

Emergency datastreaming system may end need to recover crash recorders

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Pre-deployment testing has been completed on a new communication system that enables real-time high-density datastreaming from aircraft to ground anywhere in the world, reports Calgary, Canada-based AeroMechanical Services.

AMS says an unnamed customer for the system will perform an aircraft-in-service evaluation of its automated flight information reporting system (AFIRS) Emergency Mode datastreaming "within the next few weeks".

If such a system had been in use on Air France flight AF447 when it disappeared over the Atlantic in June, the immense task that French authorities now face in finding the Airbus A330's data and voice recorders and recovering them from deep water would be unnecessary.

AMS's "afirs 220" system can, in pre-set conditions, trigger a "streaming mode" to begin transmission of essential position and flight data recorder information. The system provides a continuous automated link between on-board avionics via the Iridium global satellite network and a ground-based web server that automatically routes messages to any number of designated recipients, all within seconds.

AMS president Richard Hayden says: "We at AMS are excited to offer this important capability to the entire aviation community. This capability is not only valuable in improving responses to in-flight issues, but in the rare case where an aircraft is lost, this datastream can provide immediate insight into the exact flightpath, location and the possible cause of the accident."

This AFIR function, brand-named FLYHT, uses a combination of normal transmissions using short-burst data, and emergency streaming of critical position and FDR information. The use of Iridium means that there are no coverage gaps anywhere on the globe.

AMS points out that this system, by compressing the flight data to use the available bandwidth, negates the argument that datastreaming is not economically viable because of bandwidth and infrastructure requirements, allowing it to send far more information than an aircraft with a standard satellite communications system.

AMS says more than 30 operators on six continents have placed orders for the afirs 220 system, which also has a two-way voice capability so crews can contact ground personnel, and an event button that can be manually initiated in the case of a hijacking or other non-system related emergency.