

AA2013-1

# **AIRCRAFT ACCIDENT INVESTIGATION REPORT**

**Japan Coast Guard**

**J A 7 2 0 A**

**January 25, 2013**

 **JTTSB** *Japan Transport Safety Board*

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 FLIGHT JAPAN COAST GUARD BOMBARDIER DHC-8-315, JA720A NEAR KITAKOJIMA ISLAND ISHIGAKI CITY, OKINAWA PREFECTURE, JAPAN AT 17:11 LOCAL TIME, JANUARY 18, 2012

December 07, 2012

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 (JTSB) designated an investigator-in-charge and two investigators on January 18, 2012 to investigate this accident. Although the JTSB notified Canada, as the State of Design and Manufacture of the airplane; however, it did not designate its accredited representative. Comments from parties relevant to the cause of the accident were invited. Comments from the related State were invited.

### 2. FACTUAL INFORMATION

#### 2.1 History of the Flight

According to the statements of the pilot in command (PIC) and the first officer (FO), events developed as follows:

On January 18, 2012, a Bombardier DHC-8-315, JA720A operated by the Japan Coast Guard (JCG) took off from Naha Airport at 14:48 local time (Japan Standard Time: UTC+9 hr) with the PIC, the FO and 7 crew members on board, for marine patrol flight over the East China Sea with the destination to Ishigaki Airport.

The airplane had been carrying out marine patrol flight.



The accident site

Immediately after the airplane made a left turn near Kitakojima island, the PIC found four birds about 100m ahead. However, there was no time to avoid the birds; accordingly, the airplane had head-on collision with one of them. The FO also spotted the birds and tried to inform the PIC; however, no time was left for him to do so. The event took place at 17:11 near Kitakojima island at 1,000 ft when the airplane was flying at 170 kt.

The PIC looking toward the nose from cockpit could be confirmed some feathers and a little floating of the nose upper door. Considering the safety, he decided to abort the mission and headed for Ishigaki Airport, the destination.

During the flight the indication of the left seat speedometer fluctuated more than that of the right one. Flight control system, engine and electric systems remained normal. The airplane uneventfully landed at the destination at 18:04.

**2.2 Injuries to Persons**

None

**2.3 Damage**

Extent of Damage: Substantial

Upper nose section: Damaged area measured 60 cm long by 90 cm wide

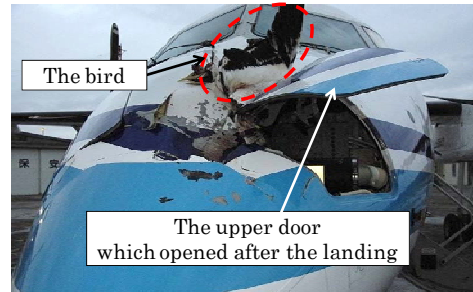
Radome bulkhead: Upper part curved backward

GS antenna support: Backward buckling

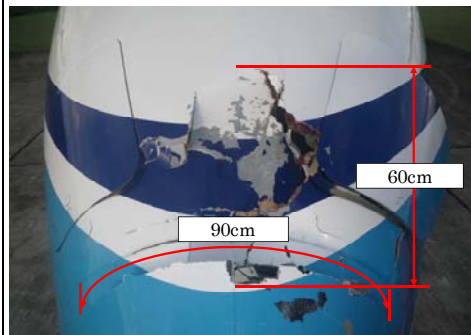
Frame No. 7: The upper part was deformed in V shape.



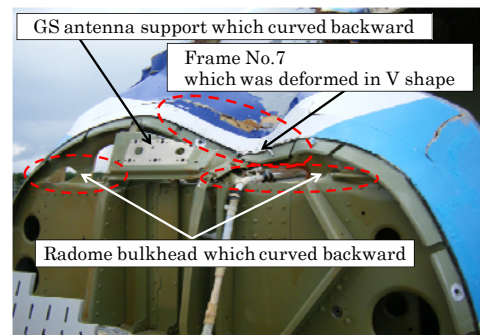
The airplane



The damage caused by the bird strike



Damaged area



Extent of damage

<b>2.4 Personnel Information</b>	<p>(1) PIC Male, Age 42  Commercial pilot certificate (airplane) September 2, 1993  Type rating for Bombardier DHC8 October 7, 2009  Class 1 aviation medical certificate Validity date: April 22, 2012  Total flight time 4,696 hr 00 min  Total flight time on the type of airplane 937 hr 40 min</p> <p>(2) FO Male, Age 36  Commercial pilot certificate (airplane) August 13, 2002  Type rating for Bombardier DHC8 November 9, 2009  Class 1 aviation medical certificate Validity date: July 6, 2012  Total flight time 1,362 hr 00 min  Total flight time on the type of airplane 960 hr 35 min</p>
<b>2.5 Airplane Information</b>	<p>(1) Type : Bombardier DHC-8-315  (Serial number : 651, Date of manufacture : October 19, 2007)  Certificate of airworthiness No. TO-23-362  Validity date: November 10, 2012  Category of airworthiness Airplane, Transport T  Total flight time 2,858 hr 25 min</p> <p>(2) The airplane was equipped with a digital flight data recorder (DFDR) and a cockpit voice recorder (CVR). The DFDR recorded no aircraft shock or vibration associated with the bird strike, while the CVR recorded the noise which seemingly sounded the bird strike with time signal of 17:11:17. No utterance of both pilots mentioning the spotting of the birds was recorded.</p>
<b>2.6 Meteorological Information</b>	<p>Weather observed by the PIC at the time of the event was as follows:  17:00 Fine weather, visibility more than 10 km,  Wind direction from south-southeast, wind velocity 15 kt  Scattered cloud</p>
<b>2.7 Information on the bird</b>	<p>Name: Masked Booby  Size: Length 90 cm, Wingspan 140 cm, Weight 1.3 kg</p>

### 3. ANALYSIS

<b>3.1 Involvement of Weather</b>	No
<b>3.2 Involvement of Pilots</b>	No
<b>3.3 Involvement of Airplane</b>	No
<b>3.4 Analysis of Findings</b>	The airplane sustained damage due to bird strike at 1,000 ft during marine patrol flight near Kitakojima island. The PIC stated that the

	airplane made a head-on collision with no time to avoid the birds after he found them while the FO stated that he had no time to inform the PIC of the birds. As this event took place instant after the spotting of the birds, they probably had difficulty to execute avoidance maneuvers against them.
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#### **4. PROBABLE CAUSES**

In this accident the airplane sustained damage due to bird strike at 1,000 ft during marine patrol flight near Kitakojima island.
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#### **5. ACTIONS TAKEN**

In response to this accident, the Promotion Administration of Aviation Safety, JCG, informed Regional Coast Guard Headquarters and other pertinent offices of the event to raise the awareness against bird strike on February 1, 2012.
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