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FLIGHT DATA ANALYSIS PROGRAMME: ICAO REGULATORY FRAMEWORK

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FLIGHT DATA ANALYSIS PROGRAMME (FDAP) SEMINAR
Miami Octubre 25-27





Outline

ICAO SARPs on
Flight Data
Analysis

ICAO
Guidance
Material

ICAO Safety
Oversight on
FDAP

ICAO NACC
NCLB

Final
considerations

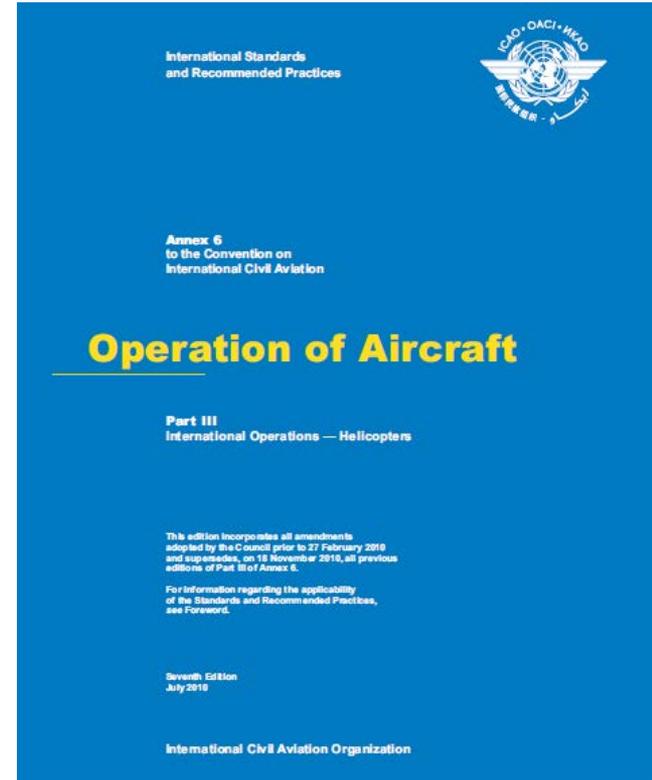
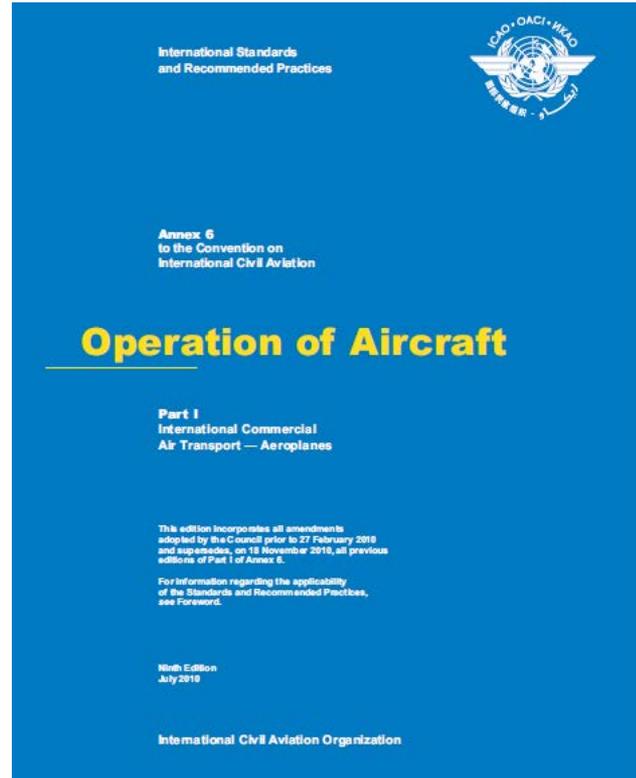


Flight data analysis programmes

FDAP



SMS





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Annex 6, Part I



“flight data analysis” = a process of analyzing recorded flight data in order to improve the safety of flight operations



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> 20 000 kg

> 27 000 kg

Annex 6, Part I, Amendment 37-A

INTERNATIONAL COMMERCIAL AIR TRANSPORT — AEROPLANES

CHAPTER 3. GENERAL

3.3 Safety management

Note.— Annex 19 includes safety management provisions for air operators. Further guidance is contained in the Safety Management Manual (SMM) (Doc 9859).

3.3.1 **Recommendation.**— *An operator of an aeroplane of a certificated take-off mass in excess of 20 000 kg should establish and maintain a flight data analysis programme as part of its safety management system.*

3.3.2 An operator of an aeroplane of a maximum certificated take-off mass in excess of 27 000 kg shall establish and maintain a flight data analysis programme as part of its safety management system.

Note.— An operator may contract the operation of a flight data analysis programme to another party while retaining overall responsibility for the maintenance of such a programme.

3.3.3 A flight data analysis programme shall be non-punitive and contain adequate safeguards to protect the source(s) of the data.

Note 1.— Guidance on the establishment of flight data analysis programmes is included in the Manual on Flight Data Analysis Programmes (FDAP) (Doc 10000).



**> 7 000 kg; or
> 9 passengers with flight
Data Recorder**

Annex 6, Part III, Amendment 18-A

INTERNATIONAL OPERATIONS — HELICOPTERS

**SECTION II
INTERNATIONAL COMMERCIAL AIR TRANSPORT**

CHAPTER 1. GENERAL

1.3 Safety management

Note.— Annex 19 includes safety management provisions for air operators. Further guidance is contained in the Safety Management Manual (SMM) (Doc 9859).

1.3.1 Recommendation.— *An operator of a helicopter of a certified take-off mass in excess of 7 000 kg or having a passenger seating configuration of more than 9 and fitted with a flight data recorder should establish and maintain a flight data analysis programme as part of its safety management system.*

Note.— An operator may contract the operation of a flight data analysis programme to another party while retaining overall responsibility for the maintenance of such a programme.

1.3.2 A flight data analysis programme shall be non-punitive and contain adequate safeguards to protect the source(s) of the data.

Note 1.— Guidance on the establishment of flight data analysis programmes is included in the Manual on Flight Data Analysis Programmes (FDAP) (Doc 10000).



Safety management: Monitoring and Reporting

USOAP

Continuous Monitoring Approach



Promoting global aviation safety



Regional Aviation Safety Groups (RASGs)

RASGs were established to improve global civil aviation safety and efficiency by applying the ICAO Global Aviation Safety Plan (GASP) principles through a collaborative and coordinated approach in partnership with all aviation stakeholders under the leadership of ICAO. RASGs serve as ICAO's focal points to promote the reduction of aviation safety risks through the involvement of all aviation safety stakeholders and the harmonization and coordination of efforts aimed at mitigating safety risks and promoting implementation of regional safety initiatives.



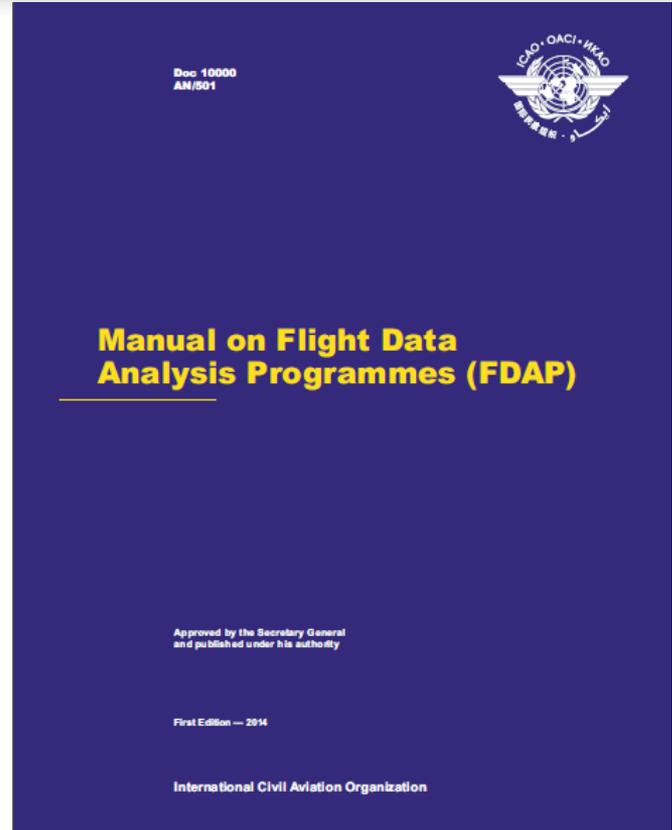


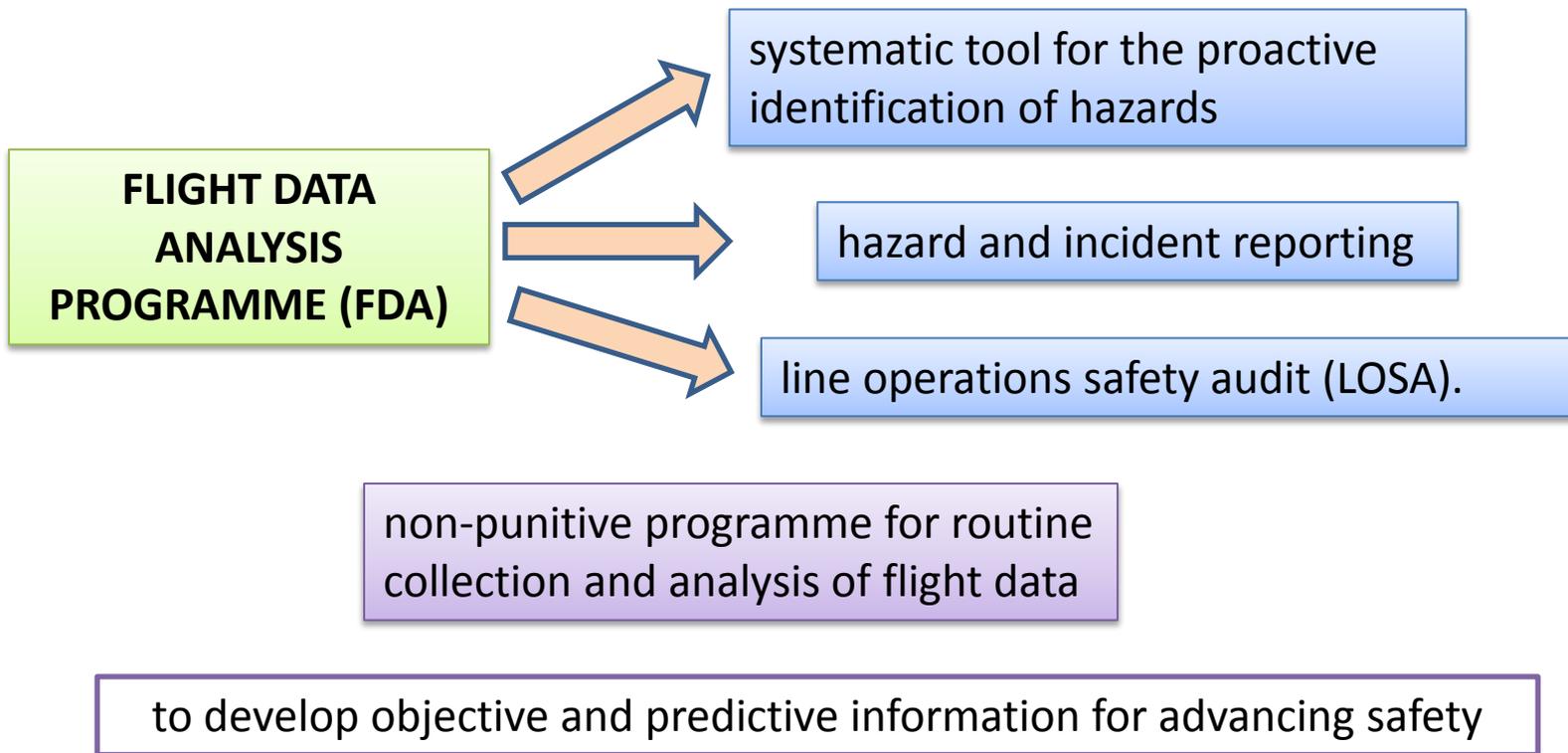
Addressed to:

- States providing oversight to air operators
- air operators performing commercial air transport operations with aeroplanes and helicopters.

The objective:

- a) a description of the relationship between SMS and FDAP;
- b) an overview of FDAP elements; and
- c) guidance for the establishment and implementation of an FDAP.

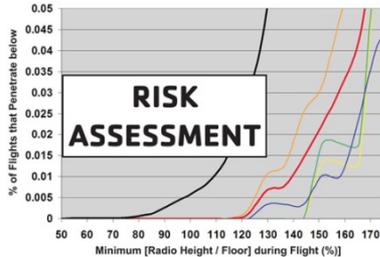






FDA involves:

capturing and analysing flight data to determine if the flight deviated from a safe operating envelope



identifying trends



promoting action to correct potential problems.





ICAO Safety Oversight on FDAP

Universal Safety Oversight
Audit Programme
(USOAP)

Continuous Monitoring Approach
(CMA)

safety oversight capabilities of its Member States

FOCUS: State has effectively and consistently implemented the critical elements of a safety oversight system and determining the State's level of implementation of ICAO's safety-related Standards and Recommended Practices (SARPs) and associated procedures and guidance material.



ICAO Safety Oversight on FDAP

USOAP CMA Protocol Questions — OPS

4.203

Does the aircraft operations organization ensure that the air operator has established and maintained a flight data analysis programme as part of its SMS?

1) Verify implementation of operations inspectors' procedures to ensure that, as part of their SMS, air operators have established and maintain a flight data analysis programme.

2) Review effective implementation by air operators.



ICAO Safety Oversight on FDAP

USOAP CMA Protocol Questions — OPS

4.205

Does the aircraft operations organization ensure that the flight data analysis programme is non-punitive and contains safeguards to protect the source(s) of the data?

- 1) Verify implementation of operations inspectors' procedures to ensure that the air operators' flight data analysis programme is non-punitive and contains safeguards to protect data source(s).
- 2) During the industry visit, confirm effective implementation.



ICAO Safety Oversight on FDAP

Average EI of PQs(2) 4.203, 4.205 for NACC: 71.06%

Number	Question	CE	References	PQ EI (%)	S/U/N	Applicability
4.203	Does the aircraft operations organization ensure that the air operator has established and maintained a flight data analysis programme as part of its SMS?	6	OPS	63.16	12/7/2	90.48
4.205	Does the aircraft operations organization ensure that the flight data analysis programme is non-punitive and contains safeguards to protect the source(s) of the data?	6	OPS	78.95	15/4/2	90.48



ICAO Safety Oversight on FDAP

Average EI of PQs(2) 4.203, 4.205 for AN Region-CAR: 76.47%

Search

Number	Question	CE	References	PQ EI (%)	S/U/N	Applicability (%)
4.203	Does the aircraft operations organization ensure that the air operator has established and maintained a flight data analysis programme as part of its SMS?	6	OPS	70.59	12/5/2	89.47
4.205	Does the aircraft operations organization ensure that the flight data analysis programme is non-punitive and contains safeguards to protect the source(s) of the data?	6	OPS	82.35	14/3/2	89.47



NCLB Goals and Outcomes

Short Term
(expected outcome)

Year 1 –
Development,
initiation and
validation of the
ICAO NACC NCLB
Strategy

Medium Term
(expected outcome)

Year 2 – all States
at NACC NCLB
Phase II
and increase EI of
at least 3 States to
80% +

Year 3 – all States
at NACC NCLB
Phase III
and
increase EI of at
least 3 States to
80% +

Long Term
(expected outcome)

Year 4 - increase EI
of at least 3 States
to 80% +
**GOAL: No more
than 2 States
below 80% of EI**



NACC NCLB Activities

Hands-on State assistance:

Safety

Air Navigation Services (ANS)

Aerodromes and Ground Aids (AGA)

Aviation Security and Facilitation (AVSEC-FAL)

Safety:

USOAP EI and safety improvements

ANS:

ANS improvement implementation / deficiencies solving

AGA:

Deficiencies resolving / Aerodrome certification / Aerodrome safety improvements

AVSEC-FAL:

USAP EI and ASIP activities



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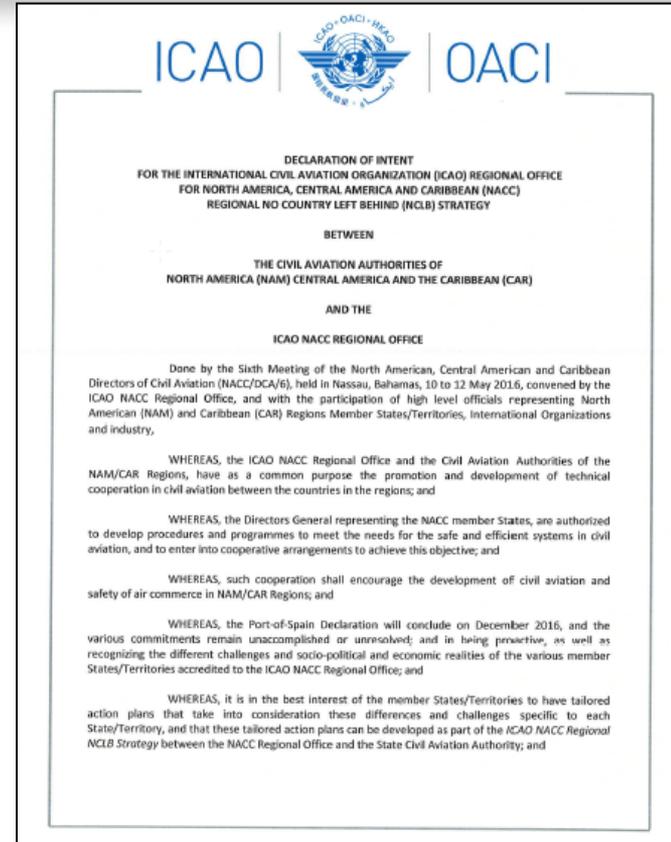
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Commitment to implement the NACC NCLB Strategy

DECLARATION OF INTENT FOR THE INTERNATIONAL CIVIL AVIATION ORGANIZATION (ICAO) REGIONAL OFFICE FOR NORTH AMERICA, CENTRAL AMERICA AND CARIBBEAN (NACC) REGIONAL NO COUNTRY LEFT BEHIND (NCLB) STRATEGY



ICAO | ICAO • OACI • ICAO | OACI

DECLARATION OF INTENT FOR THE INTERNATIONAL CIVIL AVIATION ORGANIZATION (ICAO) REGIONAL OFFICE FOR NORTH AMERICA, CENTRAL AMERICA AND CARIBBEAN (NACC) REGIONAL NO COUNTRY LEFT BEHIND (NCLB) STRATEGY

BETWEEN

THE CIVIL AVIATION AUTHORITIES OF NORTH AMERICA (NAM) CENTRAL AMERICA AND THE CARIBBEAN (CAR)

AND THE

ICAO NACC REGIONAL OFFICE

Done by the Sixth Meeting of the North American, Central American and Caribbean Directors of Civil Aviation (NACC/DCA/6), held in Nassau, Bahamas, 10 to 12 May 2016, convened by the ICAO NACC Regional Office, and with the participation of high level officials representing North American (NAM) and Caribbean (CAR) Regions Member States/Territories, International Organizations and industry,

WHEREAS, the ICAO NACC Regional Office and the Civil Aviation Authorities of the NAM/CAR Regions, have as a common purpose the promotion and development of technical cooperation in civil aviation between the countries in the regions; and

WHEREAS, the Directors General representing the NACC member States, are authorized to develop procedures and programmes to meet the needs for the safe and efficient systems in civil aviation, and to enter into cooperative arrangements to achieve this objective; and

WHEREAS, such cooperation shall encourage the development of civil aviation and safety of air commerce in NAM/CAR Regions; and

WHEREAS, the Port-of-Spain Declaration will conclude on December 2016, and the various commitments remain unaccomplished or unresolved; and in being proactive, as well as recognizing the different challenges and socio-political and economic realities of the various member States/Territories accredited to the ICAO NACC Regional Office; and

WHEREAS, it is in the best interest of the member States/Territories to have tailored action plans that take into consideration these differences and challenges specific to each State/Territory, and that these tailored action plans can be developed as part of the ICAO NACC Regional NCLB Strategy between the NACC Regional Office and the State Civil Aviation Authority; and

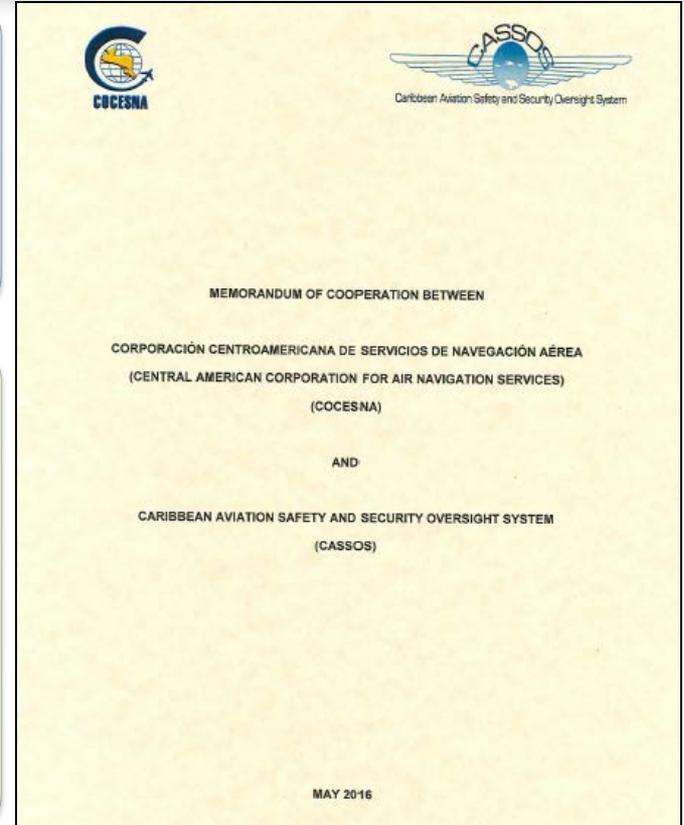


Integrating the work of the Regional Safety Oversight Organizations

Promote partnership: collaboration between RSOOs

Champion State concept

Joint works between RSOOs





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NACC NCLB Status

State NCLB Tailored Plans

Joint work: CASSOS-ACI-FAA – Aerodrome certification

ICAO Air Navigation Regional Implementation Groups

Joint work: CASSOS-ACSA – Haiti SSC Resolution Project

Joint work: CASSOS-ACSA: CARAIO Project



NACC NCLB Solutions

Commitment to implement NCLB/ Support Technical Cooperation Projects:

Address State's needs:

Integrating the work of the Regional Safety Oversight Organizations

Third Party Funding (Banks, ICAO, etc., ...)

RLA 09/801 "MCAAP"

Adequate training

Promote standardization of aviation policies

Professional development of inspectors and others

Promote partnership: collaboration between RSOOs

More participation in RASG-PA

"Champion State" Concept



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Considerations

ICAO NACC NCLB activities- to assist States- operators

Promote Implementation of FDAP

RASG-PA supporting FDA implementation

Regional Agreements -RSOO

**SMS /SSP
Implementation**



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North American
Central American
and Caribbean
(NACC) Office
Mexico City

South American
(SAM) Office
Lima

ICAO
Headquarters
Montréal

Western and
Central African
(WACAF) Office
Dakar

European and
North Atlantic
(EUR/NAT) Office
Paris

Middle East
(MID) Office
Cairo

Eastern and
Southern African
(ESAF) Office
Nairobi

Asia and Pacific
(APAC) Sub-office
Beijing

Asia and Pacific
(APAC) Office
Bangkok

Questions?



THANK YOU