

EMBRY RIDDLE AERONAUTICAL UNIVERSITY

# Aviation Wildlife Mitigation - 'Birdstrike news you can use'

Volume 4, issue 1  
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## Into the River, *again!*

### Inside this issue:

Boeing Change	2
View from Cockpit (cont'd)	2
Nigerian Airline Costs	3
Accident report	4
New York Roundup	6
Next training seminar	7
Editorial	8



Actually it was Hong Kong Harbor, but the difference was probably lost on the 11 passengers and 2 crew of the Sky Shuttle AW-139 helicopter which ditched moments after encountering a "birdlike object" shortly after liftoff. The flight, from Hong Kong to Macau, lost its tail rotor.

## Australian ATSB Birdstrike Report

<http://www.atsb.gov.au/publications/2009/ar2009064.aspx>

The Australian government has released their report on the aviation wildlife problem Down Under for the years 2002-2009. Not surprisingly most birdstrikes occur on or near the airport. During the report period there were "...considerably increasing.." rates of strikes.

## The View from the Cockpit



The German BFU has released its report on the Hamburg collision between an Air Berlin B737-700 and white fronted geese. It is available online at the BFU website, in German, at [www.bfu-web.de](http://www.bfu-web.de), or translated here into English. The aircraft encountered the flock while on approach at about 2,150' and 226 kias. The morning weather was good and visibility unrestricted. (Cont'd P. 2

### **View from Cockpit** (cont'd from P. 1)

The airplane suffered multiple impact points all over its fuselage, tail, wings and engines. The right engine had multiple impact points (greater than 6) and the left engine cowl was struck in several places.

Both cockpit forward windows were struck, the Captain's window was shattered and completely obscured. Glass shards from the window were found throughout the cockpit. The First Officer's forward window was partly obscured by blood and debris. After the collision the First Officer took control of the aircraft and executed an autoland (due probably to the extremely limited visibility from the cockpit.)

Interestingly, the total number of impact points was not detailed in the report.

The German Birdstrike Committee identified the bird remains as white fronted goose, a large flocking bird which weighs between 3.75-6.83 pounds (1,700-3,100 g).

It would appear that the Captain's window failure was not in consonance with the EASA rule on birdstrikes to windows as the window shattered and showered the cockpit with glass.

Most surprising of all, although the BFU report was factual it reached no conclusions and offered no recommendations for prevention of this type of incident/accident in the future.



## **Boeing changes Cockpit Window Design**

PPG Industries, a maker of paints, coatings and other specialty products, said on August 13, 2009 that one of its subsidiaries received a contract to redesign laminated glass windshields for Boeing's next-generation 737 airplanes.

Pittsburgh-based PPG said its aerospace transparencies business was awarded the contract by Spirit Aero Systems, a Boeing supplier based in Wichita, Kan. Financial terms were not disclosed.

The windshields are being redesigned at Boeing's request to accommodate airframe improvements, according to PPG. The redesigned windshields will be slightly smaller than current ones and will include a plastic liner to prevent broken glass from entering the flight deck in case of a bird-strike event.

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## Nigerian Airlines lose N1.5bil to Birdstrikes

Bird strike – the collision between bird and aircraft, which nearly led to a mishap for Dana Air – costs the airlines about N15 billion annually.

According to the Federal Airports Authority of Nigeria (FAAN), bird strikes caused 115 incidents that accounted for 17.4 per cent of the total air incidents in 2006.

THISDAY spoke to domestic operators that have suffered grievously from bird strikes and lost huge amount of money. An informed source said that Aerocontractors loses N39 million (\$260,000) in revenue and repairs anytime each of its aircraft is struck by a bird.

In the last 24 months, it has had 37 bird strike incidents- 19 on take-off, 18 on landing and half of these incidents took place at the Lagos airport.

Spokesman of Arik Air, Adebajji Ola, told THISDAY that the airline in the last one year has had over 35 bird strikes. The aircraft involved in these cases include the airline's Airbus A340 500, Boeing 737-800/700/300 and Bombardier CRJ900. He said "the cost associated with bird strikes is enormous and this includes direct repair cost (aircraft ferry; repairs at Lufthansa Technik in Cologne, Germany; replacement of parts), indirect cost (insurance premium) and lost revenue opportunities while the damaged aircraft is out of service," he said.

He said since bird strikes are a significant threat to flight safety, it is the responsibility of the Nigerian aviation authorities to take immediate steps in bird incident control at the nation's airports to minimize bird hits and a long term strategy to eradicate it.

He also remarked that in other operating environments like Europe, the airport managers or owners pay airlines for damages incurred through bird strikes and to ensure that birds do not strike aircraft at the tarmac during landing or takeoff is the responsibility of the airport administrators. "Sadly, in Nigeria, airlines are made to bear the brunt of the damage," he said.

THISDAY ONLINE / Nigeria news

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## What is a Birdstrike Committee?

The UK CAA sponsored 'UK Birdstrike Committee' probably comes closer to ICAO Annex 14 and the ICAO Airport Services Manual, Part 3, Bird Control and Reduction guidance on Birdstrike Committee form and function than any other organization. Its processes, TOR and meeting results can be followed at the following link:

<http://www.caa.co.uk/default.aspx?pageid=9820>

While it only meets once a year it is interesting to see that its Terms of Reference are action oriented, using words such as "...to provide a forum"; "...to provide a focal point"; "...act as an information source"; "...jointly in partnership"; "...review national and international guidance".

For such a small island its membership is comprehensive with not only government workers, but industry such as airports, wildlife consultants, aircraft operators and airlines. Meeting minutes are kept and timely published, action items are followed up. Many parts of the world are yet to form a Birdstrike Committee while other areas have Committees whose goals aren't well formed or followed.

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## Accident/Incident Report



### July, 2010-Accident

An AW-139 helicopter was destroyed after it collided with a “bird-like object” shortly after takeoff in Hong Kong. The “object” hit the tail rotor, causing it to separate from the aircraft, rendering it unflyable.

All on board survived as the crew executed a flawless immediate ditching sans tail rotor. The crew has not yet been invited to address Congress, attend the Super Bowl or appear on the Larry King show.



### April, 2010

A DHL A-300 suffered an uncontained engine failure during takeoff at Bahrain Int’l Airport. Government sources stated that a ‘bird’ had flown into the engine. The airport was closed for 2.5 hours as engine debris was removed from the runway. Several dozen inbound flights were diverted and thousands of passengers had to be rerouted.



### October 2009—Accident

An SAS CRJ-900 operating from Copenhagen stuck a flock of Barnacle geese on departure at about 250’. The Danish Havarikommission rated the event as an accident due to the level of damage to the right engine and nose of the aircraft. The crew reported the collision resulted in vibrations so severe that they could not read the cockpit instruments. The aircraft was out of service for 16 days.



### November 2009—Accident

During departure from Phoenix a Delta MD90 struck a flock of birds while passing through 12,000’. The birds penetrated the cockpit just aft of the first officer’s overhead window. The aircraft depressurized. Although the aircraft was able to return safely the FAA rated the event as an accident due to the damage: an 18” tear in the overhead cockpit skin.

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## Accident/Incident Report (cont'd)



### May, 2009-Accident

An Air Canada Jazz CRJ200, landing at Moncton, N.B., struck a large bird on short final. The aircraft landed safely. The nose and fuselage at the impact point suffered substantial damage. The Canadian TSB rated the event as an accident due to the severity of damage.



### September, 2009– Dual Ingestion

A Ryanair B737-800 suffered a dual engine ingestion of wood pigeons during takeoff at Trapani, Italy. Both engines received damage to their fan blades and operated with high vibration levels during the crew's immediate return to the airport. The picture (L) is from the Ryanair accident in 2008 when its B737-800 was destroyed by dual engine

ingestion of starlings in Ciampino, Italy.



### June, 2010-Accident

A Royal Air Maroc B737-400 on an evening departure from Amsterdam struck a flock of geese. The left engine was destroyed and caught fire. There were numerous strike impacts all over the aircraft with substantial damage according to the Dutch Onderzoeksraad. Due to its high takeoff weight and sudden loss of thrust the aircraft never climbed higher than 630', but returned safely in another feat of excellent airmanship.



### June, 2010-Accident

While responding to the full alarm caused by the above Royal Air Maroc accident an airport rescue and fire fighting (ARFF) vehicle overturned causing substantial damage. No fire fighters were injured.

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## New York Goose Roundup

Eric Thayer for The New York Times July 12, 2010

Frank Manuel, 47, and Jadhier Jackson, 7, both of Brooklyn, fed swans at the lake in Prospect Park on Monday. But then, over the last few days, park goers noticed something strange. The geese were gone. Nearly 400 of them.

On Monday, the answer emerged. Wildlife biologists and technicians had descended on the park Thursday morning and herded the birds into a fenced area. The biologists, working with the federal Agriculture Department, then packed the geese two or three to a crate and took them to a nearby building where they were gassed with lethal doses of carbon dioxide, Carol A. Bannerman, a spokeswoman, said.

Ms. Bannerman said the measure was necessary. "The thing to always remember in this New York situation is that we are talking about aviation and passenger and property safety," she said. "In New York City, from 1981 to 1999, the population increase was sevenfold."

The authorities have been thinning the region's ranks of geese since some of them flew into the engines of US Airways Flight 1549 in January 2009, forcing it to ditch in the Hudson River. Last summer, 1,235 were rounded up at 17 sites around the city and later killed. But the Prospect Park culling appears to be among the biggest.

## Or Not

Verena Dobnik, Associated Press

A National Park Service official said that, for now, his agency wouldn't touch the hundreds of birds living in a refuge near JFK's runways. "Our mission is to protect and preserve wildlife—that's a law—and it isn't a given that the removal of the geese is necessary to protect the flying public," said Dave Avrin, the official at the Park Service's Gateway National Recreation Area, which includes the Jamaica Bay Wildlife Refuge.

Officials of other federal and local agencies want the Park Service to limit the goose population in the only U.S. wildlife refuge under its jurisdiction, but these efforts have failed. "We can only go onto properties where we have permission," said Carol Bannerman, spokeswoman for the U.S. Department of Agriculture's Wildlife Services, which this month renewed measures to cull New York flocks after last year's near-disaster.

The government is taking action to keep such accidents to a minimum. Under a USDA agreement with New York City just after the Flight 1549 scare, Canada geese could be removed from parks and other city-owned properties within a five-mile radius of Kennedy and LaGuardia airports, two of America's busiest. The radius was expanded this month to seven miles, with about 800 geese being rounded up and euthanized with gas, according to USDA Wildlife Services in New York. "We believe people's health and safety to be of paramount importance, but we have a dual mission: to preserve and protect wildlife," said Avrin, head of the Division of Resources Management at Gateway, which spans 26,000 parkland acres in New York and New Jersey. The New York metropolitan region has about 20,000 resident Canada geese and at least as many passing through during migrating season, the state Department of Environmental Conservation said.

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## Qualified Airport Biologist Listing

Based on industry and airport community request, Embry Riddle Aeronautical University is vetting resumes of biologists who seek to work on airports. Under FAA Advisory Circular 150/5200-36 only biologists who qualify may conduct wildlife assessments on airports. As both airports and biologists have said they were having difficulty determining qualification, ERAU has set up a panel of experts who review biologists qualifications. If the applicant appears to satisfy the criteria in the Advisory Circular, the applicant's name is posted on the ERAU website.

A list of qualified biologists and applications for listing can be found on the web at: [http://wildlife.pr.erau.edu/workshop/qualified\\_biologists.html](http://wildlife.pr.erau.edu/workshop/qualified_biologists.html).



### NEXT WILDLIFE HAZARD TRAINING SESSION

Embry-Riddle has scheduled its next airport wildlife training seminar for the Dallas-Fort Worth area on November 2-4, 2010. Our host, DFW International, will be providing classroom space.

***This seminar is currently the only public training acceptable to the FAA Administrator to fulfill the FAA's training requirements of Advisory Circular 150/5200-36.***

The seminar is three days in length. The first two days consist of classroom sessions led by the nation's top wildlife management experts. These sessions allow for plenty of interaction with the instructors, opportunities for questions and networking with fellow participants. Day three features a field trip to the host airport, during which hands-on wildlife mitigation exercises will be performed and mitigation techniques discussed.

Participants who successfully complete the seminar will receive a certificate of completion and continuing education units (CEU) from EmbryRiddle Aeronautical University.

You may register online at EmbryRiddle's website <http://www.erau.edu/ec/soctapd/wildlife-dfw.html> or call 866-574-9125 for more information.

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## Editorial

An Australian aborigine, far in the Outback, came across a castoff Coke bottle, an object far beyond his experience or understanding. After studying it for a while he concluded: "The gods must be crazy".

In this publication previously a Delta Airlines B767 crew was excoriated for damaging their aircraft and risking their passengers by intentionally taking off into multiple flocks of gulls. Three years later there is still no corporate policy or government regulation which would prevent the same event from happening again, anywhere. Nor is any proposed.

Recently at the BSCUSA meeting a pilot was paid \$5,000 by the Committee to tell about crashing his plane into the Hudson River after encountering a flock of Canada geese. He offered no new remedies, prevention strategies or insight into preventing the same catastrophe in the future. But it was adjudged that value was received even if nothing new was learned. Perhaps brief association with pseudo-celebrity is worthwhile after all.

But most telling of the mood of the gods is the attempted slight of hand, or mouth, by a National Park Service bureaucrat. Regarding his desire to protect Canada geese dwelling in the national park immediately adjacent to New York's JFK Airport he said human life and safety is of "...paramount importance". But, simultaneously, he said he will do nothing to remove the geese because it isn't a 'given' that they are dangerous to air transportation. Perhaps the word 'paramount' has changed in its definition or he feels the wire fence between the geese and the airplanes is sufficient. Sadly, other government bureaucrats at USDA say they can do '...nothing' about these geese because 'it's the law'. From Ethiopia to England the law serves the people. But not in New York. The gods must be crazy.

**Paul Eschenfelder**

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**Fifth International Birdstrike Meeting**

**Cairns, Australia**

**September 21-24, 2010**

**[www.int-birdstrike.org](http://www.int-birdstrike.org)**

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