIRS is unsurpassed when it comes to automating the collection and dissemination of block and flight times. Accurate OOOI times translate directly into optimal crew utilization ensuring flight crews don't time-out ahead of schedule. Accurate hour and cycle information also extends the time between maintenance intervals, maximizing utilization of life-limited parts. Precise OOOI times lead to financial savings for operators on a power-by-the-hour contract, or lease contracts with a utilization component.

FLYHTASD™

FLYHT's aircraft situational display (ASD) is a fully integrated and interactive enhanced global flight tracking solution that comes complete with its own built-in alerts and notifications that makes tracking the progress and monitoring the status of your aircraft seamless. Enjoy all the benefits the FLYHTLog product has to offer, plus gain access to a worldwide airport database for operational and up to date meteorological information and a fully integrated text messaging interface that allows operators to send and receive text messages to multiple aircraft at any one time.

FLYHTFuel™

FLYHTFuel uses real-time flight data acquired from the aircraft's onboard systems, and presents the data to operations/maintenance personnel in an easy to read dashboard. The dashboard compares how the aircraft was flown to how it could be flown in order to maximize efficiency and fuel savings. Where compliance has not been met, costs of those variations are shown.

FLYHTHealth™

AUTOMATED ENGINE TREND REPORTING

Engine trend data is transmitted automatically in real time from every flight during takeoff and stable cruise. AFIRS reduces pilot workload during flight while also ensuring that consistent, accurate and timely engine data is transferred directly from the plane to your ground crew, manufacturer or a third party for analysis – such as Pratt and Whitney, Rolls Royce, and General Electric – thereby eliminating costly delays and transcription errors.

REAL-TIME PROACTIVE ENGINE/AIRFRAME THRESHOLD EXCEEDANCE REPORTING

With real-time engine exceedance alerts from AFIRS, airlines are notified immediately when a specific event has occurred that may require further investigation. With real-time engine exceedance alerts, you know in advance exactly when and where to look for events that may require immediate action or further investigation. The alerts enable proactive maintenance of your aircraft, engines and life limited parts.

REAL-TIME REMOTE SYSTEMS DIAGNOSTICS CAPABILITIES

Reduce the chance of unscheduled maintenance delays by enabling FLYHT's real-time proactive maintenance capabilities. In addition to receiving real-time engine and airframe threshold exceedance alerts, airline maintenance departments now have the capability to diagnose and determine the root cause of the issue long before the aircraft reaches its destination, thereby reducing or eliminating the likelihood of a costly delay or flight cancellations.

FLYHTStream™

FLYHTStream, enabled by AFIRS, is the only technology in the world capable of streaming Flight Data Recorder (FDR or Black Box) information. Its primary purpose is to provide an alternate means of accessing the flight data normally secured in the FDR. This data can then be used by the accident investigators to begin investigating an air incident immediately or to provide an alternative in the event the FDR cannot be recovered or the data has been compromised.

ACARS over Iridium

AFIRS CAN-TSO-C159b Iridium SATCOM solution provides airlines with reliable FANS 1/A, ADS-C, CPDLC and ACARS over Iridium messaging capabilities. Benefits offered by FANS include: more efficient route structure, reduced flight times, reduced fuel burns, and enhanced communications between ATC and the aircraft.

Specifications

AFIRS™ 228B

Product Details

ARINC 717 Rx (HBP or BPRZ)	1
ARINC 429 Rx	16
ARINC 429 Tx	7
Discrete Inputs	16
Discrete Outputs	8
Ethernet	4 + 1 (Maintenance)
RS-232 Serial (or RS-422)	4
2-Wire "Tip and Ring" Telephony Ports	2
Aircraft Audio System Interface	1
Number of Antennas Required	1

533 MHz Processor
1.5 million gate FPGA
Dual Redundant 16 GB Flash Memory Cards
Functions as Quick Access Recorder
EFB in-flight connectivity (Including iPad)

Designed to Meet the Following Specifications

ARINC 429 Mark 33 Digital Information Transfer System
ARINC 739A Multi-Purpose Control and Display Unit
ARINC 741 Aviation Satellite Communication System
ARINC 761 Second Generation Aviation Satellite Communication System
ARINC 717 Flight Data Acquisition and Recording System
RTCA/DO-160F

AFIRS™ 228S - ACARS over Iridium

Product Details

ARINC 717 Rx (HBP or BPRZ)	1
ARINC 429 Rx	16
ARINC 429 Tx	7
Discrete Inputs	16
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Ethernet	4 + 1 (Maintenance)
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533 MHz Processor
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Dual Redundant 16 GB Flash Memory Cards
Functions as Quick Access Recorder
EFB in-flight connectivity (Including iPad)

Designed to Meet the Following Specifications

ARINC 429 Mark 33 Digital Information Transfer System
ARINC 618 Air/Ground Character Oriented Protocol Specification
ARINC 739A Multi-Purpose Control and Display Unit
ARINC 741 Aviation Satellite Communication System
ARINC 761 Second Generation Aviation Satellite Communication System
ARINC 717 Flight Data Acquisition and Recording System
RTCA/DO-160G
RTCA/DO-178C
TSO C-159B
SITA VAQ
ARINC AQP

FLYHT Certifications

Transport Canada Civil Aviation Approved Manufacturer
Transport Canada Civil Aviation Approved Maintenance and Repair Organization
FAA, EASA, TCCA STC Approvals

LRU Specifications

Chassis L — 12.55", W — 2.27", H — 7.66"
Mounting ARINC 600 2 MCU
Rear Mating Connector Size 2 ARINC 600 Receptacle
Weight 7.0 lbs (3.2 kg)
SIM Card Housed in Aircraft Configuration Module (Avionics Tray)

Solution Map

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