

## Airliner black-box 'real time data streaming' tech developed

### Unnamed airline to start tests 'within weeks'

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A Canadian firm has announced imminent flight tests of aviation data-streaming technology which would transmit information normally recorded in an aircraft's "black box" accident recorders "in real time". In cases such as that of the recent disappearance of Air France flight 447 above the Atlantic, there would be no need to recover the black boxes in order to find out what happened.

The firm in question is AeroMechanical Services Ltd of Calgary, presenting upgrades to its existing FLYHT™ Automated Flight Information Reporting System (AFIRS) 220 "smart box".

According to AeroMechanical, the AFIRS 220 can already be set up to transmit regular "short burst" data updates to ground-based web servers, maintaining a record of both GPS satnav and flight data recorder information for a given aircraft. In the event of an incident, the box can now use "Emergency Mode data streaming" to update the ground server rapidly.

The system uses Iridium satcomms, which has the advantage of uninterrupted global coverage and no requirement for an oriented dish antenna. Iridium is distinctly limited in bandwidth, but the company says it has developed proprietary compression tech which can overcome this.

Patented technology compresses flight data to fully utilize available bandwidth, allowing it to send substantially more information than an aircraft with a standard satellite communications system. The emergency mode data streaming enhancement to the AFIRS 220 system is the subject of a new patent application.

The equipment can also carry a voice channel, functioning in effect as a satellite phone for the air crew, and has a manual alert button for use in hijackings or "other non-system related emergency".

The firm says that AFIRS 220 has already been adopted by 30 different aircraft operators on 6 continents, all of whom will be able to adopt the new real-time black box streaming tech. The new emergency-mode kit is to commence in-service trials with an unnamed customer "within the next few weeks". ®