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**ACSA**

Central American Agency for Aviation Safety

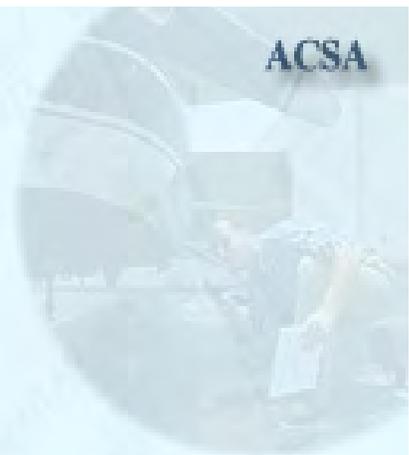
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# **Safety Oversight Air Navigation Services (ANS) Seminar**

*Mexico City, May 2014*



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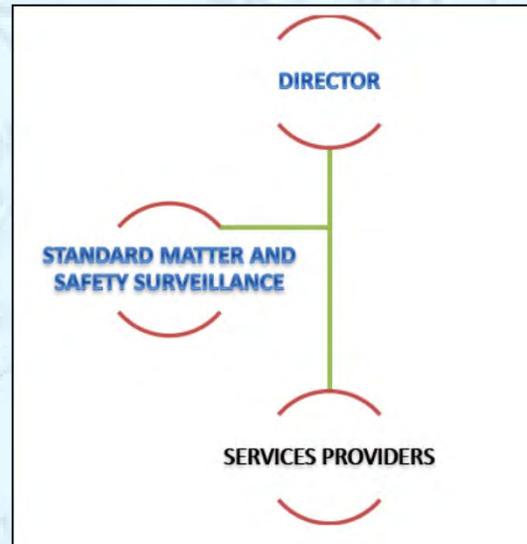
# INTRODUCTION

- The safety oversight should ensure continued safe and a regular system of international air transport.
- If the Authority performs the regulatory functions and at the same time is an ANS provider, procedures approval, certification and monitoring should be carried out as if the service provider is not a part of the regulatory body.
- The scope of the safety oversight in the ANS must include at least personnel, equipment, procedures, policies, manuals, documents and any other items that may have an impact in safety.



# INTRODUCTION

- The organizational structure of the Authority should show independence between the functions (Authority and provision).
- The Authority should establish the necessary agreements with other organizations, such as other Authorities or RSOO for the implementation of an ANS safety oversight system.



Conti..

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Central American Agency for Aviation Safety.

- Part of COCESNA
- Safety and security experts.
- Located in Costa Rica
- Founded in 2000
- 19 Annexs

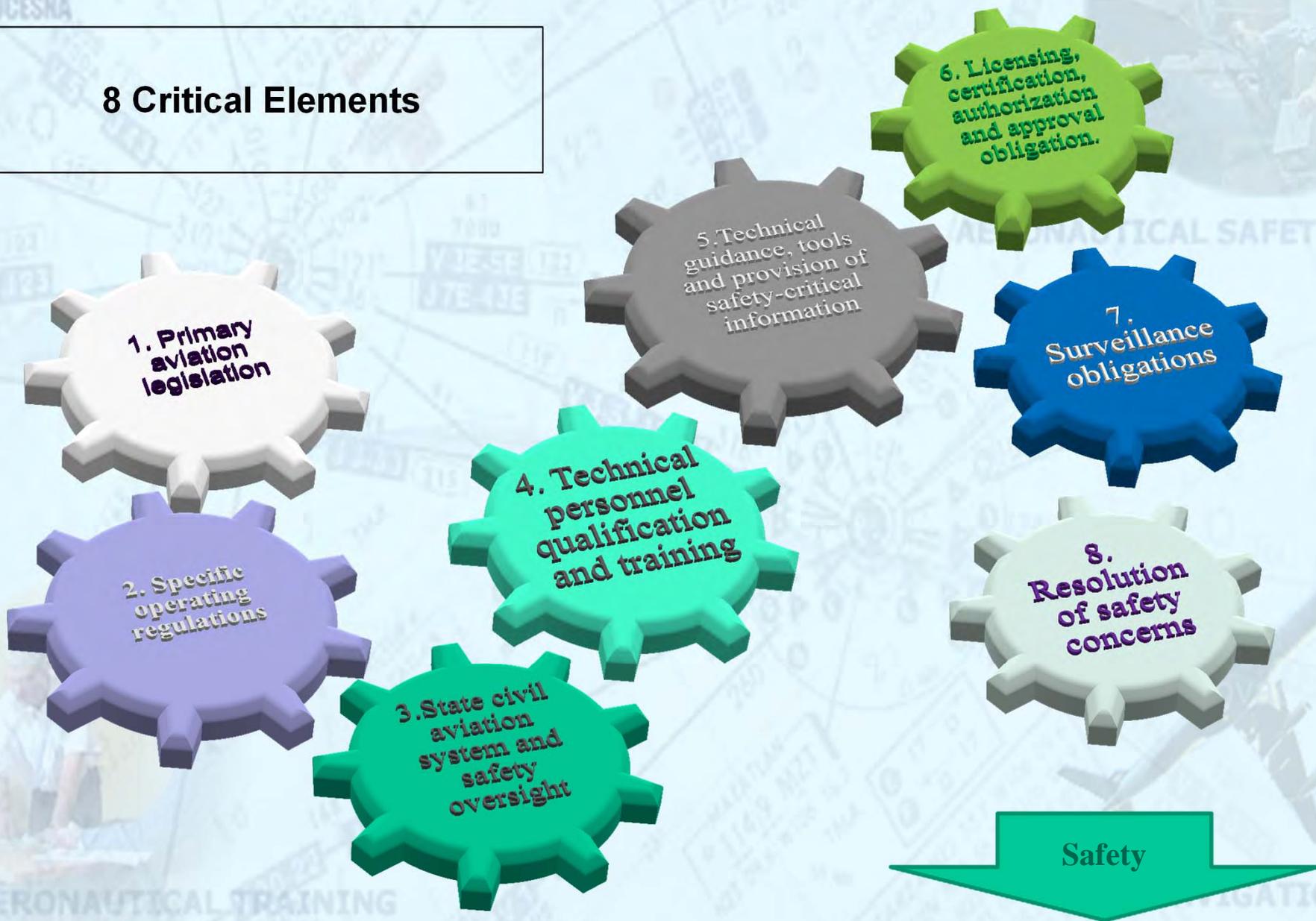


**TO SERVE, INTEGRATE AND FACILITATE**



# ANS safety oversight elements

8 Critical Elements





# ANS safety oversight elements

1. Primary aviation legislation: A law establishing the Authority's competence, the ANS inspectors/auditors empowerment and attributions to carry out their duties.

g) Garantizar la seguridad de la navegación aérea por medio de sus inspectores estableciendo programas de vigilancia operacional y tomando las medidas que estime pertinente de conformidad con esta Ley, sus Reglamentos y las Regulaciones de Aeronáutica Civil (RAC);

**Authority**

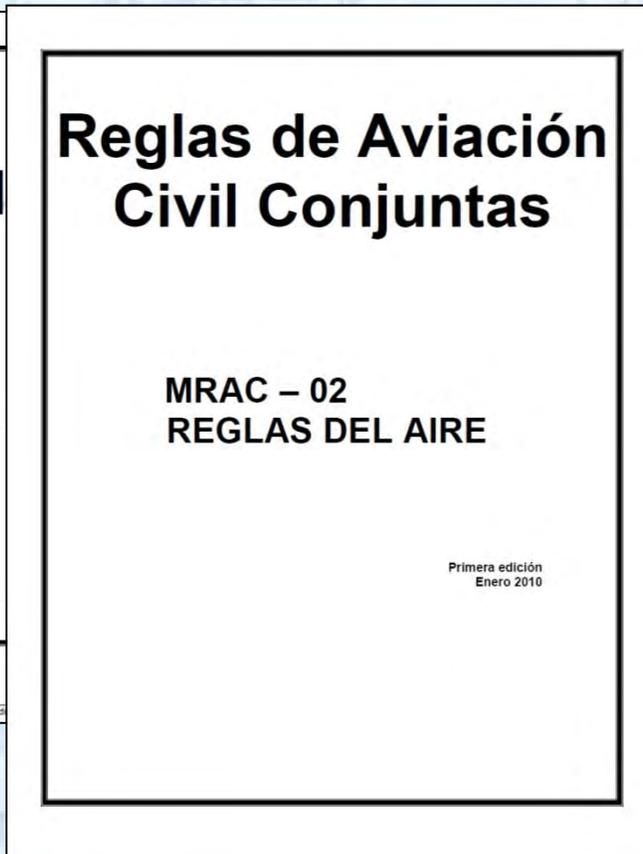
**Inspectors/Auditors**

a) Inspeccionar y evaluar las operaciones aeronáuticas por medio de sus inspectores quienes tendrán plena potestad para disponer las inspecciones y pruebas de



# ANS safety oversight elements

- 2. **Specific operating regulations**: The elaboration of National regulations for the provision of ANS, in compliance with ICAO SARP.



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# ANS safety oversight elements

3. State civil aviation system and safety oversight: To establish an appropriate structure to carry out regulatory and safety oversight tasks. (Inspectors, administrative staff, proper tools, etc..)

1.	Safety Oversight concerning Air Navigation Services .....	GEN-5
1.1	Scope.....	GEN-5
2.	Responsibilities regarding safety oversight .....	GEN-6
3.	Organization.....	GEN-6
3.1	Administrative personnel.....	GEN-6
3.1.1	ANS safety surveillance unit coordinator.....	GEN-6
3.2	Surveillance personnel .....	GEN-7
3.2.1	Air Traffic Services (ATS) Inspector .....	GEN-7
3.2.2	Aeronautical Information Services (AIS) Inspector .....	GEN-9
3.2.3	Aeronautical Meteorology Services (MET) Inspector.....	GEN-10
3.2.4	Communication, Navigation and Surveillance (CNS) Services Inspector .....	GEN-11
3.2.5	Procedures for Air Navigation Services Aircraft Operations (PANS OPS) Services Inspector .....	GEN-13
3.2.6	Search and Rescue (SAR) Services Inspector .....	GEN-14
3.2.7	Cartography Services Inspector .....	GEN-15
3.3	Number of inspectors necessary for safety oversight .....	GEN-17
3.4	Functions and attributions of the air navigation services inspectors .....	GEN-18

# ANS safety oversight elements

## 4. Technical personnel qualification and training: To define the experience and training requirements according to the complexity of the ANS State:

### 3.2.2 Aeronautical Information Services (AIS) Inspector

The inspectors that will carry out safety surveillance for the aeronautical information services should have training as an inspector and the technical knowledge related to the AIS.

#### Experience

A minimum of five year experience providing AIS or providing air traffic services

#### Qualifications

- a) AIS officer license or certificate holder or Air traffic controller license holder with rating in any of the air traffic control services
- b) Be able to manage and plan activities related with the surveillance unit
- c) To Know the principles, concepts and how to implement safety
- d) Good communication skills
- e) To know and implement correctly safety surveillance techniques and procedures

# ANS safety oversight elements

**4. Technical personnel qualification and training (conti...):** To establish a training plan and program for inspectors/auditors to provide the necessary elements for the development of tasks and to include at least:

- a) Basic Training
- b) Advance training
- c) Recurrent training
- d) OJT

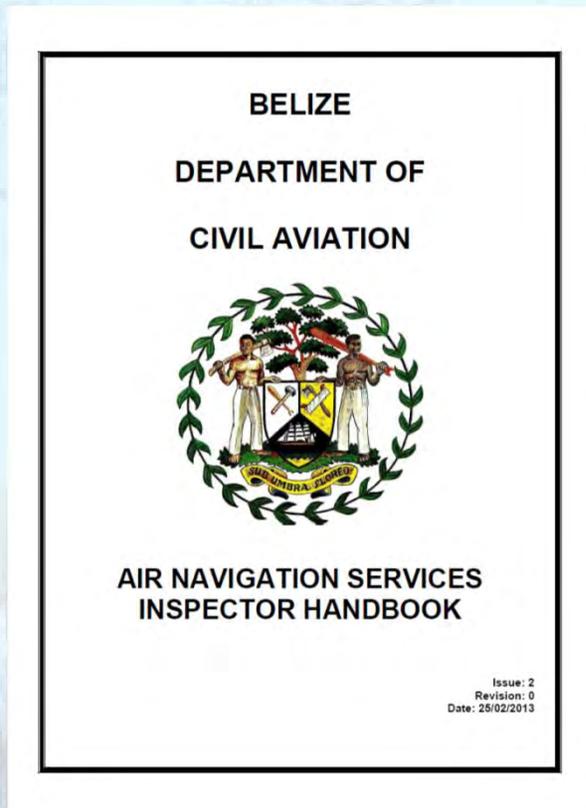
## a) Initial ANS inspector training course

Modules	Minimum training hours
1. Safety basic concepts	01:00
2. Introduction to the air navigation services 2.1 Background and evolution of the ANS inspection	01:00
3. ICAO 3.1 Other Authorities and Civil Aviation Organisms	02:00
4. ICAO Standard and Recommended Practices (SARPs)	03:00
5. RAC system and any other Standard	03:00
6. USOAP	02:00
7. Safety Management System (SMS)	02:00
8. Quality Management System (QMS)	02:00

# ANS safety oversight elements

## 5. Technical guidance, tools and the provision of safety-critical information

The development of guidelines for carrying out the ANS safety oversight tasks. .



### 4 Surveillance Plan

The surveillance plan (see Appendix 1) consists in setting the frequencies on how often audit and/or inspection activities are to be conducted to an air navigation services provider (Fig.4) in such manner that the BDCA exercises an efficient supervision. This programme may include one or more audits and several inspections, depending on the size, nature and complexity of the service provider to be audited. The following table shows the minimum number of audits to be conducted to the different air navigation service providers:

ANS services provider	Minimum number of audits per year
ATS provider	2 audits
AIS/MAP service provider	1 audit
SAR service provider	1 audit
CNS service provider	1 audit
PANS-OPS service provider	1 audit
MET service provider	1 audit
Cartography service provider	1 audit

### 4.3 Audit conduct based on the surveillance programme

#### 4.3.1 Audit protocols

The audit protocols (see appendix 3) are documents that cover all the aspects to be assessed during a safety oversight audit to an air navigation service provider. These audit protocols may be developed based on the size and the complexity of the air navigation service provider. Nonetheless, the audit protocols do not limit the work of the inspector; on the contrary, they help the inspector as a guide in the development of an audit.

As part of the safety oversight programme of the BDCA, it is advisable to use audit protocols because they allow certain level of standardisation of the audit procedures. However, inspectors should use a good judgment to define and determine those areas which need a more in-depth assessment not being limited to the protocols.



## ANS safety oversight elements

- 6. Licensing, certification, authorization and approval obligations:** There is a proposal to establish the certification of the ANS providers, it would begin with CENAMER/COCESNA.

Implementation date: 2015-2016



# ANS safety oversight elements

## 7. Oversight obligations. The establishment and implementation of safety oversight plans.

### 4 Surveillance Plan

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OPERACIONAL						
AUTORIDAD			DGAC - Honduras			
MES						
J	A	S	O	N	D	
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						Desde: 08/12/09 Hasta 09/12/09
						Desde: 10/12/09 Hasta 11/12/09
						Desde: 10/12/09 Hasta 11/12/09
ELABORÓ	Roberto Sosa		APROBÓ	Lic. JV		

## ANS safety oversight elements

**8. Resolution of safety concerns:** The establishment of procedures for the follow up and resolution of safety issues in the ANS. .

"There is no perfect system; therefore, safety oversight should identify the weaknesses in the ANS"

### 4.3.6 Classification of findings and Timeframe for rectifying the findings

All findings during an inspection should be classified as levels 1 or 2, accordingly.

**Level 1:** constitute all the findings related with noncompliance of the BCARs (any ANS BCAR), including noncompliance of operational procedures. These findings should be rectified within 72 hours if it is a hazard to operations, if it refers to a system or procedure that needs to be implemented, in this cases 45 days will be given to start developing the system after receiving the report.

**Level 2:** include all the deficiencies in the characteristics, documentation or procedures with respect to a recommended mean, procedures, inspection guides or good practice of aviation safety. Any of these discrepancies have a potential to lower the ANS standards and operational procedures, affecting the people's safety. These findings should be rectified within 60 days after receiving the report.



# ANS regional safety oversight system

There are three different scenarios related with safety oversight within the Central American region:

- I. Civil Aviation Authority as a regulator and as an ANS provider.
- II. Civil Aviation Authority as a regulator and partially as an ANS provider.
- III. Civil Aviation Authority just as a regulator.



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# ANS regional safety oversight system

States that have delegated in ACSA safety oversight activities in ANS:

- Belize  
(All areas of Air Navigation Services)
- Guatemala  
(All areas of Air Navigation Services)
- Honduras  
(All areas of Air Navigation Services)
- Costa Rica  
(ATS, AIS, SAR, PANS OPS, CHARTS)





# ANS regional safety oversight system

Minimum documentation required to close the ANS oversight cycle:

- Letter from the Authority notifying to the ANSP the oversight date, including:
  - Planning and Schedule of oversight
  - Checklist to use in monitoring
- Report of the oversight, including:
  - Report on findings with the respective recommendations
- Answer from the ANSP with the actions to be taken for the close of findings
  - Corrective Action Plan
- Follow-up to the corrective action plan.



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# ANS regional safety oversight system

## ANS Inspector Training

COCESNA/ACSA/ICCAE strengthens safety through delivering training to ANS safety inspectors at all levels of training:

- Basic Course
- Advanced Course
- Instructional Practice in the Workplace (IPPT)
- Recurrent





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# ANS regional safety oversight system

## ANS Inspector Training

(conti...)

COCESNA/ACSA/ICCAE has been directly involved on the training for ANS safety inspectors:

- ANS Inspector basic course - Paraguay (October 2013)
- Regional ANS inspector basic Course (May 2014)
- Regional ANS inspector advance Course (October 2014)



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# Conclusions

- ❖ The size of the safety oversight system depends on the complexity and size of the State ANS system.
- ❖ The ANS safety oversight monitoring should be a priority of the Chicago Convention signatory States .
- ❖ Compliance with the 8 Critical Elements is essential for the effective implementation of ANS safety oversight.

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# Recommendations

- ❖ It is recommended to establish an ANS safety oversight system, that is functional, effective and economically feasible for the Authority.
- ❖ Establishing RSOOs (Regional Safety Oversight Organizations) is feasible for the establishment of ANS safety oversight.
- ❖ States should request support from ICAO or other international organizations for the establishment of ANS safety oversight system.



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# Thank you

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