



ICAO

UNITING AVIATION

NO COUNTRY LEFT BEHIND



AFI PLAN RASG-AFI AIG Project

AIG WORKSHOP – Final Report and ADREP

Cotonou, Benin

12 – 15 November 2019



ICAO

UNITING AVIATION

NO COUNTRY LEFT BEHIND



Guidance material

Part IV - Reporting

This guidance for the producing a Final Report and ADREP reporting



Doc 9756, Part IV -- Purpose

- Foundation for initiating safety actions
- Establish in detail:
 - **what** happened
 - **how** it happened
 - **why** it happened
- Findings and causes lead to safety recommendations
- Guidance material:
 - *Manual of Aircraft Accident and Incident Investigation*
Doc 9756, Part 4 – Reporting



Final Report -- Principles

- **Thorough investigation is needed**
- **Drafted by the investigators**
- **Editing by at least 2**
investigators:
 - **read sentence by sentence**
 - **each section at least 2 times**



Editorial Standards

- **Convey an attitude of impartiality and write objectively**
- **Clarity**
- **Consistency**
- **Active and passive voice**
- **Tone of expression**
- **Commonly used language**



ICAO

UNITING AVIATION

NO COUNTRY LEFT BEHIND



Final Report Format (Annex 13)

- **Factual information**
- **Analysis**
- **Conclusions (findings and causes)**
- **Safety recommendations**



Final Report Format (Annex 13)

- **Keep facts in the factual part**
- **Keep the provisions of Annex 13 Para. 5.12 and Attachment E in mind**
- **Do not introduce new facts in the findings or safety recommendations**
- **Appendices: include only pertinent information**



Factual information

- **Meteorological information**
- **Aids to navigation**
- **Communication**
- **Aerodrome information**
- **Flight recorders**
- **Wreckage and impact information**
- **Medical and pathological info**



Factual information

- **Fire**
- **Survival aspects**
- **Test and research**
- **Organizational and management info**
- **Additional information**
- **Useful or effective investigation techniques**



Analysis

- **Analysis, to be determined by the IIC**
- **The factual information is discussed and analyzed**
- **Purpose to provide logical link between factual info and conclusions**
- **Formulate hypotheses discuss & test reasons why rejected or accepted**



Analysis

- **Contradictory evidence dealt with openly and effectively**
- **Discuss safety deficiencies even if not contributory**
- **Could use sub-headings as per groups**



Conclusions

- Findings
- The “**what**” happened
- Causes/contributing factors formulated to minimize implication of blame or liability
- Focus on **functions not performed**
- Probable cause and contributing factors



Safety recommendations

General or specific

- **Implementation by CAA, operators or manufacturers**
- **Overall responsibility of the aviation system is with CAA**
- **Safety recommendations to ICAO –
AIG website**



ICAO

UNITING AVIATION

NO COUNTRY LEFT BEHIND



Consultation on draft Final report

- To States that participated
- Provide 60 days comment period
- May amend report or append comments
- Final Report must be **released** (made public)
- Interim statement released annually in case investigation not concluded



Final report to ICAO

- When Final Report released of accident or incident of aircraft above 5 700 kg MCTOM
- Send to ADREP@icao.int with copy to AIInbox@icao.int



ICAO

UNITING AVIATION

NO COUNTRY LEFT BEHIND



e-Library of Final reports



INTERNATIONAL CIVIL AVIATION ORGANIZATION
A United Nations Specialized Agency

e-Library of Final Reports

ECCAIRS 5

Query ▾

Query Library: Final Report Searches(2)

Query Name	Owner	Last Modification	Count	Run
+ Search by aircraft make/model	GUEST	15/07/2015	#	
+ Search by date	GUEST	15/07/2015	#	
+ Search by State of registry	GUEST	15/07/2015	#	
+ Search by State/Area of occurrence	GUEST	15/07/2015	#	

<http://apps.icao.int/e5web/default.asp>



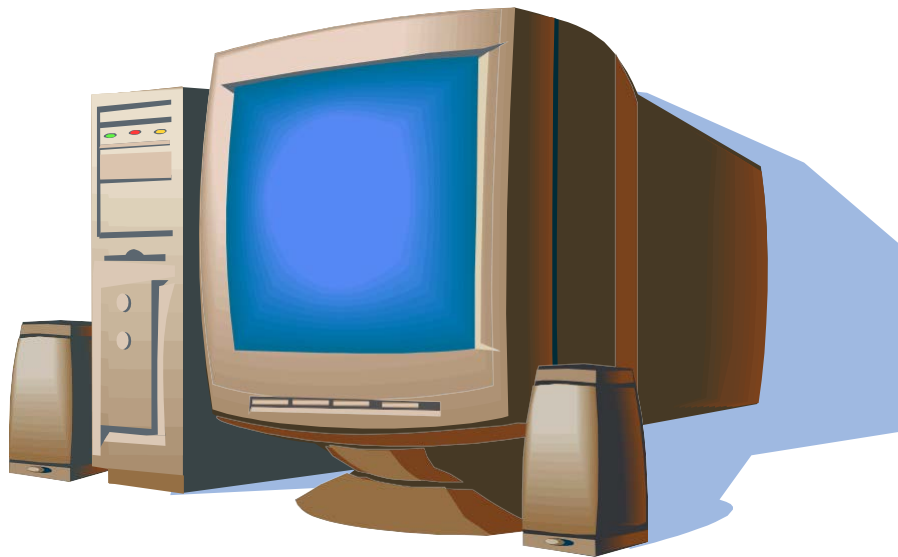
ICAO

UNITING AVIATION

NO COUNTRY LEFT BEHIND



ADREP reporting -- ADREP system



More than 41 900 REPORTS (as of Sept 2017)



ICAO

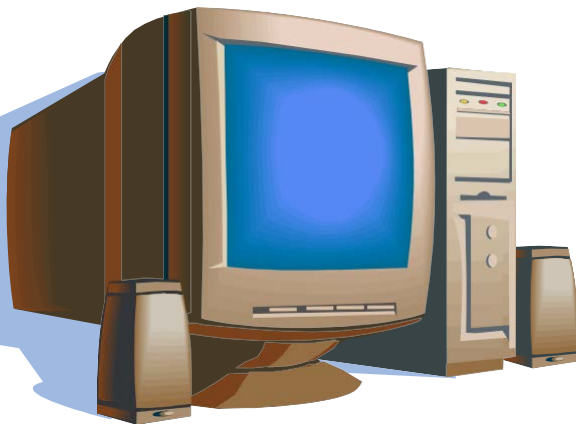
UNITING AVIATION

NO COUNTRY LEFT BEHIND



ADREP reporting -- ADREP system

ADREP SYSTEM



TO PROVIDE FEEDBACK OF
SAFETY LESSONS LEARNED



ICAO

UNITING AVIATION

NO COUNTRY LEFT BEHIND



ICAO - ADREP

- **ADREP – Accident Incident Data Reporting System**
- **A database of accidents and serious incidents reported to ICAO by States**
- **Maintained in the IAA Section**
- **Contains occurrences from 1970 to present**



Reporting Requirements -- Annex 13 – Chapter 4 & 7

- **Initial notification – Accid & ser incid**
above 2 250 kg MCTOM to ICAO
- **ADREP preliminary report within 30 days**
- **ADREP data report after accident investigation for all aircraft above 2 250 kg**
 - **Also for incidents investigated of aircraft above**
5 700 kg MCTOM



Reporting Requirements -- Annex 13 – Chapter 4 & 7

- **Means of reporting:**
 - Reporting forms
 - Electronic reporting
- **Send to ADREP@icao.int**



Accident and incident database -- Annex 13 – Chapter 8

- **State shall establish and maintain database**
 - Facilitate effective analysis
 - Determine preventive actions



ICAO

UNITING AVIATION

NO COUNTRY LEFT BEHIND



ECCAIRS software

- **Developed by the European Union in cooperation with ICAO**
- **Some adaptation for ICAO use (extra tools)**
- **Available to States at no charge**
- **English and French versions available**



Browser Screen – with data (bottom)

Ecchairs 5 Browser - Query: [Select All]

File Edit View Database Occurrence Help

View with: OPERATIONAL FULL

France - BEA, 00000590

- Reports
- Attachments
- Narrative (French)
- Note (Aircraims)
- Note (FINAL REPORT)
- Events and factors
- Weather
- DE HAVILLAND - DHCG (DHC)
 - Injuries
 - History of flight
 - Maintenance
 - Engines
 - Propellers
 - Meteorology
 - Survival
 - Position/Wreckage/Impa
 - Flight crew
 - Pilot-in-command
 - Co-pilot
 - Events
- Aerodrome (LFL) (CVF): Cou
 - Runway (05)
 - Airspace
 - Management

Headline
Headline Rupture du train avant, sortie latérale de piste au cours du roulement au décollage

Occurrence filing information

File number	00000590	Responsible entity	France BEA
Occurrence status	Data		

Occurrence validation

Validation status		Validation date	
-------------------	--	-----------------	--

When

Local date	10/02/2000	UTC date	10/02/2000
Local time	18:00:00	UTC time	17:00:00

Where

State/area of	Europe and North Atlantic France	Location of	AP Courchevel (73)
		Latitude of	45:24:00 N
		Longitude of	6:38:00 E

Severity

Highest Damage	Destroyed	Damage aerodrome	None
Injury level	None	Object damaged	
Third party damage	No		

Classification

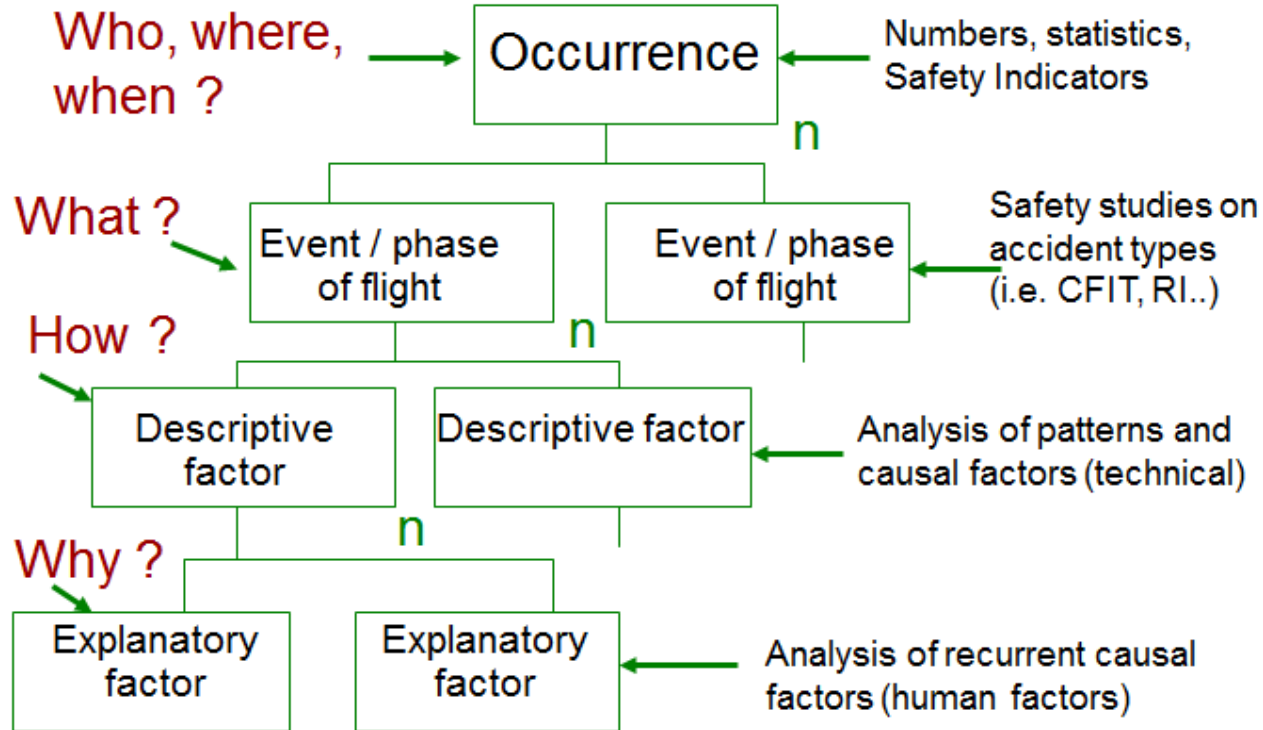
Occurrence class	Accident	Occurrence	LOC-G: Loss of control - ground SCF-NP: System/component failure or malfunction [non-powerplant] RE: Runway excursion
------------------	----------	------------	---

Dist Grade

File number	Report identification	Responsible entity	Occurrence class	State/area of occurrence	Location of occ.	Local date	UTC date	Make/mdl/srs	Aircraft registration	Operator	Operation type	Call sign	Injury level	Fatal, passengers	Fatal, crew total	Total fat
00000100	DCA00MA023	United States - NTSB	Accident	United States	Port Hueneue , 31/01/2000			MCDONNELL DI N963AS		Alaska Airli	Commercial Air Tr		Fatal	5	88	
00000200	DCA00MA026	United States - NTSB	Accident	United States	RANCHO CORDC 16/02/2000			MCDONNELL DI N8079U		Emery Wor	Commercial Air Tr		Fatal	3	3	
00000280	DCA00MA030	United States - NTSB	Accident	United States	BURBANK,CA 05/03/2000			BOEING - 737 - N668SW		Southwest	Commercial Air Tr		Minor	0	0	
00000590	f-th000210	France - BEA	Accident	France	AP Courchevel (73) 10/02/2000	10/02/2000		DE HAVILLAND F-GUTH		Unknown	General Aviation		None			
00000790	g-r000502a	France - BEA	Accident	France	AD Lyon Saint-Ex 02/05/2000	02/05/2000		LEARJET - 35 G-MURI		Northern E. Commercial Air Tr	NEX-4B		Fatal	2	2	
00000830		Not applicable	Incident	Taiwan	South China Sea 08/05/2000			AIRBUS - A300 B-18503		Unknown	Commercial Air Tr		None	0	0	

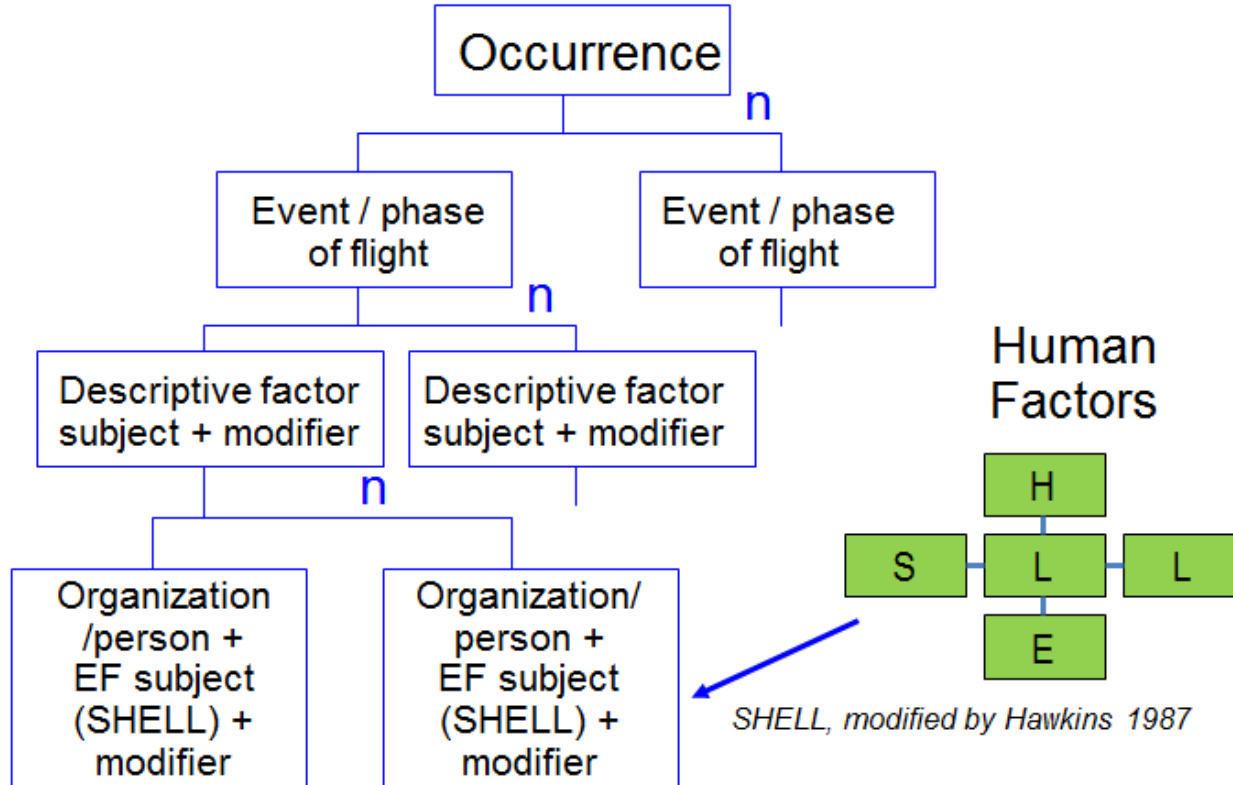


Different levels of data quality





Human Factors included in ADREP





ICAO

UNITING AVIATION

NO COUNTRY LEFT BEHIND



Questions ?

