

Airportsof Thailand Plc (AOT)

**Lessons learnt from Runway Safety Team
establishment and implementation
of GRF**

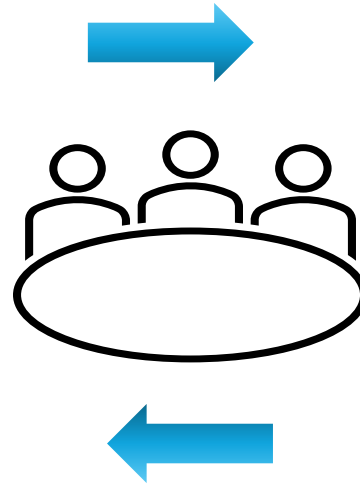
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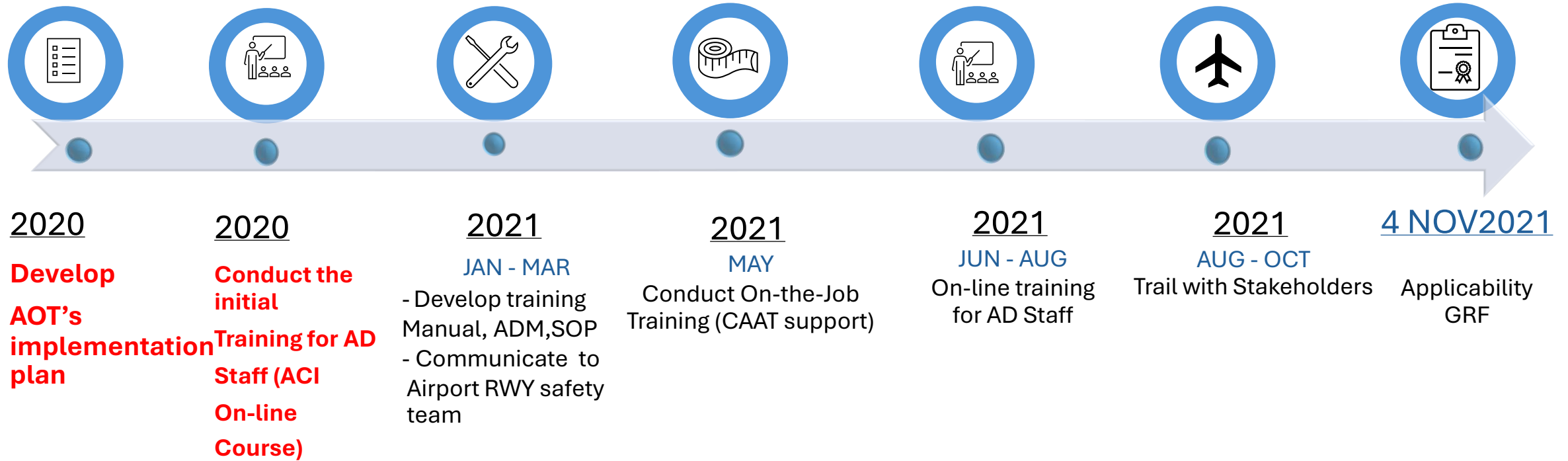
Thailand GRF Implementation action plan



- August 3, 2020, CAAT established Thailand GRF Implementation action plan
- Established an Implementation coordination team with stakeholders
 1. Public used Aerodromes
 2. Air Traffic Services (ATCOs)
 3. Aeronautical Information Services
 4. Airlines (flight operations departments, dispatchers, pilots)
 5. Civil Aviation Authority of Thailand



Project Key Milestones



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ACI/ICAO Global Reporting Format




ICAO

Overview

The ACI/ICAO Global Reporting Format (GRF) course has been developed by ACI and ICAO to assist airport personnel to meet the new ICAO requirements for runway surface condition assessment and reporting that come into effect in November 2021 as outlined in ICAO Circular 355, Assessment, Measurement and Reporting of Runway Surface Conditions, and ICAO Doc 10064, Aeroplane Performance Manual (APM).

Learning Outcomes

On completion of this course, participants will be able to:

Course info

Duration: 3 Hours
Language: English
Level: Short Course

Totals

\$150.00 USD

Add To Cart

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- 2020 12 participants online training with ACI/ICAO and practical training with CAAT
- 2020 Develop training manual

CAAT promulgate AIC on APR 2021

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THE CIVIL AVIATION AUTHORITY OF THAILAND
Aeronautical Information Services Department
333/105 Lak Si Plaza, Khamphaeng Phet 6 Rd.,
Talat Bang Khen, Lak Si, Bangkok 10210 Thailand

AIC

01/21
8 APR 2021

IMPLEMENTATION OF THE GLOBAL REPORTING FORMAT (GRF)

1 INTRODUCTION

With effective from 4 November 2021, the purpose of this AIC is to inform all concerned of implementation of the global reporting format in Thailand. The details are as follows:

2 GENERAL

3 FLOW OF INFORMATION

3.1 Collect of information

3.2 Dissemination of information

3.3 Using the information

4. IMPLEMENTATION Plan

4.1 Date of implementation

4.2 National GRF implementation Team

The Thailand GRF implementation team are including Airport operators, Commercial Air Transport Operators, ATS, CAAT, AIS, etc.

4.3 Stakeholders involved

The following stakeholders in Thailand are involved in the implementation of the GRF:

- Public used Aerodromes
- Air Traffic Services (ATCOs)
- Aeronautical Information Services
- Airlines (flight operations departments, dispatchers, pilots)
- Civil Aviation Authority of Thailand

4.4 Coordination between aerodromes, AIS and ATS units

Aerodrome, AIS and ATS will close cooperation to ensure flow of information will reach to the end users.

4.5 Training and awareness

- Aerodrome operator personnel who respond runway condition assessment and report shall be sufficiently trained with Global Reporting Format for Runway Surface Condition Assessment and Reporting.
- Airlines (flight operations departments, dispatchers, pilots) shall be sufficiently trained with Global Reporting Format (GRF) for Aircraft Operators and Flight Crew.
- ANSPs and Air Traffic Controllers shall be sufficiently trained with the Global Reporting Format (GRF) for Runway Surface Conditions for ANSPs and Air Traffic Controllers.
- AIS personnel shall be sufficiently trained with the new SNOWTAM format.

4.6 Tests and trials

Up on CAAT notice through POC again.

5 CONTACT

For further information contact via the following:

Unit: Aerodrome Standards Department

Tel: +662 568 8826 or +666 3205 8826

E-mail: aga@caat.or.th

6 VALIDITY

This AIC will remain current until 6 November 2023.

Runway surface condition assessment

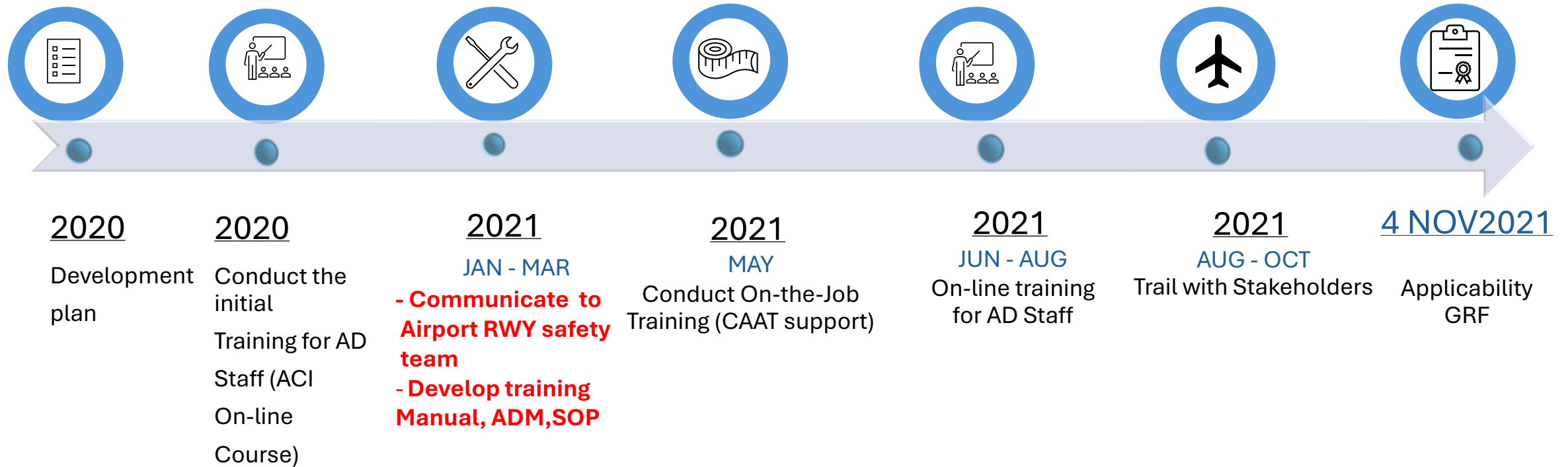
No snow in Thailand but SNOWTAM can be issued :

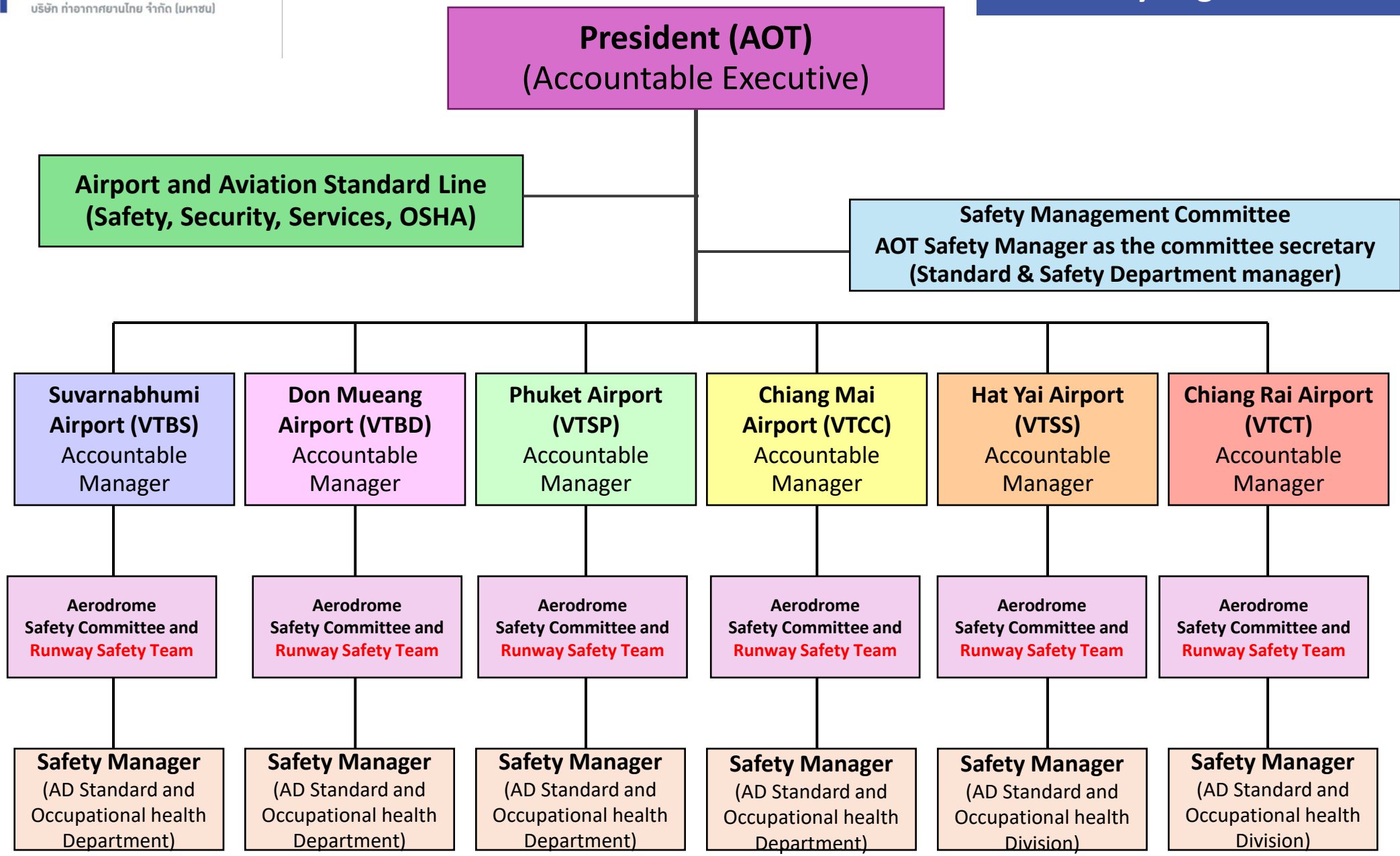
- 6 Dry
- 5 Wet
- 3 Slippery when wet
- 2 Standing water

6



Project Key Milestones





The Runway Safety Team members of each airport

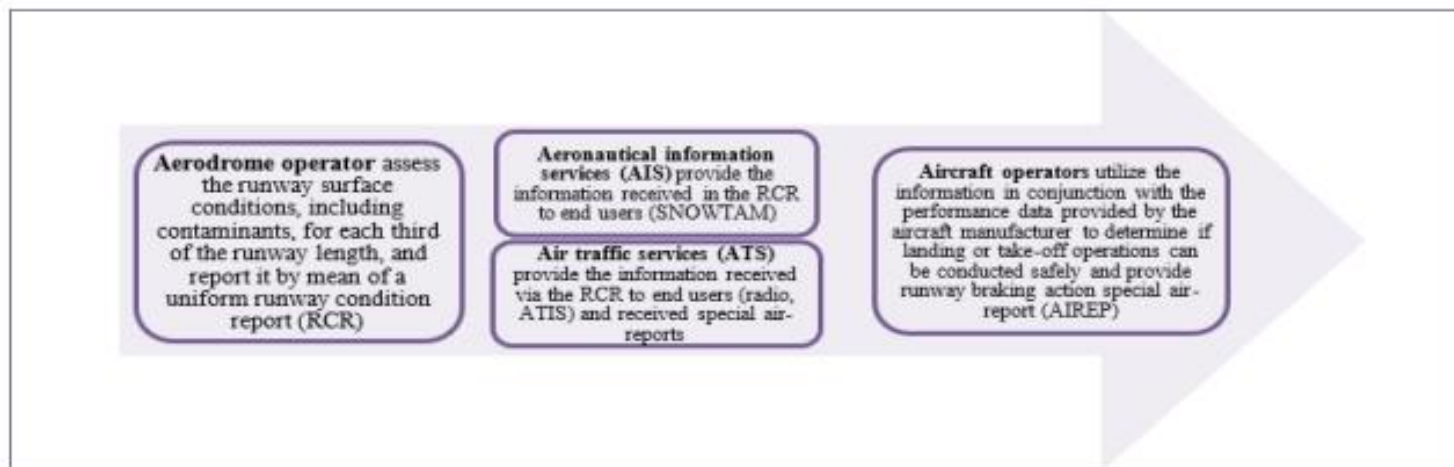
RST Members/Representatives	VTBS	VTBD	VTSP	VTCC	VTSS	VTCT
	Bangkok	Don Mueang	Phuket	Chiang Mai	Hat Yai	Chiang Rai
★ Aerodrome operators	✓	✓	✓	✓	✓	✓
★ Air traffic services	✓	✓	✓	✓	✓	✓
★ Commercial air operators/ Representatives of flight crew	✓	✓	✓	✓	✓	
General aviation (if applicable)		✓				
Representatives of pilots associations (if applicable)	✓	✓				
Support service provider (if applicable)	✓	✓	✓	✓	✓	✓
Military operator (if applicable)	N/A	✓	✓	✓	✓	N/A*
★ Meteorologists (if applicable)	✓	✓	✓	✓	✓	✓
★ Airline Operators Committee (AOC) (if applicable)	✓	✓	✓	✓		✓
Golf course	N/A	✓	N/A	N/A	N/A	N/A

★ The key stakeholders in GRF process.

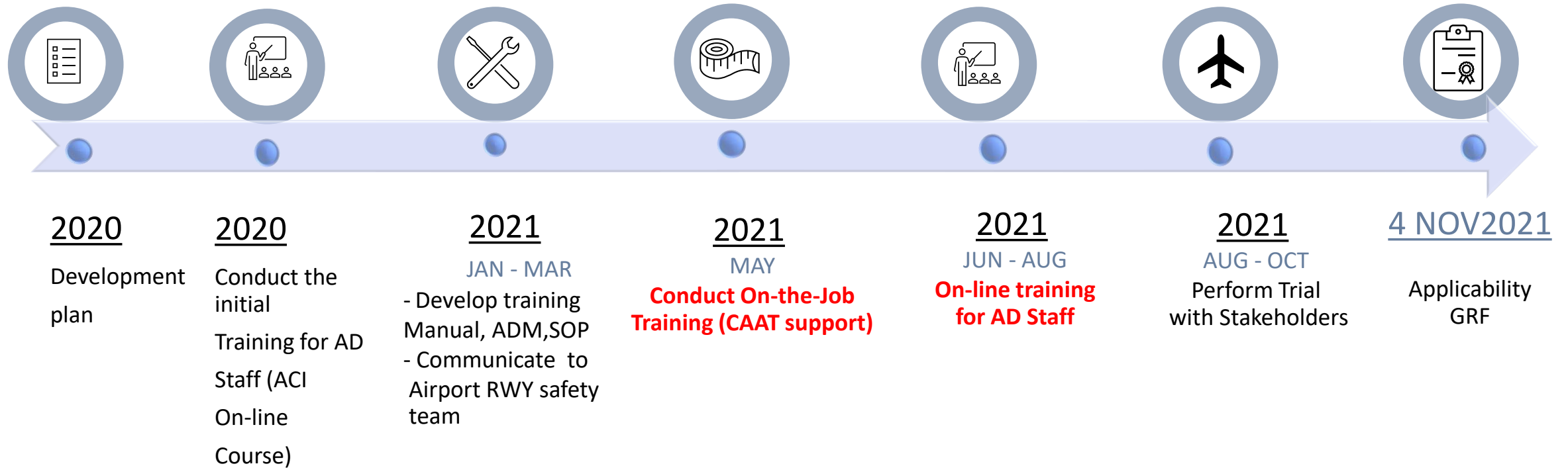
Communication Objectives

- Ensure a shared understanding of GRF requirements.
- Align responsibilities across entities
- Establish standard operating procedures (SOPs) related to GRF.

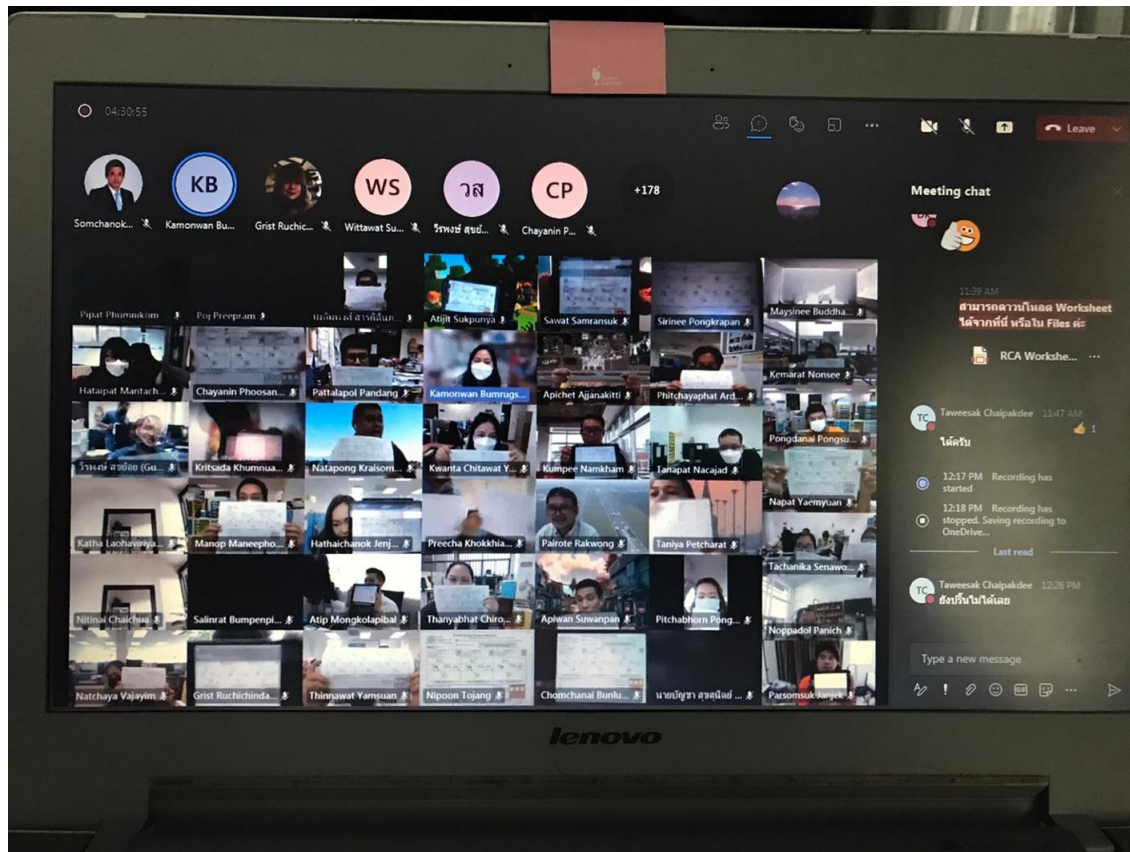
FLOW OF INFORMATION



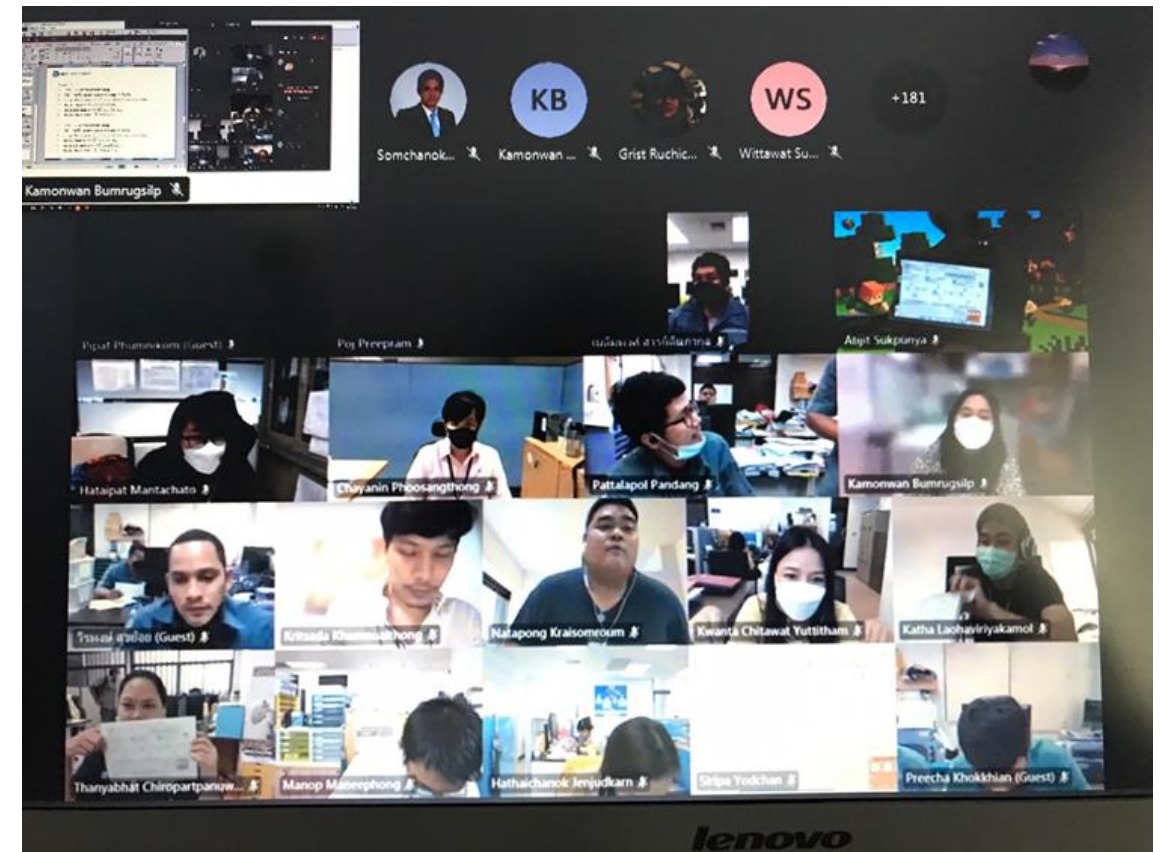
Project Key Milestones



Knowledge is a powerful tool for GRF implementation.



2021 165 participants online training
(in-house training)



2021 66 participants GRF Workshop with CAAT



The Civil Aviation Authority of Thailand (CAAT) conducted an online training on the guidelines for issuing SNOWTAM to enhance knowledge and understanding for aerodrome operator.



**Global Reporting Format
AIS Aspects (SNOWTAM)**

Download Documents

VDO Teleconference
on 3 September 2021

COMMITTED TO SAFETY
IN EVERY MOMENT

Introduction to CAAT Lecturers

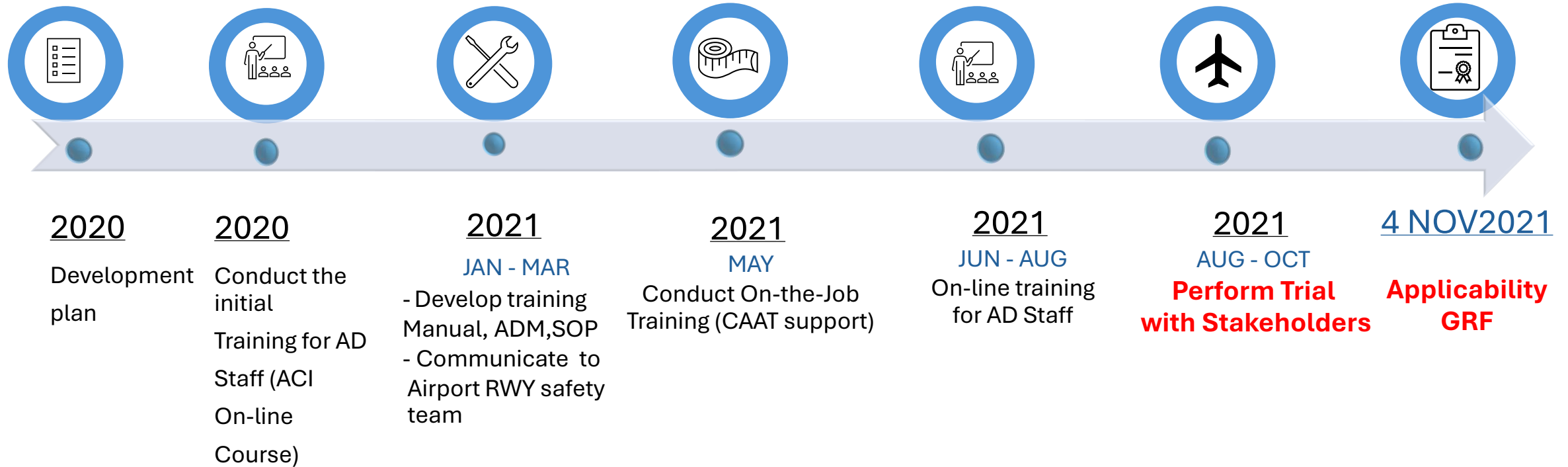
**Jakrin
Kutantham**
(ANS)

**Nattapong
Pokpa**
(ANS)

**Papasrin
Jirawiwatkul**
(AIS)

**Witsarut
Chinwipat**
(AGA)

Project Key Milestones

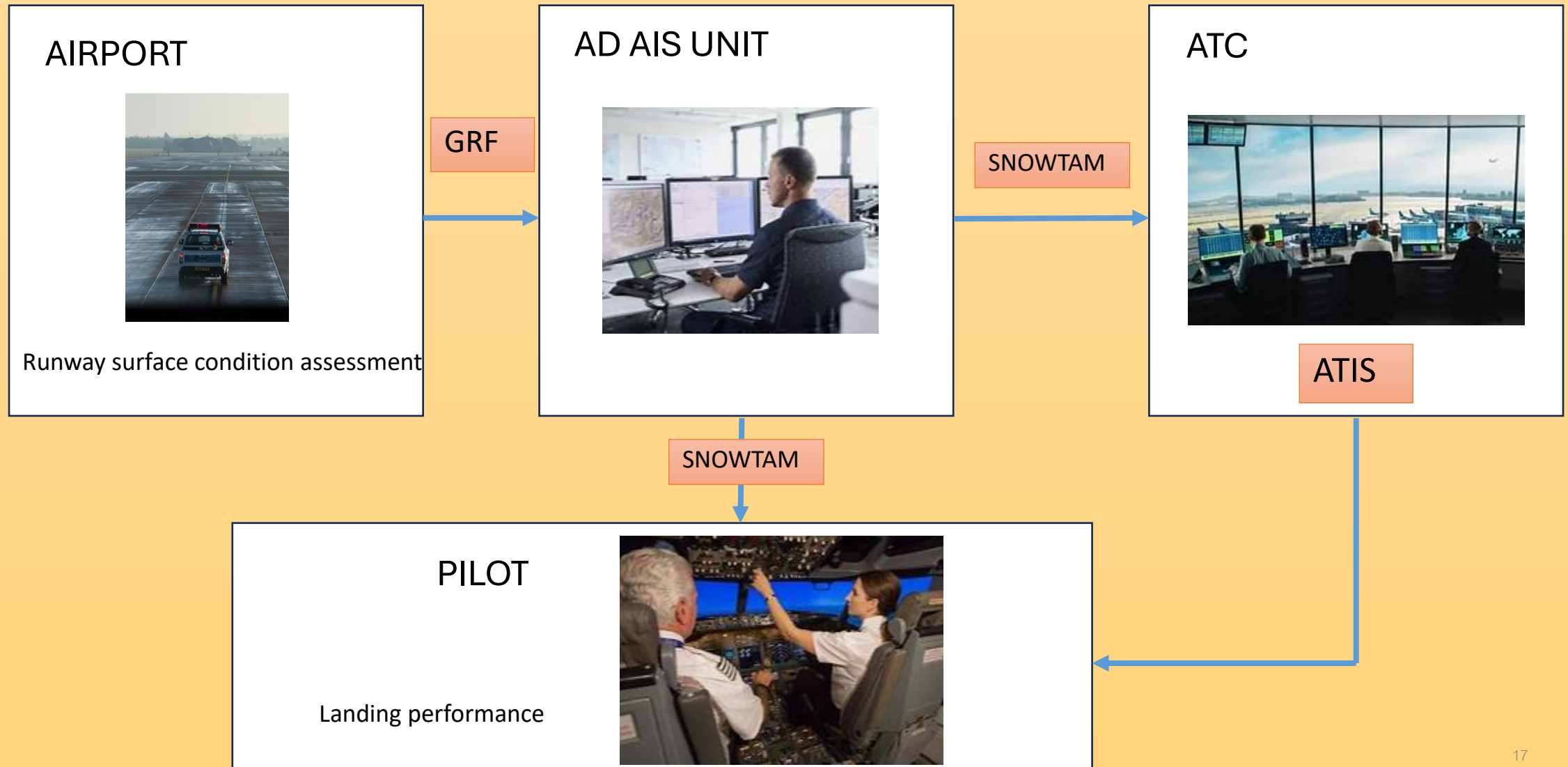


What we have learnt from GRF implementation ?

The Safety Committee and the Runway Safety Team play important roles in the GRF Implementation process.

Area	RST Responsibilities
Stakeholder Coordination	Facilitate collaboration and role clarity
Training and Awareness	Promote GRF understanding and skills development
Procedure Development	Create and refine reporting procedures and inspection protocols
Monitoring & Improvement	Track implementation performance and identify issues
Safety Assessments	Evaluate and mitigate safety risks on GRF
Best Practices Sharing	Encourage consistency and learning across the airports

Stakeholder Coordination



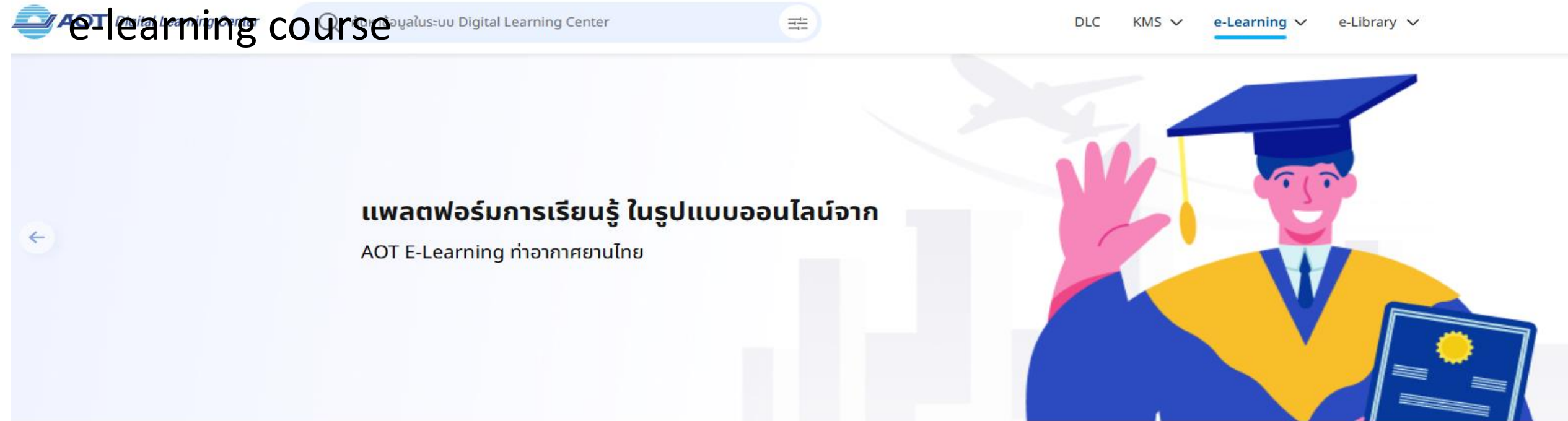
MOU



MOU



Training and Awareness



หลักสูตรแนะนำ

2022 e-learning course on GRF was established and recurrent every 2 years



What we did on Runway Safety Action Plan

1 / 1
ข้อมูลโดย : ฝ่ายมาตรฐาน
และความปลอดภัยท่าอากาศยาน

Runway Safety Programme (RSP) ของ ทอท.

ทอท. จัดทำ RSP
เป็นแนวทางให้เกิดความปลอดภัยทางวิ่งร่วมกัน
โดยจัดทำจากกระบวนการและความร่วมมือ
ของหน่วยงานผู้มีส่วนได้เสียของสนามบิน ทอท.
ระดับองค์กร เช่น ทอท. บวก. นักบิน หน่วยงานวิทยุ

เพื่อให้เกิดความปลอดภัยในการรับผิดชอบ
ของ ทอท. นำไปจัดทำ Runway Safety
Programme และ Runway Safety
Action Plan ของท่าอากาศยาน

General
ข้อมูล Runway Safety Programme (RSP) ของ ทอท.
📅 14 พ.ค. 2567 - 15:00 📺 ฝมป.
คู่มือ Runway Safety Programme (RSP) ของ ทอท.

News Contacts Services Notification 65

Communicate to AOT Staff

AOT AIRPORTS OF THAILAND PLC.
บริษัท ท่าอากาศยานไทย จำกัด (มหาชน)

หลักสูตร Global Reporting Format (GRF) สำหรับผู้ดำเนินงานสนามบิน



หลักสูตรของ ฝมป. ประจำปี 2567

EL หลักสูตร Global Reporting
Format (GRF) ประจำปี 2567

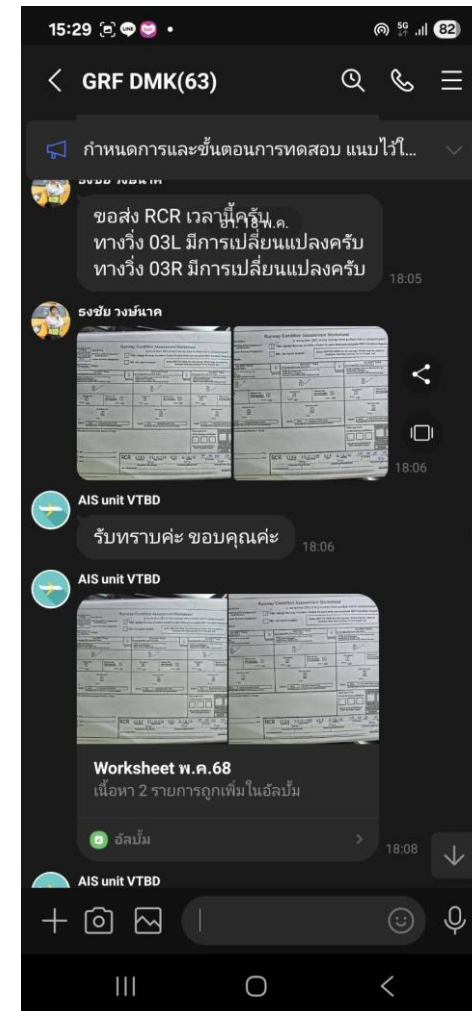
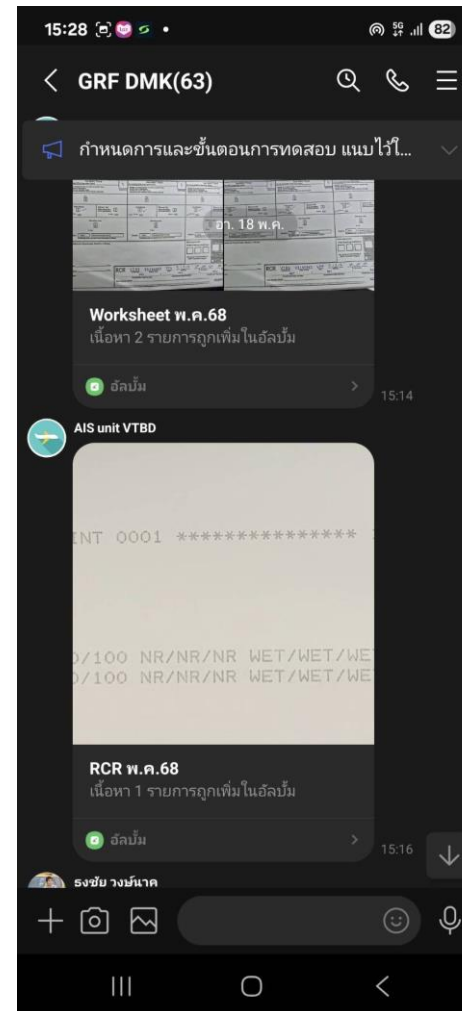
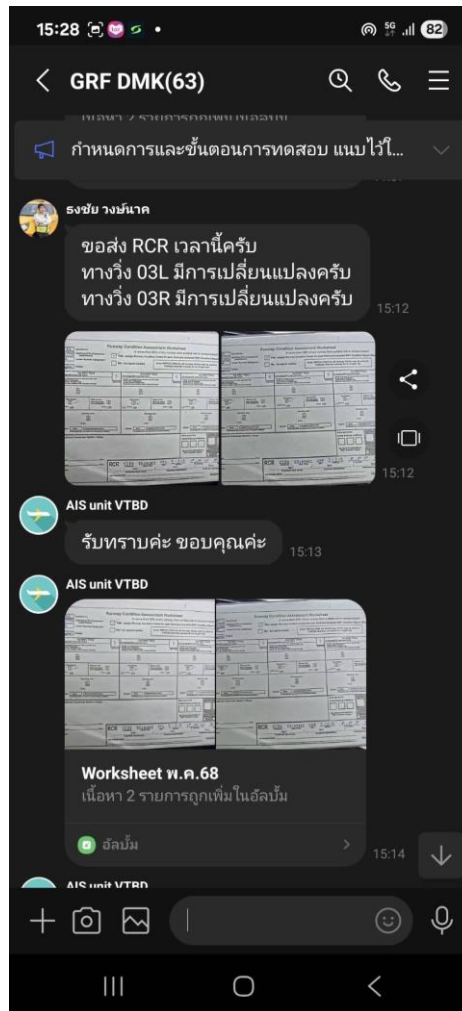
Recurrent Training for target group

Procedure Development

Faster is better

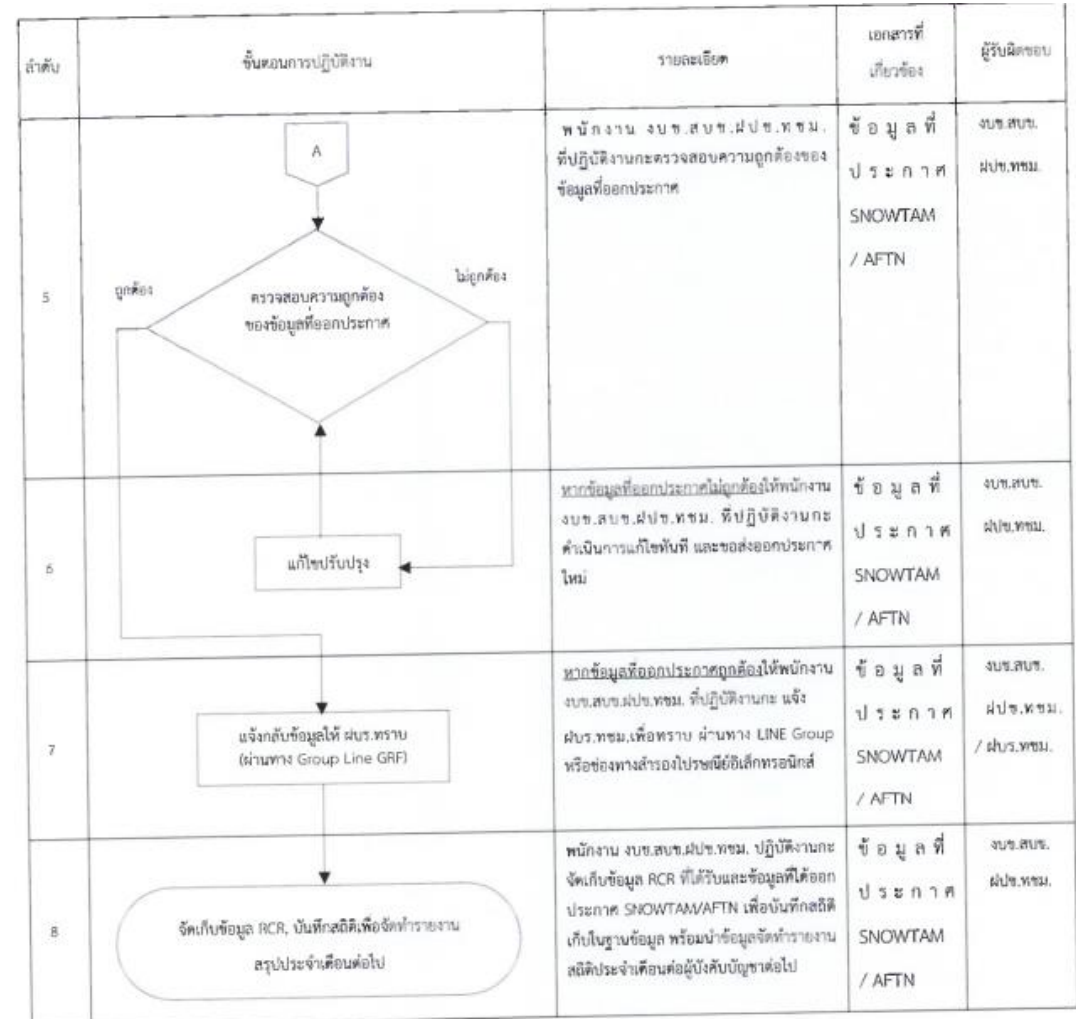
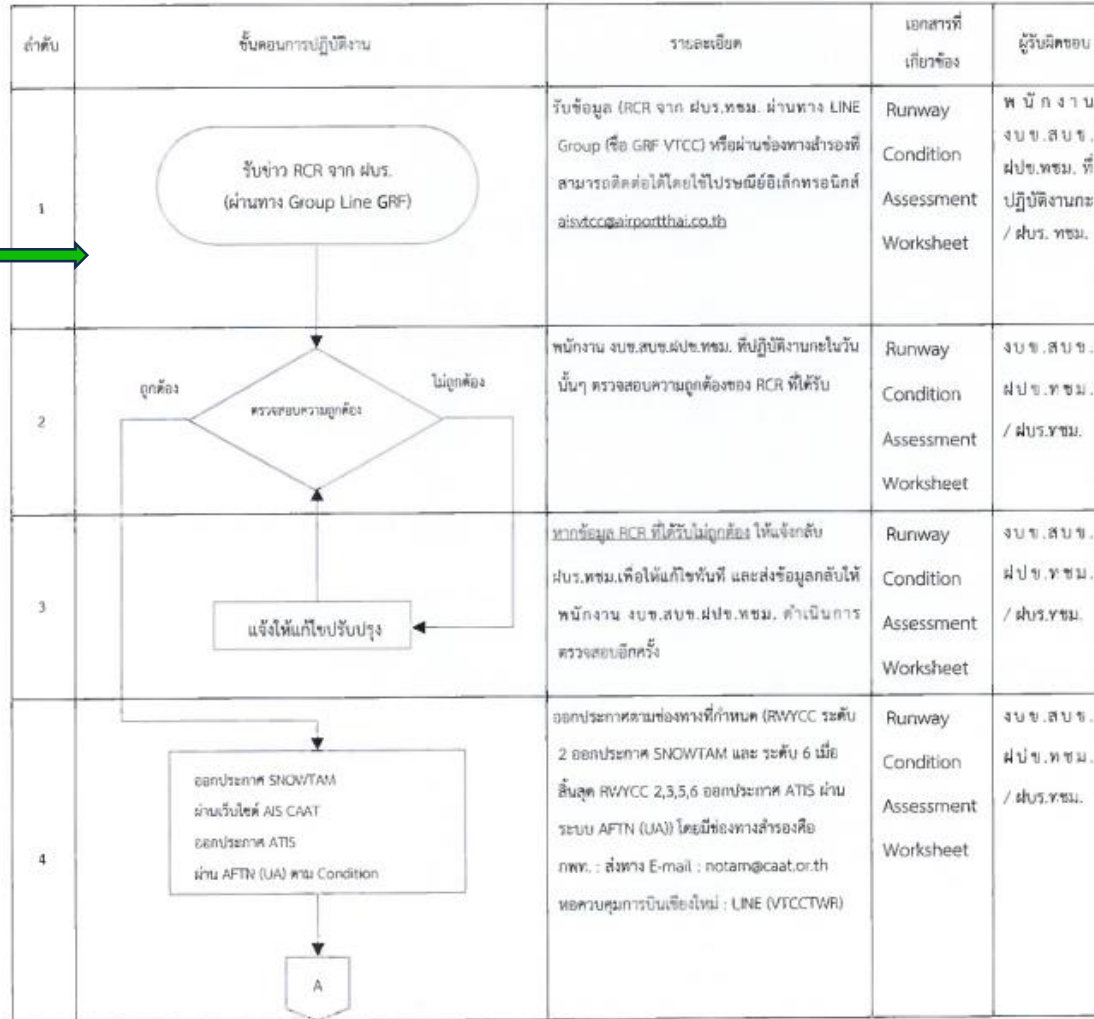


“Line”
Application

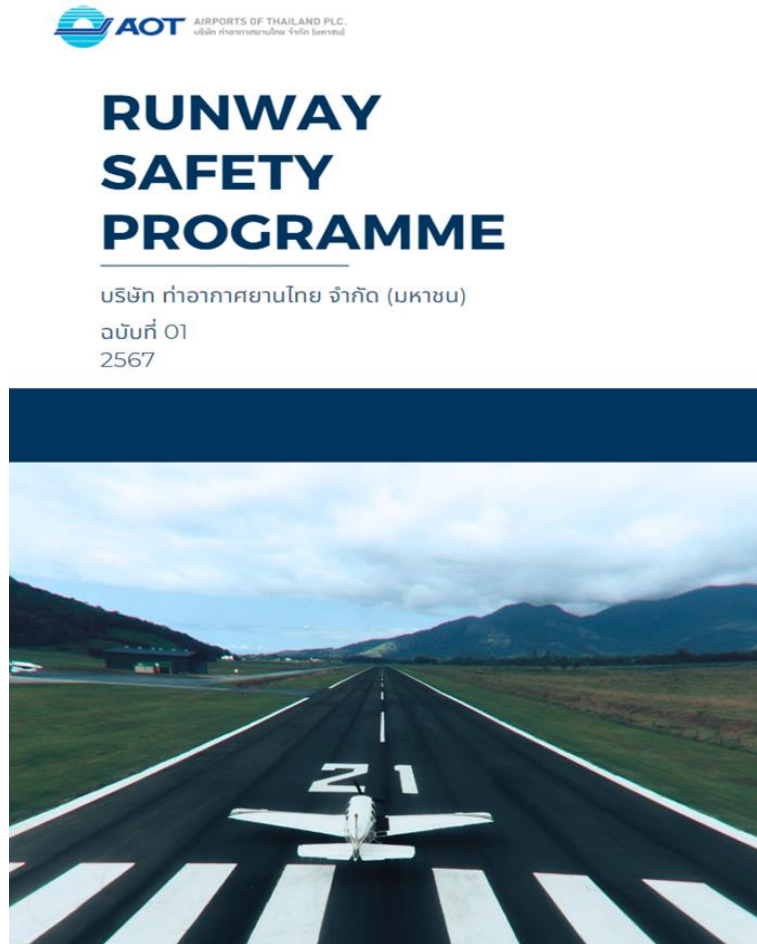


Example- SOP of Chiang Mai AIS Unit

C02. แผนภูมิขั้นตอนการปฏิบัติ



Monitor and Improvement



AOT Runway safety programme

VTCC RUNWAY SAFETY PROGRAMME

ท่าอากาศยานเชียงใหม่
บริษัท ท่าอากาศยานไทย จำกัด
ฉบับที่ 01 แก้ไขครั้งที่ 00
2567



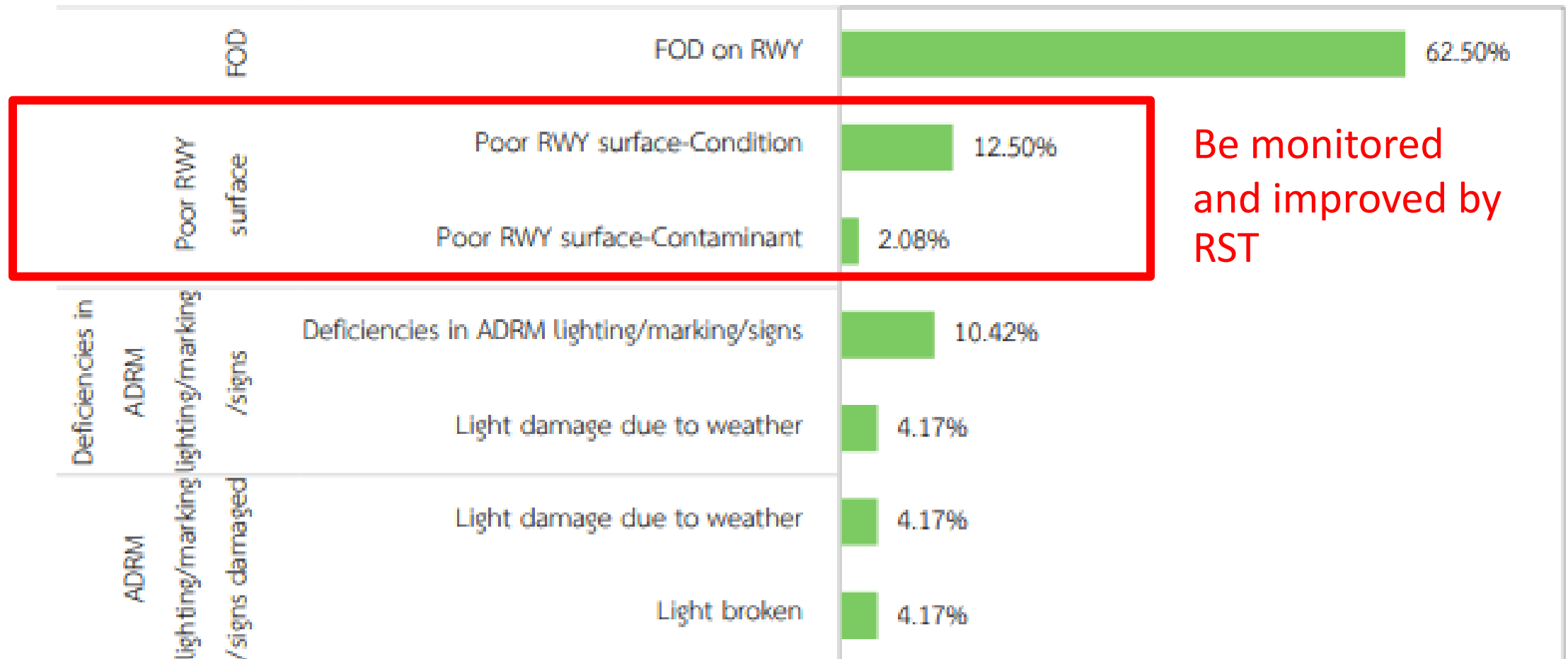
แผนความปลอดภัยทางวิ่ง VTSP RUNWAY SAFETY PROGRAMME

ฉบับที่ 1 แก้ไขครั้งที่ 00



Airport Runway safety programme

RE (Runway Excursion) contributing factors during 2020 – 2022



AOT Runway Safety Action Plan on GRF was luanchcd in 2023

Occurrence (OPR no.)	No.	Contributing factor	Related Contributing factor (if applicable)	Action Existing/ Mitigation measure	Responsible Entity	Stakeholder	Timeframe
CFIT (OPR 1) RE (OPR 4) RI (OPR 5) BIRD (OPR 6)	1	Safety Management	-	Review AOT Runway Safety Programme with stakeholders and communicate after completed	AOT Safety Department	6 Airports Airlines ATC MET	Apr 2025
RE (OPR 4)	2	Airport Facilities	Poor braking action because of Contaminated Runway	Monitor Friction Test report once a month through Safety Meeting	AOT Safety Department	6 Airports, AOT Engineering Department	Apr 2024-Dec 2025
RE (OPR 4)	2	Human Factors	FOD/contaminant/ friction hydroplaning/pave ment check	Recurrent GRF training to GRF relevant employees for 6 airports	AOT Safety Department	6 Airports HRD	Jun 2024

Safety Assessment

What RSTs do ?



- Assess risks related to incorrect or delayed condition reporting.
- Identify vulnerabilities during transitions (e.g., rapid weather changes).
- Support the airport's Safety Management System (SMS) with GRF-related inputs.

What airports get ?



- BKK airport use multiple teams for simultaneous assessments to speed up the process for three runways.
- Phuket airport collaborate with ATC to adjust inspection frequencies based on weather conditions, traffic levels, and historical data trends.
- Every airports improve communication between air traffic controllers, airport operations, and inspection teams to minimize disruption.

From representatives of RST

- 



We talk about Runway Safety.

Meeting topics	VTBS	VTBD	VTSP	VTCC	VTSS	VTCT
Runway Design and Maintenance	✓	✓	✓	✓	✓	✓
Runway Incursions and Excursions	✓	✓	✓	✓	✓	✓
Airport Markings, Signage, and Lighting Systems	✓	✓	✓	✓	✓	✓
Wildlife hazard management	✓	✓	✓	✓	✓	✓
Runway Safety Lessons Learned	✓	✓	✓	✓	✓	✓
Abnormal Takeoff or Landing events involving the runway or surface contact	✓		✓			✓
Standard Operating Procedures for Airport Personnel – Non-Compliance, Inappropriate, or Incomplete Actions	✓		✓	✓	✓	✓
Obstacle Limitation Surface (OLS) - FOD	✓		✓	✓	✓	✓
Remotely Piloted Aircraft System (RPAS) operations			✓		✓	✓
Radio Communication		✓			✓	✓
Vehicle Operators’ Compliance, Understanding, Communication, and Training	✓		✓		✓	✓
Pilot and Air Traffic Service Procedures	✓	✓				✓
Holding point location and names					✓	✓
Ground Collisions, Undershoot or Overshoot Landings (USOS)			✓			

Conclusion – AOT's GRF Implementation lesson learned

Obstacle	Description	Potential Mitigation
Lack of Training & Awareness	Insufficient understanding of GRF concepts	Conduct comprehensive training
Poor Stakeholder Coordination	Disjointed communication and responsibilities	Establish or empower RST
Technical Limitations	Lack of tools for contaminant detection and assessment	Invest in technology and infrastructure
Resistance to Change	Operational inertia and preference for old systems	Change management and awareness campaigns
Communication Gaps	Inefficient data sharing mechanisms	Use real-time digital reporting tools
Weather Challenges	Rapid changes in runway condition difficult to track	Increase inspection frequency

Time for questions





Thank You