

ICAO and aircraft accident and incident investigation



Visión global de la investigación para la seguridad operacional

Buenos Aires

10 November 2017



Agenda

- 1. ICAO**
2. AIG Guidance material
3. AIG Expert groups
4. Summary



ICAO?



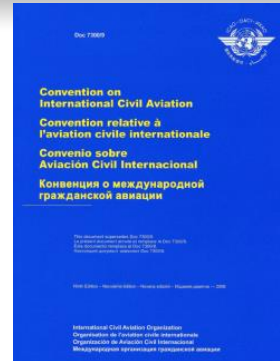
- The Chicago Convention was signed on 7 December 1944
- On 3 October 1947, the International Civil Aviation Organization (ICAO) became a UN specialized agency.

Prime objective

The development of international civil aviation “... in a safe and orderly manner” and such that air transport services would be established “on the basis of equality of opportunity and operated soundly and economically”.



ICAO mandate



ICAO's core mandate, then as today, was to help States to achieve the highest possible degree of uniformity in civil aviation regulations, standards, procedures, and organization.



Governing bodies of ICAO

- Assembly
- Council
- Air Navigation Commission



Annexes to the Convention

There are 19 Annexes (rough groupings):

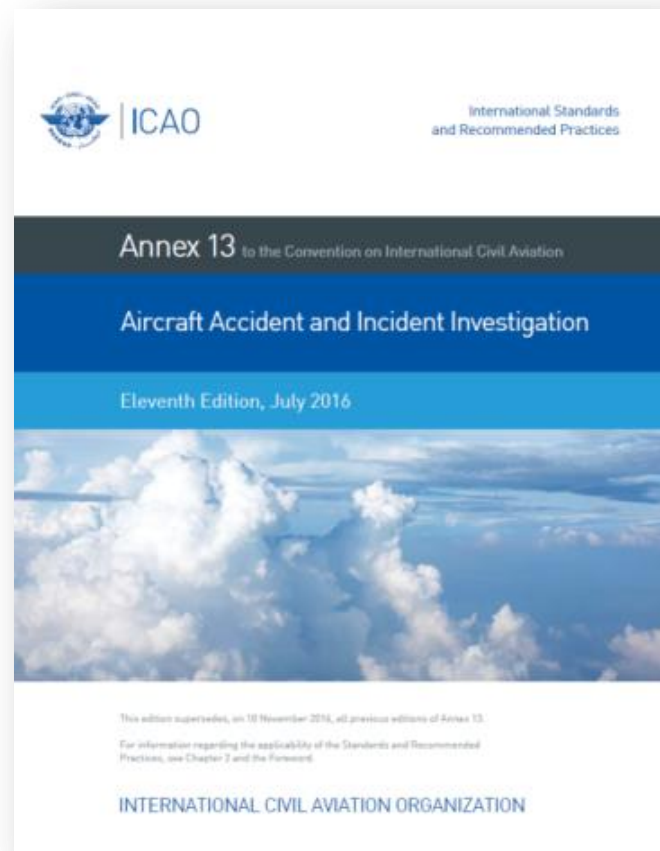
- Annex 13 — Accident and Incident Investigation
- Annexes 1, 6, 8, 14 — Operations
- Annexes 2, 10, 11, 12 — ATM
- Annex 19 — Safety Management

Annex 13 – 11th Edition



Amendment 15 (Nov 2016):

- Accident Investigation Authority
- Protection of accident and incident investigation records





IN LATEST ANNEX 13 AMENDMENT

CHAPTER 1. DEFINITIONS

Accident investigation authority. The authority designated by a State as responsible for aircraft accident and incident investigations within the context of this Annex.

CHAPTER 3. GENERAL

INDEPENDENCE OF INVESTIGATIONS

3.2 A State shall establish an accident investigation authority that is independent from State aviation authorities and other entities that could interfere with the conduct or objectivity of an investigation.

Note.— Guidance on the independence of an accident investigation authority is contained in the Manual of Aircraft Accident and Incident Investigation, Part I — Organization and Planning (Doc 9756) and the Manual on Accident and Incident Investigation Policies and Procedures (Doc 9962).



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AIG Guidance Material

- Manual of Aircraft Accident and Incident Investigation (Doc 9756)
 - Part I — Organization and Planning (2015)
 - Part II — Procedures and Checklists (2012)
 - Part III — Investigation (2011)
 - Part IV — Reporting (2014)
- Training Guidelines for Aircraft Accident Investigators (Cir 298) – AIG Panel tasked to review

Guidance Material

- Manual on Accident and Incident Investigation Policies and Procedures (Doc 9962, 2011)
- Manual on Regional Accident and Incident Investigation Organization (Doc 9946, 2011)
- ICAO Policy on Assistance to Aircraft Accident Victims and their Families (Doc 9998, 2013)
 - Manual on Assistance to Aircraft Accident Victims and their Families (Doc 9973, 2013)

Guidance Material

- Hazards at Aircraft Accident Sites (Cir 315, 2008)
 - Current considerations:
 - Ballistic parachute systems
 - Investigations in extreme and challenging environments
 - AIG Panel tasked to review



Model Aircraft Accident and Incident Investigation (AIG) Act

First Edition (unedited version) — November 2013

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International Civil Aviation Organization



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International Civil Aviation Organization

<http://www.icao.int/safety/Implementation/Pages/Resources.aspx>

In next amendment of Doc 9962



Safety recommendations

- Addressed to ICAO — Processed according to an agreed ICAO procedure.
- Safety recommendations of global concern



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AIG Expert groups

Technical experts nominated by their States to serve on a panel or specific working group:

- **Accident Investigation Panel (AIGP)**
- **Flight Recorder Specific Working Group (FLIRECSWG) – related to OPS Panel**

Accident Investigation Panel - AIGP -

- Established on 30 September 2014
- AIGP/3 Meeting, 18-21 July 2017





- **Scope of the work**
 - The AIGP will research and develop provisions for accident and incident investigations to allow for timely and effective investigations as set forth in Annex 13, and in support of the Global Aviation Safety Plan (GASP).
- **Subjects under discussion**
 - Timely investigations
 - Guidance for classifying serious incidents
 - RPAS investigations
 - Delegation and mutual cooperation

Flight Recorder Specific Working Group FLIRECSWG

- Established in 1993
- FLIRECSWG/10 Meeting, 10-13 October 2017



Flight Recorder Specific Working Group

Subjects under discussion:

- Locating an aeroplane in distress and recovery of flight recorder data
- Extended CVR recordings
- RPAS recordings
- Flight crew-machine interface recordings





ICAO

SAFETY

Global Aeronautical Distress & Safety System

Annex 6 Part I
Amendments 39 / 42*

Aircraft
Tracking
Normal
Operations

Aircraft
Tracking
Abnormal
Operations

Autonomous
Distress
Tracking

Retrieval of
CVR and
FDR Data

Annex 6 Part I
Amendment 40-A

DISTRESS TRACKING

TRIGGER

- Automatic
- Manual

AUTONOMOUS

Trigger Examples:

- ⦿ unusual attitudes
- ⦿ unusual speed conditions
- ⦿ loss of power on all engines
- ⦿ ground proximity warnings



AOC

6 NM



ADFR
ELT

Retrieval of
CVR/DFR data



RESCUE COORDINATION CENTER

GADSS CONCEPT



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Summary

- ICAO Standards and Recommended Practices (SARPs) to be incorporated in legislation, regulations, policies and procedures of States.
- Annex 13 for States:
 - to investigate aircraft accidents and incidents uniformly; and
 - have common understanding of rules when engaging in accident and incident investigations with international implications.



ICAO

SAFETY

Thank you!

