

AA2019-2

**AIRCRAFT ACCIDENT
INVESTIGATION REPORT**

**OKAYAMA AIR SERVICE CO., LTD.
JA10AZ**

March 28, 2019

The objective of the investigation conducted by the Japan Transport Safety Board in accordance with the Act for Establishment of the Japan Transport Safety Board and with Annex 13 to the Convention on International Civil Aviation is to determine the causes of an accident and damage incidental to such an accident, thereby preventing future accidents and reducing damage. It is not the purpose of the investigation to apportion blame or liability.

Kazuhiro Nakahashi

Chairman

Japan Transport Safety Board

Note:

This report is a translation of the Japanese original investigation report. The text in Japanese shall prevail in the interpretation of the report.

AIRCRAFT ACCIDENT INVESTIGATION REPORT

AIRCRAFT DAMAGE CAUSED BY BIRD STRIKE NEAR KOHNAN AERODROME, OKAYAMA CITY, OKAYAMA PREFECTURE, JAPAN AT AROUND 11:33 JST, JULY 25, 2018

OKAYAMA AIR SERVICE CO., LTD.
CESSNA 172R, JA10AZ

February 22, 2019

Adopted by the Japan Transport Safety Board

Chairman	Kazuhiro Nakahashi
Member	Toru Miyashita
Member	Toshiyuki Ishikawa
Member	Yuichi Marui
Member	Keiji Tanaka
Member	Miwa Nakanishi

1. PROCESS AND PROGRESS OF THE INVESTIGATION

Summary of the Accident	<p>On Wednesday, July 25, 2018, the aircraft collided with a bird during approach to Kohnan Aerodrome (hereinafter referred to as “the Aerodrome”) to conduct training, and sustained damage to the aircraft.</p> <p>The three persons in total consisting of a pilot-in-command (PIC) and two student pilots were on board, but there were no casualties.</p>
Outline of the Serious Accident Investigation	<p>The Japan Transport Safety Board (JTSB) designated an investigator-in-charge and an investigator on August 10, 2018 to investigate this accident.</p> <p>Comments were invited from parties relevant to the cause of the accident and the Relevant State.</p>

2. FACTUAL INFORMATION

Aircraft Information	
Aircraft type:	Cessna 172R
Serial number: 17281142;	Date of manufacture: December 16, 2002
Certificate of airworthiness: No. DAI-2017-731;	Validity: March 7, 2019
Personnel Information	
PIC:	Male, Age 35
Commercial pilot certificate (Aircraft)	January 16, 2006
Specific pilot competence certificate	

	Expiration date of piloting capable period: December 13, 2019
Type rating for single- engine (land)	July 6, 2012
Class 1 aviation medical certificate	Validity: May 19, 2019
Flight instructor certificate(Aircraft)	November 14, 2012
Student pilot A:	Male, Age 19
Private pilot certificate (Aircraft)	March 30, 2017
Specific pilot competence certificate	
	Expiration date of piloting capable period: May 24, 2019
Type rating for single- engine (land)	May 24, 2017
Class 2 aviation medical certificate	Validity: August 9, 2022

Meteorological Information

The aviation routine weather report at 11 : 00 at the Aerodrome on the day of the accident was as follows:

Wind direction 170°; Wind velocity 4 kt; Wind direction variable; 130 ° to 220 °;

Visibility 15 km

Cloud Amount 1/8 or less; Type Cumulus; Cloud base 3,500 ft

Amount 5/8; Type and Cloud base Unknown

Temperature 32°C; Dew point 22°C, Altimeter setting (QNH) 29.76 inHg

Details of the Accident and Related Information

(1) History of the Flight

The aircraft took off from the Aerodrome to conduct training with the PIC as a flight instructor in the right pilot seat and the student pilot A, who was flying the aircraft, in the left pilot seat. In the traffic pattern at the Aerodrome, reducing power to conduct power-off accuracy approach*¹ training, the aircraft was making a right turn from the downwind leg to final approach to Runway 09, when suddenly a bird emerged from the left below in the travel direction of the aircraft and collided with the leading edge of the right wing. At that time, the aircraft was flying at an airspeed of 60 to 65 kt and at an altitude of about 450 ft.

Suspending the training, the PIC controlled the aircraft and landed at the Aerodrome. As a result of the aircraft examination at the parking spot, a dent was confirmed on the leading edge of the right wing.

During flight, there were no abnormalities in the aircraft such as control system and engine system, also in the accident examination there were no failures confirmed other than the damage to the leading edge of the right wing.

(2) Damage to the aircraft

Extent of damage: Substantially damaged

- Deformation on leading edge of the right wing
(Deformation of about 20 cm in longitudinal direction and about 35 cm in width about 1.3 cm in depth)



Figure 1: Accident Aircraft and Damaged Area



Figure 2: Damaged Area (Enlarged photo)

(3) Information on the bird

The bird colliding with the aircraft remained stuck on the leading edge of the right wing even after the collision and fell off onto the runway after the aircraft landed. Upon receipt of the report, the Aerodrome administrator recovered the body of the brown Milvus migrans (length about 30 cm).

According to the Aerodrome administrator, there was no bird observed when they conducted the runway inspections including bird patrols and others before the Aerodrome operating time.

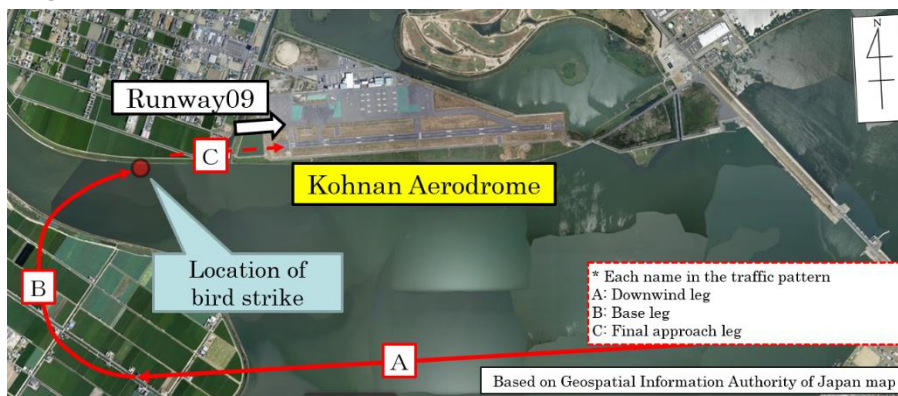


Figure 3: Estimated Flight Route (according to the statement of the PIC)

*1"Power-off accuracy approach" stands for an approach and landing made from a downwind leg by gliding while maneuvering the aircraft with the engine idling in the vicinity of abeam to the desired touchdown point on the runway, assuming that the engine output has been lost.

3. ANALYSIS

It is certain that because the aircraft collided with a bird that had emerged from the left below in the travel direction of the aircraft, while making a right turn to the Aerodrome during the power-off accuracy approach training, it suffered damage to the leading edge of the right wing.

It is probable that because the student pilot A was making a right turn to approach the Aerodrome on the training for power-off accuracy approach that required him to be much more aware of the touchdown point than in the normal landing, it would be difficult for the student pilot A to notice the bird; and even if he had noticed the bird, it would have been difficult for him to take avoidance actions due to lack of time since it was only a few seconds from finding the bird to the

collision.

4. PROBABLE CAUSES

In this accident, it is certain that because the aircraft collided with a bird, while making a right turn to the Aerodrome during the power-off accuracy approach training, it suffered damage.