SAFE SKIES.
SUSTAINABLE FUTURE.

ESAF Regional Aeronautical Meteorology Seminar

Hilton Garden Inn Windhoek 4-6 June 2024

CAA-MET Service Provider Relationship
The Case of Namibia
By

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ICAO

Presentation Overview

01

Introduction

Overview and Objectives

1. To analyze and understand the dynamics between CAA and MET service providers.

2. To understand the importance of collaboration for aviation safety.

3. Showcase the Namibia CAA and Namibia Meteorological Services relationship.

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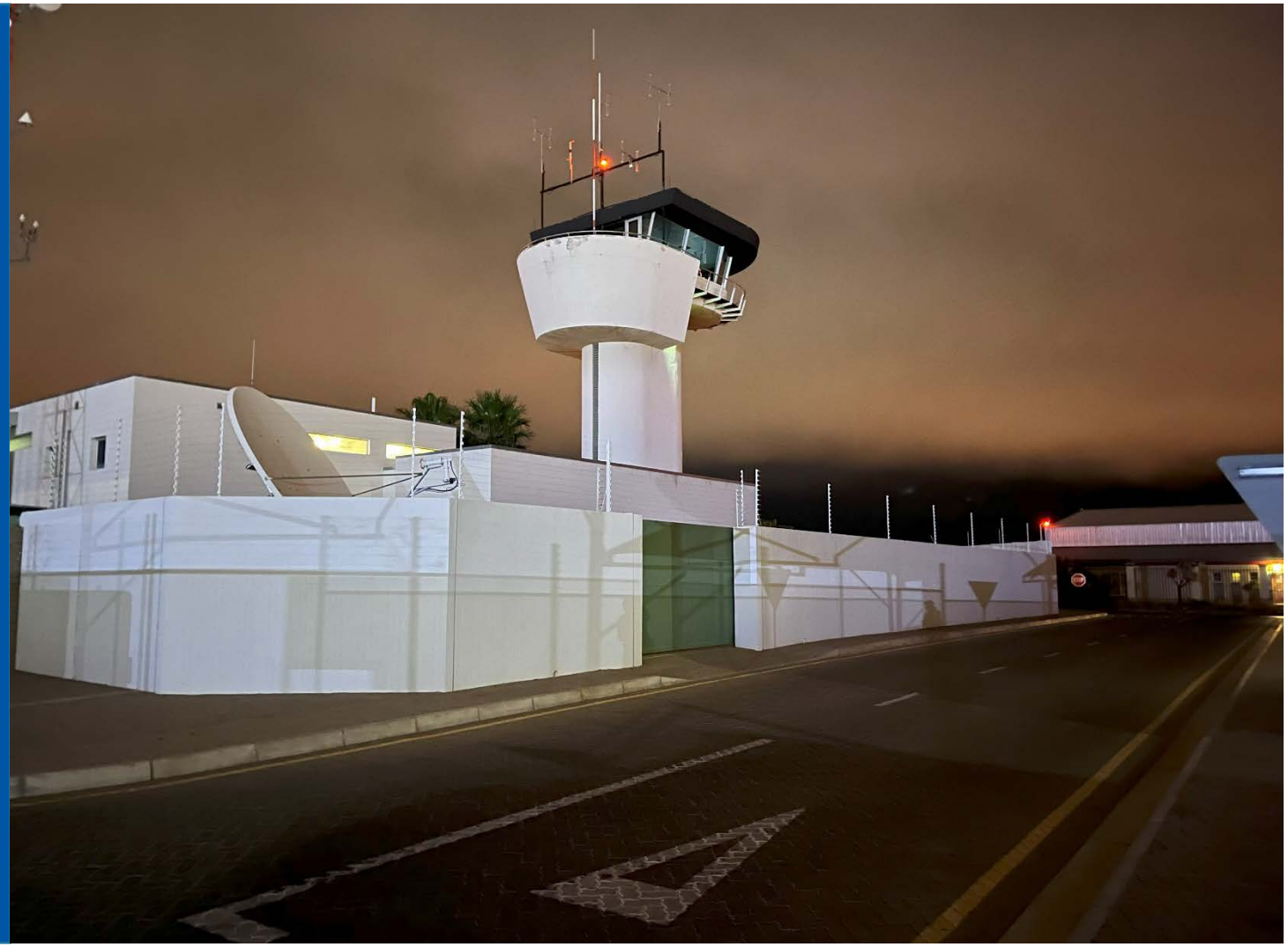
Background



The Roles of two stakeholders

State obligation under the Chicago Convention

Article 28

Air navigation facilities and standard systems

Each contracting State undertakes, so far as it may find practicable, to:

a) Provide, in its territory, airports, radio services, meteorological services and other air navigation facilities to facilitate international air navigation, in accordance with the standards and practices recommended or established from time to time, pursuant to this Convention;

The Roles of two stakeholders

Civil Aviation Authority

1. **Establish** and **manage** an **effective and sustainable** State safety oversight system through the implementation of the **eight critical elements** of such a system, to ensure that **individuals** and **organizations** performing an aviation activity **comply** with safety-related **national laws** and regulations."

2. This role contributes to the aviation systems' **safe, regular, efficient,** and **economic operation, supporting** national and international air travel.

The Roles of two stakeholders

Aeronautical Meteorology Providers

1. The role of meteorological service for international air navigation is to contribute towards the safety, regularity, and efficiency of international air navigation by supplying the operators, flight crew members, air traffic services units, search and rescue services units, airport management, and others concerned with the conduct or development of international air navigation with meteorological information necessary for the performance of their respective functions.
2. In compliance with the international standards and guidelines set by the **International Civil Aviation Organization (ICAO)** and the **World Meteorological Organization (WMO).**

03

Regulatory Framework

International Standards, Recommended Practices and Guidance

1. International standards regarding aeronautical meteorology are primarily established by the **International Civil Aviation Organization (ICAO)** and the **World Meteorological Organization (WMO)**

2. ICAO Standards and Recommended Practices (SARPs) **Annex 3** establishes standards and recommended practices for meteorological services provided to international aviation

3. Manual on **Aeronautical Meteorological Practice (ICAO Doc 8896**) Provides detailed guidance on implementing Annex 3 standards

4. **WMO-No. 49: Technical Regulations, Volume II – Meteorological Service for International Air Navigation**. Complements ICAO's Annex 3 by providing detailed technical standards and guidelines for meteorological services.

5. **WMO-No. 306 Manual on Codes**

   Provides codes for the representation and exchange of meteorological data.

04

Collaboration and Coordination

Communication channels, Data sharing and working groups

Regular Meetings to discuss:

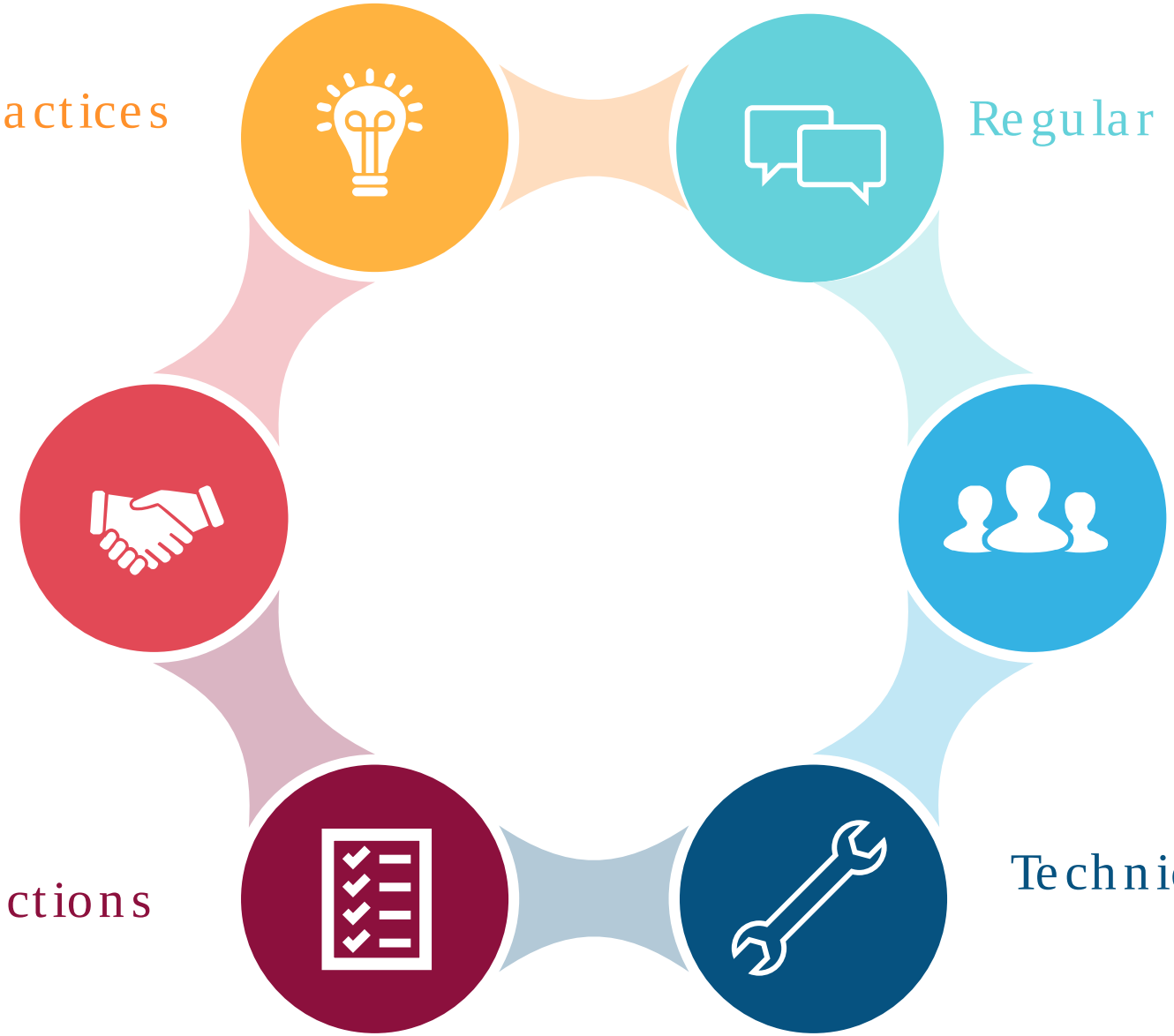
- Ongoing operations.
- Upcoming changes and;
- Any issue needing consultative resolution.

Phone Calls for urgent matters or clarifications.

Virtual Meetings for discussions and decision making.

Joint Training Sessions and workshops to ensure **both CAA** and **MET staff** are on the same page regarding specific issues, updates in technology, or changes in procedures.

Collaboration between CAA and MET continued



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Challenges and Solutions

Challenges

CHALLENGES

Most CAAs and Met service providers face challenges such as:

Resource constraints and a lack of MET inspectors and technical staff (observers and forecasters)

Outdated MET equipment resulting in data accuracy being compromised.

Delays in delivering weather information due to technological integration or infrastructure issues.

Regular audits and reviews not conducted by the CAA due to lack of qualified technical staff.

Possible Solutions

States should:

SOLUTIONS

Provide regular training sessions for CAA and MET service provider staff to ensure they are up-to-date with the latest technologies, procedures, and regulations.

Invest in modern meteorological equipment and software to improve the accuracy and reliability of weather forecasts and data.

Conduct regular audits and assessments to identify gaps in regulatory compliance, coordination, and communication and take corrective actions as needed.

Engage with all relevant stakeholders through regular meetings, workshops, and feedback sessions to ensure everyone is on the same page and address any concerns promptly.

MET providers deploy adequately qualified MET technical personnel. CAA should recruit these personnel and train them as inspectors

Creating awareness regarding the important role MET plays in aviation creates the desire to invest in the latest infrastructure such as AWOS, etc.

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Namibia Case Study

Establishment

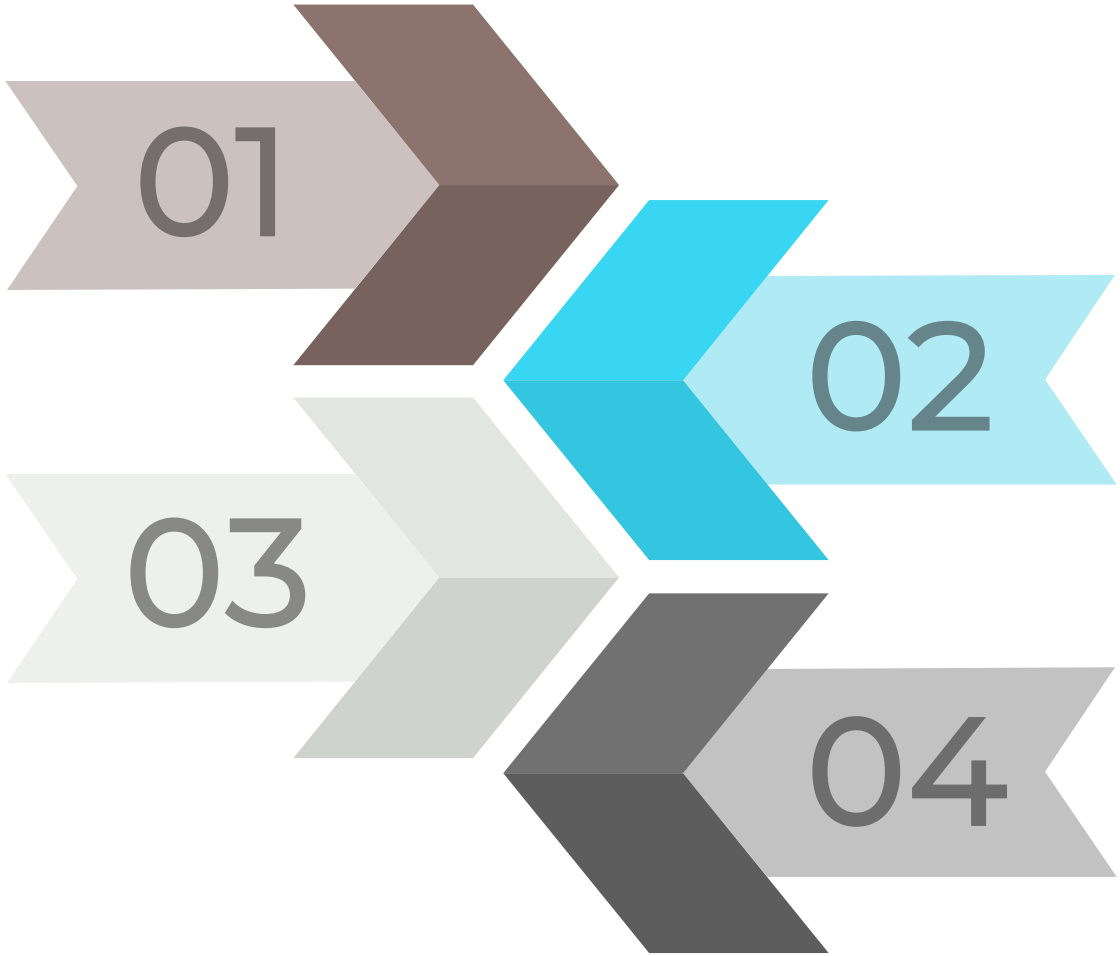
The NCAA is established by the **Act of Parliament- Aviation Act 6 of 2016**.

The ANS –Safety oversight was established formally at the same time, with a mandate **to conduct safety oversight of the ANSP including Aeronautical Meteorology.**

1. **The NCAA has two legs:**
   - ANS provider (ATS, AIS, Cartography, FDP, and CNS)
   - ANS Safety Oversight
2. **The A-MET services provided by the following**
   - The Namibia Meteorological Service - for the entire FIR
   - Debmarine Namibia – at one airport

Regulatory Framework

The **Namibia Civil Aviation Regulation Part 174** and **Namibia Civil Aviation Technical Standard** adopted from **Annex 3** to the Chicago convention



NAMCAR Part 170 contains the requirements for certification of ANS Providers

Domesticated ICAO Doc 8896 as Guidance material for the MET providers.

Domesticated WMO-No. 306 as Guidance material for the MET providers

CAA-MET collaboration

The CAA–MET Collaboration started with the consultation during the drafting of the **NAMCAR** and **NAMCATS relevant to MET 170 and 174**

The collaboration continued after the Regulations were promulgated in **March 2020** by conducting workshops to discuss the **Certification process**.

More **workshops virtual or face-to-face** were also conducted including the **development of an acceptable CAP**.

The workshopping of **the certification process** was parallel to the **surveillance activities** based on the draft regulations and Annex 3 as well as the WMO documents.

Lessons Learned

The **A-MET being under the line Ministry creates challenges in timely implementing safety-critical measures** due to government structure and policies.

Certification of the ANSP requires closer guidance and coordination which created a good relationship between the ANSP and CAA.

Preparation for **the ICAO USOAP – CMA Audit was conducted together** every week to discuss the PQs and required evidence

This **collaboration** effort has **led to a good score in the ICAO USOAP CMA audit**. The **audit recognized the effective coordination was due to** implementing the certification regulatory requirements.

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Future Directions

Technological Advancements

The **Air Navigation Services Safety Oversight** section is working on implementing **Safety Oversight Dashboards(EMPIC) for all ANS Service Providers** in order to:

1. **streamline processes such as certification, approval, surveillance etc,**
2. **ensure compliance with international and national standards, and,**
3. **enhance overall safety and efficiency.**

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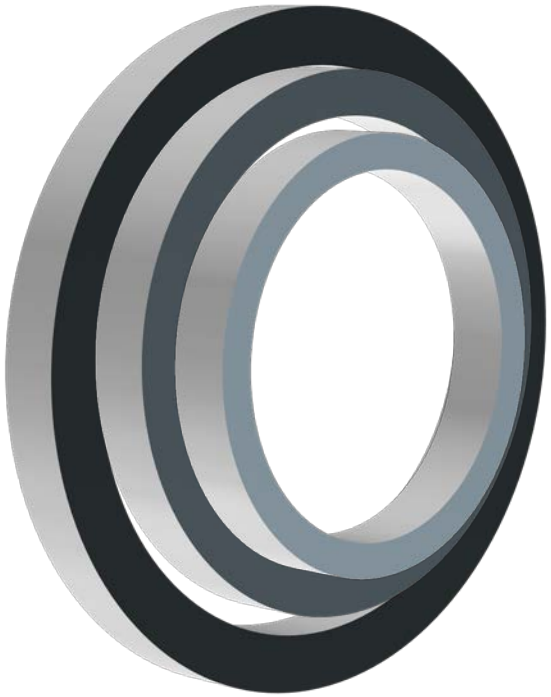
Conclusion

Conclusion



1. **The good relationship between Aeronautical Meteorology and the CAA** is a testament to the importance of collaboration in ensuring the safety and efficiency of civil aviation.

2. This case study demonstrates how **effective cooperation between key stakeholders** can lead to excellence in ANS safety oversight, ultimately benefiting the aviation industry as a whole.

3. Moving forward, **continued collaboration** between Aeronautical Meteorology and the CAA should be maintained to enhance safety standards in civil aviation.

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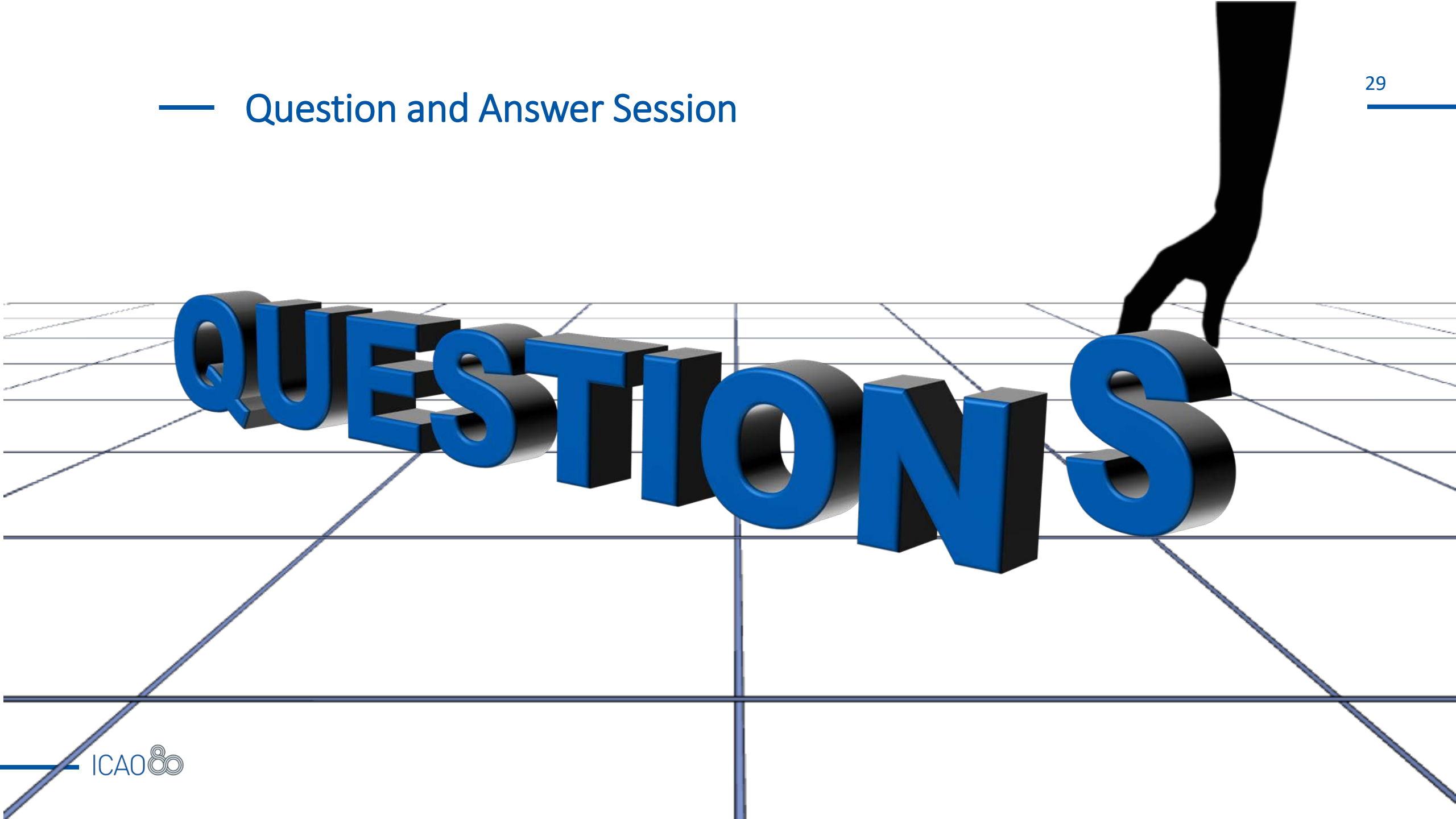
References

References

1. ICAO ANNEX 3 and DOC 8896
2. WMO No.49 AND 306
3. ICAO Doc 7300 and DOC 9734 Part A
3. Namibia Civil Aviation ACT 6 of 2016
4. NAMCARs and NAMCATS 170 and 174

Question and Answer Session



Thank You

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