AIRCRAFT ACCIDENT
INVESTIGATION REPORT

Japan Coast Guard

J A 7 2 0 A

January 25, 2013

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.
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.
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.
2.4 Personnel Information

<table>
<thead>
<tr>
<th>Name</th>
<th>Age</th>
<th>Certificate</th>
</tr>
</thead>
<tbody>
<tr>
<td>PIC</td>
<td>42</td>
<td>Male, Commercial pilot certificate (airplane)</td>
</tr>
<tr>
<td>FO</td>
<td>36</td>
<td>Male, Commercial pilot certificate (airplane)</td>
</tr>
</tbody>
</table>

**Type rating for Bombardier DHC8**

**Class 1 aviation medical certificate**

**Total flight time**

**Total flight time on the type of airplane**

September 2, 1993 - October 7, 2009

Validity date: April 22, 2012

Validity date: July 6, 2012

4,696 hr 00 min vs 937 hr 40 min

2.5 Airplane Information

<table>
<thead>
<tr>
<th>Type</th>
<th>Serial number</th>
<th>Date of manufacture</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bombardier DHC-8-315</td>
<td>651</td>
<td>October 19, 2007</td>
</tr>
</tbody>
</table>

**Certificate of airworthiness**

**Category of airworthiness**

**Total flight time**

2,858 hr 25 min

2.6 Meteorological Information

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

2.7 Information on the bird

Name: Masked Booby
Size: Length 90 cm, Wingspan 140 cm, Weight 1.3 kg

3. ANALYSIS

3.1 Involvement of Weather

No

3.2 Involvement of Pilots

No

3.3 Involvement of Airplane

No

3.4 Analysis of Findings

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.

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.

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.