

# AIRCRAFT ACCIDENTS and SERIOUS INCIDENTS

## **GUIDANCE for AIRLINE OPERATORS**



## **TO REPORT AN AIRCRAFT ACCIDENT or SERIOUS INCIDENT**

Telephone the **Air Accidents Investigation Branch (AAIB)**  
on **01252 512299** (24 Hours)

**Note:** During normal working hours the above telephone number will be answered directly by personnel from the AAIB. Outside normal working hours calls will be diverted automatically to the Department for Transport Duty Officer who will, after recording some initial details, contact AAIB duty personnel.

## **GENERAL ENQUIRIES**

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Farnborough House, Berkshire Copse Road, Aldershot, Hampshire, GU11 2HH.  
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(monitored 0830-1700 hrs Mon to Fri)  
Website: [www.aaib.gov.uk](http://www.aaib.gov.uk)

Department for Transport Press Office  
(office hours) 0207 944 3118 (other times) 0207 944 4292

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**AIR ACCIDENTS  
 INVESTIGATION BRANCH  
 PUBLICATIONS**



## 1. Foreword

The majority of aircraft operated by airlines based in the United Kingdom or flying into the UK but operated by foreign registered airlines complete their flights safely and without incident. On rare occasions, however, an aircraft, its crew and passengers may be involved in an occurrence requiring investigation. Minor occurrences and those reported to the Regulator as part of the 'Mandatory Occurrence Reporting (MOR) Scheme' are normally investigated by a company's own flight safety department with regulatory oversight when appropriate. The company concerned uses the outcome of such investigations to influence company initiatives, processes and procedures to improve safety and prevent a recurrence. Any reports generated are normally for company use only, although the Regulator will retain records generated by an MOR.

Those occurrences that fall into the category of Serious Incidents or Accidents are required to be investigated by an

independent Safety Investigation Authority and a subsequent report published. The Air Accidents Investigation Branch (AAIB) is the authority for investigating accidents and serious incidents occurring in the UK and its territorial waters.

Although the investigation into serious incidents and accidents is conducted by an independent authority (the AAIB in the UK) the Aircraft Operator will have an important part to play in the process and should have contingency plans in place and key personnel identified for dealing with such events.

This booklet, prepared by the AAIB, sets out what the AAIB will do, what the AAIB expects of the aircraft operator and how the AAIB will interface with the operator during an investigation. It has been developed not only to inform **UK-based operators but also foreign airlines operating aircraft within the UK.**



AAIB HQ at Farnborough



## 2. What is an accident or serious incident?

The definitions of an aircraft accident and serious incident are contained in the UK and EU Regulations and ICAO Annex 13. The relevant extracts are shown in **Appendix A**.

An aircraft accident is an occurrence associated with operation of an aircraft, which takes place between the time any person boards the aircraft with the intention of flight until such time as all such persons have disembarked, in which the aircraft incurs damage (with certain exceptions) or any person suffers death or serious injury.

- Example: As a 747-400 taxied onto stand at London Heathrow Airport, the flaps would not retract and after shutdown it was apparent that the wing landing gear support beam had failed. This occurred while the aircraft was operating and was therefore a reportable accident.
- Example: A Global Express landed at Luton Airport bursting the left main gear tyres. Initially classified as non-reportable (tyres are excluded in the regulations) it became apparent that the tyres had damaged the flight control system requiring major repair. This was a reportable accident.
- Example: During take-off a 737 had a tail-strike penetrating the fuselage skin and damaging the pressure bulkhead. This adversely affected the structural strength of the aircraft and would require a major repair. This was a reportable accident.

The definition of an accident is clear, however, serious incidents appear to be less well understood. A serious incident is defined as:

*‘an incident involving circumstances indicating that there was a high probability of an accident....’*

All serious incidents must be reported to the AAIB in the same way as accidents.

**If any doubt exists, operators should report the incident.** The AAIB will quickly determine if the incident is reportable or not.

- Example: A 737-300 stalled on approach to Bournemouth Airport. The aircraft was not damaged and there were no injuries. However, control was temporarily lost and continued safe flight was not assured. This was a reportable serious incident.
- Example: While boarding a 737-800 a child fell from the top of a set of airstairs receiving an injury requiring 24 hours of hospitalisation. Although not a ‘serious injury’ falls of this nature have resulted in serious injury or death, therefore this was a reportable serious incident.
- Example: A TBM850 landed on a runway already occupied by a DHC-8Q400. There was no damage and no injuries. Safety margins were seriously compromised; this was a reportable serious incident.

### **Who should report the accident or serious incident and how?**

It is a **legal requirement** that when an accident or serious incident occurs in or over the UK or occurs elsewhere to an aircraft registered in the UK, **the commander** of the aircraft involved at the time of the accident or serious incident, or if he be killed or incapacitated, **the operator** of the aircraft, should **notify the AAIB by the quickest means of communications available**.

In addition, accidents or serious incidents occurring on or adjacent to an aerodrome should also be reported by the aerodrome authority.

Accidents occurring in or over the UK should also be notified to a police officer.

This applies irrespective of the country in which the operator is based, the country of registry of the aircraft or the country of domicile of the flight crew.

In practical terms for commercial air transport operators, it is normal for the operator's safety manager or equivalent to be the reporter.

The AAIB accident reporting line is:

**+44 (0)1252 512 299**

**(FILING AN ASR OR MOR DOES NOT SATISFY  
THE LEGAL OBLIGATION TO REPORT AN  
ACCIDENT OR SERIOUS INCIDENT TO THE AAIB).**

The AAIB accident line is contactable 24 hours a day, 7 days a week. Operators should ensure that this number is easily accessible to all staff who might need to report an incident or accident and is included in their emergency planning document.

**Note:** During normal working hours the above telephone number will be answered directly by personnel from the AAIB. Outside normal working hours calls will be diverted automatically to the Department for Transport Duty Officer who will, after recording some initial details, contact AAIB duty personnel.

### 3. What the AAIB need to know

#### Notification

A person reporting an accident or serious incident should provide the following information:

**Notification should not be delayed if all of the information is not available initially.**

- Aircraft type (Boeing 737, Airbus A320 etc)
- Aircraft registration (letters or numbers)
- Name of the owner or operator
- Number of persons on board (crew/passengers)
- Names of the crew and if known, any other people on board
- Date and time of the accident / incident in UTC
- Aircraft's last departure point and its intended destination
- Type of flight (passenger, cargo, survey, positioning etc)
- Location of the accident
- Extent of any injuries to the occupant(s) or others
- Nature of the occurrence and phase of flight (eg takeoff, landing etc)
- Extent of damage to the aircraft
- Details of any dangerous goods onboard
- Confirmation that the CVR/FDR have been isolated

The AAIB would rather have early notification of something that later turns out not to require AAIB action than late notification of something that does.

#### 4. Follow up information

Following the initial notification, the AAIB are likely to want additional information, including:

- Contact details, location and availability of the operating crew.
- Contact details of the operator's safety manager and accountable manager.
- Passenger Manifest including contact details for each passenger (EU Regulations require this to be available within two hours).
- A copy of the complete flight documents including; navigation logs, load plans, aircraft technical logs, NOTAMS and so on.

Much of this information can be pre-identified and included in the operator's emergency planning checklist.

#### 5. Preservation of evidence

Operator emergency planning should take account of the need to preserve critical information and documents.

Following an accident or serious incident it is imperative that an operator swiftly takes all necessary steps to secure the Flight Data Recorder (FDR) and Cockpit Voice Recorder (CVR). Detailed information on preserving recorded data is included in the paragraph entitled '**Flight Recorders and the CVR**'.

Additionally the operator should impound (preserve from deletion and editing) all records relating to that aircraft and its crew. This should include company electronic records including emails, voicemail and safety databases. The originals should remain protected, but accessible, throughout the course of any investigation which, for the most complex cases, could take several years. Operator planning should consider

long term secure storage of data, in excess of the periods laid down by CAA requirements. These records should only be released from impound with the AAIB's agreement.

#### 6. The role of the AAIB

The Air Accidents Investigation Branch is an operationally independent organisation embedded within the Department for Transport (DfT) and is completely separate from the Civil Aviation Authority (CAA) and the UK judicial system. The Chief Inspector of Air Accidents (CIAA) is responsible directly to the Secretary of State for Transport.

The AAIB is responsible for the investigation of civil aircraft accidents and serious incidents to aircraft of any state when the incident or accident occurs within the UK, Channel Islands, Isle of Man or British Overseas Territories.

Additionally the AAIB has rights of participation in the investigation of accidents of serious incidents occurring to:

- Aircraft registered in the UK, Channel Islands, Isle of Man or British Overseas Territories, regardless of the location of the occurrence.
- Aircraft or engines manufactured in the UK, Channel Islands, Isle of Man or British Overseas Territories regardless of the location of the occurrence.

The AAIB's purpose is:

***To improve aviation safety by determining the causes of air accidents and serious incidents and making safety recommendations intended to prevent recurrence.***

It is not the purpose of AAIB investigations to apportion blame or liability.

## 7. The AAIB's legal obligation to investigate

Under current legislation, and in conformity with international conventions, the AAIB operates in accordance with:

- **Annex 13 to the International Civil Aviation Organisation (ICAO) Convention.**
- **Regulation No 996/2010 of The European Parliament and of the Council.**
- **Statutory Instrument No. 2798 of 1996; The Civil Aviation (Investigation of Air Accidents and Incidents) Regulations 1996<sup>1</sup>.**

These documents define the procedures to be followed in the investigation of aircraft accidents.

The Regulations require that every reported aircraft accident or serious incident, to which the Regulations apply, shall be the subject of an AAIB investigation. Additionally the Chief Inspector of Air Accidents may decide to investigate any incident where he considers that such an investigation may be expected to bring a significant benefit to air safety.

Copies of the UK and EU Regulations are accessible through the AAIB website at:

*[www.aaib.gov.uk](http://www.aaib.gov.uk)*

## 8. Legal powers of an Inspector of Air Accidents

The UK Regulations grant legal powers to Inspectors of Air Accidents. A full list of these powers is enclosed in **Appendix B1**. Similarly, EU Regulation No 996/2010 describes the status of safety investigators (**Appendix B2**). In brief, inspectors have powers to take signed statements from anyone involved directly or indirectly with an accident. They can remove and retain all relevant documentation or articles and can have access to and inspect any place, building or aircraft for the purposes of completing their enquiries.

The powers of an Inspector of Air Accidents which are most relevant when dealing with aircraft operators are as follows:

- To have free access to the site of the accident or incident as well as to the aircraft, its contents or its wreckage.
- To have immediate access to and use of the contents of the flight recorders and any other recordings.
- To have free access to any relevant information or records held by the owner, the operator or the manufacturer of the aircraft and by the authorities responsible for civil aviation or airport operation.
- To take statements from all such persons as he thinks fit and to require any such person to make and sign a declaration of the truth of the statement made by him.
- To take such measures for the preservation of evidence as he considers appropriate.

<sup>1</sup> Separate regulations, broadly similar to the UK regulations but with minor differences, apply for accidents which occur in the Channel Islands, Isle of Man and British Overseas Territories.

## 9. Authority to impound an aircraft

By necessity, some investigations may involve the detailed examination or assessment of an aircraft that has not sustained significant damage. In such cases it may be necessary for an AAIB Inspector to impound the aircraft using his or her regulatory powers. It is therefore important that the aircraft remains undisturbed. The regulations specify that...

*'...where an accident, or serious incident which results in the withdrawal from service of an aircraft, occurs in or over the United Kingdom no person other than an authorised person shall have access to that aircraft and neither the aircraft nor its contents shall, except under the authority of the Secretary of State, be removed or otherwise interfered with.'*

Apart from AAIB personnel, authorised persons include any **police constable** or any **Customs and Excise** officer.

It is the AAIB's policy to ensure that, as far as possible, its investigations do not disrupt commercial operations, however sometimes this is inevitable. The AAIB Inspector will endeavour to release any impounded aircraft or equipment as quickly as possible, subject to the requirements of the investigation.

## 10. The AAIB response

Upon notification of an accident or serious incident occurring within the UK, the AAIB Duty Coordinator will liaise with air traffic control, the aircraft and airport operators, police, and emergency services to ensure that evidence associated with the occurrence is secured and to determine the level of AAIB response.

There are four levels of response:

- **Major accident response**

Depending on the severity of the accident the AAIB may choose to activate its major accident response plan. A team of Inspectors and support staff will be deployed.

The investigation team will establish a Field HQ at or close to the accident site. An AAIB Principal Inspector will be appointed as **Investigator in Charge (IIC)** and will liaise with other agencies on site. The IIC will be responsible to the **Chief Inspector of Air Accidents** for the overall organisation, conduct, and control of the investigation. He may choose to adopt the Group System of Investigation, whereby a number of investigation groups, each headed by an AAIB Inspector, will be formed to investigate specific aspects of the accident. The investigation team



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may be augmented by investigators and advisors from other countries who have rights of participation under international agreements. Foreign Investigators will be from that country's accident investigation authority and their advisors may come from the relevant aircraft operator, manufacturer and Regulator. **Representatives from UK operators may be asked to participate as advisors to the AAIB IIC.**

The results of an investigation into a major accident will be published as a standalone AAIB 'formal' report.

- **Field investigation**

For most accidents and serious incidents involving a commercial air transport aircraft, a team typically of three Inspectors will be dispatched to the scene to conduct the investigation. They specialise in the fields of Operations, Engineering and Flight Data Recording. More information on investigative activities within each of these specialisations is available in **Appendix C**.

The results of a Field Investigation will be published either as a standalone AAIB 'formal' report or included in the monthly AAIB Bulletin.

- **Correspondence investigation**

An Aircraft Accident Report Form (AARF) will be sent to commander of the aircraft for reportable occurrences where an AAIB team is not deployed. This form must be completed and returned within 14 days. The investigation will be conducted largely by correspondence and the AAIB Inspector assigned to the investigation will liaise with the flight crew, the

operator, air traffic control etc to gather any additional evidence if required. The investigation may be upgraded to a 'Field Investigation' should preliminary inquiries reveal more serious issues.

The investigation will culminate in a brief report being published in the monthly AAIB Bulletin.

- **AAIB not investigating**

The Duty Coordinator may decide that an occurrence does not require investigation by the AAIB. However, in these cases it is not unusual for the AAIB to request a copy of an operator's internal investigation report, when it is complete. This allows the AAIB to review the decisions made and helps to inform future decision making.

## **11. The investigation process**

Following completion of the initial evidence gathering phase, the wreckage or components of specific interest may be removed to the AAIB facilities (or other appropriate facilities). Evidence gathering will continue away from the accident site as the investigation progresses. This can take some considerable time and may include activities such as detailed examination of the wreckage, further interviewing of witnesses, research of specific issues, interpretation of the recorded flight data, consultation with technical experts and component testing at the manufacturer's facilities or in specialist laboratories.

When the relevant facts have been determined this information will be analysed in order to determine the cause(s) of the accident. The factual information, the analysis thereof and the conclusions of the investigation will be documented in the final investigation report.

The report will protect the anonymity of the persons involved but not necessarily commercial organisations. Where appropriate, the report will contain Safety Recommendations to address issues identified in the course of the investigation.

The investigation process can typically take 6 – 12 months, although it can take considerably longer depending on its nature and complexity. When the AAIB considers it appropriate, a Special Bulletin may be published in advance of the final report. This may or may not contain Safety Recommendations.

A draft copy of the report may be sent to the flight crew or their representatives, the operator, the manufacturer, Accredited Representatives from other states, any agency to whom a Safety Recommendation has been addressed and any persons or organisations whose reputations may be adversely affected by the publication of the report. In these circumstances there will be a 28-day period in which to make any written representations on the contents of the draft report.

Where possible the AAIB aims to adopt an inclusive and collaborative approach with other organisations participating in the investigation. This ensures a more robust investigation and means there should be few surprises when the draft report is circulated for comment.

A copy of the final report will be sent to those persons and organisations prior to publication. Published reports are available in hard copy and can also be accessed on the AAIB web site at:

[www.aaib.gov.uk](http://www.aaib.gov.uk)

## 12. Safety Recommendations

A Safety Recommendation will be made when the AAIB determines that action is required in order to address safety issues identified in the course of the investigation. In general, Safety Recommendations are brought to the attention of the addressee in advance of being published. A Safety Recommendation will be issued as part of a Special Bulletin or directly with the recipient by letter if the AAIB decide that the Safety Recommendation cannot wait for the publication of the final report.

The AAIB is not a regulatory authority and therefore, cannot enforce its recommendations.

## 13. Safety actions

During an investigation it may become apparent that certain safety actions or changes can improve the ongoing safety of an operation. The development of company initiatives ensuring continued flight safety should not stagnate following an incident or accident. There is no requirement for operators or manufacturers to wait for the AAIB to make a Safety Recommendation before embodying improvements within their organisation. Such safety actions will be reflected in the final report.



## 14. Areas not within the scope of the investigation

If the AAIB does not comment on an aspect of an organisation's operation it should not be assumed that the AAIB approves of or condones a particular operational style or technique. Operators should not use an AAIB investigation of one aspect of their operation to demonstrate that another unrelated aspect is safe or appropriate.

## 15. International context

Most investigations involving commercial air transport aircraft have an international element. *ICAO Annex 13* provides the 'Standards and Recommended Practices' to be used for the investigation of aircraft accidents and serious incidents. These protocols, adopted in UK and European legislation, direct that an investigation into an aircraft accident or serious incident will be initiated by the State of Occurrence. The State of Manufacture of the aircraft or engines, the State of Design, the State of Registry and the State of the Operator are each entitled to nominate an Accredited Representative to participate in the investigation. Other States which provide expertise to the investigation or have a special interest by virtue of fatalities or serious injuries to its citizens are also entitled to participate in the investigation. Responsibility for the investigation of accidents occurring in international waters falls to the State of Registry.

## 16. Participation in AAIB investigations

In addition to those States entitled to participate in an investigation under the provisions of ICAO Annex 13, the AAIB will normally also invite participation from those organisations that can provide the necessary technical assistance to the investigation. These may include the operator; manufacturers of the aircraft, systems and powerplant; the regulatory bodies; or other relevant technical specialists. Representatives from UK-based operators will be appointed as Advisors reporting directly to the IIC. Representatives from foreign operators will work in support of their State's Accredited Representative.

## 17. Overseas investigations

### Reporting

The initial response to an accident or serious incident, occurring to a UK operator in another State, is the responsibility of the accident investigation authority of the State of Occurrence. Operators must report the occurrence in accordance with the local procedures and laws. The following ICAO website link provides contact for many overseas accident investigation authorities:

*<http://www.icao.int/safety/aia>*

In addition you should also inform the AAIB at the earliest opportunity once you have fulfilled your local reporting obligations. The AAIB cannot assist unless it has been notified of the occurrence.

The AAIB will be able to assist in notifying the State of Occurrence if you have any difficulty notifying the accident investigation authority of a reportable occurrence.

## Participation

The AAIB will participate in investigations for accidents which occur outside the UK or its territories, when the operator of the aircraft is based in the UK; when the aircraft is registered or manufactured in the UK; or if the aircraft is equipped with significant components manufactured in the UK. In this case the AAIB will appoint an Accredited Representative and may invite the operator / manufacturer to nominate an Advisor(s) to the UK Accredited Representative.

While the majority of investigations in ICAO signatory states follow the protocols prescribed in Annex 13, the manner in which the investigation is conducted may vary from State to State. In many countries, the legal system may require that a separate judicial investigation takes place; this may take precedence over the safety investigation.

## 18. The role of the Advisor

The role of the Advisor is to provide technical assistance to the IIC and / or the Accredited Representative to whom they are affiliated, in order to assist in developing a complete and accurate factual record. Where necessary the IIC will provide guidance for Accredited Representatives and Advisors with respect to the scope and requirements of the investigation.

The AAIB acknowledge that Advisors may also wish to represent the interests of their organisation and while it is appropriate that they do so, the potential for a conflict of interest may arise. Aircraft operators and manufacturers are understandably eager for information, especially during the early stages of an investigation, and it is important that they are kept informed and have timely access to facts regarding the accident / incident that will facilitate prompt preventative and / or corrective

action. However in order not to jeopardise the investigation and to ensure that only validated information is provided, the Advisor may not release any information from the investigation to their organisation, to the media, or into the public domain without prior approval from the IIC. Failure to observe this or to act in a manner considered prejudicial to the investigation may result in exclusion. The operator / manufacturer should be aware of the demands on the Advisor and ensure that appropriate provisions and communications channels are stipulated in their emergency planning documentation.

**Appendix D** contains an example 'Letter of authority for an Advisor to the IIC' in an AAIB investigation. This letter, which should be signed, lists the permissions and obligations of the Advisor. These are broadly similar to the permissions and obligations of Advisors assigned to Accredited Representatives.

The following persons will not be permitted to participate in an investigation:

- Any person representing an organisation that has interests beyond the safety objective of the investigation.
- Any person occupying a legal position.
- Any person representing claimants or insurers.

## 19. Operator emergency planning

It may be appropriate for operators to identify in advance those staff who are likely to be nominated as Advisors in the event of an accident. Key details such as copies of their passports, vaccinations, accreditations etc should be kept on file to facilitate security / visa requirements and accident site access if participating in an investigation.

The operator should provide advance notice of contact details for key safety personnel within their organisation, by email to:

[investigations@aaib.gov.uk](mailto:investigations@aaib.gov.uk)

and update these as required. Often the AAIB is informed of accidents or incidents by third parties and it is important to be able to get immediate clarification from the operator's Safety Manager or equivalent.

By prior arrangement, an operator may notify the AAIB via the accident line of a simulated accident scenario in the context of an emergency planning exercise. Operators should notify the AAIB Information Unit, in advance, via the routine contact number.

**01252 510300**

Many operators have a provision in their emergency plans to deploy a relief aircraft to accidents occurring overseas. Several of these have approached the AAIB to inquire if the AAIB team would wish to travel on the relief aircraft. Depending on the nature and location of the accident this may be the most practical means of travel and would allow briefing and co-ordination between the AAIB team and the operator's Advisors. This can be coordinated at the time of notification however the AAIB will not delay deployment to travel on a relief aircraft if more expedient means are available. The AAIB will be able to advise operators on this matter for planning purposes, if required, via the routine contact number **01252 510300**.

### **Passenger questionnaire**

Operators should be aware that it is important for the AAIB to understand passenger behaviour in accidents or serious incidents such as an emergency evacuation. The AAIB has a passenger questionnaire which operators should distribute to passengers following an accident or relevant

serious incident. The questionnaire is periodically updated and the latest version is available on the AAIB website [www.aaib.gov.uk](http://www.aaib.gov.uk). Most UK airports hold copies of the AAIB questionnaire as part of their emergency plan and operators may wish to co-ordinate this activity with the airport authority.

## **20. AAIB interface with an operator during an investigation**

### **Access to operator's staff**

AAIB Inspectors will expect to make contact with the operator's staff following an accident or serious incident; this will include interviews with the crew and may also involve maintainers, support staff and management. Depending on circumstances, these could take place near the location of the occurrence, at the AAIB HQ in Farnborough or at the operator's offices.

Operators need to consider the likely impact on their operation and ensure that safety critical staff are fit to return to work. For shift workers or flight crew the AAIB may require a copy of the individual's roster, either as part of the investigation or simply to ensure that pre-work rest is not inadvertently compromised. The AAIB always reserves the right to talk with individuals without reference to their employer.

### **Interviews**

The sole purpose of an interview is to provide the AAIB Inspector with a record of what a witness saw or heard of the accident / incident, or knows of the events leading up to it. The details they give, whether in a written statement or not, will only be used by the AAIB in its own investigation. Employees may not be accompanied by anyone who is there to represent the interests of the company (for example a manager or company legal advisor). The AAIB's

obligation to maintain confidentiality over the contents of statements obtained from witnesses means that it will normally exclude such persons from the interview. However, interviewees may, if they wish, have a colleague / friend present subject to AAIB approval.

### **Access to documentation**

AAIB Inspectors may require access to various documentation and records during the course of an investigation. These may include, but are not limited to:

- operating manuals
- training records
- rosters
- maintenance records and procedures
- engineering drawings
- safety database records
- historic FDM data
- minutes of flight safety meetings
- SMS manuals
- audit reports.

Operators should endeavour to make this information available without delay upon request.

The AAIB acknowledge that some of this information may be considered proprietary data and such information will not be made available to other commercial entities participating in the investigation without permission from the originator.

### **Access to facilities**

AAIB Inspectors may on occasion require access to maintenance areas, other similarly equipped aircraft, flight crew training facilities, landside and airside terminal facilities, flight crew briefing areas, aircraft flight decks and office facilities. For lengthy investigations the operator may also wish to consider the provision of appropriate hangar / office accommodation for the AAIB team and Advisors.

On occasions the AAIB Inspectors may need to observe a routine flight, simulator training session or maintenance procedure being performed in order to assist in understanding the operational context of the incident or accident.

## **21. Operator's internal investigations**

Operators are responsible for managing their ongoing safety and operational risk and it is therefore likely that the operator may wish to conduct a parallel internal safety investigation. The AAIB is aware of an operator's needs and obligations in this respect, however, it is important that the AAIB investigation or evidential chain is not compromised. Actions as simple as taking a fuel sample, removing a component or running a system test may inadvertently compromise evidence. Until the aircraft is formally released back to the operator any work on the aircraft or testing of components must be approved in advance by the IIC. Additionally it is important that operators do not conduct their own interviews of flight crew, cabin crew or maintenance personnel before the AAIB have interviewed them.

Operators may be granted supervised access to physical evidence, such as the aircraft or components and will obviously have access to their own staff and other resources such as Quick Access Recorder (QAR) data as part of an internal investigation. Operators will not be granted access to cockpit voice or image recorder data (where fitted) or witness statements taken by the AAIB.

## **22. Media relations**

Only the IIC, the Chief or Deputy Chief Inspectors of the AAIB, or members of the DfT press office, when suitably briefed by the IIC, will release information to the media concerning the AAIB investigation. Operators



and manufacturers are responsible for their own media relations following an accident or serious incident and it is recognised that these organisations may wish to release press statements, participate in press briefings or conduct TV / radio interviews. The AAIB have no control over such activities but where possible the release of information should be coordinated and prior agreement obtained from the IIC.

During the investigation the AAIB may provide the operator / manufacturer with early sight of information to ensure the ongoing safety of its operation. Release of information provided in this way, without the explicit approval of the IIC, is not permitted and may result in exclusion from the investigation. For high profile accidents it may be beneficial for the AAIB press office to liaise directly with the operator's press personnel.

### 23. Passenger assistance

Article 21 of EU Regulation 996/2010 requires States to ensure that all airlines have a plan for the assistance to the victims of civil aviation accidents and their relatives. There is a legal requirement for operators to have a 'Victim Assistance Plan' that can be implemented in the event of an accident. Plans should include a point of contact for relatives and survivors seeking information. The AAIB can, upon request, place the relevant contact numbers / website details onto its own website to facilitate the operator's assistance plan, following an accident. The plans must also take particular account of psychological support for victims and their relatives.

It is recommended that operators familiarise themselves with the requirements of EU Regulation 996/ 2010 and ICAO Circular 285.

### 24. Flight Data and Cockpit Voice Recorders

The majority of commercial aircraft are required to be equipped with a Flight Data Recorder (FDR) and a Cockpit Voice Recorder (CVR). In addition, many aircraft are also equipped with a maintenance recorder (typically referred to as a Quick Access Recorder (QAR)) that is not crash protected.



The AAIB will look to secure the flight recorders as quickly as possible following a reportable occurrence. Unless permission has been granted by the AAIB, the flight recorders should not be removed from the aircraft and under no circumstances should an operator attempt to download the FDR or CVR. It is normal practice for the AAIB to remove both the FDR and CVR and obtain the media disk / card from the QAR. For aircraft equipped with dual combined FDR and CVR recorders, such as the Embraer 195 or Boeing 787, both units will normally be removed.

In addition to the traditional sources of data such as flight recorders, there are also likely to be other items of avionics which contain vital information such as GPWS or TCAS etc. The AAIB may request that these items be impounded and the scope of such a request will depend upon the circumstances of the occurrence.

Some aircraft are equipped to wirelessly transmit data to a ground station. This data could be from a QAR-type device, ACARS or similar system. If an operator has received such data wirelessly from an aircraft involved in a reportable occurrence, they should ensure that the data is suitably secured and notify the AAIB.

If required, the AAIB will provide a copy of the data from a FDR, QAR or other avionics to both the operator and aircraft manufacturer at an early stage. This does not apply to the CVR, the recordings of which are protected from disclosure by the AAIB under UK and European law. It should be noted that any data provided shall be treated as confidential by the operator or manufacturer and must not be distributed further without the express written consent of the AAIB.

### Preservation of flight recordings

Under EU Regulation 965/2012 it is the responsibility of both the operator and the commander of the aircraft to preserve the recordings on the FDR and CVR following a reportable incident or accident, until otherwise directed by an investigating authority (the AAIB for an occurrence in the UK).

Operators should have robust procedures in place that minimise the loss of information from the FDR and CVR following a reportable occurrence.

The operator must advise the AAIB immediately if access to the aircraft, by personnel suitably qualified to secure the FDR and CVR recordings, is prevented by any other agency prior to the arrival of the AAIB.

The FDR will typically stop recording when the aircraft engines have been shut down. However, for many aircraft, the CVR will continue to operate whenever the aircraft's electrical system is powered. Because of its relatively short recording duration of either

the last 30 or 120 minutes (dependent upon model), it is vital to remove electrical power from the CVR to avoid relevant parts of its recording being overwritten. If the flight recorder circuit breakers have been pulled (confirmation that this has been done is usually one of the first requests made by the AAIB upon being notified of an occurrence), it is also important to reflect this in the aircraft's Technical Log so that any follow-up maintenance activity does not inadvertently reinstate the circuit breakers and thus reactivate the CVR. On some aircraft types, the flight recorder circuit breakers are not located in the cockpit. Procedures should reflect this and detail how the commander should prevent the recordings being overwritten, such as electrically powering down the aircraft until circuit breakers can be accessed by maintenance staff. Operators should ensure that these procedures can be enforced across their network, including at destinations where line maintenance activities may be delegated to third party providers.



It is recommended that operators consider events that may constitute a reportable incident or accident, develop robust procedures accordingly and ensure that all their staff remain aware of any actions that need to be taken to preserve the recordings. For example, for events where an inspection may be required to determine if the aircraft has sustained damage, such as following a report of a hard landing, operators should

consider how best to isolate the recorders until it has been established that the event is not a reportable incident.

### FDR documentation requirements

The FDR records binary data which needs to be decoded. Using a ground replay system, the binary data can be converted to engineering units (knots, feet etc.) by referencing a detailed document specific to the aircraft installation. The generic name for this document is the Data Frame Layout (DFL).

EU Regulation 965/2012 requires an operator to keep the DFL documentation and, in the UK, the CAA requires operators to demonstrate that they hold a copy of the DFL documentation at the time of application for a Certificate of Airworthiness (C of A). The CAA also requires the DFL to be made available to support the continued airworthiness of an aircraft, in particular the annual readout of the FDR, and to support any accident or serious incident investigation carried out by the AAIB. Operators should be aware that one of the first documents to be requested by the AAIB will be the DFL for the FDR. For aircraft equipped with a QAR, the AAIB will also look to obtain DFL information from the operator.

The organisation most likely to possess the information and expertise required to generate the DFL documentation is the aircraft manufacturer or the design organisation responsible for the FDR installation.

### Return of recorders

The AAIB will endeavour to return the flight recorders (or other avionics) expeditiously; however, it is often the case that an aircraft is released back to the operator by the AAIB before the flight recorders are ready to be released. The operator should make appropriate spares provisions. Additionally operators should be aware that as the recorders have been removed from an

aircraft they will require an authorised release certificate from an approved avionics maintenance facility before they may be reinstalled. The AAIB cannot provide such a release certificate.

### CAA documentation

The UK CAA publication CAP 731 *'Approval, Operational Serviceability and Readout of Flight Data Recorder Systems and Cockpit Voice Recorders'* defines the requirements for routine readouts as well as providing other useful advice on the subject of flight recorders.

## 25. Police and judicial investigations

The AAIB will normally be the lead agency investigating aircraft accidents and incidents in the UK. However following a fatal accident it is highly likely that the police will investigate on behalf of HM Coroner (or Procurator Fiscal in Scotland). This will be separate to any AAIB investigation; the AAIB will not provide the police or any third party with copies of witness statements or cockpit voice or image recordings. Upon application, the High Court (Court of Session in Scotland) may decide that it is in the public interest to release this information for certain purposes. In such applications the AAIB will remind the court that if such information is distributed it may, in the future, no longer be openly disclosed to investigators and that lack of access to such information would impede the investigation process and seriously affect flight safety.

Operators therefore need to be aware that there may be several separate investigations proceeding at the same time but with different rules and objectives. To ensure the separation of the safety investigation from any judicial process this may unavoidably result in operator's staff being interviewed on multiple occasions by different organisations under different procedures.

## 26. Regulators

The CAA regulates commercial aviation within the UK using, generally, rules set by the EASA. The AAIB maintains communication links with both of these organisations.

EU Regulation EU 996/2010 allows the AAIB to invite the regulator to send an advisor to participate in an investigation. The AAIB must be satisfied that no conflict of interest will arise from the appointment of such an advisor and will place the advisor under certain conditions of confidence. The advisor will not be permitted access to cockpit voice or image recorder data.

EASA and the CAA are obliged to provide the AAIB with information to support the investigation. This may include, but is not limited to, certification data, occurrence reporting database information or personal licensing information. The AAIB will protect this data in accordance with the relevant legislation.

During an investigation the AAIB may need to provide the CAA or EASA with pertinent factual information to allow them to fulfil their safety functions. This information remains protected by Article 14 of the EU Regulation. Cockpit voice and image recordings are not released.



## 27. Accident site safety

There are numerous hazards at aircraft accident sites and the safety of personnel working on such sites is paramount. Those involved in the examination, documentation and recovery of aircraft wreckage may be exposed to risks from hazards such as dangerous cargo, flammable or toxic materials and vapours, sharp or heavy objects, pressurized equipment, biohazards, airborne hazards, adverse terrain and adverse climatic conditions. In general, responsibility for the overall safety on site will reside with the AAIB, in conjunction with other agencies who may be present, such as the Police, Fire Services, Airport Operator etc. The IIC and / or a designated AAIB site safety co-ordinator will be responsible for conducting a risk assessment of the accident site to identify possible hazards and determine the level of risk. The Health & Safety Officer will develop appropriate control measures and provide a briefing for those working on the site.

However, this does not detract from an organisation's own obligations towards its personnel working on accident sites. As such it is essential that representatives from the operator or manufacturer who may be required to participate in such investigations, for example in the role of Advisor, are suitably trained and equipped to deal with accident site hazards. These elements should be fundamental considerations in an operator's emergency planning provisions. In some countries access to an accident site will not be permitted unless an individual can demonstrate that they have undertaken accredited training in accident site safety, particularly with respect to the risks associated with blood borne pathogens. Such training is commercially available and the AAIB can provide advice on accident site preparedness, upon request. Further information on accident site hazards can be

found in the AAIB publication “*Guidance for the Police, Emergency Services and Airfield Operators*” available at:

[www.aaib.gov.uk](http://www.aaib.gov.uk)

It is a legal requirement under EU Regulation 996/2010 that an operator informs the AAIB at the earliest possible opportunity of any dangerous goods or hazardous cargo known to be transported on an aircraft involved in an accident. In addition, some aircraft systems represent specific hazards on an accident site, particularly stored pressure vessels such as oxygen bottles, hydraulic accumulators etc. This information is often provided by aircraft manufacturers on a diagram specifically aimed at advising airport fire services of particular aircraft hazards. It is recommended that operators have this information readily available and provide it to the AAIB at the earliest opportunity following notification of an accident or serious incident.

## 28. Recovery of wreckage

Recovery of the wreckage of public transport aircraft will normally be co-ordinated by the AAIB, on occasions with assistance from other organisations such as the Ministry of Defence, specialist aircraft recovery contractors or the aircraft operator. The nature of the recovery operation may vary greatly depending on the size of the aircraft, the location of the accident (on-airport or off-airport) and the degree of disruption to the aircraft. Where assistance is provided by the operator in the form of personnel, equipment, resources or hangar facilities, the aircraft or wreckage remains in the custody of the AAIB and access to it will be strictly by permission of the IIC. This is necessary to avoid any interventions which may unintentionally destroy evidence.

Where an aircraft is deemed to be salvageable, an operator may wish to conduct

the recovery operation with appropriately skilled personnel to minimise further secondary damage. Such steps must not be taken without prior agreement of the IIC, and the AAIB will continue to oversee the process to ensure the preservation of evidence.



Components and flight recorders removed by the AAIB from otherwise serviceable aircraft will be retained as long as necessary for the purposes of the investigation. While the AAIB will endeavour to return these as soon as possible, operators should be aware of this and make appropriate arrangements to replace them if the aircraft is to be returned to service before completion of the investigation.

Wreckage not required for examination is the responsibility of the owner, the operating company or the insurers. Personal effects recovered from aircraft wreckage following an accident will be handed to the police for safe custody. In other cases this process will be coordinated with the police, airport authority and operator as appropriate.

In all cases, liabilities and restoration work arising from the pollution or damage to land, water course, airport facilities, buildings, utilities etc caused by an aircraft accident, will be the responsibility of the operator through their insurers.

## 29. Wreckage recovery from the sea

Locating aircraft wreckage at sea and its subsequent recovery from the sea bed can be a very lengthy and expensive operation with costs varying depending on the size of the aircraft, the depth of water, the location, the weather and sea conditions etc. The AAIB have specialist equipment for locating submerged wreckage and hold contracts with organisations which have dedicated search and recovery capabilities.

The AAIB will generally seek to recover submerged aircraft wreckage in UK waters when it is considered necessary for the investigation in order to establish the cause of the accident and it is practical to do so. However in some circumstances the AAIB will make contact with the aircraft operator's insurers and the State of Registry with a view to seeking an agreement for sharing the costs of the recovery.

The AAIB will make it clear to the operator of an aircraft which has crashed in or near UK waters and sunk that the AAIB will be responsible for coordinating the salvage. Operators are firmly discouraged from taking unilateral action, though both the operator and the manufacturer may send an observer on board the recovery vessel if there is space and accommodation.

If the aircraft has remained afloat, the operator may wish to salvage his property with a view to refurbishment, in which case the AAIB will render every assistance and provide advice to ensure the preservation of evidence. If the aircraft subsequently sinks, then the AAIB will take responsibility for the recovery as before.

In some cases the AAIB may seek to recover only the flight data recorders and relevant parts of the aircraft wreckage. This may occur when recovery of all of the aircraft wreckage is impractical. It will then be the

responsibility of the aircraft owner or the aircraft's insurers to effect a recovery if it is deemed appropriate for their purposes or if the wreckage poses a continual hazard. In this case the 'Receiver of Wrecks' should be informed.

Recovery of aircraft wreckage from international or oceanic waters brings an additional level of complexity. A recent example is Air France Flight 447, which disappeared over the Atlantic Ocean en-route from Rio de Janeiro to Paris. It took four separate search missions and almost two years to locate the aircraft wreckage on the ocean floor following its disappearance. Recovery of the flight recorders and wreckage from water almost 4,000 metres deep took a further eight weeks. The search and recovery operations amounted to many millions of pounds and cost sharing in such cases is likely to be unavoidable.





## Appendix A

### Definitions of an accident and serious incident

**(Extracts from: Regulation (EU) No 996/2010 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 20 October 2010 on the investigation and prevention of accidents and incidents in civil aviation and repealing Directive 94.56/EC)**

#### Accident

(1) 'accident' means an occurrence associated with the operation of an aircraft which, in the case of a manned aircraft, takes place between the time any person boards the aircraft with the intention of flight until such time as all such persons have disembarked, or in the case of an unmanned aircraft takes place between the time the aircraft is ready to move with the purpose of flight until such time it comes to rest at the end of the flight and the primary propulsion system is shut down, in which—

(a) a person is fatally or seriously injured as a result of

- being in the aircraft,
- direct contact with any part of the aircraft, including parts which have become detached from the aircraft, or
- direct exposure to jet blast,

except when the injuries are from natural causes, self-inflicted or inflicted by other persons, or when the injuries are to stowaways hiding outside the areas normally available to the passengers and crew, or

(b) the aircraft sustains damage or structural failure which adversely affects the structural strength, performance or flight characteristics of the aircraft, and would normally require major repair or replacement of the affected component, except for engine failure or damage, when the damage is limited to a single engine, (including its cowlings or accessories), to propellers, wing tips, antennas, probes, vanes, tyres, brakes, wheels fairings, panels, landing gear doors, windscreens, the aircraft skin (such as small dents or puncture holes) or minor damages to main rotor blades, tail rotor blades, landing gear, and those resulting from hail or bird strike, (including holes in the radome); or

(c) the aircraft is missing or is completely inaccessible;

#### Fatal injury

(5) Fatal injury means an injury which is sustained by a person in an accident and which results in his death within 30 days of the date of the accident;

## Appendix A (Cont)

### Definitions of an accident and serious incident

#### Serious Injury

- (16) Serious injury means an injury which is sustained by a person in an accident and which involves one of the following—
- (a) hospitalisation for more than 48 hours, commencing within seven days from the date the injury was received;
  - (b) fracture of any bone (except simple fractures of fingers, toes, or nose);
  - (c) lacerations which cause severe haemorrhage, nerve, muscle or tendon damage;
  - (d) injury to any internal organ;
  - (e) second or third degree burns, or any burns affecting more than 5 per cent of the body surface;
  - (f) verified exposure to infectious substances or harmful radiation

#### Serious Incidents

‘Serious incident’ means an incident involving circumstances indicating that an accident nearly occurred;

#### List of examples of serious incidents

The incidents listed are typical examples of incidents that are likely to be serious incidents. The list is not exhaustive and only serves as guidance with respect to the definition of ‘serious incident’:

- a near collision requiring an avoidance manoeuvre to avoid a collision or an unsafe situation or when an avoidance action would have been appropriate,
- controlled flight into terrain only marginally avoided,
- aborted take-offs on a closed or engaged runway, on a taxiway, excluding authorised operations by helicopters, or from an unassigned runway,
- take-offs from a closed or engaged runway, from a taxiway, excluding authorised operations by helicopters, or from an unassigned runway,
- landings or attempted landings on a closed or engaged runway, on a taxiway, excluding authorised operations by helicopters, or from an unassigned runway,
- gross failures to achieve predicted performance during take-off or initial climb,
- fires and smoke in the passenger compartment, in cargo compartments or engine fires, even though such fires were extinguished by the use of extinguishing agents,
- events requiring the emergency use of oxygen by the flight crew,
- aircraft structural failure or engine disintegration, including uncontained turbine engine failures, not classified as an accident,

## Appendix A (Cont)

### Definitions of an accident and serious incident

- multiple malfunctions of one or more aircraft systems seriously affecting the operation of the aircraft,
- flight crew incapacitation in flight,
- fuel quantity requiring the declaration of an emergency by the pilot,
- runway incursions classified with severity A according to the Manual on the Prevention of Runway Incursions (ICAO Doc 9870) which contains information on the severity classifications,
- take-off or landing incidents. Incidents such as undershooting, overrunning or running off the side of runways,
- system failures, weather phenomena, operation outside the approved flight envelope or other occurrences which could have caused difficulties controlling the aircraft,
- failure of more than one system in a redundancy system mandatory for flight guidance and navigation.

## **Appendix B (1)**

### **Powers of an Inspector**

**Extract from The Civil Aviation (Investigation of Air Accidents and Incidents) Regulations 1996.**

#### **Powers of Inspectors**

- 9. (1)** For the purpose of enabling him to carry out an investigation into an accident or incident in the most efficient way and within the shortest time, an investigating Inspector is hereby authorised, where appropriate in co-operation with the authorities responsible for the judicial inquiry, to—
- (a) have free access to the site of the accident or incident as well as to the aircraft, its contents or its wreckage;
  - (b) ensure an immediate listing of evidence and controlled removal of debris, or components for examination or analysis purposes;
  - (c) have immediate access to and use of the contents of the flight recorders and any other recordings;
  - (d) have access to the results of examination of the bodies of victims or of tests made on samples taken from the bodies of victims;
  - (e) have immediate access to the results of examinations of the people involved in the operation of the aircraft or of tests made on samples taken from such people;
  - (f) examine witnesses; and
  - (g) have free access to any relevant information or records held by the owner, the operator or the manufacturer of the aircraft and by the authorities responsible for civil aviation or airport operation.
- (2)** For the purpose of paragraph (1) above an investigating Inspector shall have power—
- (a) by summons under his hand to call before him and examine all such persons as he thinks fit, to require such persons to answer any question or furnish any information or produce any books, papers, documents and articles which the investigating Inspector may consider relevant and to retain any such books, papers, documents and articles until the completion of the investigation;
  - (b) to take statements from all such persons as he thinks fit and to require any such person to make and sign a declaration of the truth of the statement made by him;
  - (c) on production if required of his credentials, to enter and inspect any place, building or aircraft the entry or inspection whereof appears to the investigating Inspector to be requisite for the purposes of the investigation;
  - (d) on production if required of his credentials, to remove, test, take measures for the preservation of or otherwise deal with any aircraft other than an aircraft involved in the accident or incident where it appears to the investigating Inspector requisite for the purposes of the investigation, and
  - (e) to take such measures for the preservation of evidence as he considers appropriate.
- (3)** Every person summoned by an investigating Inspector under paragraph (2)(a) above shall be allowed such expenses as the Secretary of State may determine.

## **Appendix B (1) (Cont)**

### **Powers of an Inspector**

(4) When requested to do so by the investigating body or entity of another member State, the Chief Inspector may provide assistance to that body or entity by supplying—

(a) installations, facilities and equipment for—

- the technical investigation of wreckage and aircraft equipment and other objects relevant to the investigation,
- the evaluation of information from flight recorders, and
- the computer storage and evaluation of air accident data, and

(b) accident investigation experts to undertake specific tasks but only when an investigation is opened following a major accident.

(5) In this regulation “operator” shall have the meaning given by Article 3 of the Directive and “in co-operation with the authorities responsible for the judicial inquiry” shall have the same meaning as in the Directive.

## **Appendix B (2)**

### **Status of the safety investigators**

#### **Extract from Article 11 of Regulation (EU) No 996/2010 of the European parliament and of the council of 20 October 2010 on the investigation and prevention of accidents and incidents in civil aviation**

#### **Status of the safety investigators**

1. Upon his or her appointment by a safety investigation authority and notwithstanding any judicial investigation, the investigator-in-charge shall have the authority to take the necessary measures to satisfy the requirements of the safety investigation.
2. Notwithstanding any confidentiality obligations under the legal acts of the Union or national law, the investigator-in-charge shall in particular be entitled to:
  - (a) have immediate unrestricted and unhampered access to the site of the accident or incident as well as to the aircraft, its contents or its wreckage;
  - (b) ensure an immediate listing of evidence and controlled removal of debris, or components for examination or analysis purposes;
  - (c) have immediate access to and control over the flight recorders, their contents and any other relevant recordings;
  - (d) request, and contribute to, a complete autopsy examination of the bodies of the fatally injured persons and to have immediate access to the results of such examinations or of tests made on samples taken;
  - (e) request the medical examination of the people involved in the operation of the aircraft or request tests to be carried out on samples taken from such people and to have immediate access to the results of such examinations or tests;
  - (f) to call and examine witnesses and to require them to furnish or produce information or evidence relevant to the safety investigation;
  - (g) have free access to any relevant information or records held by the owner, the certificate holder of the type design, the responsible maintenance organisation, the training organisation, the operator or the manufacturer of the aircraft, the authorities responsible for civil aviation, EASA and air navigation service providers or aerodrome operators.
3. The investigator-in-charge shall extend to his or her experts and advisers, as well as to the accredited representatives, their experts and advisers, the entitlements listed in paragraph 2, to the extent necessary to enable them to participate effectively in the safety investigation. Those entitlements are without prejudice to the rights of the investigators and experts designated by the authority in charge of the judicial investigation.

## Appendix C

### Roles of the investigation team

The **Investigator-in-Charge** (IIC), an experienced professional pilot or aeronautical engineer, will manage and direct all aspects of the investigation and coordinate investigative activities between the various teams assigned to the investigation. The IIC will be the focal point for Accredited Representatives from other States and for Advisors. The IIC is responsible for communication with external organisations throughout the duration of the investigation and will approve the timely release of information from the investigation, as required.

The **Operations Inspector**, an experienced professional pilot, will if possible, interview the pilots, cabin crew, passengers and other relevant witnesses with a view to determining the sequence of events that led up to the accident. They examine for example, flying procedures and techniques; human factors; aircraft performance; weather; airfields; air traffic control and witness information etc.

The **Engineering Inspector**, an experienced aeronautical engineer, is responsible for the examination of the aircraft or the wreckage. They will photograph and record all the evidence from the accident site and later examine the aircraft technical records, the aircraft design; airworthiness; systems; engines; structure; failure and fault analysis; maintenance procedures, records and documentation etc. They will also liaise closely with the maintenance organisation. They may arrange for the aircraft wreckage, components and other relevant material evidence to be removed and transported to the AAIB Headquarters at Farnborough, or some other secure area, where they can carry out further examination and testing.

The **Flight Recorder Inspector**, also an experienced aeronautical engineer, will remove the FDR and CVR from the aircraft for replay and analysis at the AAIB HQ. They will also examine other sources of recorded information. Information from the CVR is confidential to the investigation team and is never released. The crew, however, are encouraged to visit the AAIB, where possible, to listen to the recording. General flight parameters such as airspeed, altitude and heading as well as control inputs and detailed system data are recorded on the FDR. This information may be supplied to the operator and aircraft manufacturer to assist in the investigation.

## Appendix D

### Letter of Authority for an Advisor to the Investigator-in-Charge in an AAIB Investigation

#### Letter of Authority for an **ADVISOR** to the Investigator-in-Charge in an AAIB Investigation

Air Accidents Investigation Branch  
Farnborough House  
Berkshire Copse Road  
Aldershot  
Hampshire  
GU11 2HH  
Tel: +44 (0) 1252 510300  
FAX: +44 (0) 1252 376999



#### Reference Accident / Incident to:

Aircraft Type.....Registration.....  
at (Place).....on (Date).....

This is to confirm that,

**(Name)**.....**of (Organisation)**.....

Whose signature appears below, is authorised to participate in the subject accident / incident AAIB investigation, as an **ADVISOR** under the control of the Investigator-in-Charge.

An **Advisor** is subject to AAIB procedures and the provisions and recommended practices of ICAO Annex 13, to participate in the investigation to the extent necessary to assist the Investigator-in-Charge. This may include:

#### Permissions:

- To visit the scene of the accident.
- To examine the wreckage.
- To obtain witness information and suggest areas of questioning.
- To have full access to all relevant evidence as soon as possible.
- To receive copies of all pertinent documents.
- To participate in read-outs of recorded media except cockpit voice or image recorders..
- To participate in off-scene investigative activities such as component examinations, technical briefings, tests and simulations.
- To participate in investigation progress meetings including deliberations related to analysis, findings, causes and safety recommendations.
- To participate in any other activity as authorised by the Investigator-in-Charge.

#### Obligations:

- To participate in the investigation under the supervision of his / her Accredited Representative or the Investigator-in-Charge.
- To provide the AAIB with all relevant information.
- Not to divulge any information (including photographs and records detailed in paragraph 5.12 of Annex 13 and article 14 of EU Regulation 996/2010) on the progress and the findings of the investigation without the express consent of the AAIB Investigator-in-Charge.
- To abide by the Health & Safety procedures as determined by the Investigator-in-Charge or his / her H&S advisors.
- To adhere to security and accident site access procedures and to wear an appropriate security pass issued by the AAIB.

Signed .....  
Name .....  
(Advisor)

Signed .....  
Name .....  
(Investigator-in-Charge)

Date .....









AIRCRAFT ACCIDENTS  
and  
SERIOUS INCIDENTS

**GUIDANCE**  
for  
**AIRLINE OPERATORS**