

**FINAL**  
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# NATIONAL TRANSPORTATION SAFETY COMMITTEE

Aircraft Serious Incident Investigation Report

**Sinar Mas Super Air  
Thrush 34T; PK - PNO  
Ujung Tanjung Airstrip, Riau  
Republic of Indonesia  
11 September 2012**



NATIONAL TRANSPORTATION SAFETY COMMITTEE  
MINISTRY OF TRANSPORTATION  
REPUBLIC OF INDONESIA  
2014



This Final Report was produced by the National Transportation Safety Committee (NTSC), 3<sup>rd</sup> Floor Ministry of Transportation, Jalan Medan Merdeka Timur No. 5 Jakarta 10110, Indonesia.

The report is based upon the investigation carried out by the NTSC 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).

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## ABBREVIATIONS AND DEFINITIONS

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AMSL	:	Above Mean Sea Level
AOM	:	Aircraft Operation Manual
CASR	:	Civil Aviation Safety Regulation
DGCA	:	Directorate General Civil Aviation
ICAO	:	International Civil Aviation Organization
IIC	:	Investigator in Charge
ITCZ	:	Inter Tropical Convergence Zone
Km	:	Kilometer(s)
KNKT / NTSC	:	<i>Komite Nasional Keselamatan Transportasi</i> / National Transportation Safety Committee
Kts	:	Knot (s)
LT	:	Local Time
NM	:	Nautical mile(s)
SCT	:	Scattered
UTC	:	Universal Time Coordinate
VFR	:	Visual Flight Rule
VOR	:	Very high frequency Omnidirectional Range
WIB	:	<i>Waktu Indonesia Barat</i> / Western Indonesian Standard Time

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## INTRODUCTION

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### SYNOPSIS

On 12 September 2012 a thrush T34, registration PK – PNO operated by PT. Sinar Mas Super Air for an agriculture operation departed from Ujung tanjung Airstrip to Nagamas Airstrip the aircraft airborne at 0005 UTC (0705 LT) the weather information on destination was a bit haze.

During flight to Nagamas Airstrip the weather was low cloud along the route. When the aircraft overhead Nagamas Airstrip, the runway was not in sight then the pilot decided to return to Ujung Tanjung Airstrip. Upon overhead Ujung Tanjung Airstrip the Pilot observed wind condition from the wind shock approximately 7 knots up to 10 knots from the South East, and He also observed there were motorcycles moving on the runway edge. As such condition categorized as normal operation he decided to land.

During landing the aircraft experiences a hard landing and bounced, thereafter during rolling the aircraft veered off to the left and stopped on the ditch at approximately 21 meters left of the runway edge beneath the palm trees with the tail upside.

The right landing gear was sifted up and rearward, the propeller blades bent rearward and the outer upper right wing was heavy dent.

The pilot certified and qualified according to Indonesia current regulation.

The aircraft were certified and airworthy according to Indonesia current regulation.

The runway surface of Ujung Tanjung airstrip was grass and slippery when wet, at about half of the runway there was a free access crossing road had a joggle that more than five centimeters, there was also free access road along the runway edge.

The investigation could not find the hazard identification and risk assessment that mandated in the Sinar Mas Super Air AOM. There was no person injured in this occurrence.

At about a half of the runway there was an access crossing road that had the grass missed and slippery when wet.

The aircraft had experienced hard landing and veered to the left hit the ditch, the right main landing gear was collapsed, the propeller blades was bent and the engine flange C was wrinkle.

The investigation concluded the contributing factors as follows:

- The pilot departed without proper weather information and it sources, the weather en-route was low cloud.
- The pilot workload was increase due to fly in marginal weather combined with potential hazard near the runway.



At the time of issuing this final investigation report, the National Transportation Safety Committee had not been informed of any safety actions resulting from this occurrence.

According to factual information, findings and the contributing factors in this final report, the NTSC has issued several safety recommendations to the PT. Sinar Mas, Directorate General of Civil Aviation, to address the safety issues identified in this final report.



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# 1 FACTUAL INFORMATION

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On 12 September 2012 a thrush T34, registration PK-PNO operated by PT. Sinar Mas Super Air for an agriculture operation departed from Ujung tanjung Airstrip to Nagamas Airstrip the aircraft airborne at 0005 UTC<sup>1</sup> (0705 LT) the weather information on destination was a bit haze.

During flight to Nagamas Airstrip the weather was low cloud along the route. When the aircraft overhead Nagamas Airstrip, the runway was not in sight then the pilot decided to return to Ujung Tanjung Airstrip. Upon overhead Ujung Tanjung Airstrip the Pilot observed wind condition from the wind shock approximately 7 knots up to 10 knots from the South East, and He also observed there were motorcycles moving on the runway edge. As such condition categorized as normal operation he decided to land.

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The runway surface of Ujung Tanjung airstrip was grass and slippery when wet, at about half of the runway there was a free access crossing road had a joggle that more than five centimeters, there was also free access road along the runway edge.

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There was no person injured in this occurrence.

At about a half of the runway there was an access crossing road that had the grass missed and slippery when wet.

The aircraft had experienced hard landing and veered to the left hit the ditch, the right main landing gear was collapsed, the propeller blades was bent and the engine flange C was wrinkle.

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<sup>1</sup> The 24-hours clock in Universal Time Coordinated (UTC) is used in this report to describe the local time as specific events occurred. Local time is UTC+7 hours.

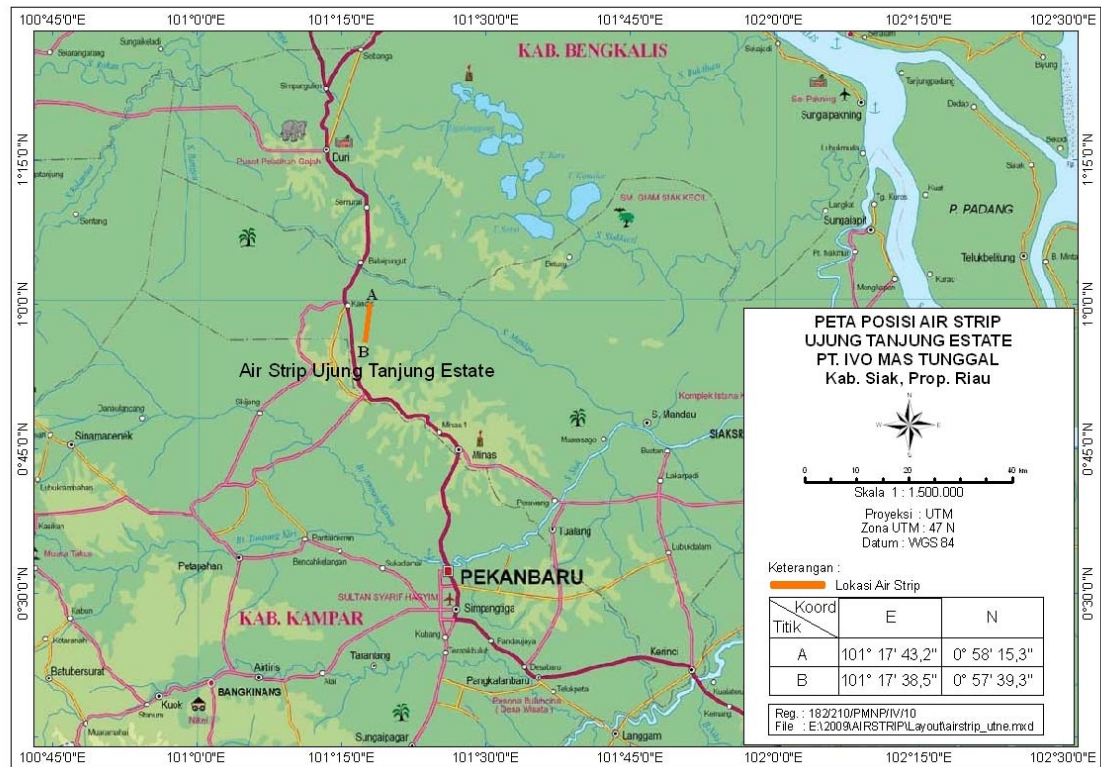


Chart courtesy of PT. Ivo Mas Tunggal

Figure 1. Ujung Tanjung Airstrip location

## Organizational and Management Information

Aircraft Owner : Golden Airlines Limited, Hongkong  
Aircraft Operator : PT. Sinar Mas Super Air  
Address : Plaza Bii, Menara 2, Lt.30.  
Jl. MH. Thamrin, Jakarta  
Operator Certificate Number : AOC 137/001

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## **2 ANALYSIS**

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The analysis part of this Report will discuss the relevant issues resulting in the hard landing and aircraft veered off the runway on 11 September 2012 at Ujung Tanjung Airstrip. The investigation determined that there were no issues with the aircraft and all systems were operating normally. The analysis will therefore focus on the following issues:

- Weather phenomenon.
- Return to Ujung Tanjung Airstrip.

### **2.1 Weather Phenomenon**

The aircraft departed from Ujung Tanjung Airstrip to Nagamas Airstrip at 0005 UTC and the weather reported was hazy and also the pilot reported that the en-route weather was low cloudy.

It noted that as annual weather phenomenon for Sumatera in September known that the Inter Tropical Convergence Zone (ITCZ) will arriving at most areas on North and Center of Sumatera island, it generates the wet air mass and causing clouds formation and might be rain in some areas especially in the morning hours and normally will have better ceiling following the sun rising to afternoon hours.

The flight time between Ujung Tanjung to Naga Mas was 10 minutes; hence the weather might similar amongst these areas and adding some difficulties to fly in VFR (Visual Flight Rule), it was consistent with what have been reported by the pilot.

### **2.2 Return to Ujung Tanjung Airstrip.**

The flight time between Ujung Tanjung to Nagamas was 10 minutes; hence the weather might similar amongst these areas, it was consistent with what have been reported by the pilot, that while returning to base as well as over head the Ujung Tanjung airstrip the cloud was low and some vehicles were also shown along the airstrip shoulder.

Examined of “stress influence” it most likely that these particulars weather condition and vehicles movement along the airstrip shoulder might impacted the pilot performance judgment in approach and landing.

In some cases, when flying in a marginal weather, it known that more pilot hours and higher qualification better in stress and flight management.

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## 3 CONCLUSIONS

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### 3.1 Findings

- a. Aircraft departed at 0005 UTC (0705 LT) the weather information on destination was hazy.
- b. During flight to Nagamas Airstrip the weather was low cloud along the route.
- c. When the aircraft overhead Nagamas Airstrip, the runway was not in sight then the pilot decided to return to Ujung Tanjung Airstrip.
- d. There were motorcycles moving on the runway edge. As such condition categorized as normal operation he decided to land.
- e. During landing the aircraft experiences a hard landing and bounced, thereafter during rolling the aircraft veered off to the left
- f. The right landing gear was collapse.
- g. The pilot certified and qualified according to Indonesia current regulation.
- h. The aircraft were certified and airworthy according to Indonesia current regulation.
- i. The runway surface of Ujung Tanjung airstrip was grass and slippery when wet.
- j. The hazard identification and risk assessment none conformance to the the Sinar Mas Super Air AOM.
- k. There was no person injured in this occurrence.
- l. The annual weather phenomenon for Sumatera in September known that the Inter Tropical Convergence Zone (ITCZ) generates the wet air mass and causing clouds formation and might be rain in some areas especially in the morning hours and normally will have better ceiling following the sun rising to afternoon hours.
- m. The low cloud weather might similar amongst these areas increased the difficulties to fly in VFR (Visual Flight Rule), it was consistent with what have been reported by the pilot.
- n. The VFR flight in low cloud increased the difficulties.
- o. The motorcycles were shown along the airstrip shoulder.

### **3.2 Contributing Factors<sup>2</sup>**

- The pilot departed without proper weather information and it's source, the weather en-route was low cloud
- The pilot workload increased due to fly in marginal weather combined with potential hazard near the runway.

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<sup>2</sup> “Contributing factors” is an event or condition that, if it occurred in the future, would increase the likelihood of an occurrence and/ or severity of the adverse consequences associated with an occurrence.

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## **4 SAFETY ACTION**

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At the time of issuing this final investigation report, the National Transportation Safety Committee (NTSC) had not been informed of any safety actions resulting from this occurrence.



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## **5 SAFETY RECOMMENDATIONS**

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Base on the examination of the data and the findings that contributed to the accident such as;

- The pilot departed without proper weather information and it's source.
- The weather en-route was low cloud
- The pilot workload was increase due to fly in marginal weather combined with potential hazard near the runway.

The other findings that have potential hazards found during the investigation were the implementation of Hazard and risk assessment therefore; National Transportation Safety Committee (NTSC) issued several safety recommendations addressed to:

### **5.1 PT Sinar Mas Super Air**

1. The pilot departed without proper weather information and it sources even though the agricultural operation the requirement weather for VFR flight should comply with and from the correct resources.
2. The operation management should emphasize the hazard and risk to include the marginal condition such as: weather, qualification level of pilot, manouring area etc.

### **5.2 Directorate General Civil Aviation (DGCA)**

Consider that PT Sinar Mas was the first holder AOC 137/001 as such that DGCA to make sure that the aforesaid recommendations are well implemented.