

History of Civil Aviation Regulation and Oversight in Jamaica



Flight Safety Division

- Regulatory Division of CAA
- Mandated by Statute and supported by Managers for each regulatory area
- Independent from Civil Department

High Profile/Visible Incidents



JCAA Key Personnel



ICAO Annex 1900
The Annex is an essential part of the ICAO system for the uniform application of standards, procedures, practices, to be followed by States in the operation of their aircraft, air navigation facilities, air traffic services, air navigation aids, air navigation equipment, air navigation procedures, air navigation systems and air navigation services.

CAA Recommendations
CAA Recommendations are issued by the Board of Directors of the CAA and are intended to provide guidance to the industry on the application of the standards and procedures of Annex 1900.

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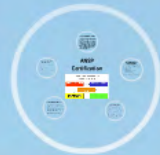
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Safety Oversight Air Navigation Services (ANS) Seminar, May 12-16 2014



Safety Oversight of Air Navigation Services: Experience of the Jamaica Civil Aviation Authority Flight Safety Division

Presented by: Earl Grant
Manager, Surveillance and Oversight of ANS, Air Navigation Services and Safety Management Systems Oversight



Thank You.

Additional Focus Areas
• Review of Safety Management Systems (SMS)
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Structure of ANS Certification



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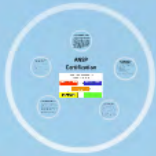


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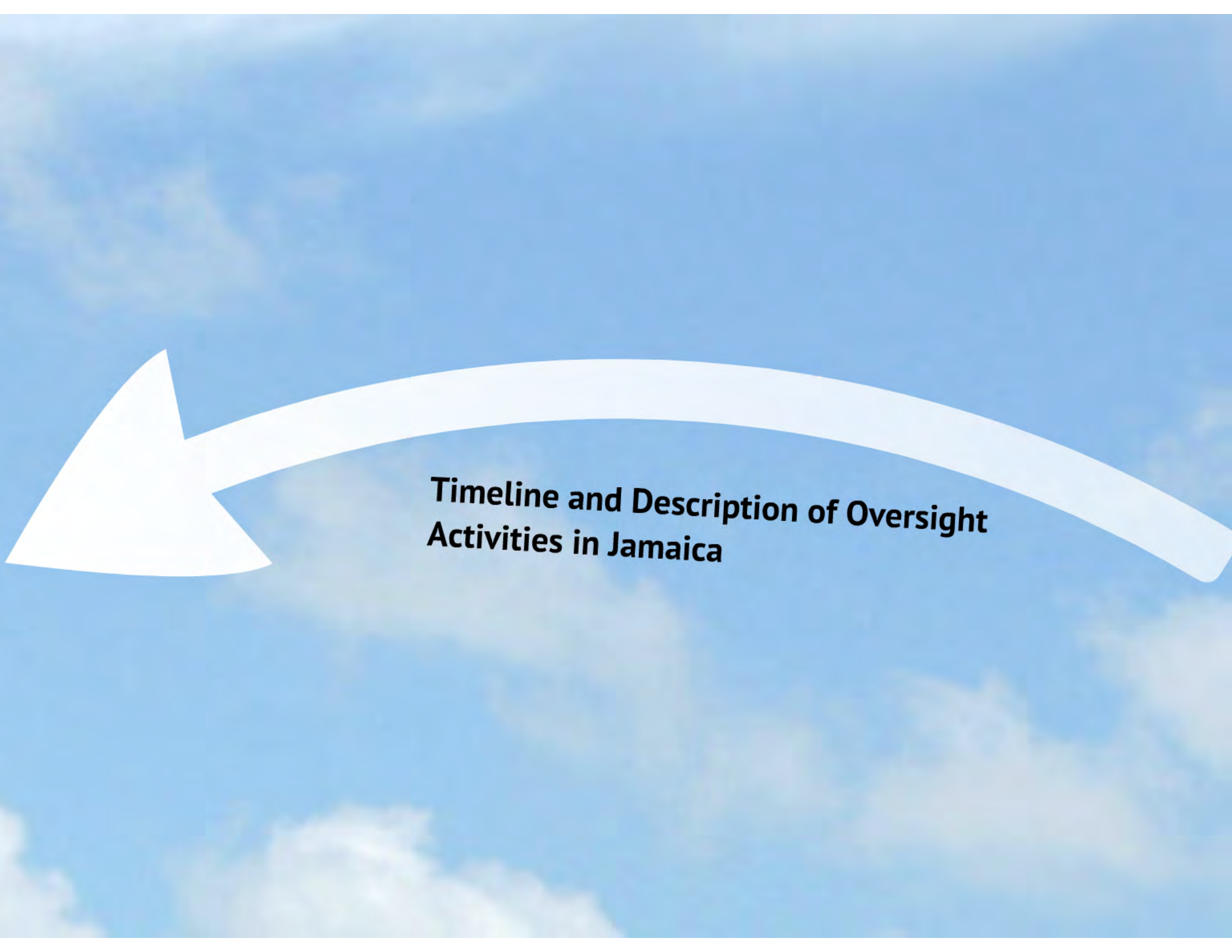


**Safety Oversight Air Navigation Services
(ANS) Seminar, May 12-16 2014**



**Safety Oversight of Air Navigation Services:
Experience of the Jamaica Civil Aviation Authority
Flight Safety Division**

Presented by: Kurt Grant
Manager, Aerodromes and Ground Aids, Air
Navigation Services and Safety Management
Systems Oversight



**Timeline and Description of Oversight
Activities in Jamaica**

History of Civil Aviation Regulation and Oversight In Jamaica

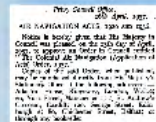


Beginnings



**Air Navigation
Act and
Regulations
Passed in UK
Parliament**

1937



**Civil Aviation Department
(CAD) established in
Jamaica**

1920

**Colonial Air Navigation
Order passed in UK
Parliament**

1947

Privy Council Office,

16th April, 1937.

AIR NAVIGATION ACTS, 1920 AND 1936.

Notice is hereby given that His Majesty in Council was pleased, on the 13th day of April, 1937, to approve an Order in Council entitled "The Colonial Air Navigation (Application of Acts) Order, 1937."

Copies of the said Order, when published, may be purchased directly from His Majesty's Stationery Office at the following addresses:—
Adastral House, Kingsway, London, W.C.2;
26, York Street, Manchester 1; 1, St. Andrew's Crescent, Cardiff; 120, George Street, Edinburgh 2; 80, Chichester Street, Belfast; or through any bookseller.

1962



**Jamaica
becomes
Independent**

Primary Legislation

1963



**Jamaica ratifies
Chicago Convention**

1966

**Civil Aviation Act
passed by Jamaican
Parliament**



Regulations

1963

**Air Navigation
(General)
Regulations**

1995

**Civil Aviation
(Air Navigation)
Regulations**



Structure



1996

**CAA and Jamaican Regulatory
Oversight framework established**

Flight Safety Division

- **Regulatory division of JCAA.**
- **Headed by Director and guided by Managers for each regulatory focus area.**
- **Inspectors report to each department manager.**

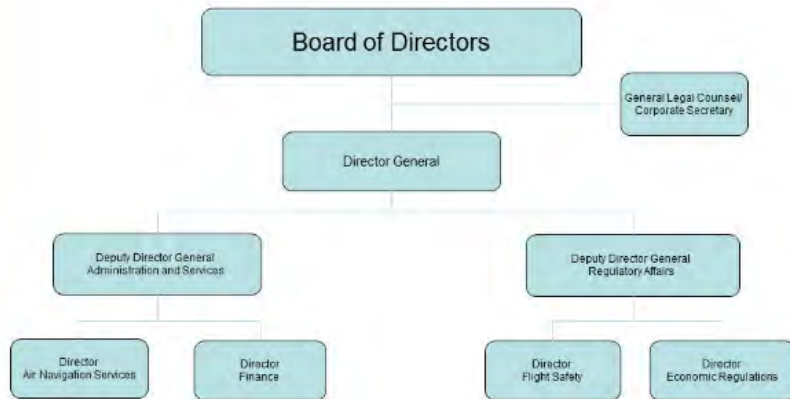
Flight Safety Division Initial Oversight Focus Areas (1996)

- Personnel Licencing
- Airworthiness
- Flight Operations

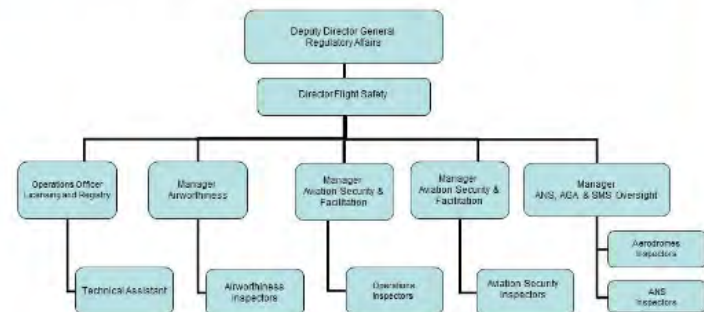


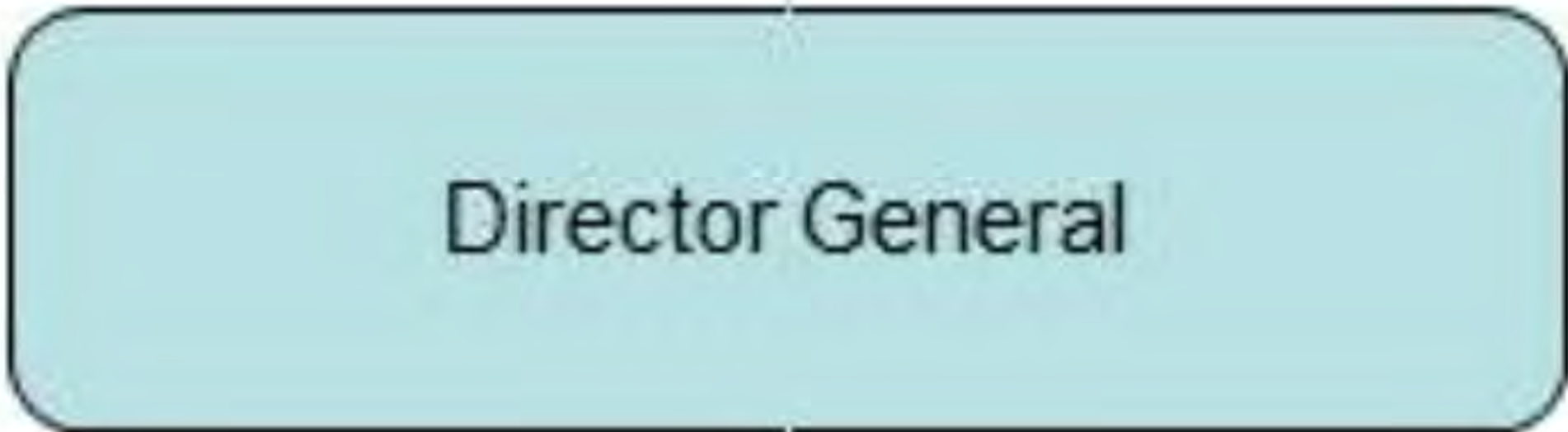
JCAA Key Personnel

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Flight Safety Division Organization Chart





Director General

```
graph TD; A[Deputy Director General Administration and Services] --> B[Director Air Navigation Services]; A --> C[Director Finance];
```

Deputy Director General
Administration and Services

Director
Air Navigation Services

Director
Finance

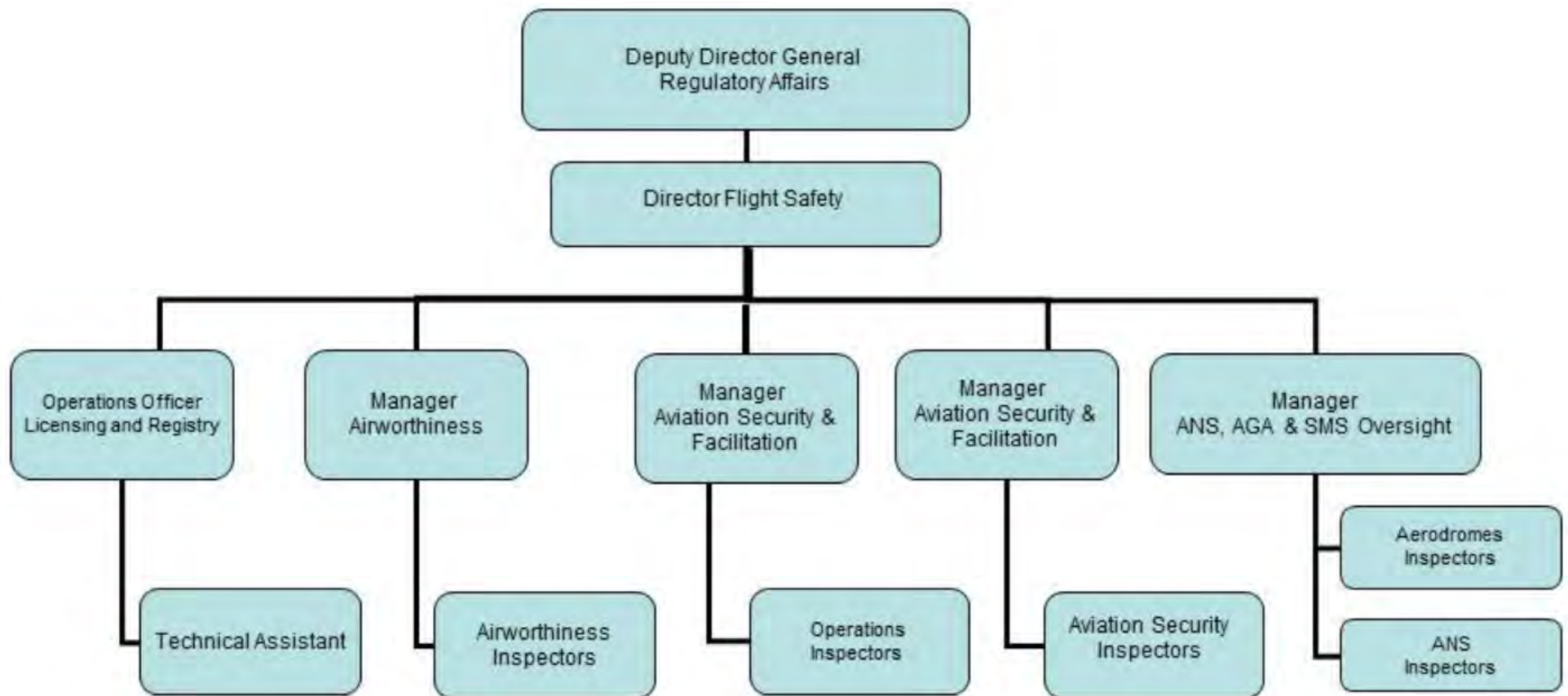

```
graph TD; A[Deputy Director General Regulatory Affairs] --> B[Director Flight Safety]; A --> C[Director Economic Regulations];
```

Deputy Director General
Regulatory Affairs

Director
Flight Safety

Director
Economic Regulations

Flight Safety Division Organization Chart



```
graph TD; Manager[Manager ANS, AGA & SMS Oversight] --- Aerodrome[Aerodrome];
```

Manager
ANS, AGA & SMS Oversight

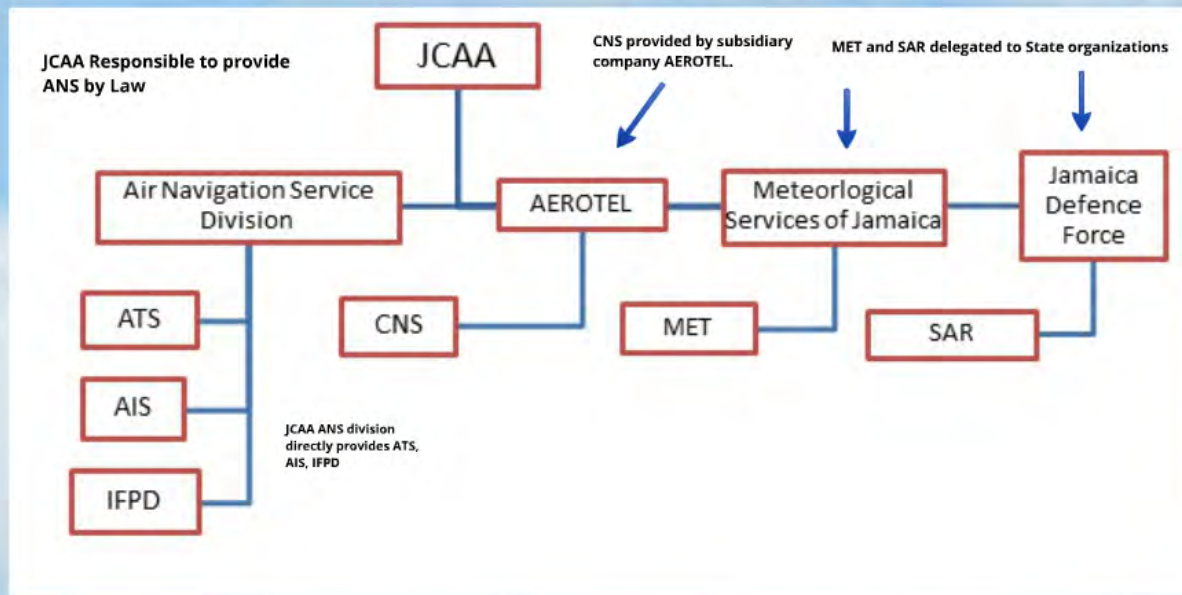
Aerodrome

```
graph LR; Root[ ] --- Top[Aerodromes Inspectors]; Root --- Bottom[ANS Inspectors];
```

Aerodromes
Inspectors

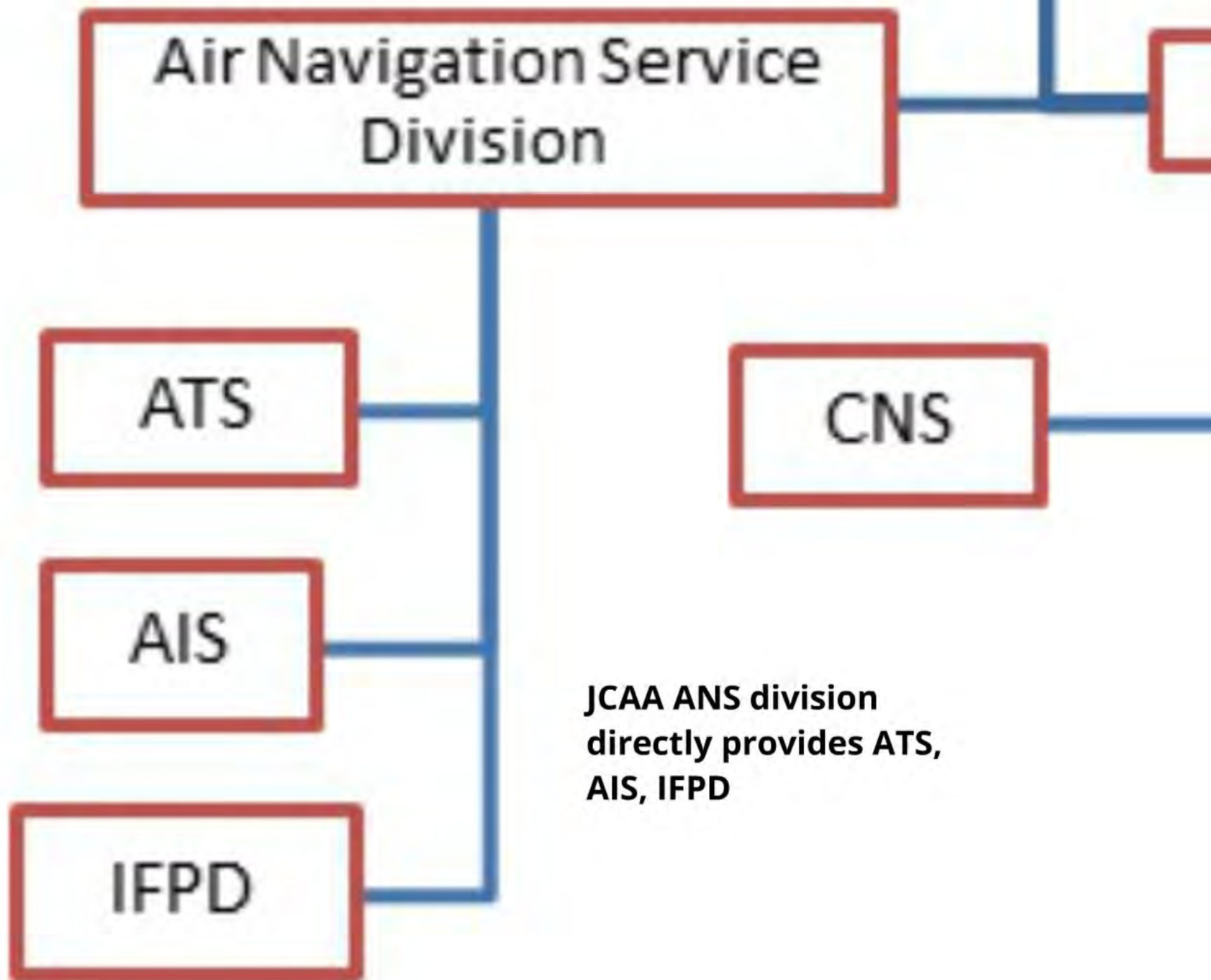
ANS
Inspectors

Air Navigation Service Provision in Jamaica



JCAA Responsible to provide ANS by Law





Air Navigation Service
Division

ATS

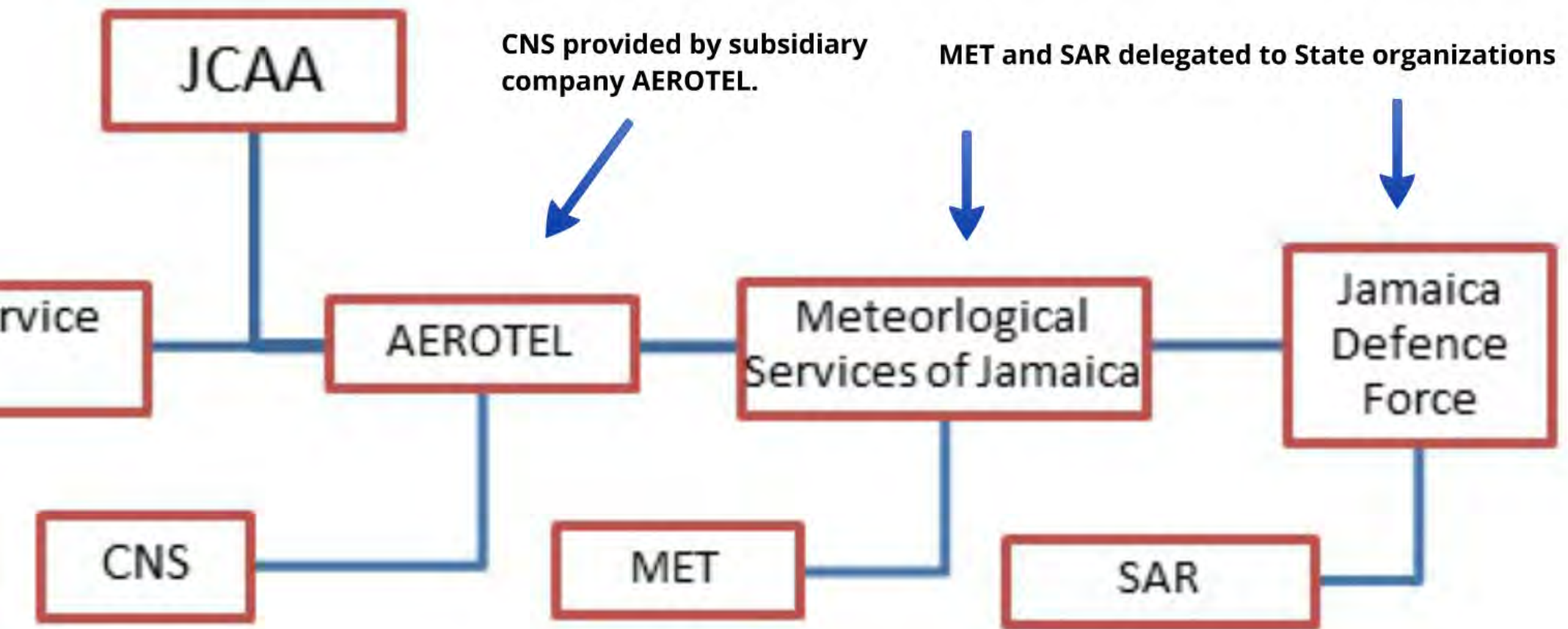
AIS

IFPD

CNS

JCAA ANS division
directly provides ATS,
AIS, IFPD

Provision in Jamaica



ANS division
ly provides ATS,
FPD

ICAO USOAP Audit 2007

"The JCAA has not established a safety oversight system for the ANS areas of air traffic management, Procedures for Air Navigation Services – Aircraft Operations (PANS-OPS), AIS, aeronautical charts (MAPS), communications, navigation and surveillance (CNS), and search and rescue (SAR)"

ICAO Recommendation USOAP Audit Corrective Action

Establish and implement a safety oversight system for the ANS areas to include:

- qualified and experienced inspectors**
- policies and procedures;**
- detailed job descriptions;**
- training programme;**
- a formal surveillance programme; and**
- a mechanism with time frames to eliminate deficiencies**

Development of ANS Oversight Elements (Short Term)

- **CE - 2: Update Specific Operating Regulations**
- **CE - 3: Continue development of ANS safety oversight system within Flight Safety Division**
- **CE - 4: Establish Technical personnel qualification and training for ANS Oversight Personnel**
- **CE - 5: Develop technical guidance material for Inspectors**
- **CE - 7 Commence Surveillance of ANS providers**
- **CE -8 Implement procedures for resolution of safety concerns identified during surveillance or investigation.**

Development of ANS Oversight Elements (Long Term)

CE - 1: Amend Primary Aviation Legislation (Civil Aviation Act) to strengthen new ANS Safety oversight responsibilities.

CE-5: Continuous development of industry guidance material.

Status of ANS Oversight

2009

CE -3: State civil aviation system and safety oversight functions

AGA, ANS and SMS department established in Flight Safety Division. Guided by manager with Inspector allocations for each area.

2013

CE-7 Surveillance obligations

- Surveillance plan developed for calendar year.
- Sequential execution of surveillance obligations.
- Audits to be conducted based on standards in operating regulations.

2009

CE -4: Technical personnel qualification and training

Minimum knowledge and experience requirements established for AGA, ANS and SMS department manager and inspectors.

2012

CE -2: Specific operating regulations

Civil Aviation Regulations Amendment Now addresses all applicable provisions of ANS Annexes 2, 3, 4, 5, 11 and 15 to the Chicago Convention.



2010

CE - 5: Technical guidance, tools and the provision of safety-critical information

Development of the following:

- ANS Inspector Handbook.

- Inspector Checklists.

- Air Traffic Services Accident and Incident Procedures Manual.

- Updated Administrative procedures manual to account for ANS Oversight area.

2012

CE-8 Resolution of safety concerns

- Specific investigations of ATIS incidents.
- Establishment of ATIS occurrence database.
- Enforcement mechanisms introduced to Civil Aviation Regulations.
- Team based procedures for resolution of safety concerns identified by surveillance and/or investigations based on risk assessment.

2009

**CE -3: State civil aviation system
and safety oversight functions**

**AGA, ANS and SMS department
established in Flight Safety Division.
Guided by manager with inspector
allocations for each area.**

2009

**CE -4: Technical personnel
qualification and training**

**Minimum knowledge and experience
requirements established for AGA, ANS
and SMS department manager and
inspectors.**

2010

CE - 5: Technical guidance, tools and the provision of safety-critical information

Development of the following:

- **ANS Inspector Handbook.**
- **Inspection Checklists.**
- **Air Traffic Services Accident and Incident Procedures Manual.**
- **Updated Administrative procedures manual to account for ANS Oversight area.**

2012

CE-8 Resolution of safety concerns

- **Specialist investigations of ATS Incidents.**
- **Establishment of ATS occurrence database.**
- **Enforcement mechanisms introduced in Civil Aviation Regulations**
- **Time bound procedures for resolution of safety concerns identified in surveillance and/or investigations based on risk assessment.**

2012

CE -2: Specific operating regulations

Civil Aviation Regulations Amendment Now addresses all applicable provisions of ANS Annexes 2, 3, 4, 5, 11 and 15 to the Chicago Convention.

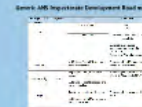
2013

CE-7 Surveillance obligations

- **Surveillance plan developed for calendar year.**
- **Sequential execution of surveillance obligations.**
- **Audits to be conducted based on standards in operating regulations.**

2014

- **Commenced recruitment for two (2) ANS Inspector Positions.**
- **Commenced negotiation to supplement permanent inspectorate staff using international and regional expertise.**
- **Engaged International organizations to assist in executing specific oversight functions where necessary.**
- **Assisted in delivering course on SMS Implementation and Hazard Identification and Risk Assessment to assist in establishment of Runway Safety Teams.**
- **Completed first draft of JCAA audit protocol for ANS oversight audits.**

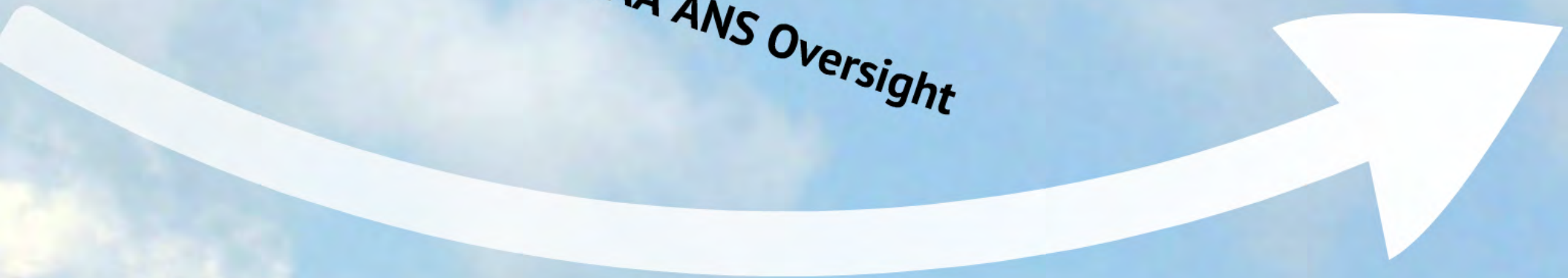


Generic ANS Inspectorate Development Road map

SAAQ Level of Activity	Inspectors	Area (s)	Comment
Low	2	ATM/SAR	<i>MET</i> <i>CNS</i>
		AIS/MAP	Contracted MET and CNS specialists. International/regional agreement for approval of PANS-OPS Instrument Flight Procedures
Medium	3	Addition of one (1) inspector to most critical area.	For example, addition of on-staff CNS and/or MET
Medium-High	4-6	Separation of (2) functional areas. Addition of one (1) inspector to most critical area	For example, separation of PANS-OPS and AIS/MAP
High	7	Further separation of functions. Addition of one (1) inspector to most critical area	For example, separation of SAR

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Future of JCAA ANS Oversight



policy regarding ANSPs.

ANSP Certification

**THE FIVE PHASES OF
CERTIFICATION 1**

ANSP Certification

Next Generation of Oversight

The great role that ANS will play in Next Generation Air Transport requires a shift not only in conventional methods of service provision but also in conventional State, regulatory and business policy regarding ANSPs.

Factors in development of ANS Certification Scheme

- Increased safety, order and consistency in Air Navigation Services.
- Streamlined organization and management structure in the major civil aviation States (ICAO Annex 17).
- Challenges in meeting demands for Traffic Management Operational Control (TCO) services, legal and administrative arrangements for service providers.
- Requirement for technical utilization of OAS (Advanced) Applicable (AAS) requirements.

Core Requirements of ANSP Certification.

- Allocation of core responsibilities to key personnel and offices.
- Proof of financial capability to provide safe and secure service in accordance with requirements.
- Safety Management System.
- Quality Management System (ISO Certified).
- Annual Plan (Performance Based).
- Procedures, documentation and administrative requirements.



ICAO Certification Requirements

- No ANS Certification requirements established in ICAO.
- Article 38 of the Convention requires only that States secure the provision of ANS.
- ANS related annexes require that those services that are secured by the State are provided in accordance with the SARP of the applicable Annex.
- State Oversight Manual recommends implementation of Safety management for Air Traffic Services.

Benefits of ANSP Certification

- Facilitates more effective oversight and control.
- The process of achieving and maintaining certification gives ANSPs a reason to continually improve and refine their activities.
- Facilitates different forms of serviceable and economic operations which may increase the safety, efficiency and quality of service provided.
- Supports performance based policy decision making by the State.
- Facilitates greater transparency in ANSP activities, legal and administrative decision making.

THE FIVE PHASES OF CERTIFICATION ¹

PRE-APPLICATION PHASE ₂

FORMAL APPLICATION PHASE ³

DOCUMENT EVALUATION PHASE ⁴

DEMONSTRATION AND INSPECTION PHASE ⁵

CERTIFICATION PHASE ⁶



Next Generation of Oversight

The great role that ANS will play in Next Generation Air Transport requires a shift not only in conventional methods of service provision but also in conventional State, regulatory and business policy regarding ANSPs.

Factors in development of ANS Certification Scheme

- **Increased scope, scale and complexity in Air Navigation Services.**
- **Unregulated organization and management determined to be major contributor towards increased risk profile of ANSPs.**
- **Challenges in advancing towards Air Traffic Management Operational Concept with current economic, legal and administrative arrangements for service provision.**
- **Requirement for increased utilization of CAA resources.**
- **Applicable ICAO requirements.**

ICAO Certification Requirements

- **No ANS Certification requirements established in ICAO.**
- **Article 28 of the Convention requires only that States secure the provision of ANS.**
- **ANS related annexes require that those services that are secured by the State are provided in accordance with the SARPs of the applicable Annex.**
- **State Oversight Manual recommends implementation of Safety management in Air Traffic Services.**

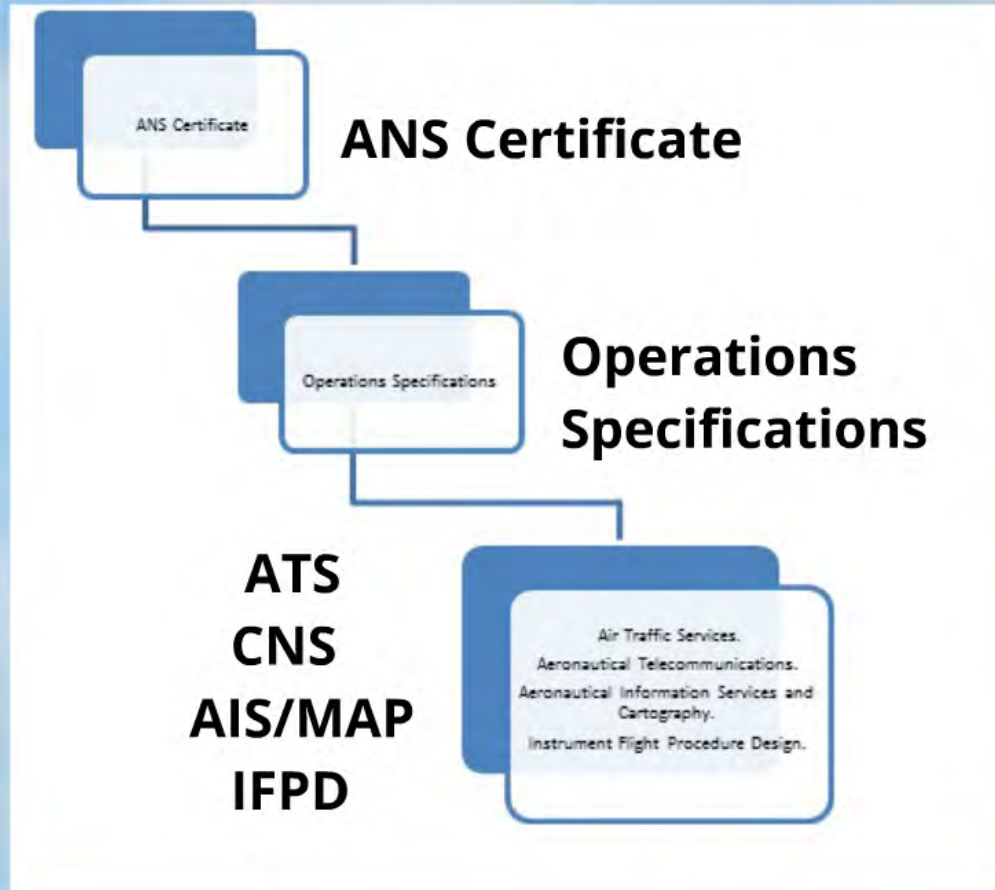
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- **Facilitates more effective oversight and control.**
- **The process of achieving and maintaining certification gives ANSPs incentive to continually improve and refine their activities.**
- **Facilitates different forms of ownership and corporate governance which may increase the safety, efficiency and quality of services provided.**
- **Supports performance-based policy decision making by the State.**
- **Facilitates greater autonomy in ANSP commercial, legal and administrative decision making.**

Core Requirements of ANSP Certification.

- **Allocation of core responsibilities to key personnel and officers.**
- **Proof of financial capability to provide safe and secure service in accordance with requirements.**
- **Safety Management System.**
- **Quality Management System (ISO Certified).**
- **Annual Plan (Performance Based).**
- **Procedure, documentation and administration requirements.**

Structure of ANS Certification



Relationship with (Long Term) ANS Oversight Development

- **Amendment of Primary Aviation Legislation required to enable State to specify the permissible legal, economic and administrative features of a certified ANSP.**
- **Industry guidance material required to guide ANSPs through the entire certification requirements.**



Additional Focus Areas

- **Economic Oversight of ANSPs.**
- **Expansion of Security Oversight programs for ANSPs.**
- **Optimal business arrangements to provide next generation ANS.**
- **Liberalization of ANS provision.**
- **Regional harmonization.**



Thank You.

