



**KOMITE NASIONAL KESELAMATAN TRANSPORTASI  
REPUBLIC OF INDONESIA**

# **PRELIMINARY**

**KNKT.22.05.04.04**

**Aircraft Serious Incident Investigation Report**

**PT Wings Abadi Airlines**

**ATR 72-212A; PK-WGF**

**I Gusti Ngurah Rai International Airport, Bali**

**Republic of Indonesia**

**31 May 2022**

**2022**

This Preliminary Report was published by the Komite Nasional Keselamatan Transportasi (KNKT), Transportation Building, 3<sup>rd</sup> Floor, Jalan Medan Merdeka Timur No. 5 Jakarta 10110, Indonesia.

The report is based upon the initial investigation carried out by the KNKT in accordance with Annex 13 to the Convention on International Civil Aviation Organization, the Indonesian Aviation Act (UU No. 1/2009) and Government Regulation (PP No. 62/2013).

The preliminary report consists of factual information collected until the preliminary report published. This report will not include analysis and conclusion.

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However, the KNKT fully recognizes that the implementation of recommendations arising from its investigations will in some cases incur a cost to the industry.

Readers should note that the information in KNKT reports and recommendations is provided to promote aviation safety. In no case is it intended to imply blame or liability.

Jakarta, 3 August 2022  
**KOMITE NASIONAL  
KESELAMATAN TRANSPORTASI  
CHAIRMAN**

  
**SOERJANTO TJAHHJONO**

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## ABBREVIATIONS AND DEFINITIONS

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AIP	:	Aeronautical Information Publication
AOC	:	Air Operator Certificate
ATPL	:	Airline Transport Pilot License
ATS	:	Air Traffic Services
CASR	:	Civil Aviation Safety Regulation
CPL	:	Commercial Pilot License
CVR	:	Cockpit Voice Recorder
FDR	:	Flight Data Recorder
Km	:	Kilometer
KNKT	:	<i>Komite Nasional Keselamatan Transportasi</i>
PF	:	Pilot Flying
PIC	:	Pilot in Command
PM	:	Pilot Monitoring
SIC	:	Second in Command
UTC	:	Universal Time Coordinate

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## SYNOPSIS

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An ATR 72-212A aircraft, registered as PK-WGF, was being operated by PT. Wings Abadi Airlines (Wings Air) on 31 May 2022 from Zainuddin Abdul Madjid International Airport, Lombok, Indonesia (WADL) to I Gusti Ngurah Rai International Airport, Bali, Indonesia (WADD). On board in this flight were two pilots, two flight attendants and 68 passengers.

The aircraft departed from Lombok and flew at cruising altitude of 8,000 feet. The Pilot in Command (PIC) acted as Pilot Flying (PF) while the Second in Command (SIC) acted as Pilot Monitoring (PM).

The flight was uneventful until landing on Runway 09 at Bali, at 1419 LT (0619 UTC). After touched down, the aircraft was instructed by the tower controller to exit the runway via Taxiway N4. While the aircraft was on Taxiway N4, the pilot was instructed by the tower controller to contact ground controller. The ground controller instructed the aircraft to continue the taxi by following the aircraft that was pushing back from parking stand A22 to Runway 09 for departure.

After the aircraft exited Taxiway N4 and taxied on apron taxiway, the SIC asked the assigned parking stand to the ground controller and was informed to park on Parking Stand A41. The aircraft continued taxiing and turned toward Taxiway NW6. The SIC realized that the aircraft had turned toward the wrong taxiway and informed to the PIC. The SIC then confirmed to the ground controller whether the assigned parking stand was A41. The ground controller affirmed and instructed the pilot to continue taxi via Taxiway NW7. While the SIC communicating with the ground controller, the PIC turned the aircraft to the left toward taxiway NW7. The aircraft main wheels stuck in the apron's ditch.

The aircraft was substantially damaged and no one was injured in this incident.

The KNKT acknowledges the safety actions taken by the related parties and considered that the safety actions were relevant to improve safety. Therefore, the KNKT had not issued safety recommendations to address safety issues identified in this report.

The investigation is continuing and KNKT plans to complete the investigation within 12 months since the day of the occurrence. Should any further relevant safety issues emerge during the course of the investigation, KNKT will immediately bring them to the attention of the relevant parties and publish as required.

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# 1 FACTUAL INFORMATION

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## 1.1 History of the Flight

An ATR 72-212A aircraft, registered as PK-WGF, was being operated by PT. Wings Abadi Airlines (Wings Air) on 31 May 2022 from Zainuddin Abdul Madjid International Airport, Lombok, Indonesia (WADL)<sup>1</sup> to I Gusti Ngurah Rai International Airport, Bali, Indonesia (WADD)<sup>2</sup>. On board in this flight were two pilots, two flight attendants and 68 passengers.

The aircraft departed from Lombok and flew at cruising altitude of 8,000 feet. The Pilot in Command (PIC) acted as Pilot Flying (PF) while the Second in Command (SIC) acted as Pilot Monitoring (PM).

The flight was uneventful until landing on Runway 09 at Bali, at 1419 LT (0619 UTC). After touched down, the aircraft was instructed by the tower controller to exit the runway via Taxiway N4. The instruction was acknowledged by the pilot. While the aircraft was on Taxiway N4, the pilot was instructed by the tower controller to contact ground controller. The ground controller instructed the aircraft to continue the taxi by following the aircraft that was pushing back from parking stand A22 to Runway 09 for departure. The instruction was acknowledged by the pilot.

After the aircraft exited Taxiway N4 and taxied on apron taxiway, the SIC asked the assigned parking stand to the ground controller and was informed to park on Parking Stand A41. The instruction was acknowledged by the pilot. The SIC pointed out to the PIC that the Parking Stand A41 was near to some buses parked on the apron.

The aircraft continued taxiing and turned toward Taxiway NW6. The SIC realized that the aircraft had turned toward the wrong taxiway and informed to the PIC. The SIC then confirmed to the ground controller whether the assigned parking stand was A41. The ground controller affirmed and instructed the pilot to continue taxi via Taxiway NW7. While the SIC communicating with the ground controller, the PIC turned the aircraft to the left toward taxiway NW7. The aircraft main wheels stuck in the apron's ditch.

The ground controller noticed that the aircraft was on taxiway NW6 and instructed the pilot to hold the aircraft position. The pilot did not respond the instruction to hold the aircraft.

The pilot shut down the engines. The PIC communicated with the ground controller requesting for assistance. The ground controller asked the pilot to standby and to hold the aircraft position. The PIC also contacted the company to inform the condition and request for assistance.

The PIC asked the flight attendant to open the passenger entrance door with intention for controlled disembarkation<sup>3</sup>. The PIC also asked the flight attendant to observe the main wheels condition.

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1 Zainuddin Abdul Madjid International Airport (WADL), Lombok will be named as Lombok for the purpose of this report.

2 I Gusti Ngurah Rai International Airport, Bali, Indonesia (WADD) will be named as Bali for the purpose of this report.

3 Controlled disembarkation is a precautionary egress from the aircraft in situations assessed by the crew members as deviating from normal conditions but not being an immediate emergency



The flight attendant asked the PIC whether the passengers were allowed to disembark as the busses have arrived. The flight attendant also informed that both main wheels were stuck in the ditch.

The passengers disembarked via service door, followed by the crew members. No one was injured in this incident.

## **1.2 Damage to Aircraft**

The aircraft was substantially damaged.

## **1.3 Other Damage**

Some parts of metal structures covering the ditch were damaged.

## **1.4 Personnel Information**

### **1.4.1 Pilot in Command**

The PIC is 36 years Indonesian pilot who held a valid Airline Transport Pilot License (ATPL) and qualified to act as pilot of ATR 72 aircraft. The PIC also had a valid first-class medical certificate with no limitation.

The PIC joined the company on 1 July 2015 as SIC on ATR aircraft type and became a qualified as a PIC on ATR aircraft since March 2021. The PIC had 4,253 hours 40 minutes of accumulated flight hours, including 4,094 hours 50 minutes in ATR aircraft with 776 hours 40 minutes acted as PIC.

The occurrence flight was fifth flights of six scheduled flight on the third day of the five days scheduled for the PIC to fly around Bali. Prior to the occurrence flight the PIC had never been assigned to park on Parking Stand A41. The occurrence day was the second day of the PIC flying with the SIC.

### **1.4.2 Second in Command**

The SIC is 33 years Indonesian pilot who held a valid Commercial Pilot License (CPL) and qualified to act as pilot of ATR 72 aircraft. The SIC also had a valid first-class medical certificate with no limitation.

The SIC joined the company on 28 May 2018 as a SIC on ATR aircraft type and had 2,209 hours 58 minutes accumulated flight hours, including 2,042 hours 58 minutes in ATR aircraft.

The occurrence flight was the last flight of the day on the last day of the five days scheduled for the SIC to fly around Bali. Prior to the occurrence, the SIC had never been assigned to park on Parking Stand A41. The occurrence day was the second day of the SIC flying with the PIC.

### **1.4.3 Flight Attendants**

Both flight attendants hold valid Flight Attendance Certificates and medical certificates.

#### **1.4.4 Air Traffic Controller (Ground Controller)**

The ground controller is 27 years Indonesian air traffic controller who held Air Traffic Control License and qualified to act as an aerodrome and approach controller. The ground controller also had a valid third-class medical certificate with limitation to wear corrective lenses.

The ground controller had 5 years' experience as air traffic controller, all experience was as aerodrome controller at Bali.

### **1.5 Aircraft Information**

#### **1.5.1 General**

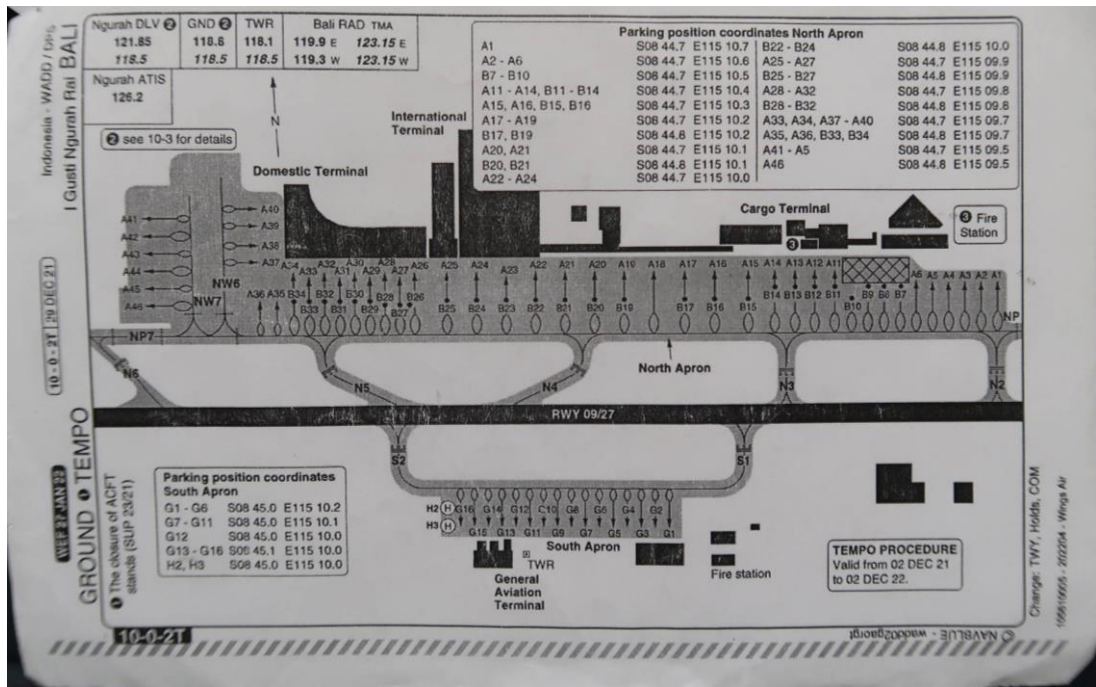
Registration Mark	: PK-WGF
Manufacturer	: ATR
Country of Manufacturer	: France
Type/Model	: ATR72-212A
Serial Number	: 1062
Year of Manufacture	: 2012
Certificate of Airworthiness	
Issued	: 8 October 2021
Validity	: 7 October 2022
Category	: Transport
Limitations	: None
Certificate of Registration	
Number	: 3228
Issued	: 19 December 2019
Validity	: 18 December 2022
Time Since New	: 15,785:48
Cycles Since New	: 16,944

#### **1.6 Meteorological Information**

The aerodrome visibility was reported 10 Km by the meteorological station. Based on the pilot and ground controller recollection, the visibility at apron during the occurrence was reported as clear.

#### **1.7 Aids to Navigation**

Figure 1 shows the aircraft parking/docking chart for Bali which was available in the cockpit:



**Figure 1: The aerodrome chart which was available in the cockpit**

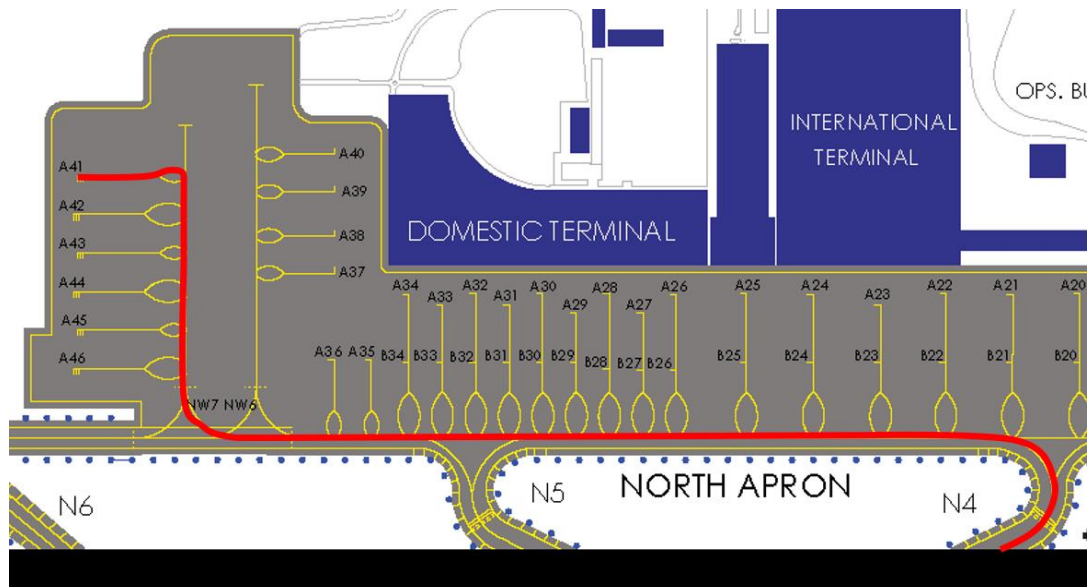
## 1.8 Communications

All communications between Air Traffic Services (ATS) and the pilots were recorded using ground based automatic voice recording equipment and the Cockpit Voice Recorder (CVR) for full duration of the flight. The quality of the aircraft recorded transmissions was good. The detail of communication will be included in the final report.

## 1.9 Aerodrome Information

Airport Name	: I Gusti Ngurah Rai International Airport
Airport Identification	: WADD
Airport Operator	: Angkasa Pura I
Airport Certificate	: 015/SBU – DBU/VI/2020
Validity	: 30 July 2025
Coordinate	: 08°44'50.57" S; 115°10'08.54" E
Elevation	: 10 feet
Runway Direction	: 09 – 27
Runway Length	: 3,000 meters
Runway Width	: 45 meters
Surface	: Asphalt concrete

According to the Aeronautical Information Publication (AIP) Volume II Chapter WADD AD 2.24-2A1, from Taxiway N4 to Parking Stand A41, an aircraft must taxi via Apron Taxiway and Taxiway NW7 as illustrated by red line in Figure 2.



**Figure 2: The illustration of the taxi route from N4 to Parking Stand A41**

### **1.10 Flight Recorders**

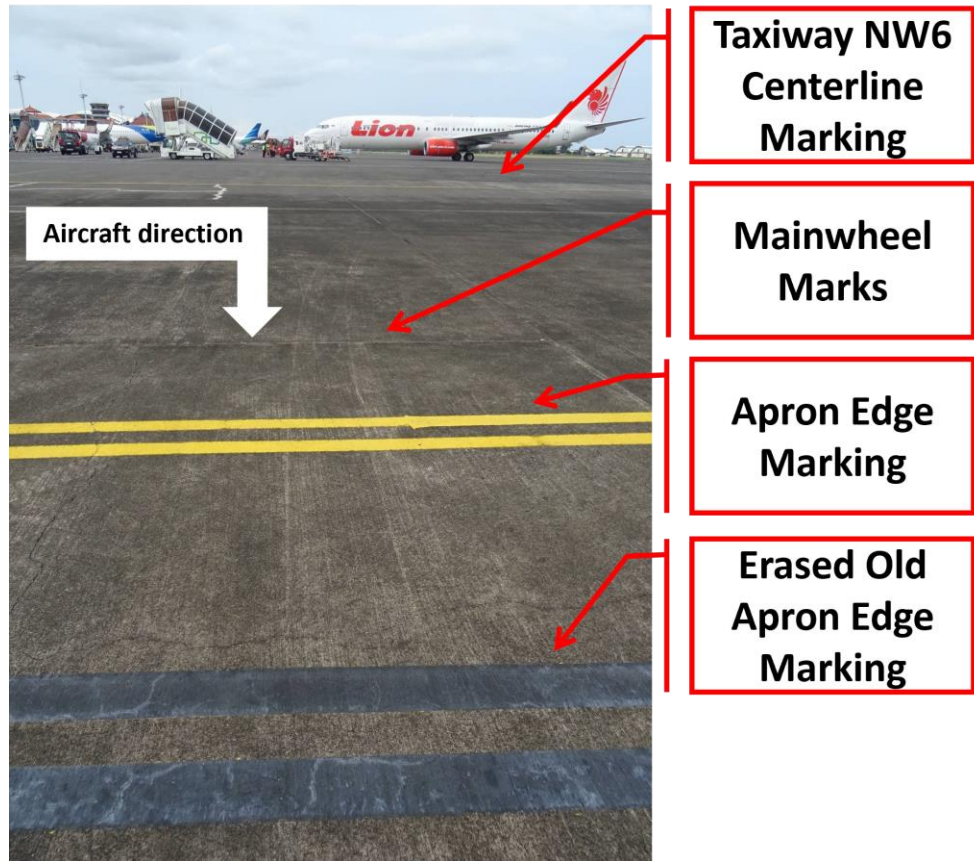
The aircraft was fitted with a Flight Data Recorder (FDR) and a Cockpit Voice Recorder (CVR).

The FDR manufactured by L3 Communication, type/model was FA2100, Part Number 2100-4043-00, and Serial Number 000596619. The CVR manufactured by L3 Communication, type/model was FA2100, Part Number 2100-1020-02, and Serial Number 000686890.

Both flight recorders were recovered from the aircraft and transported to *Komite Nasional Keselamatan Transportasi* (KNKT) facility for data processing. The data of both flight recorders were successfully downloaded. Detail of the data will be included in the final report.

### **1.11 Wreckage and Impact Information**

Examination of the incident site, as shown by Figure 3 and Figure 4, found that the aircraft performed 90° turning maneuver to the left from the Taxiway NW6 guidelines between two taxiway lights prior to stop in the ditch.



**Figure 3: The marks of the main wheel**



**Figure 4: The accident site**



**Figure 5: The damage to the ditch metal structure covers**

The incident caused damage to the ditch metal structure covers as shown on Figure 5. The damage on the aircraft was mainly on the bottom part of the fuselage. The outer tire of the right main wheel was found flat. The damage includes:

- Scratch on the lower tail section,
- Bent on some walls of the main landing gear compartment,
- Crack on lower fuselage aft of the main landing gear compartment as shown on Figure 6.



**Figure 6: The crack on the lower fuselage aft of the main landing gear compartment**

## **1.12 Medical and Pathological Information**

Medical and pathological information were not available at the time of the issuance of this report. Should any relevant medical and/or pathological information be obtained during this investigation, it will be included in the final report.

## **1.13 Survival Aspects**

After the aircraft stopped, the PIC asked the flight attendant to open the passenger entrance door with intention for controlled disembarkation. The passengers disembarked via service door followed by the crew members.

## **1.14 Tests and Research**

Test and research information were not available at the time of the issuance of this report. Should any relevant medical and/or pathological information be obtained during this investigation, it will be included in the final report.

## **1.15 Organizational and Management Information**

### **1.15.1 Aircraft Operator**

The aircraft was operated by PT Wings Abadi Airlines (Wings Air) which had valid Air Operator Certificate (AOC) number of 121-012. The Wings Air was authorized to conduct air transportation carrying passenger and cargo in scheduled operation within and outside Indonesia for aircraft operations under Civil Aviation Safety Regulation (CASR) Part 121.

### **1.15.2 Airport Operator**

The airport was operated by PT Angkasa Pura I (Persero), branch office I Gusti Ngurah Rai International Airport which has valid airport certificate.

### **1.15.3 Air Traffic Services Provider**

The Air Traffic Services (ATS) in Bali is provided by AirNav Indonesia branch Denpasar which has valid Air Traffic Services Provider certificate. The AirNav branch Denpasar was authorized ATS which include aerodrome control service.

## **1.16 Additional Information**

The investigation is continuing and KNKT plans to complete the investigation within 12 months since the day of the occurrence. Should any further relevant safety issues emerge during the course of the investigation, KNKT will immediately bring them to the attention of the relevant parties and publish as required.

## **1.17 Useful or Effective Investigation Techniques**

The investigation was conducted in accordance with the KNKT approved policies and procedures, and the standard and recommended practices of Annex 13 to the Chicago Convention.

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## 2 FINDINGS<sup>4</sup>

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The findings are statements of all significant conditions, events or circumstances in the accident sequence. The findings are significant steps in the accident sequence, but they are not always causal, or indicate deficiencies. Some findings point out the conditions that pre-existed the accident sequence, but they are usually essential to the understanding of the occurrence, usually in chronological order.

In this occurrence, the KNKT identified several findings as follows:

1. The pilots held valid licenses and medical certificates.
2. The Air Traffic Controller held valid license and medical certificate.
3. The aircraft had valid Certificate of Airworthiness (C of A) and Certificate of Registration (C of R).
4. During the flight from Lombok to Bali, the Pilot in Command (PIC) acted as Pilot Flying (PF) while the Second in Command (SIC) acted as Pilot Monitoring (PM).
5. The flight until landing was uneventful. After landing, the aircraft exited the runway via Taxiway N4. While the aircraft on Taxiway N4, the ground controller instructed the pilot to continue the taxi by following the aircraft that was pushing back.
6. After the aircraft exited Taxiway N4 and taxied on apron taxiway, the pilot was informed to park on Parking Stand A41.
7. The SIC pointed out to the PIC that the Parking Stand A41 was near to some buses parked on the apron.
8. After continuing taxi on Taxiway NW6, the SIC realized that the aircraft had turned toward the wrong taxiway and informed to the PIC.
9. The SIC contacted ground controller to confirm the parking position. While the SIC communicating with the ground controller, the PIC turned the aircraft to the left toward taxiway NW7. During the maneuver, the aircraft main wheels stuck in the apron's ditch.
10. The passengers and crew evacuated and no one injured in this incident. Some parts of metal structures covering the ditch were damaged.

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<sup>4</sup> Findings are statements of all significant conditions, events or circumstances in the accident sequence. The findings are significant steps in the accident sequence, but they are not always causal, or indicate deficiencies. Some findings point out the conditions that pre-existed the accident sequence, but they are usually essential to the understanding of the occurrence, usually in chronological order.



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### 3 SAFETY ACTION

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At the time of issuing this Preliminary Report, the KNKT had been informed of safety actions resulting from this occurrence.

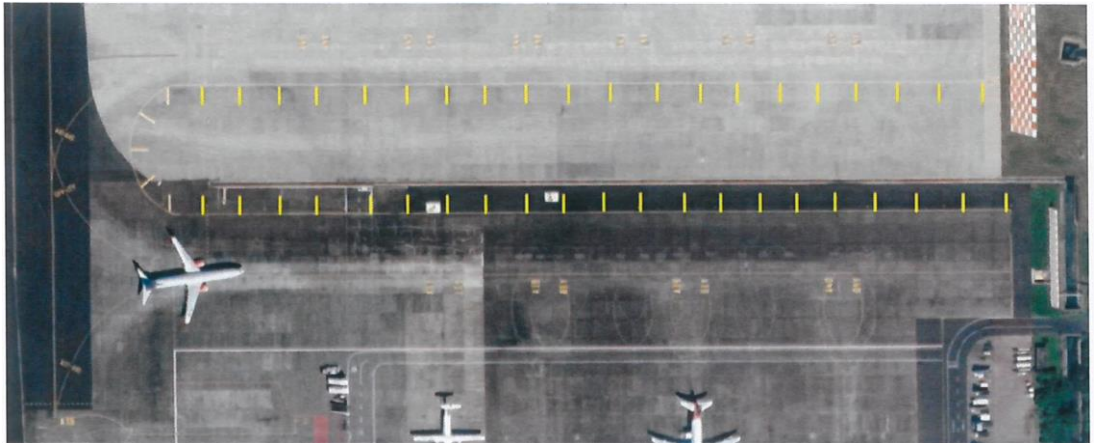
#### 3.1 Airport Operator

1. Repaired the metal structure covering the ditch and repainting the apron marking.



**Figure 7: The repaired metal structure and the repainted apron marks**

2. Added the taxiway edge marking



**Figure 8: The illustration of additional marking on the paved shoulder near taxiway NW6 and NW7**

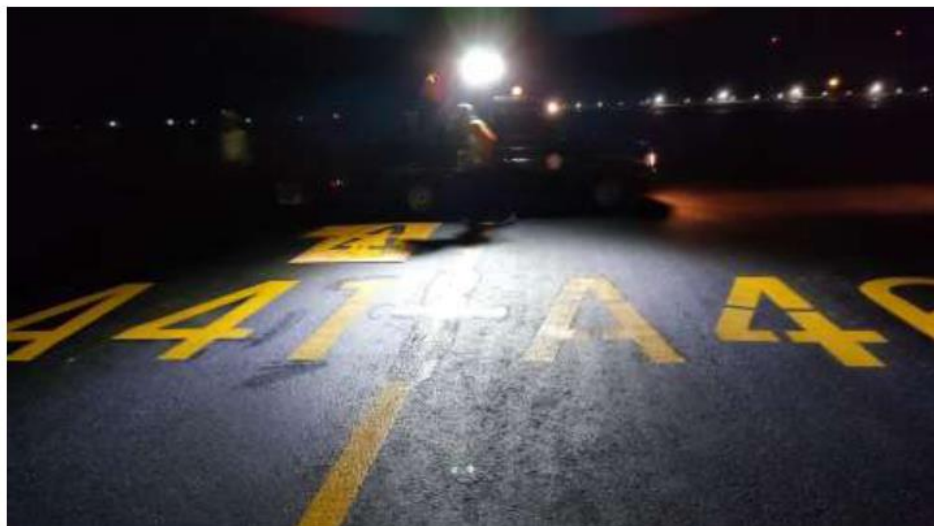


**Figure 9: The added taxiway edge marking**

3. Painted the parking stand number and taxiway identification near taxiway NW6 and NW7



**Figure 10: The illustration of the painted parking stand number and taxiway identification**



**Figure 11: The added parking stand number**

4. Proposed to add apron separation marking on the aerodrome chart in the Aeronautical Information Publication (AIP) to the Aeronautical Information Services.
5. Developed procedure for an aircraft entering unassigned taxiway.
6. Emphasized all employees to report any identify hazard.

### **3.2 Aircraft Operator**

Issued Notice to Pilot highlighted the occurrence of the PK-WGF aircraft and reminded pilots to maintain high situational awareness during all phases of flight and implement good Crew Resource Management.

The details of the notice can be found in the appendices.

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## **4 SAFETY RECOMMENDATIONS**


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The KNKT acknowledges the safety actions taken by the related parties and considered that the safety actions were relevant to improve safety. Therefore, the KNKT had not issued safety recommendations to address safety issues identified in this report.

Should any further relevant safety issues emerge during the course of the investigation, KNKT will immediately bring them to the attention of the relevant parties and publish as required.

## 5 APPENDICES

### 5.1 Wings Air Notice to Pilot

	<b>NOTICE TO PILOTS</b>	NTP/XIWI/2022
<b>Date of Issuance</b> 2 June 2022	<b>SERIOUS INCIDENT PREVENTION</b>	PAGE 1 OF 2
<b>Date of Effectiveness</b> 2 June 2022		

APPLICABILITY	DISTRIBUTION LIST	NATURE
ALL PILOTS	All Pilots, DO, SF, OT, OR, OM	PERMANENT UNTIL REVOKED

#### Dear All Pilots,

This notice is issued based on recent serious incident of PK-WGF, IW 1963 (LOP – DPS) which took place on May 31<sup>st</sup>, 2022. After landing, Ngurah Ground give instruction to continue taxi to parking stand number A41, which according to the chart should be via taxi way NW7. But the pilot took the wrong turn to taxi way NW6. Realizing that he took wrong taxi way, the pilot turns left directly to stand A41, crossing the apron drainage and resulting the aircraft stuck on it. This incident led to a serious damage to the aircraft and it is expected that detailed major repairing is required.

By consequences, further investigations of that serious incident above have been taken over by Komite Nasional Keselamatan Transportasi (KNKT).

Therefore, in regards to the incident, we urge you to always:

- Keep **high Situational Awareness** during all phases of flight.
- Keep a **very good Crew Resource Management**, including:
  - High Situational Awareness, through:
    - Good Planning
    - Careful analysis
    - Proper Execution
  - Communication:
    - Between Flight Crew and Air Traffic Controller  
Always confirm to ATC when ambiguous instruction is received, such as taxi routing.  
Whenever flight crew find that the requested instruction by ATC is not met, always communicate with ATC for further revised instructions.
    - Between Flight Crews themselves  
Good communication between flight crews will lead to a better Teamwork.
  - Decision Making:
    - Planning and Briefing  
Ensure that proper briefing is carried out and tools such as charts in use are correct and in proper condition.
    - Careful Analysis  
The result of Decision Making is dependent to the Decision Making process itself.

Thank you for your kind attention and have safe flight!

**KOMITE NASIONAL KESELAMATAN TRANSPORTASI REPUBLIK INDONESIA**

Jl. Medan Merdeka Timur No.5 Jakarta 10110 INDONESIA

Phone : (021) 351 7606 / 384 7601 Fax : (021) 351 7606 Call Center : 0812 12 655 155

website 1 : <http://knkt.dephub.go.id/webknkt/> website 2 : <http://knkt.dephub.go.id/knkt/>

email : [knkt@dephub.go.id](mailto:knkt@dephub.go.id)