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Evolution of the Validity Tracker

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AIRBOYD



Evolution of the Validity Tracker

From Excel-Based Monitoring to Online Regional Publication Oversight

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Joint NAM/CAR/SAM Meeting – RLA/06/901 - 18th Workshop/Meeting Multilateral AIM of the SAM Region for the transition from AIS to AIM (SAM/AIM/18) – Ninth North American, Central American and Caribbean Working Group (NACC/WG) Aeronautical Information Management Implementation Task Force Meeting (AIM/TF/9)

Panama City, Panama, 18 to 22 May 2026

Evolution of the



Validity Tracker



FROM EXCEL-BASED MONITORING TO ONLINE REGIONAL PUBLICATION OVERSIGHT

Enhancing NOTAM Validity Management, Accountability and Operational Safety

EXCEL-BASED MONITORING

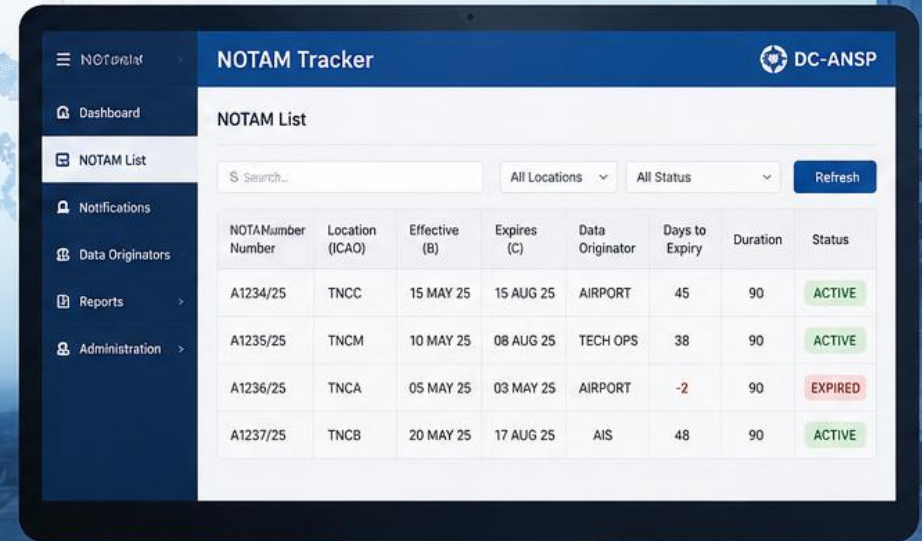
- Manual updates
- Local files
- Limited visibility
- Risk of expired or duplicate NOTAMs



High dependence on manual control and individual discipline



ONLINE NOTAM TRACKER



- Enhanced coordination and accountability
- Automatic alerts before expiry
- Operational insights and reporting
- Stronger safety and information quality

ONE GOAL: Timely, Accurate and Valid NOTAM Information for Safer Operations

01



Why This Matters



The Real Operational Problem



Common Regional Challenge



Timely and accurate information saves lives



Operational efficiency depends on valid data



Safety and compliance are our shared responsibility



WHY THIS MATTERS

- ➔ NOTAMs directly affect flight safety.
- ➔ Operationally significant information must be continuously monitored.



**NOTAM validity management is not only administrative ...
it is directly linked to operational safety!**

THE REAL OPERATIONAL PROBLEM

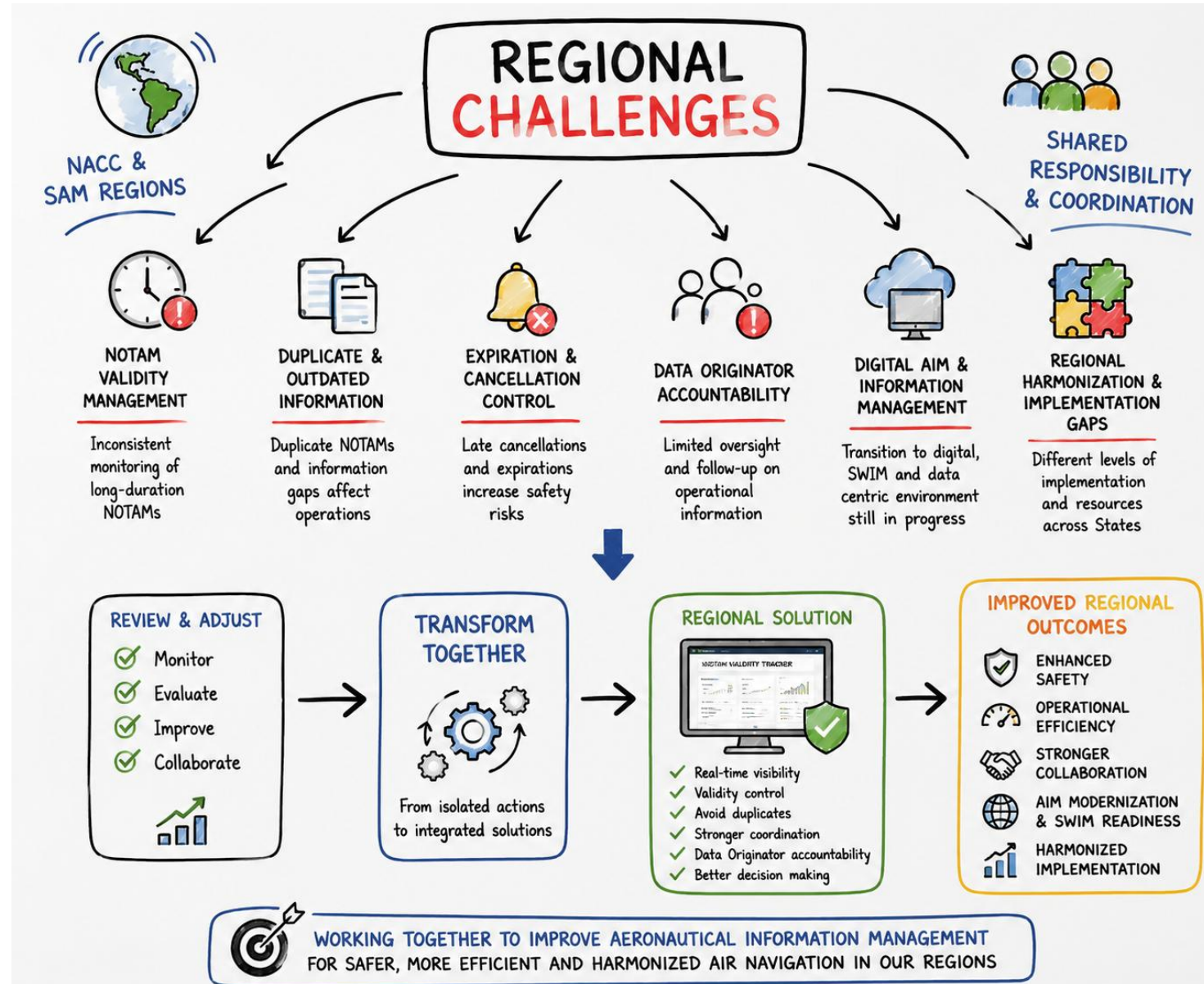
- Long-duration NOTAMs require active follow-up for renewal, replacement, cancellation, or AIP migration.



COMMON REGIONAL CHALLENGE

✈️ Inconsistent Data Originator monitoring creates
 ↓↓

Dependency on AIM/NOF for continuity and oversight of NOTAM validity.



02



ICAO NOTAM Global Campaign

Initial Response (2021)

ICAO launched a global campaign to improve the quality, management and timely cancellation of NOTAMs worldwide.

A WORLDWIDE INITIATIVE

Raising awareness, strengthening processes and enhancing collaboration among States and stakeholders.



193

States

Reached globally



8

Global Webinars

Conducted



10+

Guidance Materials

Published



Global

Collaboration

Strengthened

INITIAL RESPONSE (2021)



Mar 2021

Campaign Officially Launched



Apr – Jun 2021

Global Webinars and Awareness Sessions



Jul – Sep 2021

State Feedback and Regional Engagement



Oct – Dec 2021

Guidance, Tools and Best Practices Shared



Outcome

Improved NOTAM Management Worldwide

→ Why ICAO Raised This Issue

→ ICAO identified **poor validity control** and **duplicate publication** as a regional priority.

→ ICAO also identified:

- unnecessary NOTAMs
- weak Data Originator accountability
- need for stronger NOTAM governance.



ICAO NOTAM GLOBAL CAMPAIGN → Initial Response (2021)


✈️ Creation of the Excel-based NOTAM Validity Tracker for daily monitoring and expiry control.

✈️ Informed NACC AIM TF members and our Dos, how it works and what their responsibilities are → NOTAM management

AIM / NOF Unit		PUBLISHED NOTAM VALIDITY TRACKING TOOL									
Amount of current valid / published NOTAMS	NOTAM Number A####/YY	NOTAM Title and/or Brief Description (Item E)	Location (ICAO code) Min. 4 - Max. 8 digits	Created (Published) date [UTC]	Effective date (Item B) [UTC]	Expire date (Item C) [UTC]	Data Originator	Total time left to renew/cancel or self-expire	Created by:	Duration of NOTAM in days (Must not exceed 95 days (4 months) unless otherwise indicated)	
1								No time left to CNL or REPLACE / NOTAM EXPIRED		0	
2								No time left to CNL or REPLACE / NOTAM EXPIRED		0	
3								No time left to CNL or REPLACE / NOTAM EXPIRED		0	
4								No time left to CNL or REPLACE / NOTAM EXPIRED		0	
5								No time left to CNL or REPLACE / NOTAM EXPIRED		0	
6								No time left to CNL or REPLACE / NOTAM EXPIRED		0	
7								No time left to CNL or REPLACE / NOTAM EXPIRED		0	
8								No time left to CNL or REPLACE / NOTAM EXPIRED		0	
9								No time left to CNL or REPLACE / NOTAM EXPIRED		0	
10								No time left to CNL or REPLACE / NOTAM EXPIRED		0	
11								No time left to CNL or REPLACE / NOTAM EXPIRED		0	
12								No time left to CNL or REPLACE / NOTAM EXPIRED		0	
13								No time left to CNL or REPLACE / NOTAM EXPIRED		0	
14								No time left to CNL or REPLACE / NOTAM EXPIRED		0	
15								No time left to CNL or REPLACE / NOTAM EXPIRED		0	
16								No time left to CNL or REPLACE / NOTAM EXPIRED		0	
17								No time left to CNL or REPLACE / NOTAM EXPIRED		0	
18								No time left to CNL or REPLACE / NOTAM EXPIRED		0	
19								No time left to CNL or REPLACE / NOTAM EXPIRED		0	
20								No time left to CNL or REPLACE / NOTAM EXPIRED		0	
21								No time left to CNL or REPLACE / NOTAM EXPIRED		0	
22								No time left to CNL or REPLACE / NOTAM EXPIRED		0	
23								No time left to CNL or REPLACE / NOTAM EXPIRED		0	
24								No time left to CNL or REPLACE / NOTAM EXPIRED		0	
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29								No time left to CNL or REPLACE / NOTAM EXPIRED		0	
30								No time left to CNL or REPLACE / NOTAM EXPIRED		0	

Form date:	11-Nov-24	SHEFT TYPE				EVENING	AFTERNOON	MORNING	NIGHT	AIM / NOF Office
Form #: 12.2	Last Updated by:									
Date updated:										
Time updated (UTC):										

YOUR
LOGO
HERE



GLOBAL CAMPAIGN
ON
NOTAM
IMPROVEMENT

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03



What the Excel Tool Controlled

Limitation of Manual Monitoring

Digital Evolution



WHAT THE EXCEL TOOL CONTROLLED



NOTAM validity tracking



Expiration date monitoring



Basic filtering and sorting



Simple status updates



Local data management



LIMITATION OF MANUAL MONITORING



Time consuming and labor intensive



High risk of human error



Difficult to maintain consistency



No automated alerts



Limited visibility and reporting



DIGITAL EVOLUTION



Centralized online platform



Automated validity and expiry alerts



Real-time monitoring and dashboards



Improved collaboration and accountability



Stronger data quality and operational safety



From manual control to digital intelligence – ensuring timely, accurate and valid NOTAM information.

WHAT THE EXCEL TOO CONTROLLED & LIMITATIONS OF MANUAL MONITORING

DC-ANSP AIS/ARO		PUBLISHED NOTAM VALIDITY TRACKING TOOL								
Amount of current valid / published NOTAMs	NOTAM Number A#####/YY	NOTAM Title and/or Brief Description (Item E)	Location (ICAO code) Min. 4 - Max. 8 digits	Created (Published) date	Effective date (Item B)	Expire date (Item C)	Data Originator	Total time left to renew/cancel or self-expire	Created by:	Duration of NOTAM in days <small>(Must not exceed 93 days (3 months based on months and not days))</small>
1	A0574/24	FOLLOWING ACT FLT PROC	TNCC	23-Sep-24	23-Sep-24	20-Dec-24	TNCC-CAP-J. Arndell	No time left to CNL or REPLACE / NOTAM EXPIRED		88
2	A0580/24	TEMP OBSTRUCTED VIEW FRM TOWER	TNCC	23-Sep-24	24-Sep-24	21-Dec-24	TNCC-CAP-J. Arndell	No time left to CNL or REPLACE / NOTAM EXPIRED		88
3	A0578/24	ARR ROLL PASSED EXIT D, FOLLOW ME	TNCC	23-Sep-24	24-Sep-24	21-Dec-24	TNCC-CAP-J. Arndell	No time left to CNL or REPLACE / NOTAM EXPIRED		88
4	A0568/24	ABN U/S.	TNCC	20-Sep-24	20-Sep-24	28-Sep-24		No time left to CNL or REPLACE / NOTAM EXPIRED		8
5	A0452/24	ALL PRIVATE ACFT PERMIT	TNCC	9-Aug-24	9-Aug-24	6-Nov-24	TNCC - CCAA-M. Llanes	No time left to CNL or REPLACE / NOTAM EXPIRED		89
6	A0212/25	INNER TAXI LANE AT HOLDING BAY 11 CLOSED UF	TNCC	29-Apr-25	29-Apr-25	28-Jul-25	TNCC-Johnny de Paula	No time left to CNL or REPLACE / NOTAM EXPIRED	GdJ	90
7	A0323/25	BLASTING ACT	TNCC	19-Jun-25	20-Jun-25	20-Jun-25	TNCC-CAP- R. Lichtenberg		N/A	0

- ✈ Manual monitoring of long-duration NOTAMs
- ✈ Control of validity, expiry dates, and renewals
 - ✈ Tracking of Data Originator responsibility
 - ✈ Prevention of expired or duplicate NOTAMs
 - ✈ ICAO validity limit reference (max 93 days)
 - ✈ Strong dependence on manual updates
 - ✈ Limited shared visibility and follow-up
 - ✈ Increased risk of missed expirations

DIGITAL EVOLUTION

✈ Migration to the DC-ANSP Online NOTAM Tracker

✈ Centralized visibility

✈ Real-time monitoring.

DIGITAL EVOLUTION

From paper-based tracking to digital, real-time monitoring

PAPER-BASED TRACKING
Manual recording of published NOTAMs



NOTAM No.	LOCATION	EFFECTIVE DATE	EXPIRE DATE	ORIGINATOR
A0154/24	TNCC	23 SEP 24	20 DEC 24	TNCC-CAP-J
A0580/24	TNCC	23 SEP 24	21 DEC 24	TNCC-CAP-J
A0578/24	TNCC	24 SEP 24	21 DEC 24	TNCC-CAP-J
A0568/24	TNCC	20 SEP 24	28 SEP 24	TNCC-CAP-J
A0452/24	TNCC	9 AUG 24	6 NOV 24	TNCC-CCAA-M
A0212/25	TNCC	29 APR 25	28 JUL 25	TNCC-JOHNNY
A0323/25	TNCC	19 JUN 25	20 JUN 25	TNCC-CAP-R

DIGITAL SOLUTION
DC-ANSP Online NOTAM Tracker



NOTAM No.	Location	Effective Date	Expiry Date	Originator	Status
A0154/24	TNCC	23 SEP 24	20 DEC 24	TNCC-CAP-J	EXPIRED
A0580/24	TNCC	23 SEP 24	21 DEC 24	TNCC-CAP-J	EXPIRED
A0578/24	TNCC	24 SEP 24	21 DEC 24	TNCC-CAP-J	EXPIRES SOON
A0568/24	TNCC	20 SEP 24	28 SEP 24	TNCC-CAP-J	EXPIRES SOON
A0452/24	TNCC	9 AUG 24	6 NOV 24	TNCC-CCAA-M	ACTIVE
A0212/25	TNCC	29 APR 25	28 JUL 25	TNCC-JOHNNY	EXPIRES SOON
A0323/25	TNCC	19 JUN 25	20 JUN 25	TNCC-CAP-R	EXPIRED

Centralized visibility Real-time monitoring Automated alerts



Technical Development



Website Functionality



NOTAM Validity Status Monitoring & Expiration Alert Management



TECHNICAL DEVELOPMENT

The goal was never complexity.
The goal is practical functionality.



AUTOMATED DATA FLOW • INTEROPERABLE • STANDARD-BASED • OPERATIONALLY FOCUSED

- ✈ Built using:
- ✈ FAA NMS API
 - ✈ WordPress
 - ✈ PHP
 - ✈ AIXM 5.1 structures, and
 - ✈ MHS/AMHS support.

NOTAM VALIDITY STATUS MONITORING & EXPIRATION ALERT MANAGEMENT¹⁷

- Color-coded validity control enables immediate identification of urgent action required.

 Inactive NOTAM  Expires in less than 8 hours  Expires in less than 24 hours  Expires in less than 72 hours  Expires in more than 72 hours

- each tracked NOTAM automatically generates email notifications

- immediately identify:
 - active,
 - expiring,
 - expired, or
 - NOTAMs requiring immediate attention

05

Proactive NOTAM Expiration Alert System

Why This Is Important

Regional Recommendation

Future Development



PROACTIVE NOTAM EXPIRATION ALERT SYSTEM

✈ Automatic alerts support renewal, replacement, cancellation, and stronger accountability.

⚠ Automated NOTAM Tracking Notification — [A0040/26]

NT NOTAM Tracker <no-reply@dc-ansp.org>
To: Jonathan Symor; Phylogene Mattheeuw; Mizzuti Felies-Werleman
Cc: OPSAIM; Jozef Nicolaas

📧 You replied to this message on 4/14/2026 11:38 AM.
This message was sent with High importance.

🔍 Reply 📧 Reply All ➡ Forward ⋮

Tue 4/14/2026 8:00 AM

Dear Data Originator,

This message was automatically generated by the **NOTAM Automated Tracker System**.

Time Remaining (hh:mm:ss): 07:59:58

A0040/26 NOTAMN
Q) TNCF/QNMXX/IV/BO/AE/000/999/1230N06956W140
A) TNCA
B) 2601152040 C) 2604142000
E) ABA VOR OPR WITH UNRELIABLE SECTORS BTN R060-R090 AND R235-R255. DME OPR.


Please review this NOTAM and take immediate action if required.
If no action is necessary, you may disregard this message.

⚠ **Do not reply directly to this email.**
For assistance, please contact the **NOTAM Office**:
E-mail: OPSAIM@dc-ansp.org
Phone: +599-83903550 (ext. 552 / 583 / 523 / 510)

Operational Note:
Temporary changes expected to last less than three months are normally issued by NOTAM. If the duration exceeds three months or is expected to continue for three months or more, an AIP Supplement should replace the NOTAM.
When an AIP Supplement replaces a NOTAM, it must reference the NOTAM series and number, and a cancellation NOTAM must be issued referring to the AIP Supplement.

Kind regards,

AIM Department



WHY THIS IS IMPORTANT

- ➔ Improves NOTAM quality, validity management, operational continuity, and publication oversight.



REGIONAL RECOMMENDATION

- ✈ States are encouraged to implement structured NOTAM validity monitoring.

FUTURE DEVELOPMENTS

- Azure integration
- AI-assisted NOTAM identification → Instead of: human manually selecting NOTAMs to track, the system says: “This NOTAM should be monitored.” and
- Stronger digital AIM integration.



FUTURE DEVELOPMENTS

- ➔ Very practical example → AI sees:
RWY 11/29 closed for maintenance. valid for 90 days

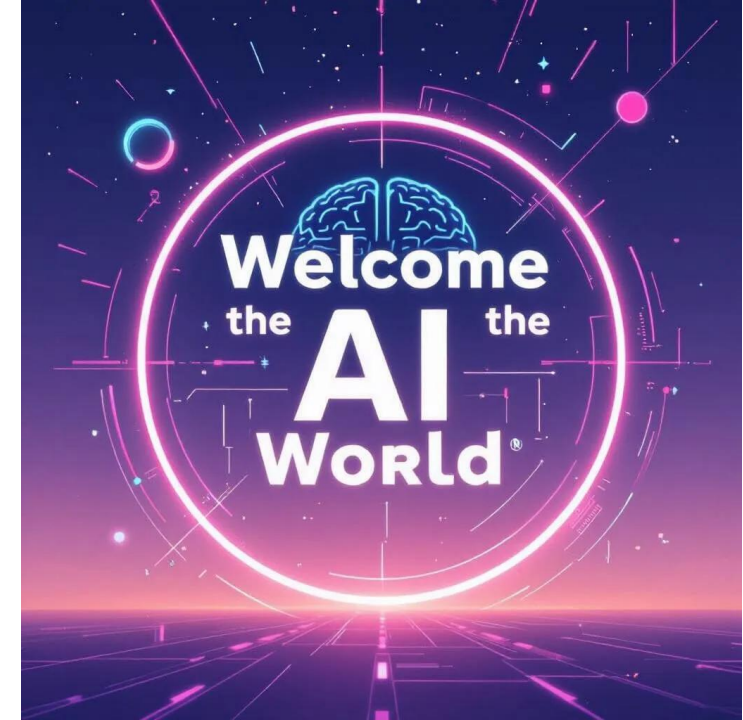
- ➔ The system recognizes:
 - ✈ high operational importance
 - ✈ long duration
 - ✈ requires follow-up

- ➔ and automatically adds it to the Tracker. That is AI-assisted selection.

FUTURE DEVELOPMENTS

✈ VERY important:

- ✈ AI is NOT replacing AIM.
- ✈ AI supports AIM.
- ✈ The human still decides.
- ✈ AI helps identify faster and smarter.



The NOTAM Tracker demonstrates that:

Practical Solutions Create Real Safety Results



From a simple Excel file to a regional digital monitoring model.



A practical best practice that can be replicated across NACC and SAM.



Stronger collaboration, shared responsibility, safer skies for all.



Timely Information



Better Decisions



Safer Operations



Stronger Compliance

Any Questions



Thank you.



Natasha Leonora-Belefanti
ICAO NACC WG AIM TF Rapporteur

Working together for safer skies.



Thank You!