



**KOMITE NASIONAL KESELAMATAN TRANSPORTASI
REPUBLIC OF INDONESIA**

PRELIMINARY

KNKT.21.12.20.04

Aircraft Accident Investigation Report

PT Airfast Indonesia

Eurocopter AS 350 B3; PK-ODB

Near Camp 99, Yahukimo, Papua

Republic of Indonesia

30 December 2021

2022

This Preliminary Report was published by the Komite Nasional Keselamatan Transportasi (KNKT), Transportation Building, 3rd 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.

Readers are advised that the KNKT investigates for the sole purpose of enhancing aviation safety. Consequently, the KNKT reports are confined to matters of safety significance and may be misleading if used for any other purpose.

As the KNKT believes that safety information is of greatest value if it is passed on for the use of others, readers are encouraged to copy or reprint for further distribution, acknowledging the KNKT as the source.

When the KNKT makes recommendations as a result of its investigations or research, safety is its primary consideration.

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, 2 March 2022
**KOMITE NASIONAL
KESELAMATAN TRANSPORTASI
CHAIRMAN**



SOERJANTO TJAHJONO

TABLE OF CONTENTS

TABLE OF CONTENTS	i
TABLE OF FIGURES	iii
ABBREVIATIONS AND DEFINITIONS	iv
SYNOPSIS	v
1 FACTUAL INFORMATION	1
1.1 History of the Flight.....	1
1.2 Injuries to Persons.....	2
1.3 Damage to Aircraft	2
1.4 Other Damage.....	2
1.5 Pilot Information.....	2
1.6 Aircraft Information.....	3
1.6.1 General	3
1.6.2 Engines	3
1.6.3 Main Rotors	4
1.6.4 Tail Rotors.....	4
1.7 Meteorological Information.....	4
1.8 Aids to Navigation.....	5
1.9 Communications	5
1.10 Aerodrome Information	5
1.11 Flight Recorders.....	5
1.12 Wreckage and Impact Information	6
1.13 Medical and Pathological Information	7
1.14 Fire.....	7
1.15 Survival Aspects	7
1.16 Tests and Research	8
1.17 Organizational and Management Information.....	8
1.18 Additional Information	9
1.19 Useful or Effective Investigation Techniques	9

2	FINDINGS.....	10
3	SAFETY ACTION	11
4	SAFETY RECOMMENDATIONS	12
5	APPENDICES.....	13
5.1	Hazard Identification & Risk Management Process.....	13

TABLE OF FIGURES

Figure 1: The satellite image of weather condition at the accident area	4
Figure 2: The Camp 99 Helipad.....	5
Figure 3: The aerial view of the helicopter.	6
Figure 4: The rest position of the helicopter.	6
Figure 5: The sign of burn on the near engine area.....	7

ABBREVIATIONS AND DEFINITIONS

AMSL	: Above Mean Sea Level
ATC	: Air Traffic Control
ATS	: Air Traffic Services
AOC	: Aircraft Operator Certificate
BMKG	: <i>Badan Meteorologi, Klimatologi, dan Geofisika</i> – The Agency of Meteorology, Climatology and Geophysics
BNPP	: <i>Badan Nasional Pencarian dan Pertolongan</i>
ELT	: Emergency Locator Transmitter
FOO	: Flight Operation Officer
GPS	: Global Positioning System
Kg	: Kilogram
Km	: Kilometer
KNKT	: Komite Nasional Keselamatan Transportasi
LUT	: Local User Terminal
LT	: Local Time
Nm	: Nautical mile
NOTAM	: Notice To Airmen
QSHES	: Quality, Safety Health, Environment & Security
UTC	: Universal Time Coordinated
VHF	: Very High Frequency

SYNOPSIS

On 30 December 2021, a helicopter Eurocopter AS 350 B3, registered PK-ODB, conducted an unscheduled flight from KM 7 Helipad, which was located on radial 190 about 4 Nm (on coordinate of 4° 55' 1.70" S; 139° 28' 10.41" E) from the Nop Goliath Airport, Dekai, Yahukimo, Papua to Tanah Merah Airport, Boven Digoel Regency, Papua, Indonesia.

The filed flight plan to Dekai, the helicopter was planned to fly from KM 7 Helipad to Camp 67 Helipad then to Camp 99 Helipad and to Tanah Merah and stop.

The Camp 67 Helipad located on radial 090 about 38 Nm from KM 7 Helipad (on coordinate of 4° 57' 6.11" S; 140° 6' 20.30" E) and the Camp 99 Helipad located about 1 Nm on radial 290 from the Camp 67 Helipad (on coordinate of 4° 56' 44" S; 140° 05' 18.7" E).

About 0630 UTC (1530 Local Time (LT)), the helicopter departed from KM 7 Helipad with the destination of Camp 67 Helipad. On board in this flight was one pilot, one engineer, one passenger and about 420 kg of cargo. About 5 Nm to the Camp 67, the pilot recognized that the area surround Camp 67 and Camp 99 were covered by the high dense clouds but the terrain was still visible.

About 1550 LT, the helicopter landed at Camp 67 Helipad. The passenger disembarked and some of the cargos were unloaded. Afterward the helicopter continued the flight to the Camp 99 Helipad. The pilot noticed that the weather was raining and the visibility around Camp 99 still good. The distance from Camp 67 Helipad to Camp 99 Helipad to was about 1 Nm.

A moment later, the helicopter landed at Camp 99 Helipad. The investigation received a video footage taken by the local people, showing that during the helicopter landing at the Camp 99 Helipad, the weather was heavy rain. The video footage showed that after the helicopter landed, without engine shutdown, the rest of the cargo unloaded from the helicopter. After unloading the cargo finished, two passengers embarked and no cargo loaded to the helicopter. The helicopter stayed about 2 minutes at Camp 99 Helipad before continued take off.

About 1600 LT, the helicopter departed from the Camp 99 Helipad in the heavy rain condition. During climb, the pilot observed that the weather was deteriorated and decided to turn right to land at Camp 67. Suddenly the pilot felt the helicopter sinking then impact.

On 1605 LT, the Tanah Merah Air Traffic Service (ATS) reported that the helicopter was lost contact.

The helicopter found by local people and the crash site was about 0.56 Nm (straight line) from the Camp 99 Helipad, on coordinate 4° 56' 48.60" S; 140° 5' 51.60" E, with the elevation of about 750 feet. All occupants were seriously injured.

The investigation is ongoing and in this preliminary investigation report, KNKT issued safety recommendation to the aircraft operator.

1 FACTUAL INFORMATION

1.1 History of the Flight

On 30 December 2021, a helicopter Eurocopter AS 350 B3, registered PK-ODB, conducted an unscheduled flight from KM 7 Helipad¹, which was located on radial 190 about 4 Nm from the Nop Goliath Airport, Dekai², Yahukimo, Papua Indonesia to Tanah Merah³ Airport, Boven Digoel Regency, Papua.

Refer to the filed flight plan to Dekai, the helicopter was planned to fly from KM 7 Helipad to Camp 67 Helipad⁴ then to Camp 99 Helipad⁵ and to Tanah Merah and stop.

The Camp 67 Helipad was located on radial 90 about 38 Nm from KM 7 Helipad and the Camp 99 Helipad is located about 1 Nm on radial 290 from the Camp 67 Helipad.

About 0630 UTC (1530 Local Time (LT)), the helicopter departed from KM 7 Helipad with the destination of Camp 67 Helipad. On board in this flight was one pilot, one engineer, one passenger and about 420 kg of cargo.

About 5 Nm to the Camp 67, the pilot recognized that the area surround Camp 67 and Camp 99 were covered by the high dense clouds but the terrain was still visible.

About 1550 LT, the helicopter landed at Camp 67 Helipad. The passenger disembarked and some of the cargos were unloaded. Afterward the helicopter continued the flight to the Camp 99 Helipad. The pilot noticed that the weather was raining and the visibility around Camp 99 still good.

A moment later, the helicopter landed at Camp 99 Helipad. The investigation received a video footage taken by the local people, showing that during the helicopter landing at the Camp 99 Helipad, the weather was heavy rain. The video footage showed that after the helicopter landed, without engine shutdown, the rest of the cargo was unloaded from the helicopter. After unloading the cargo finished, two passengers embarked and no cargo loaded to the helicopter. The helicopter stayed about 2 minutes at Camp 99 Helipad before continued take off.

About 1600 LT, the helicopter departed from the Camp 99 Helipad in the heavy rain condition. During climb, the pilot observed that the weather was deteriorated and decided to turn right to land at Camp 67. Suddenly the pilot felt the helicopter sinking then impact. On 1605 LT, the Tanah Merah Air Traffic Service (ATS) reported the helicopter was lost contact.

1 The Kilometer 7 (KM 7) Helipad is located on the radial 190 about 4 Nm from Dekai will be named as KM 7 Helipad for the purpose of this report. The coordinate of KM 7 Helipad is 4° 55' 1.70" S; 139° 28' 10.41" E.

2 The Nop Goliath Airport, Dekai, Yahukimo, Papua Indonesia will be named as Dekai for the purpose of this report.

3 The Tanah Merah Airport, Boven Digoel Regency, Papua, Indonesia will be named as Tanah Merah for the purpose of this report.

4 The Camp 67 Helipad is located on radial 90 about 38 Nm from KM 7 Helipad will be named as Camp 67 Helipad for the purpose of this report. The coordinate Camp 67 Helipad is 4° 57' 6.11" S; 140° 6' 20.30" E on the elevation of about 700 feet Above Mean Sea Level (AMSL).

5 The Camp 99 Helipad located on radial 290 about 1 Nm from Camp 67 Helipad will be named as Camp 99 Helipad for the purpose of this report. The coordinate Camp 99 is 4° 56' 44" S; 140° 05' 18.7" E with the elevation of about 650 feet AMSL.

1.2 Injuries to Persons

Injuries	Flight crew	Passengers	Total in Aircraft	Others
Fatal	-	-	-	-
Serious	1	3	4	-
Minor	-	-	-	-
None	-	-	-	-
TOTAL	1	3	4	-

All persons on board were Indonesian.

1.3 Damage to Aircraft

The aircraft was substantially damaged.

1.4 Other Damage

There was no other damage to property and/or the environment.

1.5 Pilot Information

Gender : Male
Age : 42
Nationality : Indonesia
Marital status : Married
Date of joining company : 15 April 2021 (the pilot was employed by Dimonim Air and fly under the joint operation agreement with PT Airfast Indonesia)
License : CPL/H
Date of issue : 10 November 2008
Aircraft type rating : AS 350, BO-105
Medical certificate : First Class
Last of medical : 15 July 2021
Validity : 15 January 2022
Medical limitation : holder shall wear corrective lenses
Last line check : 15 April 2021
Last proficiency check : 14 April 2021

Flying experience

Total hours : 3,199 hours
Total on type : 2,102 hours
Last 90 days : TBA
Last 30 days : 24 hours 42 minutes

Last 7 days : 15 hours 48 minutes
Last 24 hours : 3.7 hours
This flight : 3.7 hours

1.6 Aircraft Information

1.6.1 General

Registration Mark : PK-ODB
Manufacturer : Airbus Helicopter
Country of Manufacturer : France
Type/Model : AS 350 B3
Serial Number : 4595
Year of Manufacture : 2008
Certificate of Airworthiness
Issued : 9 February 2021
Validity : 8 February 2022
Category : Normal
Limitations : None
Certificate of Registration
Number : 2865
Issued : 10 February 2021
Validity : 9 February 2024
Time Since New : 4210.3 hours
Cycles Since New : 12478 cycles
Last Major Check : 144 months inspection (5 February 2021)
Last Minor Check : 150 hours/3 months inspection (22 December 2021)

1.6.2 Engines

Manufacturer : Turbomeca/Safran
Type/Model : Arriel 2B1
Serial Number-1 engine : 46204
▪ Time Since New : 3431.1 hours
▪ Cycles Since New : 5874.5 cycles

1.6.3 Main Rotors

Manufacturer	: Eurocopter
Type/Model	: 355A
Main Rotor-1	: 48021
▪ Time Since New	: 371.0 hours
Main Rotor-2	: 48062
▪ Time Since New	: 360.5 hours
Main Rotor-3	: 48074
▪ Time Since New	: 370.5 hours

1.6.4 Tail Rotors

Manufacturer	: Eurocopter
Type/Model	: 355A
Tail Rotor	: 24582
Time Since New	: 359.9 hours

1.7 Meteorological Information

The weather report for Papua area as reported by *Badan Meterologi, Klimatologi, dan Geofisika* (BMKG – the Agency of Meteorology, Climatology and Geophysics of Indonesia), on 30 December 2021 at 0700 UTC (30 December 2021 at 1600 LT), showed the high-density clouds at the accident area as shown in the figure below:

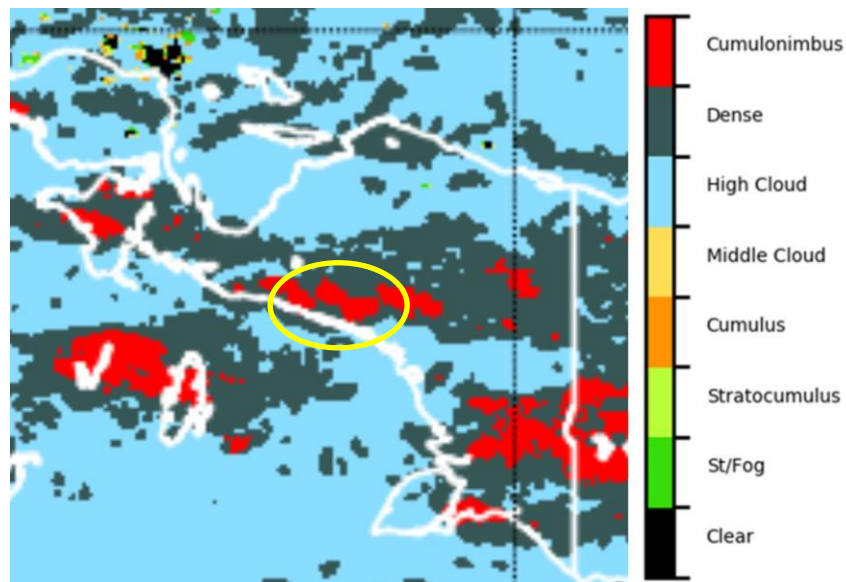


Figure 1: The satellite image of weather condition at the accident area

There was no weather observation in the Camp 99 Helipad. The aircraft operator utilized local personnel in the Camp 99 Helipad to report the weather condition in the vicinity of the Camp 99 Helipad.

About 1500 LT, during the flight preparation in KM 7 Helipad, the pilot received the weather information of Kampung Kawe from the charter agent/owner of the cargo which stated that the weather of the Kampung Kawe was good. The Kampung Kawe is located on radial 140 about 4 Nm from the Camp 99 Helipad.

The video footage taken by the local people at Camp 99 Helipad, showed that during the helicopter landing at the Camp 99 Helipad, the weather was heavy rain.

1.8 Aids to Navigation

There was no available navigation aid or the chart for the Camp 99 helipad. The operator utilized a handheld Global Positioning System (GPS) as a navigational support.

1.9 Communications

The aircraft was equipped with Very High Frequency (VHF) radio communication systems. The pilot used the VHF radios for routine communication with Air Traffic Control (ATC).

There was no communication system available in the Camp 99 Helipad for the purposes of traffic communication. After departure Camp 99 Helipad, the pilot had not made radio communication.

1.10 Aerodrome Information

The Camp 99 Helipad located on the coordinate of 4° 56' 44" S; 140° 05' 18.7" E. The helipad was not a registered helipad and situated on a limited space with the dimension of about 5 × 5 meters. The Camp 99 Helipad is shown in the figure below.



Figure 2: The Camp 99 Helipad

1.11 Flight Recorders

The aircraft was not fitted with a flight data recorder nor cockpit voice recorder. Neither recorder was required by current Indonesian aviation regulations.

1.12 Wreckage and Impact Information

The location of the crash site was about 0.56 Nm (straight line) from the Camp 99 Helipad, on coordinate 4° 56' 48.60" S; 140° 5' 51.60" E, with the elevation of about 750 feet. The aerial view of the helicopter is shown in the below.



Figure 3: The aerial view of the helicopter.

The helicopter rest in upright position with the cockpit roof was collapse as shown in the figure below.



Figure 4: The rest position of the helicopter.

The detail wreckage and impact information will be described in the Final Report.

1.13 Medical and Pathological Information

The medical examination to the occupants stated as follows:

1. The pilot experienced trauma in the head and suffered backache.
2. The engineer experienced laceration on the left forehead.
3. All passengers had some laceration on the body. One of the passengers had fracture on the left shoulder while the other passenger experience backache.

1.14 Fire

The sign of burn at the engine cowling area was found as shown in the figure below.



Figure 5: The sign of burn on the near engine area

This evidence confirmed as reported by the witnesses that during the evacuation of the occupants, they saw a fire on top of the helicopter. The fire was self-extinguished during the heavy rain.

1.15 Survival Aspects

After the helicopter was reported lost contact on 1605 LT, the Indonesia Search and Rescue Agency (*Badan Nasional Pencarian dan Pertolongan/BNPP*) at Tanah Merah assembled the rescue team.

The distress signal of Emergency Locator Transmitter (ELT) 406 of the helicopter was confirmed by the Local User Terminal (LUT) of Indonesia Search and Rescue Agency head quarter in Jakarta.

According to the two witnesses who lived near the crash site, they heard the sound of helicopter flying and curious of the sound of helicopters flew above them but then the sound disappeared. According to the witnesses, it was not common that the

helicopters flew on that track. One witness stated that when the helicopter sound was dissipating, at the same time there was a thunder so it could not be sure whether the helicopter had flown over or crashed. When the rain subsides, one of the witnesses heard a sound like a helicopter engine but then the sound was covered by the rain which became heavier. A moment later when the rain subsides, the sound emerged and they smell burning wire.

The witnesses decided to check the source of the sound by following the smell of burning wire. When they reached on top of a hill the smell became stronger. Shortly after, they saw smoke and approached it then they recognized that the smoke was coming from the exhaust area of the helicopter which then extinguished by the rain.

The witnesses met with two helicopter occupants near by the helicopter and the occupants stated that the pilot was still in the cockpit and one passenger was missing.

The witnesses recovered and evacuated the pilot. One of the witnesses moved all three occupants to an area below the accident site and made a temporary camp while the other witnesses went to the Camp 99 Helipad to inform the accident and ask for assistant.

While proceeding to the accident site, the witness and the local people from Camp 99 Helipad recovered one of the passengers on the top of a hill about 30 meters from the crash site.

All occupants evacuated to the Camp 99 and stayed overnight.

On 31 December 2021, using a helicopter, the evacuation team arrived at the Camp 99 Helipad and all of the occupants were rescued to the hospital in Tanah Merah.

1.16 Tests and Research

Any test and research information will be included in the final report.

1.17 Organizational and Management Information

Aircraft Owner	: PT Airfast Indonesia
Aircraft Operator	: PT Airfast Indonesia
Address	Jl. Marsekal Suryadarma No. 8 RT 004 / RW 007, Kelurahan Neglasari, Kecamatan Neglasari, Tangerang - Banten 12730 Indonesia.
Operator Certificate	: AOC 121-035 valid until 10 June 2022

The aircraft operator operates two Boeing MD82, three Boeing MD83, two MIL17 helicopters, two AS 350 B3 helicopter (including the accident helicopter), two Bell 412 helicopters, three DHC-300, four DHC-400 and two Embraer 145.

The weather minima for helicopter operation were stipulated in the company procedure of Airfast Herchu Contract SOP AS350-B3 PK-ODB Operations Tanah Merah⁶ in chapter 2.14.17 as follow:

⁶ Airfast Herchu Contract SOP AS350-B3 PK-ODB Operations Tanah Merah is a contract Standard Operating Procedure (SOP) in the agreement between PT Airfast Indonesia with PT Herchu Air Transport. The purpose of the SOP is to ensure all operations of the helicopter in the specified area are conducted in safely and efficiently by highlighting special operationg conditions imposed by PT Airfast Indonesia or by PT Herchu Air Transport.

2.4.17 Weather Minimum

The Pilot in Command is the final authority regarding weather minimums and flying. The PIC shall consider terrain, availability of landing areas, and current weather patterns when making his decision. The following information is intended as guidelines to help the pilot make those decisions.

- *Minimums: 1/2 nautical mile (1 km) visibility and clear of clouds.*
- *In mountainous areas the pilot must not allow himself to become trapped in a valley without a place to land in the event the weather deteriorates. This may mean departing an area in good weather when the ridge lines close in.*

NOTE: The importance of pre-planning a flight and having known a safe landing area available which are achievable, particular with possible deteriorating weather conditions is essential.

1.18 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 the issues to the attention of the relevant parties and publish as required.

1.19 Useful or Effective Investigation Techniques

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

2 FINDINGS

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.

According to factual information during the investigation, the KNKT identified initial findings as follows:

1. The pilot held valid license and medical certificate.
2. The helicopter held the valid Certificate of Airworthiness and Certificate of Registration.
3. There was no aircraft system abnormality reported prior the occurrence.
4. During the flight preparation, the pilot received the weather information from the charter agent/owner of the cargo that at Kampung Kawe, which located 4 Nm from the Camp 99 Helipad, the weather was good. The video footage showed the weather condition during landing and takeoff at Camp 99 Helipad was raining.
5. During climb, the pilot observed that the weather was deteriorated and intended to divert to Camp 67 when suddenly the pilot felt the helicopter sinking then impact.

3 SAFETY ACTION

At the time of issuing this report, the Komite Nasional Keselamatan Transportasi (KNKT) had been informed of safety actions resulting from this occurrence by PT Airfast Indonesia as follow.

1. Rotary Chief Pilot issued notice on 5 January 2022 to all pilots in regards to weather and precautions to raise awareness flying over hilly or mountainous terrain.
2. Assemble internal investigation team and perform hazard identification & risk assessment that lead by QSHES (Quality, Safety Health, Environment & Security) Department.
3. Issued safety recommendations based on information revealed during Internal Investigation Report no. AFI/008/12/2021 dated 28 January 2022, as follows:
 - a. Operations Dept. to provide pilots with comprehensive weather at remote/isolated area and to remind all pilots, that when the weather is below minima, to reschedule the flight until the weather permits.
 - b. Operations Dept. to consider utilizing an FOO/ Operations Control functions in remote or isolated area to support and provide the Pilot in Command, but are not limited to the necessary information for the safe conduct of the flight (such as weather, NOTAMs, current satellite weather image etc.).
 - c. Operations Dept. to review and update the Operations Manual Vol.2G AS350 B3 and Training Program, covering Adverse Weather Operations and train the pilot in simulator to exercise Non-normal Procedure and maneuver which cannot be safely performed on aircraft during training such as wind shear recognition and recovery technique.
 - d. Operations Dept. to rehearse the pilots' skill in analyzing and recognizing weather phenomena over hilly or mountainous terrain, cloud types, decision making, threat and error management during pilot recurrent training 2022.

The detail of Hazard Safety Recommendations could be found in appendixes of this report.

4 SAFETY RECOMMENDATIONS

The Komite Nasional Keselamatan Transportasi (KNKT) acknowledged the safety actions taken by PT Airfast Indonesia and considered that the safety actions were relevant to improve safety, therefore KNKT did not issue safety recommendation.

5 APPENDICES

5.1 Hazard Identification & Risk Management Process



HAZARD IDENTIFICATION & RISK MANAGEMENT PROCESS

Type of Operation or Activity: PK-ODB Accident during Inadvertent Heavy Rain Encounter at Kali Silet Area, 30 December 2021

Reference Number: RA 130 / 2022

Revision: Initial

Review Team:

Review Date: 16 February 2022

Background: Recent accident involving AIRFAST helicopter type AS350 B3 registration PK-ODB AIRFAST on charter flight on 30 December 2021. The helicopter PK-ODB departed Dekai at time 15.33 LT to Tanah Merah with transit at Helipad 67 and Helipad 99 in Kali Silet area to deliver cargo and picked up joining passengers. Based on information revealed during Internal Investigation Report of PK-ODB accident No. AF1/008/12/2021 and CASR 19.67 Occurrence Analysis and Follow-up, we identified safety hazard must to be mitigated as follow:

Ref Num	Risk Category (associated with)	Hazard (what can cause harm)	Risk (result in)	Existing Defenses	Risk Index	Mitigating Action to Reduce Risk	Adjusted Risk Index	Actions	Target Completion Date
RA 130 / 1	Asset, People, Operation, Reputation	Loss of control when helicopter encountered adverse weather. The photos evidence and victims' back injuries indicated the helicopter experienced vertical impact which may have been caused by the aircraft encountered adverse weather (windshear)	- The helicopter destroyed - Serious injuries or fatalities - Impacted to bad image of company reputation	a. Operation Manual (OM) Vol.1 Chapter 25.2.2 - Basic VFR Weather Minimums. b. OM Vol.1 Part 14 - Adverse Weather Avoidance c. OM Vol.1 Part 18 - All Weather Operations d. OM Vol 4 Chapter 5.1.3 Training Category & Interval Time Required which cover Windshear, ALAR/CFIT training e. OM Vol.4 Chapter 5.14 AS350 Series Training Syllabus	5C / 15	a. To remind all pilot to enhance safety practices, recognizing weather phenomena over hilly or mountainous terrain. When the weather is below minima, to reschedule/postpone the flight until the weather permits. b. To review and update Pilot AS350 B3 Training Program OM Vol.4 Chapter 5.5.14, covering Adverse Weather Curriculum/ Syllabus and CRM Aeronautical Decision making c. To review and update the Operations Manual Vol.2G AS350 B3 covering Adverse Weather Operations d. To train the pilot in simulator/ FSTD to exercise Non-normal Procedure and maneuver which cannot be safely performed on aircraft during training such as windshear recognition and recovery technique e. To emphasize flight crew to practice/implement effective Threat and Error Management (TEM) and Decision Making Process during pilot recurrent training	4D / 8	a. Chief Pilot R/W issued notice to all pilots in regards to weather and precautions to raise awareness flying over hilly or mountainous terrain. b. Review and update the OM Vol.4 and distribute the updated manual to all distribution list c. Review and update the OM Vol. 2G AS350 and the updated manual to all distribution list d. Schedule all AS350 B3 pilot to training in Simulator/FSTD in regard to windshear recognition and recovery technique e. Include Threat and Error Management (TEM) and Decision Making Process in Training Syllabus and practice it during recurrent Training.	a. Done b. 16 April 2022 c. 16 April 2022 d. 16 May 2022 e. 16 May 2022

Document Sponsor:
QSHES Manager

Document Controller:
QSHES Department

Form ASD-F-04 Rev 0
RA 130 / 2022, Page 1 of 4

AIRFAST Indonesia

Ref Num	Risk Category (associated with)	Hazard (what can cause harm)	Risk (result in)	Existing Defenses	Risk Index	Mitigating Action to Reduce Risk	Adjusted Risk Index	Actions	Target Completion Date
RA 130 / 2	Remote/isolate area Operations	<ul style="list-style-type: none"> - Insufficient resources (equipment, facility, data connectivity) to obtain update and/or forecast Wx (weather) information in timely manner. - Inaccurate weather analysis and/or misjudge the predictive Wx & transit point (Helipad 67 & 99) - Increasing crews workload due to Pilot Self Dispatch 	<ul style="list-style-type: none"> - The aircraft encountered weather (windshear) along the valley/gap with hovering dark clouds along the route to Helipad 67. - Jeopardize to aircraft operations 	<ul style="list-style-type: none"> a. Operations Manual Vol. 1 Chapter 3.1.3.1 and 3.1.3.2. which describes the role of FOO/ Operations Control to support and providing the Pilot in Command, but are not limited to the necessary information for the safe conduct of the flight (such as weather, NOTAMs, current satellite weather image etc) b. OM Vol.1 Chapter 3.1.6.3 point Communications Infrastructure 	4C / 12	<ul style="list-style-type: none"> a. To review and update OM Vol.1 Chpt.2.3.17 Prepare data and information required by the regulation to dispatch aircraft which include but not limited to weather report and forecast, notice to airman, and flight planning which include operations at remote/isolated area b. To provide pilots with comprehensive weather at remote/isolated area c. To emphasize flight crew to increase vigilance, environment awareness and to ensure the satellite communication equipment is serviceable before flying to remote/isolate area d. To rehearse the pilot's skill in analyzing and recognizing weather phenomena over hilly or mountainous terrain, and cloud types during pilot recurrent training 	3D / 6	<ul style="list-style-type: none"> a. Review and update OM Vol.1 and distribute the updated manual to all distribution list b. Comprehensive weather report is provided for operation in remote/isolated area c. Issue notice to all pilot regarding to increasing vigilance and environment awareness d. Practice and train pilot skill in phenomena over hilly or mountainous terrain, and cloud types in recurrent training 	<ul style="list-style-type: none"> a. 16 April 2022 b. 16 April 2022 c. 2 March 2022 d. 16 May 2022
RA 130 / 3	Operation	Insufficient procedure regarding the use of contracted flight crew from other company	-Reduce safety margin in operation	<ul style="list-style-type: none"> a. OM Vol. 1 Chapter 5.1.2(H) Minimum Pilot Qualification and Flight Experience – Single-engine helicopters under 5,700 kg MCTOW b. OM Vol. 1 Chapter 4.3.2.2 Initial and Recurrent Pilot Testing Requirements – Proficiency (Flight) Checks 	3C / 9	<ul style="list-style-type: none"> a. To define control & monitoring when utilizing contract pilot from different company to ensure qualification training, flight and duty time are tracked as per Airfast standard, as well as avoiding intermixing Airfast operations with other activities. b. Operation dept. should define the assessment process, in a controlled document such as OM Vol.1, to ensure contract employee candidates, prior to being employed/ contracted as flight crew members, are screened for the purpose of determining if they possess the requisite certifications, skills, competencies and other attributes required by AIRFAST Indonesia and/or State. 	3E / 3	<ul style="list-style-type: none"> a. Create and add control and monitoring procedure for contracted pilot from different company in OM Vol.1 b. OM Vol.1 will add assessment process provision in regard to contracted pilot from different company 	<ul style="list-style-type: none"> a. 16 April 2022 b. 16 April 2022

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