

UNUSUAL WILDLIFE HAZARDS TO AVIATION

2017 North American Bird Strike
Conference

August 22-24, 2017 in Dallas, Texas

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Services,

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<u>ANIMAL</u>	<u>SPECIES #</u>
BIRDS	529
TERRESTRIAL MAMMALS	43
BATS	22
REPTILES	18



Wildlife / Aircraft Strikes

- from the ground up -

0-3,500 ft AGL = 92% of strikes



0-1,500 ft AGL = 82% of strikes



0-500 ft AGL = 71% of strikes



0 ft AGL = 41% of strikes





Commercial
Aircraft
Routinely Fly
Above 7 Miles
(37,000 Feet
AGL)

Focus Mitigation
Efforts On
Bottom 5%
Airspace

Rüppell's Griffon Vulture - 29 November 1973
Commercial Airliner 37,000 feet AGL
Abidjan, Ivory Coast, Africa



REAL WILDLIFE HAZARD



Federal Aviation
Administration

NEWS

BULLETIN:

**LARGE
MAMMALS
MAY
DAMAGE
AIRCRAFT!**



U.S. Department of
Transportation
Federal Aviation
Administration

**KNOW YOUR HAZARDS
REPORT ALL WILDLIFE STRIKES**

REAL WILDLIFE HAZARDS





**SNAKES
ON A PLANE**

REAL WILDLIFE HAZARDS



NOT REAL WILDLIFE HAZARDS



ONE STRIKE INCIDENTS



TWO STRIKE INCIDENTS



TWO STRIKE INCIDENTS

Wild Pigs Hong Kong Airport



December
2016



THREE STRIKE INCIDENTS



Federal Aviation
Administration

THREE CARIBOU STRIKES in NWS

DEADHORSE (SCC)

Elevation 61

N70 11.69/W148 27.91

Photo Date Aug 1998

Data Date Mar 2001

SCC CTAF 123.6
SCC FSS 122.2 123.6
SCC WEATHER 123.6
ANC CENTER 134.4

4



Windsock

6500 X 150



22

Migratory waterfowl vicinity arpt.
Caribou may be on rwy or aprt areas.
TWY F closed to acft 12,500 lbs or over.
RWY 4 right traffic pattern.
Fuel avbl contact freq 123.0.
Activate HIRL, MALSR, and VASI via CTAF



CARIBOU STRIKE

Deadhorse Airport on Alaska's North Slope



Federal Aviation
Administration



5 STRIKES



16 STRIKES



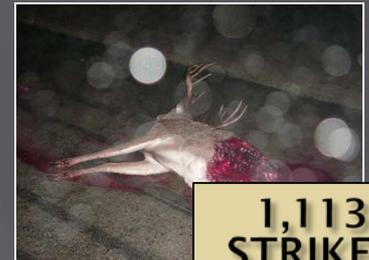
9 STRIKES



213 STRIKES



11 STRIKES



1,113 STRIKES



43 SPECIES TERRESTRIAL MAMMALS IN NWS



ELK = 11 STRIKES in NWSA



+



=



**December 2002, Learjet 36 struck elk.
Pilot stopped plane in marshy area at
end of runway. All four occupants
survived.**



**Federal Aviation
Administration**

213 TURTLE STRIKES in NWSD

Sanford Orlando International Airport
Estimated 1,200 Gopher Tortoise Burrows on Airfield

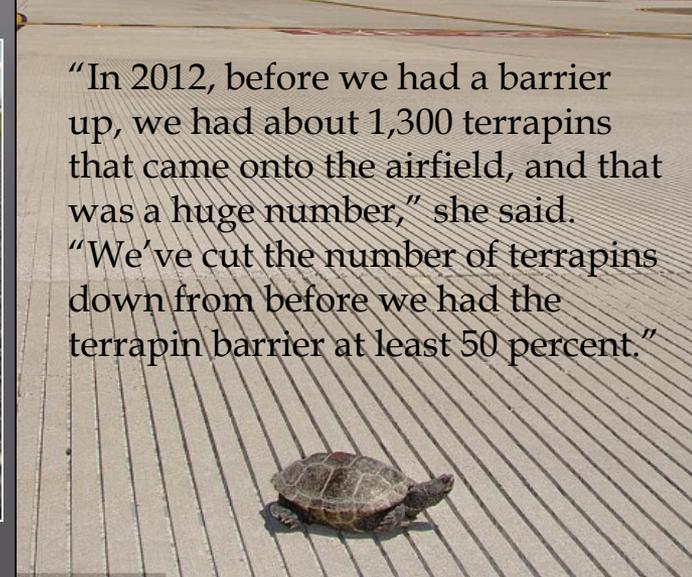


“JFK Flights Delayed Because Of Sex-starved Turtles Crossing Runway To Get To Breeding Grounds”

DAILY NEW Thursday, June 30, 2011, 9:39 AM



“In 2012, before we had a barrier up, we had about 1,300 terrapins that came onto the airfield, and that was a huge number,” she said. “We’ve cut the number of terrapins down from before we had the terrapin barrier at least 50 percent.”





Brad Pierce in Orlando Executive Airport.

Yesterday at 9:29am · 🌐

A local pilot hit an 11-foot alligator which was crossing runway 7/25 at Orlando Executive Airport (KORL). I was told the pilot was flying a Navajo and the gator jumped up and struck the wing during his landing. The gator was killed instantly and the aircraft sustained damage to the wing. One of the craziest things I've ever seen in all my years in aviation. Welcome to Florida folks!



June 2017

👍 Like 💬 Comment ➦ Share </> Embed

👍 🤔 😂 2.2K

3,525 shares

20
STRIKES



Passenger Photo
from Jet Blue
Aircraft

Scorpion on an Airplane

United Airlines. APRIL 13, 2017

Passenger on a United Airlines flight from Mexico to Calgary stung by stowaway scorpion.



ECONOMIC LOSSES



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DOWNTIME = ECONOMIC LOSSES



MOUSE-ON-PLANE
GROUNDS NEPAL
AIRLINES
CORPORATION'S
BOEING TWICE



MOUSE SNEAKS ONTO BRITISH
AIRWAYS FLIGHT, CAUSES 4-HOUR
DELAY, MARCH 2, 2017



Federal Aviation
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Squirrel Diverts Tokyo-to-Dallas Flight To Honolulu February 2007

ECONOMIC LOSSES



Giant Panda Attacks Crew on Plane from China to Bronx Zoo - May 2nd 1939

Giant Panda Attacks Transport Plane Crew

Pittsburgh, May 2 (U.P.)— Three transport plane pilots struggled with a giant panda in mid-air as the animal, being flown across country, wandered into the plane's cabin when the airliner came into Allegheny county airport for a landing.

The plane was landed safely, although the 70-pound animal bit first officer M. H. Cassing on the hand as

Passeng unaware

The plane's Tommy for TWA The ani and cha

Encou the bea control tain Do over th Terry s

Eluding Captain Terry, the ani-

South Second street, for changing the front of the building and general alterations. Total cost is t \$200.

mal managed to bite Cassing as first officer calmly brought plane to a landing.

Bound from China to the B zoo in New York, the animal in charge of Dr. A. E. Best, of China Union University, a passenger in the plane,



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gettyimages
Brooks Kraft

525637560

Fish Strikes Jet in Air; Eagle Is Held at Fault



JUNEAU, Alaska, March 31, 1987

MANAGING RISK



MANAGING RISK



MANAGING RISK



EFFECTIVE AIRPORT WILDLIFE HAZARD MANAGEMENT STARTS WITH GOOD DATA

**ESTIMATED COST OF U.S. CIVILIAN WILDLIFE STRIKES:
Minimum \$229 million in 2015**



U. S. DEPARTMENT
OF TRANSPORTATION
FEDERAL AVIATION
ADMINISTRATION

WILDLIFE STRIKES TO CIVIL AIRCRAFT IN THE UNITED STATES 1990-2009



U. S. Department
of Agriculture
Animal and Plant
Health Inspection
Service
Wildlife Services

FEDERAL AVIATION ADMINISTRATION
NATIONAL WILDLIFE STRIKE DATABASE
SERIAL REPORT NUMBER 16

REPORT OF THE ASSOCIATE ADMINISTRATOR OF AIRPORTS
OFFICE OF AIRPORT SAFETY AND STANDARDS
AIRPORT SAFETY & CERTIFICATION
WASHINGTON, DC

2010



Federal Aviation
Administration

WHAT WE KNOW (1990 – 2015)

- **Globally - wildlife strikes have resulted in >262 fatalities and >247 aircraft destroyed (1988 – present)**
- **USA strikes – birds (529 species; 97% of all strikes); terrestrial mammals (43 species); bats (22 species); reptiles (18 species)**
- **About 37 strikes reported / day (<5% = damage)**





Questions...?



Federal Aviation Administration