AIRCRAFT ACCIDENT INVESTIGATION REPORT

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March 29, 2013



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.

Norihiro Goto 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

BIRD STRIKE DURING TAKEOFF CLIMB IBEX AVIATION CO., LTD. CESSNA 172P, JA4135 ABOVE RYUGASAKI AIRFIELD RYUGASAKI CITY, IBARAKI PREFECTURE, JAPAN AT 14:40 LOCAL TIME, JUNE 18, 2012

February 8, 2013

Adopted by the Japan Transport Safety Board

Chairman Norihiro Goto

Member Shinsuke Endoh

Member Toshiyuki Ishikawa

Member Sadao Tamura

Member Yuki Shuto

Member Toshiaki Shinagawa

1. PROCESS AND PROGRESS OF THE INVESTIGATION

The Japan Transport Safety Board designated an investigator-in-charge and an investigator on June 19, 2012 to investigate this accident. An accredited representative of the United States of America, as the State of Design and Manufacture of the airplane involved in this accident, participated in the investigation. Comments from parties relevant to the cause of the accident were invited. Comments from the relevant State were invited.

2. FACTUAL INFORMATION

2.1 History of the Flight

According to the statements of the pilot in command (PIC), the student pilot and the administrator of Ryugasaki Airfield, the history of the flight is summarized as follows.

A Cessna 172P, registered JA4135, operated by IBEX Aviation Co., Ltd. took off from Chofu Airfield at 13:47 JST (UTC+9 hours) with a PIC (Instructor) and a student pilot on board, and was conducting consecutive touch-and-go training on the Runway 08 of Ryugasaki Airfield.

They did not spot any birds in flight up to the third landing. During the third take-off which had been climbing about 200 ft at 75 kt, two birds suddenly emerged in front of them from under the airplane. The Instructor immediately held the control wheel in place to maintain the attitude for fear that the surprised student pilot might pull the control

		wheel. One of the two birds passed below the airplane, and the other bird, which was expected to follow the leading bird and pass below the airplane, came up to the height of the airplane, and collided with the leading edge of the left wing. The accident occurred at an altitude of about 200 ft above Ryugasaki Airfield (35° 54′ 26″ N, 140° 14′ 44″ E), at about 14:40. Whereas the airplane reported the occurrence to the Ryugasaki Flight Service (a radio station operated by the administrator of the Airfield, to provide flight assistance to aircraft concerned), it climbed to a downwind leg altitude and stayed in holding pattern. The Instructor and the student pilot found a dent on the underside of the left wing leading edge. As the airplane control and engine were normal, and the Instructor was advised by the Ryugasaki Flight Service of the absence of fallen airplane objects in the vicinity of the runway; consequently, he judged that it would be no problem to continue flight and decided to head for Chofu Airfield. The airplane landed there at 15:16. (See Figure and Photo)
2.2	Injuries to Persons	None
2.3	Damage	 Extent of Damage: Substantially damaged Deformation on the skin of the left wing leading edge (with a width of 63 cm and a depth of 2 cm, 146 cm from the wing tip toward inboard) Deformation of two ribs (primary structure components) in the deformed skin area (See Photo)
2.4	Personnel Information	PIC Male, Aged 47 Commercial pilot certificate (Airplane) November 2, 1992 Type rating for Single-engine (Land) March 6, 1990 Flight instructor certificate (Airplane) November 4, 2011 Class 1 aviation medical certificate Validity: Until March 15, 2013 Total flight time 2,882 hr 00 min Total flight time on the type of airplane 1,277 hr 10 min Student Pilot Male, Aged 44 Student pilot certificate Validity: Until August 10, 2012 Total flight time 120 hr 45 min Total flight time on the type of airplane 120 hr 45 min
2.5	Airplane Information	Type: Cessna 172P (Serial number: 17275714, Date of manufacture: March 18, 1982) Certificate of airworthiness No. TO-23-344 Validity date: October 30, 2012

		Category of airworthiness	Airplane, Normal N, Utility U
			or Special Airplane X
		Total flight time	8,540 hr 01 min
	35 . 1 . 1		
2.6	Meteorological	Weather conditions observed at Ryugasaki Airfield on the day of the	
	Information	accident were as follows:	
		According to the administrator of Ryugasaki Airfield, the visibility	
		was more than 10 km at 12:00 and 15:0	00.
		The PIC stated that the wind blow	
		The TTe stated that the White stow	ing from 100 at 10 kg.
2.7	Information on	After the bird strike, the administrator, upon receiving the report	
	the Bird	from the airplane, found and recovered the body of the bird on the	
		runway. The type of the bird was a gra	y heron (length 80 cm, weight 1.4
		kg), the resident bird commonly lives in	n many parts of Japan, and it is a
		wild bird found in paddy fields and thr	oughout water front of Ryugasaki
		City.	0 0 0
		0.100	

3. ANALYSIS

3.1	Involvement of	None
	Weather	
3.2	Involvement of	None
	Pilots	
3.3	Involvement of	None
	Airplane	
3.4	Analysis of	It is probable that it was difficult for the airplane to avoid the collision
	Findings	with the suddenly emerged bird, as it was in the middle of during takeoff
		climb with insufficient airspeed and altitude in which abrupt attitude
		change should be avoided.
		It is highly probable that the damage to the left wing of it was caused
		by the collision with the bird.

4. PROBABLE CAUSES

In this accident, it is highly probable that the bird strike during the post-takeoff climb of touch-and-go training at Ryugasaki Airfield caused substantial damage to the airplane.

See Figure: Estimated Flight Path See Photo: Accident Airplane

Figure Estimated Flight Path

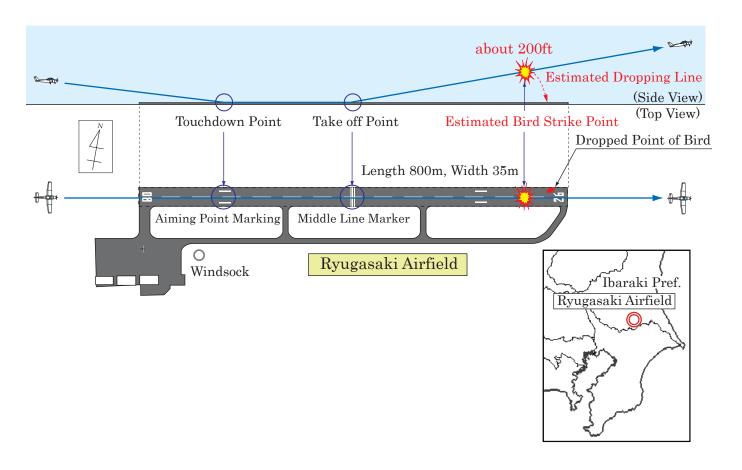


Photo Accident Airplane

