

Aviation Wildlife Mitigation - 'Birdstrike news you can use'

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Inside this issue:

USDA defies rules	2
Court renders judgment	3
Different rules = different risks	3
Accident report	4
Score card Liars figure	6
Next training seminar	7
Editorial	8

DOT IG investigates FAA wildlife efforts

The U.S. Department of Transportation Inspector General's Office recently concluded its 15 month long audit of FAA's airport wildlife mitigation efforts. The IG concluded that, despite spending over \$450 million of federal funds on the effort, the FAA had been 'ineffective' in its efforts.

Principally the IG found that the FAA was not following its own guidelines nor was it enforcing its own rules. The IG found 25 instances of non-compliance with wildlife rules at airports and determined that FAA had initiated zero enforcement actions. One of the main culprits seemed to be lack of proper education regarding airport wildlife mitigation for FAA's certification inspectors. Further the IG found that most of FAA's policies and guidance in mitigating this hazard were voluntary, therefore limiting its effectiveness. For example, one airport reported 90% of its recorded strikes to the FAA but another, similar, airport only report 11% of its strikes.

Most telling, FAA does not have any system in place for monitoring its progress toward its goals. Additionally, the IG found (cont'd page 2)



Alfred Langley

Deer destroys US Customs Service jet

A U.S. Customs Service CE550 Citation jet was destroyed by fire after colliding with a deer at Greenwood, S.C. During the landing rollout the deer darted onto the runway in front of the jet. The left wing of the jet struck the deer puncturing a large hole in the wing fuel tank. The fuel leak ignited and the

subsequent fire consumed the aircraft. The accident occurred around noon on a clear day. Wildlife experts speculate that the animal's erratic behavior may be caused by the seasonal rut. The government jet, with special surveillance equipment on board, had just received electronic modifications and was conducting a test flight. Both crewmembers escaped the blaze.

FAA investigated (cont'd from page 1)

that, although FAA has effective communication with its principal partner the U.S. Dept. of Agriculture, it has little communication with other government agencies. No mention was made of private industry or other advisory input into FAA programs or policies.

Approaching the status of a tragi-comedy the report detailed a dispute between the IG's views and FAA's stand on mandatory data reporting. The IG recommended that wildlife strike reporting be mandatory and cited a "...renowned wildlife biologist..." who stated that better reporting was necessary. On the other hand the FAA replied that they had independent verification from an "...internationally recognized authority..." that mandatory reporting was not necessary. Both sides quoted the same individual.

The entire report can be viewed at the Inspector General's website:

<http://www.oig.dot.gov/sites/dot/files/wildlife%20report.pdf>

USDA defies FAA rules

In a recent spate of news releases and scientific research papers the U.S. Department of Agriculture has taken on the FAA and its guidelines regarding agriculture on airports. A recent USDA blog reported: "Currently, productive land use near airports is limited and keeping the land fallow is usually the norm. What airport managers see as a cost of doing business, USDA researcher Dr. Travis DeVault sees as an opportunity". Further the blog recites: "In a recent study, DeVault and colleagues estimated that airport properties in the contiguous United States contain approximately 1,276 square miles of idle grasslands—an area larger than the state of Rhode Island. In DeVault's eyes, much of this land could potentially be converted to biofuel, solar or wind production." DeVault is researching alternative energy and biofuel crops which he maintains will not be attractive to wildlife on airports.

USDA has also partnered with Detroit's Wayne County Airport Authority to promote biofuel crops on both Willow Run and Detroit Metropolitan Airports.

Currently FAA Advisory Circular 150/5200-33b, 'Hazardous Wildlife Attractants on or Near Airports' is specific in its guidance to airports regarding agriculture: "...Because most, if not all, agricultural crops can attract hazardous wildlife during some phase of production, the FAA recommends against the used of airport property for agricultural production, including hay crops, within the separations identified in Sections 1-2 through 1-4". This AC is currently posted for revision by FAA, but no mention is made of changing the policy guidance regarding agriculture on airports in the draft changes.

Interestingly, in 1984, the U.S. Fish and Wildlife Service identified 57 different types of crops which were used by at least one bird species. According to FAA and USDA records the total acreage of airports in the U.S., including all runway and terminal areas, represents only 1/10th of one percent (.1%) of the land area currently involved in agricultural use in the U.S. However this same acreage represents 100% of the land available for aircraft use in the U. S.



Judge Finds Airport Negligent

A judge yesterday chastised Malta International Airport for not having adequate bird control measures in place in 2004. A bird strike has proved costly for Malta International Airport, which was yesterday

ordered to pay €250,000 (~US\$327,000) in damages to Air Malta and an insurance company. The national carrier submitted in court that on December 2, 2004 flight KM100 was leaving for London when a sizeable flock of starlings flew into the plane's flight path. The flight had to be aborted for safety reasons and the plane returned to base.

Air Malta said the plane sustained damages amounting to €250,526 and it blamed MIA for not having an adequate bird strike reduction system in place. The court ruled that when MIA was entrusted with running the airport, it had been bound by the government to maintain and provide, at all times, facilities and operations in compliance with International Civil Aviation Organization regulations. As a result, MIA had a legal obligation to implement the recommendations and guidelines issued, including that of providing adequate bird strike protection systems. MIA was, therefore, responsible for the accident. The court ordered it to pay Air Malta €129,489.94 in damages and to reimburse Shield the sum of €121,037.34, which it had paid to Air Malta in damages.

The Times of Malta, Feb. 8, 2012



Different rules = Different risk

A Cape Air Cessna 402 twin piston powered commuter aircraft, flying between Hyannis and Nantucket in the greater Boston area, survived a collision with a red-throated loon, which completely shattered and eliminated

the copilot's windshield. Neither pilot was seriously injured by the flying window debris nor were their 4 passengers injured. The aircraft returned safely for landing. The collision happened well away from the airport and airport wildlife mitigation was not an issue. However, this collision again points out the different levels of risk to different types of aircraft due to their varying design and certification standards. Although a C402 is a fairly low speed aircraft and it struck a fairly small bird (~3 pounds), the design standards of this type aircraft are not robust. The potential for crew incapacitation and loss of control is fairly obvious.

Birdstrike Accidents/incidents



Kathmandu, Nepal - 19 fatal

On departure from Kathmandu the Sita Air Dornier 228 twin turboprop with 16 passengers and 3 crew struck a black eagle, a raptor weighing about 4 pounds. The impact with the right engine appears to have caused some parts of the engine or engine mounting to depart the aircraft. The aircraft parts then struck the rudder, disabling the rudder. Although the pilot turned back for the airport immediately

the rudder damage rendered the aircraft uncontrollable and the aircraft crashed near the airport. Apparently the crash was survivable and the victims may have perished in the post-crash fire when they could not promptly escape from the aircraft.



New Jersey - One fatal

The AS 355 helo was enroute over New Jersey. Witnesses saw a small flock of birds impact the right side of the aircraft. Shortly thereafter one of the main rotor blades departed the aircraft. The aircraft became uncontrollable and crashed killing the pilot, the only occupant. This helo accident is similar to the Marine AH-1 fatal birdstrike accident in California last year.



South Carolina - Business jet destroyed

As detailed on page 1, the Citation jet struck a deer during the landing roll, rupturing a fuel tank. The aircraft was consumed by fire. This CE550 jet was equipped with expensive surveillance gear as it belonged to the Customs Service. The airport is a general aviation airport. As such it is not required by the FAA to have a wildlife control program.

Accident/Incident Report (cont'd)



Dual ingestion Incident

During the approach to Talcoban City in the Philippines, a Philippines Air A-320 struck at least 10 wild ducks and ingested birds into both engines. The subsequent flight was cancelled and the aircraft remained on the ground for a day for repairs.



Dual ingestion Incident

During takeoff at Genoa, Italy the British Airways B737 struck a large flock of gulls and ingested birds into both engines. The left engine had to be shut down inflight due to severe vibration. The right engine was shut down immediately after landing due to severe vibration. The aircraft was towed to parking.



Enroute Incident

On descent for landing at Hartford, Conn., the Southwest B737 crew reported a loud bang while descending between 13,000' and 11,000'. They were unable to ascertain the cause of a continuing loud air noise but concluded it could not be a birdstrike as they were too high. Upon landing emergency crews found birdstrike damage to the B737's radome and right engine cowling.



Go Around Incident

The American Air B737 was executing an approach to Miami International when the tower instructed it to go around. During radar vectors for another approach, and while level at 3,000', the crew reported that they had ingested a bird into their right engine. The aircraft landed safely.

Score card

In an effort to contrast the hazard of birdstrikes and its risk with other natural hazards encountered by aviation every day, the following score card is offered. Data is worldwide and since our last newsletter was published in 2012.

Wind shear fatalities:	none
Icing fatalities:	8
Volcanic ash fatalities:	none
Bird strike fatalities:	20

Do figures lie?

Working without support in Italy, Dr. Valter Battistoni has compiled an interesting list of birdstrike data which seems to conflict with current thinking in many regulatory agencies and industry groups. His data raises concerns that birds may be a threat to aircraft. See more at: <http://www.birdstrike.it/en/>

Since 2010, Dr. Battistoni has identified eight events of multiple engine ingestions in jet transport aircraft, six of which were ingestions into both engines of twin jets such as B-737s or A-320s. Since we have recently seen that both geese and starlings can kill the engines of these types of jet transports, it would appear to be a matter of significant risk. Thus far, no regulatory agency has decided to take on this work project.

More disturbing may be the actions of some flight crews. Like their regulatory and industry leaders the crews have attempted to shut their eyes to the threat, even after they realize they have had an encounter with bird(s). It's not working out for them. As regulators require no rules or guidelines for flight crews regarding the threat of birdstrikes, and as no airline policy guidance is provided to the crews it cannot be surprising that the crews engage in random, sometimes risky, acts. For example:

American Airlines B767, departed Zurich, struck birds on climbout. The crew elected to proceed. About 12 minutes later they elected to divert to London. Around the Paris area the situation deteriorated so that they declared an emergency and landed London safely.

Iberia A340, departed Madrid, struck a 'small bird' on departure. The crew elected to continue with their transatlantic flight, only to turn back two hours into the flight.

Air Canada B777, departed Vancouver, striking birds on liftoff. The crew elected to continue their transpacific flight only to reverse course one hour later when a 'burning odor' began filling the aircraft.

Air Bridge B747, ingested a bird on departure from Zaragoza, causing engine vibrations. The crew continued until the engine failed, then diverted two hours later.

Qualified Airport Biologist Listing

Based on industry and airport community request, Embry Riddle Aeronautical University is, once again, 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://wildlifecenter.pr.erau.edu/biologists.php>.



NEXT WILDLIFE HAZARD TRAINING SESSION

Embry-Riddle has scheduled its next airport wildlife training seminar for the Burbank Bob Hope Airport, Burbank, California, on January 23-25, 2013.

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 Embry-Riddle Aeronautical University.

You may register online at Embry-Riddle's website <http://worldwide.erau.edu/professional/seminars-workshops/index.html> or call 866-574-9125 for more information.

Editorial

Will Rogers and Jay Leno, even though they lived 100 years apart, have much in common. Both are regarded as humorists, entertainers, making their living often from simply reciting the follies of life, such as government officials' acts. But they would probably regard the content of this newsletter as a jaw dropper. The government spends almost a half of a billion dollars only to have its program termed "ineffective" by its oversight agency. Wow. As Senator Dirksen used to say: "A billion here and a billion there, pretty soon you are talking about real money". What are they thinking? The even more important question is: what are they doing differently now? Hopefully the half a billion dollar lesson has been learned, but only time will tell. Will there actually be goals established? Will new voices join the chorus of advisors, or will the same 'ineffective', but safe, advisors cling to life? Will new players enter the game? Will a game plan be developed, or will the scattershot approach continue?

And Agriculture, what are they thinking? Why spend tax money researching airports as agriculture sites? For heaven's sake, they are for airplanes. If America needs more biofuel, Agriculture should be working on the other 99.9% of farm acreage which doesn't include airplanes. Have they never heard of risk? One would think the FAA's prime advisor, USDA, would be the leading example of FAA rule compliance, not researching their way around it.

One needs only to look at the ghastly death by fire of 19 souls in Nepal, lost after an airplane collision with a 'bird', to realize how far we have to go, the inertia we must overcome. It is the inertia of government officials who refuse to make hard choices. The inertia of industry which refuses to act without government decree. Neither Rogers nor Leno would find it humorous. Will Rogers would call it a shame. Leno would call it a sham.

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