



Streaming of Flight Data

IFALPA and ECA strongly support initiatives to improve search and rescue operations and the recovery of flight data recorders. However, they believe that the streaming of flight recorder data, other than as needed to track the location of an aircraft in distress, could introduce an unacceptable risk to the integrity of flight safety investigations. This is due to the possibility for such data to be compromised during transmission and storage, even when the latest technology and methods are used for protection.

Modern cryptography techniques are not a panacea for protecting recordings, their transmission, and their storage. National Regulations could also be used to retrieve these sensitive data. Whilst ICAO Annex 13 protects investigation data, sending and storing flight data in extra-territorial clouds may undermine data privacy and protection. See [17SECBL01](#) for further details on cybersecurity.

The positive effect on flight safety through the use of flight recorders in the context of safety investigations is well recognised across the aviation industry. Provisions in ICAO Annexes 6, 13, and 19 require the content of any recordings, including the cockpit voice and image recordings, to be strongly protected.

This need is highlighted by the ongoing misuse of audio recordings, which often end up being leaked to the media and public domain. American Airlines flight 965, GOL flight 1907, and more recently, Germanwings flight 4U9525 are some examples. With the introduction of new technologies, the need for protection only increases, especially when wireless data transmission is used.

Two main solutions are currently proposed as means of quickly recovering flight data. These are deployable recorders and data streaming. The first solution is already engineered and includes protection features that are equivalent to existing methods of data recovery. Conversely, the second solution raises many concerns about protecting the data against misuse or alteration.

POSITION

IFALPA and ECA support the distress tracking of aircraft to improve search and rescue operations and the recovery of flight data recorders.

However, until the integrity of the wireless transmitted recordings can be fully ensured, and the misuse of recordings and transcripts has been effectively prevented, IFALPA and ECA will remain strongly opposed to the wireless streaming of flight recorder data, other than as needed to track the location of an aircraft in distress.

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The European Cockpit Association (ECA) was created in 1991 and is the representative body of European pilots at European Union (EU) level. It represents over 40,000 European pilots from the National pilot Associations in 33 European States and has 3 Associate Members.