



**First meeting of ANS Cyber Security Working Group  
(ACS WG/1)**

**Amman, Jordan 16 November 2022**

**Gap Analysis and Guidelines for the Implementation  
of Cybersecurity in ANS at the ICAO MID Region**

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# Outline

- Introduction**
- ICAO cyber security strategy
- Activities in MID Region
- Gap Analysis
- Proposed Recommendations

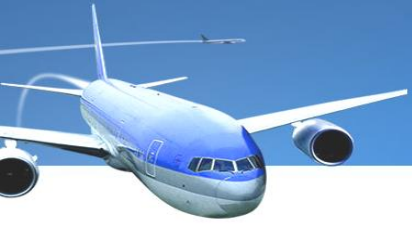


# Introduction

- ICAO's Vision

ICAO's vision for global cybersecurity is that the civil aviation sector is resilient to cyber attacks and remains safe and trusted globally, whilst continuing to innovate and grow.



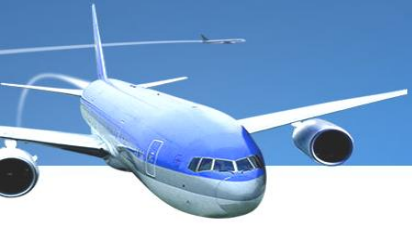


# Introduction

**During CNS SG/11 (*Muscat, Oman, 16-19 May 2022*),**

## **ANS Cyber Security**

- ❑ The subject was addressed in WP/19 presented by Egypt. The meeting recalled the cyber security activities in the MID Region.
- ❑ The meeting noted that gap analysis conducted by Egypt between the ICAO cyber security strategy and ICAO cyber security action plan, the current implementation level in the MID Region, and proposal to develop guidelines for the implementation of ANS Cyber Security.
- ❑ The meeting agreed to task the Air Navigation Cyber Security Working Group (ACS WG) to conduct in depth GAP analysis and propose action to the CNS SG/12 meeting.
- ❑ The meeting encouraged States to participate in the planned ANS cyber Security table top exercise in Amman, Jordan. The meeting discussed the need to share experience on cyber threats and incidents, in this regard, the meeting recalled that UAE developed and hosted ATM data cyber security portal. The meeting tasked the ACS WG to review the portal and propose solution to enhance its use in the MID Region.



# Outline

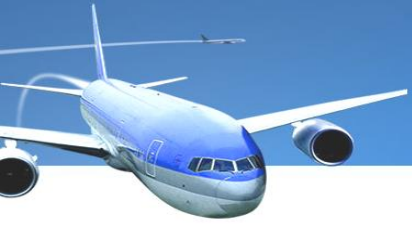
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# ICAO cyber security strategy



<https://www.icao.int/aviationcybersecurity/Pages/Aviation-Cybersecurity-Strategy.aspx>



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# Recent regional activities in MID region

- ❑ **The MIDANPIRG/17 meeting, through the Decision 17/38, established ANS Cyber Security Working Group (previously named ATM Data Security Action Group MIDANPIRG/16, through Decision 16/26) to cover the issue of cyber security in ICAO MID region.**
- ❑ **The Minimum Security Baselines (MSBs) have been endorsed as the baseline security guidelines for the MID Region**





# Recent regional activities in MID region

- **ATM data cyber security (ADCS) portal has been established to be used as a prototype platform for information sharing of ANS cyber security.**
- **Furthermore, States assigned ADCS focal point(s) to register on the ADCS Portal such that states can share their experience related to cyber security, through the ADCS Portal.**



# Recent regional activities in MID region

**2017**

- ICAO Cyber Summit and Exhibition (4-6 April 2017, UAE)

**2019**

- ICAO Blockchain Aviation Summit and Exhibition (April 2019, UAE)
- Cyber Security and Resilience Symposium, Jordan

**2021**

- ICAO AFI/MID Cybersecurity Webinar, December 2021

**2022**

- ICAO/UAE High Level Conference on Cyber Security (March 2022, UAE)
- Table top exercise, Amman, Jordan, Nov. 2022

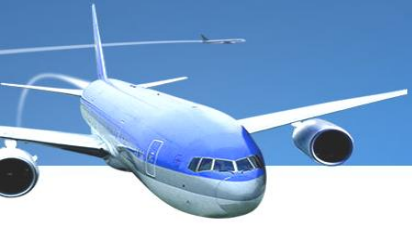


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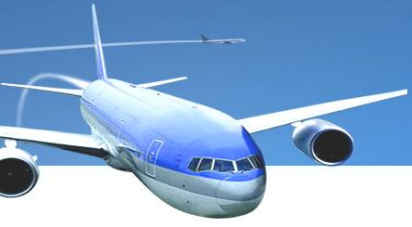
# Gap Analysis

Strategy		Actions in our region
Pillar 1	Intentional cooperation	-----
Pillar 2	2:Governance	-----
Pillar 3	Effective legislation and regulations	The Minimum Security Baselines (MSBs) have been endorsed as the baseline security guidelines for the MID Region -----
Pillar 4	Cybersecurity policy	ICAO developed a guidance material for policy statement.
Pillar 5	Information sharing	The ADCS portal supports the implementation of <b>Pillar No. 5</b>
Pillar 6	Incident management and emergency planning	-----
Pillar 7	Capacity building, training and cybersecurity culture	ICAO developed a guidance material for cyber security culture. <b>Table top exercise, Amman, Jordan, Nov. 2022</b> ..... .....



# Gap Analysis

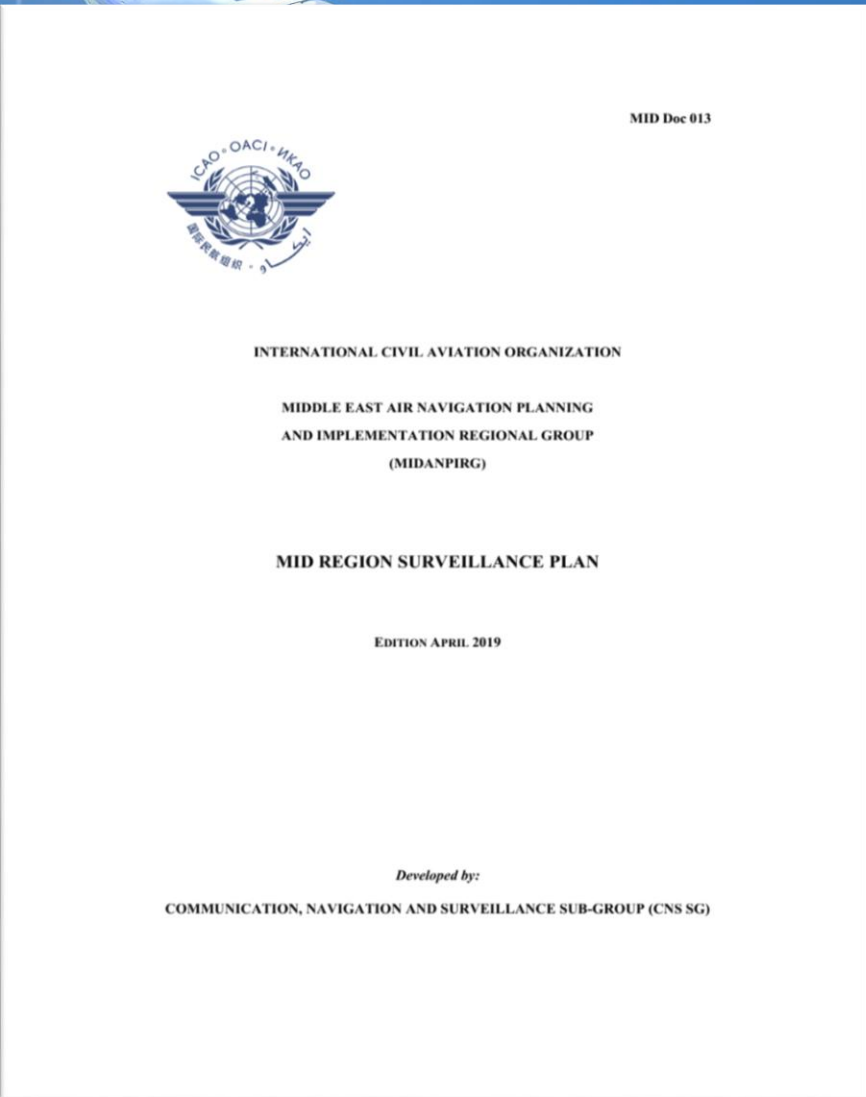
- For gap analysis between what are required in the ICAO cyber security strategy and cyber security action plan on one hand, and the current implementation level in our MID region on the other hand, the analysis indicates that there is no coverage of Pillar 1 “International Cooperation”, to achieve regulatory harmonization at global, regional and national level in order to promote global coherence and ensure interoperability of protection measures. Furthermore, there is coverage of Pillar No. 2 “Governance” and Pillar No. 6 “Incident management and emergency planning”. Additionally, even the Minimum Security Baselines (MSBs) were established. However, there is no comprehensive addressing to ICAO standards and recommended practices represented by ANNEX 17 and ATM data security document “ICAO Doc. 9985”.
- Therefore, a proposal to establish a new document entitled “Guidelines on the Implementation of Cybersecurity on ANS in the ICAO MID Region” be prepared to comprehensively cover all the seven pillars of ICAO cybersecurity strategy.



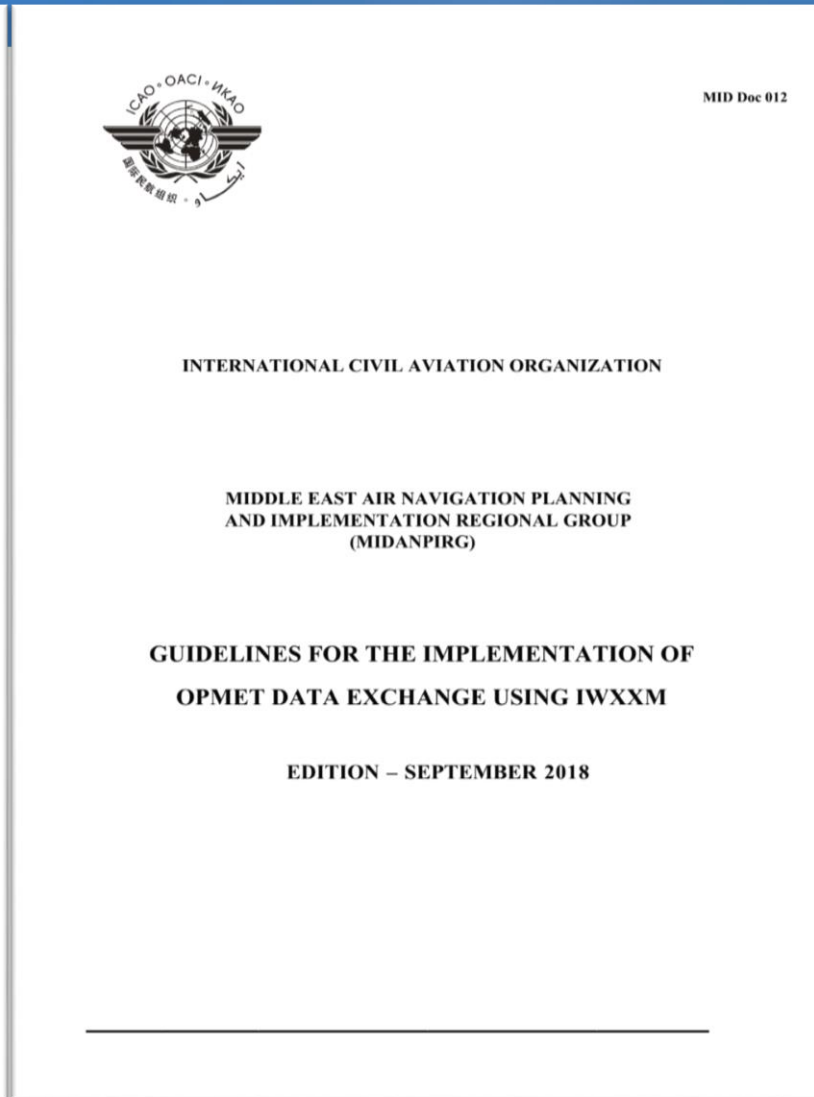
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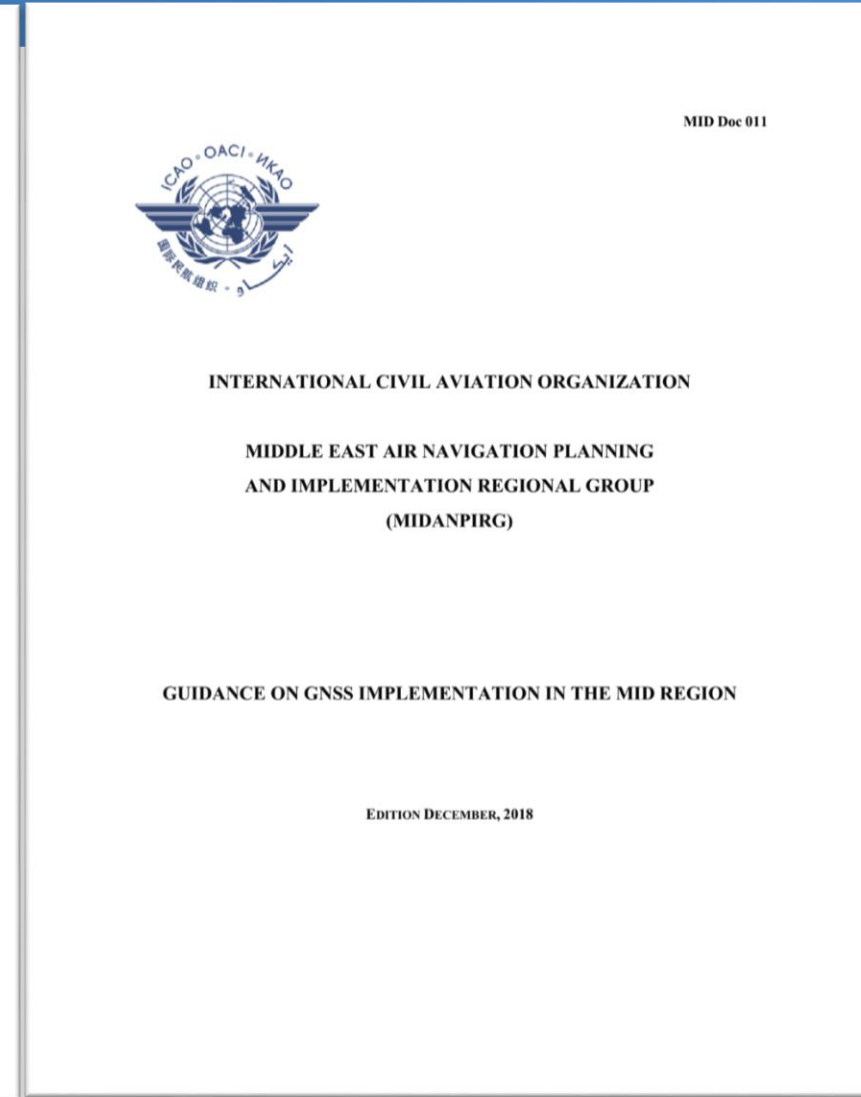
# Recommendations



**MID REGION SURVEILLANCE PLAN**

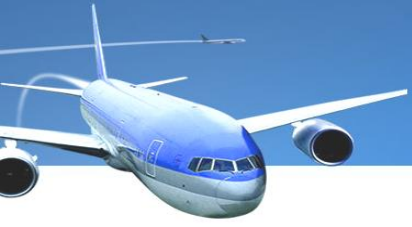


**GUIDELINES FOR THE IMPLEMENTATION OF  
OPMET DATA EXCHANGE USING IWXXM**



**GUIDANCE ON GNSS IMPLEMENTATION  
IN THE MID REGION**

# Recommendations



- Proposal to establish a new document called guidelines on the implementation of Cybersecurity in ANS at the ICAO MID region, as an implementation to ICAO cybersecurity strategy and ICAO cybersecurity action plan in ICAO MID region.**



# Recommendations



- Coordinating with ACAO cyber security Working Group in order to avoid duplication of efforts.**

**Thank you**

