Bird and Other Wildlife Hazards at Airports: Liability Issues for Airport Managers

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Aircraft collisions with birds (bird strikes) and other wildlife are a serious economic and safety problem. The problem has increased in the past decade because of expanding populations of many wildlife species that are hazardous to aviation (Dolbeer and Eschenfelder 2002). Cleary et al. (2004) estimated wildlife strikes (98% involving birds) cost the civil aviation industry in the USA about $500 million/year, 1990-2003. Allan and Orosz (2001) estimated that bird strikes annually cost commercial air carriers over $1.2 billion worldwide, 1999-2000. At least 194 people died and 164 aircraft were destroyed as a result of bird and other wildlife strikes with civil and military aircraft from 1988-2004 (Richardson and West 2000, Thorpe 2003, Cleary et al. 2004, Dolbeer unpublished data).

Questions are often asked about liability issues related to wildlife strikes. To help clarify this complex legal subject, I have listed below several cases involving wildlife strikes where liability issues related to airport management have been raised. This is not a complete list of liability cases and is not intended as a legal review of the cases presented. These cases are presented simply as an overview of potential liability issues that airport managers may face as a result of wildlife strikes on or near their airports.

26 February 1973. Atlanta, Georgia, USA. On departure from Dekalb-Peachtree Airport, a Learjet 24 struck a flock of brown-headed cowbirds attracted to a nearby trash-transfer station. Engine failure resulted. The aircraft crashed, killing 8 people and seriously injuring 1 person on the ground. This incident prompted the Federal Aviation Administration to develop guidelines concerning the location of solid-waste disposal facilities on or near airports. The incident generated a lengthy legal case called the “Miree” litigation in which the court finally determined that the airport manager could be held liable for failing to take the precautions possible at his level to end bird hazards (Michael 1986).

12 December 1973. Norwich, England. A Falcon Business Jet with 9 people on board struck common and black-headed gulls on takeoff from Norwich Airport. The strike caused severe damage to both engines. One minor injury resulted from the crash which destroyed the aircraft. The judge presiding over the case

wrote that the Defendants (airport operator) owed the Plaintiffs (aircraft operator and occupants) the “common duty of care”. After weighing the considerable evidence, the judge decided that the Defendants failed in their duty, and that there must be judgment for the Plaintiffs for damages. In other words, the airport operator failed to show due diligence in managing the airport’s bird hazards (Michael 1986, MacKinnon et al. 2001).

14 June 1975. Watertown, South Dakota, USA. A NA265 Sabreliner twin-engine jet ingested gulls in both engines at rotation from the Watertown Airport. The aircraft crashed, both wings were torn off, and a severe fire ensued. Three of the 6 people on board were injured and the aircraft was destroyed. The Safeco Insurance Company brought an action against the airport operator, the City of Watertown. The court maintained that the proximate cause of the crash was the failure to warn the pilot of the presence of birds. Judgment for the full value of the destroyed aircraft was entered against the airport operator (Michael 1986, MacKinnon et al. 2001).

12 November 1975. New York, New York, USA. An Oversees National Airlines DC-10-30 ingested several gulls into the #3 engine during the takeoff run at John F. Kennedy International Airport. The engine caught fire, several wheels and tires disintegrated, and the landing gear collapsed during the aborted takeoff. The aircraft then caught fire and was destroyed. Miraculously, the 139 passengers and crew (all ONA employees being ferried overseas) were able to escape the burning aircraft. There were 30 injuries but no deaths. The National Transportation Safety Board noted ineffective control of bird hazards by the airport as one of the contributing factors to the accident. A complex legal battle ensued in 1979 with ONA and the Bank of America (aircraft owner) suing the FAA, the Port Authority of New York and New Jersey, New York City (because of two landfills near the airport), and several aerospace companies in Federal or State courts. The total settlement, reached in 1985, was in excess of $15 million. Amounts paid by each party and their insurance companies are not known (Aviation Week and Space Technology 1977, U.S. Court of Appeals 1985).

7 June 1989. Genoa, Italy. A BAE 146 operated by TNT Air Cargo departing Genoa Airport at night flew through a flock of gulls at rotation. The pilot managed to return the severely damaged aircraft to the airport. Three engines were damaged. The carrier sued a number of entities for damages resulting from this bird-strike event at the airport. A decision on this case, pronounced by the Civil Court of Genoa in 2001 after 11 years of litigation, awarded the carrier $2 million in compensation. Liability was assigned as 50% to the Ministry of Transport, 30% to the private company operating the airport, and 20% to the Port Authority (Battistoni 2003).

11 January 1990. Nashville, Tennessee, USA. A Hawker-Siddeley 125 jet with 4 people on board hit a deer on takeoff from John Tune Airport. The impact tore one of the engines loose from the plane. The experienced pilot was able to get airborne and fly to nearby Nashville International Airport where an emergency landing was made. Ren Corporation (owner of jet) sued the Metropolitan Nashville Airport Authority and John Tune Aviation Corporation for damages to

cover the cost of replacing the $1.4 million plane and chartering another plane until a replacement plane was acquired (Nashville Tennessean 1990). The lawsuit was won in trial court, but lost in the Tennessee Court of Appeals (Gilbert 2004). The ruling was based on the Tennessee Governmental Tort Liability Act (TGTLA) capping government liability for property damage to $50,000 (Neill 2003).

20 January 1995. Paris, France. A Dassault Falcon 20 business jet struck lapwings during takeoff from Le Bourget Airport. The pilot was unable to control the jet after the ingested birds destroyed the left engine. The aircraft crashed, killing all 10 people aboard. A subsequent inquiry found that airport staff failed to perform routine bird-scaring operations prior to the accident. In 1998, French authorities laid charges of involuntary manslaughter against the Paris Airport Authority and 3 former officers for their roles in the accident. The airport authority was accused of “negligently failing to follow normal security procedures.” The disposition of the case is not known at this time (MacKinnon et al. 2001).

3 June 1995. New York, New York, USA. An Air France Concorde, at about 10 feet AGL while landing at John F. Kennedy International Airport, ingested 1 or 2 Canada geese into the #3 engine. The engine suffered an uncontained failure. Shrapnel from the #3 engine destroyed the #4 engine and cut several hydraulic lines and control cables. The pilot was able to land the plane safely, but the runway was closed for several hours. Damage to the Concorde was estimated at over $7 million. The French Aviation Authority sued the Port Authority of New York and New Jersey and eventually settled out of court for $5.3 million (MacKinnon et al. 2001).

22 September 1995. Elmendorf Air Force Base, Alaska, USA. A U.S. Air Force Airborne Warning and Control System (AWACS) aircraft (modified Boeing 707) crashed, killing all 24 on board, after ingesting 4 Canada geese into the #1 and #2 engines during takeoff from Elmendorf Air Force Base. Investigators found the “worst possible combination of operational conditions” including infrequent and inadequate wildlife patrols. Furthermore, the senior tower controller was reported by witnesses as saying he "observed geese lift off and turn directly into the path of the aircraft." When interviewed, the senior controller and another controller on duty at the time of the accident (both of whom "had an excellent view of the runway”) invoked their right to remain silent. The accident investigator concluded that controllers "had a duty to warn the flight crew and that failure to do so was a contributing factor to the accident" (Flight Safety Foundation 1996). One outcome of the investigation was that the people in the top 3 leadership positions at the air base were reassigned.

13 November 1996. Pula International Airport, Pula, Croatia. A Croatia Airlines B-737-200 ingested a gull into the #1 engine during the takeoff run at 1511 hours, causing an “insidious explosion” from the engine. The pilot was able to abort the takeoff, but the engine had to be replaced and the plane was out of service for 2 days. Croatia Airline’s insurer paid the airline for the damaged engine but then presented a bill to the airport for the cost of repairs. The airport refused to pay, claiming that the airport had fulfilled all the conditions for the

protection of aircraft from wildlife (including a runway sweep at 0430 hours) and that they had a permanent NOTAM to warn air carriers of concentrations of birds in the vicinity of the runway. The insurance company sued the Airport Authority in the Municipal Court of Pula. The Municipal Court dismissed the lawsuit, but on appeal, the County Court of Pula ruled in favor of the insurance company. An appeal of this decision by the airport was unsuccessful (18 April 2000), and the airport had to reimburse the insurance company for cost of engine repairs. The court noted that that the airport acknowledged that a problem existed by having a permanent NOTAM regarding bird hazards, and yet failed to undertake all measures at its disposal to alleviate the hazard (Pula County Court 2000).

22 March 1998. Marseille Provence Airport, France. An Air France A-320 encountered a flock of about 20 gulls during the takeoff run, ingesting several birds into the #2 engine which was destroyed. The pilot executed a high-speed aborted takeoff. The gull strike was directly attributed to a dead hedgehog on the runway which the gulls were feeding on when the mishap occurred. The air carrier sued the French government for negligence in operating the airfield and in January 2005 was awarded $4 million USD (Agence France Presse 2005). The hedgehog had likely been struck by an earlier flight, but Airport Operations personnel had failed to remove the carcass.

Conclusions:

Based on the cases presented above and legal or insurance reviews by Michael (1986), Wilkinson (1998), Robinson (2000), and Matijaca (2001), it is apparent that airport operators must exercise “due diligence” in managing wildlife hazards to avoid potentially serious liability issues.

The exercise of “due diligence” to manage wildlife hazards involves (in the USA) the assessment of wildlife hazards at the airport and, if needed based on the assessment, the implementation of a wildlife hazard management plan (FAA regulations in CFR 14 Part 139.337). An important component of the wildlife hazard management plan is the prevention of habitats and land uses on or in the vicinity of the airport that are attractive to hazardous wildlife. Wildlife hazard management at airports is a complex, public-sensitive, endeavor involving many species of wildlife and their habitats governed by various federal and state regulations. Airports need to employ professional biologists trained in wildlife damage control to assist in the development, implementation, and evaluation of wildlife hazard management plans. Such professionally developed and implemented management plans will minimize the likelihood of catastrophic or major-damage wildlife strikes on an airport and provide crucial support during litigation in the aftermath of any significant strike event that might occur. Cleary and Dolbeer (1999) provide detailed information on the development of these management plans as well as on FAA regulations and guidelines regarding wildlife hazards to aviation.

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