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AIRPORT OPERATOR AND AIRCRAFT OPERATOR IN CASE OF BIRD STRIKE. RELATIONS, OBLIGATIONS AND LIABILITY

Summary. Air transport is subject to various risks. One of them is bird strike hazard. Despite numerous regulations concerning prevention from this type of occurrence, it is not possible to eliminate them entirely.

Bird strikes most often take place during take-off and landing, that is on or in the vicinity of an airport. For that reason airport operators are the first parties that can be made accountable for this occurrence. International law imposes numerous responsibilities on airport operators in terms of bird strike hazard prevention on air operations, thus placing airport operators in a “key position” in the system of safety. However, the party that suffers significant damages in the first instance, is the aircraft operator. If a bird strike takes place on or in the vicinity of an airport, an aircraft operator can sue the airport operator for compensation of damages. Generally, the issue of indemnity is subject to out of court negotiations, however instances in which there is a lack of agreement between the parties, i.e. airport operator, aircraft operator or their insurers, lead to legal proceedings for compensation.

This article attempts to illustrate the relationship between air traffic participants such as airport operators and aircraft operators in connection with their obligations and liability, particularly taking into account the legal obligations of an airport operator.

ZARZĄDZAJĄCY PORTEM LOTNICZYM I PRZEWOŹNIK LOTNICZY W PRZYPADKU ZDERZENIA Z PTAKAMI. RELACJE, OBOWIĄZKI I ODPOWIEDZIALNOŚĆ

Streszczenie. Transport lotniczy narażony jest na różnego rodzaju zagrożenia. Jednym z nich jest zagrożenie zderzeniem z ptakami. Pomimo licznych regulacji prawnych dotyczących zapobiegania tym zdarzeniom, nie jest możliwe całkowite ich wyeliminowanie.

Najczęściej zderzenia z ptakami mają miejsce w trakcie startu i lądowania, czyli na lotnisku lub w jego okolicy. Dlatego zarządzający lotniskiem jest pierwszym podmiotem, który może zostać pociągnięty do odpowiedzialności za to zdarzenie. Prawo międzynarodowe nakłada na zarządzających lotniskiem liczne obowiązki w zakresie zabezpieczenia operacji lotniczych przed tym zdarzeniem, czyniąc go tym samym kluczowym podmiotem systemu bezpieczeństwa. Podmiotem, który w pierwszej kolejności doznaje znaczących szkód jest z kolei przewoźnik lotniczy. Jeżeli zderzenie z ptakami wydarzy się w strefie portu lotniczego lub jego pobliżu, przewoźnik może

dochodzić pokrycia szkód od zarządzającego portem lotniczym. Generalnie kwestia odszkodowania jest przedmiotem pozasądowych negocjacji, jednakże w razie braku porozumienia pomiędzy stronami, tj. portem lotniczym, przewoźnikiem lub ich ubezpieczycielami pozostaje droga sądowego dochodzenia odszkodowania.

W artykule podjęto próbę pokazania relacji pomiędzy zarządzającym lotniskiem a przewoźnikiem lotniczym w kontekście ich obowiązków i odpowiedzialności, ze szczególnym uwzględnieniem przewidzianych przepisami prawa obowiązków zarządzającego portem lotniczym.

1. INTRODUCTION

Air transport is considered to be the safest form of travel. Air crashes causes much fewer fatalities when compared with road transport. According to statistics from the National Transportation Safety Board (NTSB), in 2009, there were 538 air-crash fatalities in the United States. In comparison, there were 33 808 road-accident fatalities in the same period, amounting to 90% of all transport-related fatalities [17]. Boeing statistics indicate that on average, in the time period 1996-2005, air crashes took place at a rate of 0.9 per 1 million operations [2]. Technological progress together with broad international and European legal activities contribute towards the safety of air transport operations. In particular, the *Chicago Convention* on International Civil Aviation of 1944 [6] states the provisions for safe air transport. Its 18 technical appendices are an instrument for adopting appropriate measures for the rapidly changing operating conditions in civil aviation worldwide. The International Civil Aviation Organization (ICAO) issues manuals containing technical information and guidelines for the interpretation of provisions included in the respective appendices in order to achieve the Standard and Recommended Practices.

Despite such broad regulations and technical achievements, civil aviation continues to be subject to various risks, including human error which represents almost 60% of causes of air accidents [2]. Other causes include mechanical failure, weather, terrorism and wildlife hazards, including bird strikes.

The international law regulations are presented in [3] concerning the civilian safety of the air transport. The history concerning air terrorism and international antiterrorist conventions there was described in detail. As Barcik J. & Czech P. write: “due to the events of the 11th September 2001 in the USA, the international community devotes a lot of attention, also in legal aspects, to the issue of air transport safety when facing the danger of terrorist attacks” (pp. 51 in [3]), and “due to the activity of International Civil Aviation Organization – ICAO, within 8 years 3 international agreements were passed, creating a so-called Tokyo-Hague-Montreal system constituting the international legal response to the development of crime aiming at civil aviation safety, and in particular aviation terrorism” (pp. 52 in [3]).

According to the Federal Aviation Administration (FAA), between 1990 and 2007, the Wildlife Strike Database reported 82 057 wildlife strikes. Of these, 98% were bird strikes. Almost 200 people have died and over 160 aircraft have been destroyed as a result of wildlife strikes, including bird strikes. Worldwide, these accidents cost the civil aviation industry about US\$1.2 billion annually [7]. The question is who should bear these costs. The relationship between aircraft operators and airport operators is, naturally, the most prone to conflict. According to statistical data, most bird strike collisions take place during take-off or landing and may cause serious consequences such human-injury or death [1, 17]. Financial consequences, however, concern both direct and indirect costs. Aircraft operators are the first parties likely to suffer material damages, however, under certain conditions i.e. the point of bird strike, the first party that may be considered liable and be sued for damages, is the airport operator itself [13, 15-16]. This paper attempts to illustrate the relationship between air traffic participants including airport operators and aircraft operators in connection with their obligations and liability. The potential responsibility of other air traffic participants i.e. air traffic control or state institution is not the subject of this paper.

It should be noted that in most cases the issue of indemnity is settled with out-of-court negotiations. However, if the settlement between parties (airport operator, aircraft operator or their insurance companies) is not possible, the compensation for damages may be claimed by filing a compensation claim to a civil court.

2. INTERNATIONAL, EUROPEAN AND NATIONAL REGULATIONS

Civil liability in the case of bird strike is a very complex matter with respect to several aspects. At the very beginning of civil aviation history, bird strikes were not considered to be something that had a substantial impact on aviation safety. Since the 1960s, bird strikes have been identified as a risk for aviation, mainly due to technological developments resulting in aircraft becoming faster and quieter. In addition, the number of aircraft movements increased. Provisions were first made for bird strikes in 1969 when ICAO introduced Amendment 23 to Annex 14 *Aerodromes*. This was the only recommendation which stated that the competent authority takes action to decrease the number of birds on or in the vicinity of an airport. This recommendation did not contain any provisions for reducing bird attractants in communities close to airports. Currently, bird strike provisions are specified in Annex 14 to the *Chicago Convention, Volume I, Aerodrome design and operations*. The specific provisions in this matter are introduced in the *Airport Services Manual, Doc 9137, Part 3, Bird Control and Reduction* [1]. The Manual includes a number of guidelines for airport personnel concerning the implementation and development of effective bird control programmes at an airport. At the same time, ICAO began to monitor bird strikes which, in 1980, led to the creation of the ICAO *Bird Strike Information System (IBIS)*. This reporting system is a key element in prevention and is highly supported by airlines, airport operators and experts working to reduce the threat of bird strikes to aircraft by understanding birds' environment and behavior.

In Europe, the necessity of reporting bird strikes was introduced in Directive 2003/42/EC of the European Parliament and of the Council of 13 June 2003 on occurrence reporting in civil aviation [8]. On the grounds of this Directive, airport operators as well as aircraft operators are obliged to report occurrences such as "A bird strike which resulted in damage to the aircraft or loss or malfunction of any essential service" (Annex I, A, vii) b). Also Polish Air Law states in Article 135a, paragraph 1, point 5 reiterates the obligations of both air and airport operators, as stated in Directive 2003/42/EC [23]. The Regulation of the Minister of Transport from 18 January 2007 on aviation accidents and incidents contains specific regulations concerning the above mentioned obligations [21].

3. DUTIES OF AIRPORT OPERATOR

One of the basic obligations of airport operators is to ensure safety at an airport. In other words this means that it is an airport operator's obligation to ensure a safe operational environment for all airport users. Consequently, this also means, that airport operators must undertake special activities aiming to reduce bird strike hazards. The *Airport Service Manual, Doc 9137*, recommends a comprehensive approach for airport operators with regards to bird hazards - alongside standard duties such as maintaining and carrying out inspections of runways and taxiways. As a result, owing to the fact that most bird strike collisions take place during take off or landing, airport operators are crucial in bird strike hazard avoidance systems.

3.1. Legal and organizational activities

It should be noted that the risk of bird strike is not uniform across all types of airports and flight operations, and it is therefore essential that the most appropriate measures are adopted according to the local situation. This is why bird strike risk management involves professional knowledge and the application of special measures. First of all, airport operators should develop and implement a wildlife

control management plan in order to execute the appropriate bird control measures to reduce or mitigate the risk of bird strike. This plan should contain, at minimum, the procedures for risk identification and assessment of bird-strike risk mitigation measures that are implemented. The roles and responsibilities of aerodrome management and bird control personnel should be described clearly. Airport operators should appoint an airport wildlife coordinator, a bird hazard control officer and a wildlife control committee (or bird hazard control committee). The committee should be comprised of airport staff members, including representatives of all airport users, who can have a practical impact on lessening the bird strike hazard. One of the main duties of a committee is to analyse bird strike records to assess the efficiency of bird control measures implemented to reduce or mitigate the risk on or in the vicinity of airport. The coordinator undertakes the day-to-day management and efficient implementation of the programme and analyse present bird strike risk. The aim of this activity is to prescribe the needs referring to efficient bird strike control procedures and means, included in long and short – term airport wildlife control programmes [1, 14, 16].

According to the *Airport Services Manual*, Doc 9137, it is necessary to have a specialist and educated personnel at the airport operator's disposal. This is not limited solely to ornithologists, as financial and infrastructure personnel also play significant roles in the system. This means that money for financing bird strike control systems should be budgeted and infrastructure personnel should perform analyses of the potential influence of every single piece of infrastructure investment with regards to the bird strike reduction programme.

Furthermore, airport operators should inform all air-traffic participants, i.e. air traffic controllers, aircraft operators, and all operational personnel, about bird control procedures and the measures implemented. Every potential bird hazard, as well as bird strike, should be communicated to all interested parties. This means that airport operators should provide a communication-channel between all airport users and involve them in air traffic safety activities that promote the complete and timely exchange of information about bird hazards.

Having information about the potential risk, an airport operator must issue a NOTAM (Notice To Airmen) warning all airport users about the bird hazard.

3.2. Technical activities

As mentioned previously, the types of measures implemented at an airport depend on the local situation. If close to a river or there are other natural areas attractive for birds, airports must be more attentive and use appropriate measures to lessen bird hazards.

Technical activities can be divided into those limited to the airport area and activities that influence also outside the airport area [14].

The first group includes appropriate design, construction and maintenance of airport areas and buildings, appropriate manner of land use, meaning a lack of plants attractive for birds, proper grass policy and, of course, maintaining and performing inspections of runways and taxiways.

The second group concerns using adequate measures to scare birds away – such sound and visual means. With regards to sound, the means available include pyrotechnical devices, weapons with harmless ammunition, sounds of predatory birds and other animals or alarms. Scarecrows, falcons and obstacles placed in areas potentially attractive to birds are examples of visual-scaring. Falconry techniques are said to be the most efficient method against the hazards caused by birds. In Poland there are few falconers working on airports. An example is Katowice Airport that uses the falconry service (Fig. 1). This method is one of several deterrents used to stop birds invading the movement area of Katowice Airport, but the falconry method is one of the most important means in bird strike hazard avoidance system.



Fig. 1. The falconer on Katowice Airport
Rys. 1. Sokolnik na lotnisku w Katowicach

3.3. Activities outside the airport

It is important to realise that even the best safety practices and measures implemented at an airport will not be effective if in the vicinity of an airport there are attractive places for birds, such as fish farms, fruit or vegetable plantations, rubbish dumps etc. This is why airport operators, in addition to activities limited to the airport area, must take action to control or influence areas in the vicinity of the airport to minimise the area's attraction to birds. These actions should include consultation with local planning authorities on proposed developments of land surrounding the airport [1, 13, 16]. As a rule, national law regulates local development planning with reference to land surrounding an airport. Polish air law states, in Article 87 paragraph 6, that it is forbidden to build and extend constructions that may be attractive for birds and it is forbidden to breed birds that may be hazardous for air traffic, on land surrounding an airport - within a 5 km radius.

It is necessary to point out that all these measures (3.1, 3.2, 3.3) should be implemented and applied on or in the vicinity of an airport in order to exercise proper care in bird control. Only applying several of the measures listed above can put an airport in a potentially very difficult situation in case of bird strike and legal action resulting from it. Of course, the local situation is the limiting factor for the implementation of different means, but if a bird strike takes place, airport operators could find it difficult to escape liability.

4. LEGAL BASIS FOR AIRCRAFT OPERATOR RESPONSIBILITY

Bird strike accidents may cause damages, both material and non-material. Material damages can be divided into those that are direct and indirect. Non-material damages concern injuries, mental stress or death of passengers, crew or third parties [13, 16].

As mentioned earlier, aircraft operators are the first parties that may suffer damages. Direct damages mean material damage to an aircraft or third parties on the ground. Indirect damages include redirecting

passengers, profit loss, accommodation costs for passengers and crew, damages for passengers or payouts to those entitled in cases of death or injury etc.

The international legal framework for air carrier liability is formed by the Warsaw Convention for the unification of certain rules relating to international carriage by air, 1929 [5], and Montreal Convention for the Unification of Certain Rules for International Carriage by Air, 1999 [4]. It is important to notice that Montreal Convention does not replace the Warsaw Convention, but they create the Warsaw-Montreal system. Article 17 of each Convention determines an air carrier's liability in case of death or bodily injury (wounding or any other bodily injury – Warsaw Convention) of a passenger. The article states that an air carrier is liable only if an accident takes place on board the aircraft or in the course of the operations of embarking or disembarking. Therefore, damage must occur in connection with an accident that happened on boarding or during embarking or disembarking. A passenger that suffers from injury or in case of death, a legal descendant, is entitled to demand compensation. Moreover, the Montreal Convention accepts, in article 37, the right of recourse against third parties. This means that a person liable for damage in accordance with Convention's provisions has the right of recourse against any other person. In addition, there is a rule on the grounds of the Convention that an air carrier must pay compensation to an entitled person regardless of considering the recourse action to be justifiable. Thus, air carriers must pay compensation, but are able, at any moment, to demand reparation of caused damage against the person or legal entity that it considers responsible, i.e. airport operators, engine manufacturers, air traffic control etc [18].

The Montreal Convention has been incorporated into the European legal system by Regulation (EC) No 889/2002 of the European Parliament and of the Council of 13 May 2002 amending Council Regulation (EC) No 2027/97 on air carrier liability in the event of accidents [19]. This Regulation emphasises that "In the internal aviation market, the distinction between national and international transport has been eliminated and it is therefore appropriate to have the same level and nature of liability in both international and national transport within the Community". Owing to the fact that the Warsaw and Montreal Conventions continue to exist alongside, one of the purposes of the Regulation has been to provide a uniform liability regime for air transport within a United Europe. On the basis of the Regulation, the liability of a Community air carrier in respect of passengers and their baggage is governed by all provisions of the Montreal Convention relevant to such liability (art. 3 p. 4).

As Poland is a Community member, the provisions of the Montreal Convention are applicable on a national level. Generally, Polish air law states, in article 208, that an air carrier is liable for damages occasioned in the carriage of passengers, baggage or cargo according to provisions of the ratified international treaties and agreements [23].

When considering indirect costs of an aircraft operator in the case of bird strike, it is necessary to mention Regulation (EC) No 261/2004 of the European Parliament and of the Council of 11 February 2004 establishing common rules on compensation and assistance to passengers in the event of denied boarding and of cancellation or extended delay of flights, and repealing Regulation (EEC) No 295/91 [20]. This Regulation establishes minimum rights for passengers in the case of denied boarding against their will, flight cancellation or delayed flights. These are all possible in the case of bird strike collisions. Should any of the aforementioned irregularities arise, according to provisions of the Regulation, an air carrier must offer to passengers free of charge assistance such as meals and refreshments, hotel accommodation in cases of longer delays waiting for the next available flights and transport between the airport and place of accommodation (hotel or other). In addition, passengers should be offered, free of charge, two telephone calls, telex or fax messages, or e-mails. This assistance is offered under certain conditions referring to time limits set out in the Regulation with respect to distance brackets. An air carrier has to offer the assistance, regardless of it being responsible for the situation causing irregularities in transport. As on the grounds of Montreal Conventions, The Regulation states as follows: "In cases where an operating air carrier pays compensation or meets the other obligations incumbent on it under this Regulation, no provision of this Regulation may be interpreted as restricting its right to seek compensation from any person, including third parties, in accordance with the law applicable."

Taking into consideration actions of the European Court of Justice related to the rights of passengers, which seem to be more and more severe for air carriers, airport operators can expect an increase in claims for reimbursement in situations described above [10, 11].

5. LEGAL GROUNDS FOR AIRPORT OPERATOR LIABILITY

Aircraft operators are the first parties that may suffer material damage and, as most bird strikes happen when the aircraft is in the phase of landing or take off, this event may lead to airport operator's liability. And that criterion i.e. the space in which the collision happens – is the basis of potential airport-operator liability. In order to state that airport operator's liability, the criterion that bird strike happened within territory of an airport must be confirmed. The question is what does "airport territory" mean precisely. In the context of possible responsibility, airport area refers to the surface area and reasonable air space height that is under direct control and management of an airport authority [12, 13, 16]. According to *Airport services Manual*, Doc 9137, a bird strike collision that happens at an altitude of 0-60 m (0-200 feet) during landing and at an altitude of 0-150 m. (0-500 feet) during take-off is classified as airport occurrence [1].

The legal basis of airport operators can vary depending on the legal system of the respective countries. Having prepared a review of bird strike cases, legal practice generally proclaims presumed liability as the legal basis of an airport operator's responsibility [9, 15, 16]. This means that the airport operator is not liable on the grounds of objective liability. This type of liability is not as severe as objective liability, but in the case of legal proceedings, an airport operator - being the defendant - must prove that it has acted correctly and the damage occurred without it being at fault.

Excluding the theoretical aspects of liability, there is no doubt that airport operators must take all reasonable actions directed towards an airport area and land surrounding an airport to minimise the possibility of bird-strike. This includes implementation and application of appropriate procedures, activities and measures indispensable for air traffic safety, which is a focal point of airport-operator obligations. These procedures, activities and measures must be applied at all times to serve as proof in case of potential legal process, that they were performed before or at the moment of that particular occurrence. It is necessary to point out that every action taken by airport operator to implement safety measures should be recorded in official records in order to identify and prove them [15, 16]. Overall – activities and measures prescribed on the grounds of international, European and national law should be properly implemented. This does not mean that airport operators should apply all measures one by one – this depends entirely on the local situation. However, the airport operator should undoubtedly act with due care and attention and in the manner of a professional legal entity operating specific, economic and socially important business, it should always take all reasonable measures to obtain the highest standards of safety.

There are no specific regulations in Polish law regarding bird strike protection. Polish Air Law states in Article 68 paragraph 2, point 2, that airport operators should manage and operate an airport in such a way so as to assure flight safety and efficient services for airport users. The first section of article 80 of Polish Air Law, states that the airport operator is responsible for the safe operation of an airport. This general regulation obliges airport operators to undertake measures and activities to ensure safety for all air traffic participants. This obligation also refers to the prevention of aircraft safety hazards, including bird hazards.

Taking into account the absence of Polish legal practice related to bird strike occurrences, it is difficult to state on what grounds of liability an air operator would be found liable for damage caused by bird strike within an airport area. The liability in the case of negligence is prescribed in Civil Code, article 415 and those following [24]. On the grounds of a court of law verdict relating to airport noise, an airport is a "corporation" that operates using fundamental forces of nature [25]. In the case of damage caused by the operations of this "corporation" it is liable on the grounds of objective liability. In my opinion, bird strike damage cannot be considered to be damage caused by the operations of this "corporation". A bird is an external factor with relation to an airport and bird strike damage is not

resultant of the “corporation’s” operations. It seems that this should be liable by criteria of fault incurred by a lack of implementation and application of measures and other activities necessary for the appropriate prevention of bird hazard, as well as of negligence. In addition, the professional activity of an airport operator which should always make its best professional effort to ensure the proper care of the safety of airport-users, should also be taken into consideration.

6. CONCLUSION

Civil liability in the case of bird strike is an extremely complex matter from several aspects. The focal point of air transport’s aims is to create and measures and procedures that assure the highest safety of this form of travel. Taking into account legal regulations and the fact that the most common moment and place of bird strike, that is during take-off or landing, airport operators are considered to play a crucial role in the bird strike prevention system. Airport operators are also the first entities that can be sued for damages by aircraft operators who generally suffer the most significant damages.

In order to be released from potential liability, airport operators must act with due care and implement all necessary measures to assure a safe operational environment for all airport users. In my opinion, airport operators should be liable for damage only if they do not undertake measures and activities prescribed in legal regulations and if they do not act in a professional manner.

It is necessary to note that all measures should be implemented and applied on or in the vicinity of an airport in order to exercise proper care in bird control. These measures should be applied every day and at every moment. Birds are a part of natural environment and it is not possible to eliminate a hazard that is created by their presence on or in the vicinity of airport. However, the correct implementation and application of appropriate measures will contribute, first and foremost, to safer air transport, thus preventing airport operators and aircraft operators (or other air traffic participants) from serious damages and significant costs.

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