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## Safety in air service

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### ABSTRACT

From the institutional point of view, state bodies play the main role in ensuring the safety of citizens of the Republic of Poland in the country. The airport is a special place where state and non-state entities deal with security issues. The object of the article are institutions and services that guarantee security at the airport, as well as infrastructure and organization requirements in the field of airport security.

**Keywords:** safety, airport, infrastructure and organizational requirements

### 1. INTRODUCTION

Regulation (EC) No 2320/2002 of the European Parliament and of the Council of 16 December 2002 states that the crimes committed in New York and Washington on 11 September 2001 indicate that terrorism is one of the greatest threats to the ideals of the democracy and freedom and the values of peace that are the essence of the European Union. In this context, civil aviation should always ensure the safety of the citizens of the European Community by preventing acts of unlawful interference. However, since the dawn of its existence, civil aviation has been exposed to a number of threats, of which the prevention of unauthorized access was one of the most serious problems. Among the national legal acts regulating airport security issues are the Crisis Management Act, the Protection of Persons

and Property Act and the Air Act. A legal obligation to protect areas, facilities and equipment important for the interest of the State, such as the economy, defense, public security and others, has been introduced.

These important areas, installations and installations are subject to the compulsory protection of specialized armed protection formations or appropriate technical guarantees. The zones, installations and devices referred to in paragraph 1. The law on the protection of persons and property includes, inter alia, seaports and airports. These objects, based on the administrative decision, are entered in the list of objects subject to special protection. These lists are kept by ministers, heads of central offices and voivodes in the course of their activities. Although the legal interpretation of airport security is relatively clear, the application is difficult. This is due to the specificity of the facility, which is the airport, as well as the parallel involvement of many entities in this area.

## **2. CONDITIONS OF PROTECTION OF THE AIRPORT**

The basic legal act regulating the rules for the implementation of tasks to protect people and property is the law of August 22, 1997. On the protection of persons and property (Journal of Laws 2005 No. 145, point 1221 Proclamation of the Marshal of the Polish Sejm on July 26, 2005. publication of a uniform text of the law on the protection of persons and property). In the first article, the said law specifies, among others, zones, installations and equipment subject to compulsory protection.

According to her, important areas, facilities, equipment and transport for the defense of the State's economic interests, public security and other vital interests of the State are subject to compulsory protection by the specialist of armed security or the appropriate security technology. For these areas, facilities and equipment in the field of national defense are, especially the special production plants and the establishments where the works are carried out the scientific research or the design of this production, the production facilities, the renovation and storage equipment, military devices and equipment and warehouses state reserves. With regard to the protection of the economic interests of the State in particular, these are plants that have a direct link with the extraction of mineral raw materials of strategic importance for the State, the banks and the production companies, the transportation or storage of silver in large quantities and seaports and airports.

The airport is a large and complex organization, whose task is to create appropriate conditions for passengers and goods traveling aboard aircraft. Crisis situations also occur in its operations. The basic legal act, which specifies the authorities responsible for crisis management and their tasks and operating rules in this area, as well as the rules of crisis management tasks of funding is the law of 26 April 2007. In matters crisis management (Official Journal 2007 No 89, Article 590 with subsequent changes). In Article 3 of this Law, the term is understood as critical infrastructure systems and their functionally interrelated objects, including building structures, equipment, facilities, services essential to the security of the environment. State and its citizens and to ensure the effective functioning of public administration, institutions and entrepreneurs. Critical infrastructure among many others mentioned in the Act also includes transportation and communication systems, including airports [2].

The law provides for actions to:

- list facilities and systems that constitute critical infrastructure resources;
- analysis of the risk of occurrence or the possibility of a critical infrastructure threat;
- prepare a list of resources for infrastructure protection;
- define the activities carried out in an emergency situation;
- define infrastructure restoration activities;
- define communication channels with third parties.

Based on art. 187. number. 1. Law on the Protection of Persons and Property was issued in the form of an implementing act of the Cabinet of Ministers dated June 19, 2007. National Program of Civil Aviation Security implementing the rules relating to aviation safety (OJ 2007 No 116, 803). In paragraph 2.1. it was stated that the activities of the national program correspond, inter alia (point 9), to the airport manager.

The most important port infrastructure infrastructure subject to special protection (Figure 1) includes:

- 1) the passenger terminal and other terminals;
- 2) air traffic control tower;
- 3) energy generators;
- 4) fuel and lubricant stores;
- 5) air conditioning and ventilation systems;
- 6) railway sidings;
- 7) the supply of water;
- 8) aircraft parking signs;
- 9) sheds;
- 10) other devices or objects recognized by the President of the Civil Aviation Authority or the airport management as crucial for the protection of civil aviation against acts of unlawful interference (eg approach lighting, ILS1 devices, etc.).

Already at the design stage, the airport manager obtains the opinion of the ULC president regarding the security system for passenger terminals, goods terminals and other objects located near the security restricted area before their construction or extension.

- protection activities for passengers, cabin baggage and checked baggage, including their identification;
- activities to protect cargo, express and courier parcels, mail and ship's supplies;
- how to control access to restricted areas;
- use of specialized equipment.

Then, the airport manager designates the reserved areas of airports and their critical parts, as well as the passage to these areas. The zones and transitions in question are determined in agreement with the border guards, the police, the customs service and the president of the ULC. The airport manager defines them in the airport security program. For

the protection of the restricted area, including the carrying out of security checks of persons and vehicles entering it, corresponds to the aerodrome with the security of the airport. Protected objects use personal and technical security measures and patrol subject by security officers, with technical and tactical service is determined in the security plan to be agreed with the competent police commander. Airport facilities are protected due to natural and man-made threats.

Natural hazards (objective) are extreme weather conditions and other natural factors that prevent the operation of airports, including:

- violent gusts of wind, therefore. whirlpools;
- heavy rain, lightning;
- heavy snow and snow blizzards;
- fogging (visibility limited to less than 600 m);
- risk of flooding;
- heavy snow and blizzards or (as experienced by the world in April 2010) volcanic dust moving in the air. Man-made threats (subjective) include: intrillegal intrusion into the restricted area;
- the illegal transfer into a restricted area of the prohibited items listed in the Civil Aviation Authority President's Notice No. 5 on 9 August 2007.

On the list of prohibited articles to be brought into the restricted area and into hand luggage and registered passengers (OJ ULC, N ° 5 of 01.10.2007) [3] ;

- place or threaten to place explosive materials and devices in airport facilities and facilities;
- use or threat of bioterrorism or so-called dirty bomb;
- armed attack against persons staying at the airport facilities;
- bring one or more explosive devices prohibited for air transport on the aircraft;
- take hostages in the airport area;
- fly (with or without passengers);
- landing at the airport of the plane with terrorists on board;
- acts of sabotage or diversion;
- criminal acts;
- disrupt public order;
- acts of vandalism, including the destruction of the property of the company;
- manifestations or other forms of protest.

### **3. INSTITUTIONS AND SERVICES PROVIDING SAFETY IN AIR PORTION**

Supporting a departing passenger plan requires the involvement of a large number of people employed in many companies and institutions that do their work to enable a safe landing, ground traffic, parking, refuelling, maintenance service, in the conditions of winter frost planes and prepare the runway, cleaning, unloading and loading, taxiing and take off of the aircraft.

For crowd the aircraft involved in the operation, there are also others, namely those relating to the registration of offices, maintaining cleanliness, document inspection staff or passport and checking of safety, as well as those carrying passengers to and from the aircraft. The group of these people also need to add those normally passenger do not notice, namely, firefighters and medical emergency services, ready at any time to catch fire and rescue action, the controllers of the air traffic and air traffic services and airport security.

For the overall operation of the airport, the implementation of the control procedures and compliance with international standards and regulations that the Polish authorities, including the aviation authority, is committed to respect and to apply, the responsibility of the airport represented by the board of directors. It is within the meaning of Article 7. 2 of the Protection of Persons and Property Act, known as the Head of Unit, which directly manages the areas, facilities and devices. As an airport manager 2, he is also responsible for organizing and supervising activities to protect the airport against illegal interference attacks.

In this regard, management is required, inter alia, to appointment of a person holding an appropriate security certificate who will be responsible for airport security and the training of airport staff in this regard;

- Prepare, in consultation with the Border Guard (SG), the Police and the Customs Service, the Airport Security Program and mark it with the appropriate security classification;
- designation of the areas and critical parts of these restricted areas, as well as appoint, in consultation with border guards and the police, the transition of a restricted public area and ensure their protection (area reserved for the operator of the airport determines the airport security program).

The proposed Airport Security Program Project is submitted by the Manager to the Department of Civil Aviation Protection and Rights and approved by the President of the Civil Aviation Office. According to art. 2. The Protection of Persons Act 1997 and the Property Protection Plan should: take into account the type of business entity, include an analysis of the potential threats to the State and the current state of the security units, give an assessment of the current state of the protection of the individual, data on specialized armed protection formations (including full-time status, type and number of weapons and equipment, method of securing weapons and ammunition), contain data on the type of technical security, organization and protection of the unit [4].

Protection programs for airport managers, air carriers and other entities engaged in aviation activities at the airport are agreed within the border guard - by the local SG center and the local SG branch. The commander of the SG branch is responsible for the provisions in this regard, under which a subject-to-review entity operates. On the part of the police<sup>3</sup>, the competent authority to make the relevant arrangements is the chief of the provincial police or a person designated by him, and the customs service - the director of the customs chamber responsible for the given airport <sup>4</sup>.

The airport manager issues laissez-passer to enter certain areas and supervises, in cooperation with the border guards and the police, the proper functioning of the transit system. Moreover, in agreement with these formations, it establishes a patrol system of the security zones and adjacent zones. In airports, and according to need also at other airports, the so-called airport security teams. These include the airport operator or a person designated by

him airport security officer (team leader) and an airport security representative, the police, the committee brings the companies together (or alternatively, a representative of these carriers), the Committee brings together other entities engaged at the given airport (and in the absence of a representative of these entities) and the fire protection services [5].

At airports with border crossings, the team also includes border guards and customs officials. The main tasks of the team include: the expression of opinions and make proposals for the preparation by the airport project order manager and order instructions in the field of airport security, the expression and applications of reporting for the design of the airport security program, risk assessment airports attacks unlawful interference and take action against such acts, as well as the launch of the introduction of new solutions for severance pay and control of passengers and baggage, cargo, courier and express parcels and mail, including aviation safety legislation.

Airport Security Service (fire) (SOL) is a protection from internal acting on the basis of the law of August 22, 1997. The protection of persons and property, and the regulation of the Minister of the Interior and the Administration of 17 November 1998. In the service of internal security. It implements civil aviation protection tasks and is subject to the airport manager in this regard.

The basis of the protection activities of the Airport Security Service is as follows:

1. Airport Security Plan with associated facilities and facilities. This document has a clause "CONFIDENTIAL" and is available in the secret company operating the airport, and the provision of the airport security chief - the head of security.
2. Airport Security Program Against Acts of Unlawful Interference.

Airport Security Service<sup>5</sup> is established at airports and, as needed, at other airports. It is a specialized service providing safety for passengers, aircraft and employees. SOL employees operate throughout the airport, and they also control people entering security zones in the port area.

The main tasks of SOL include:

- carrying out security checks in the context of national traffic and access to restricted security areas [6];
- the protection of the restricted safety zone, including the inspection of the technical condition of the airport fence;
- check the laissez-passer issued by the manager and the rights of people to stay in specific areas;
- people shot and passengers violated the security of order and state or conditions of transport and persons without permission obtained or attempted to gain access to the restricted area, and then transfer them to the custody of the police or at the border; ***this action applies to persons who:***
  - violate security conditions at the airport, pose a threat through hooligan behaviour, intimidation or threat,
  - threaten the order or safety of persons and property,

- obstruct the performance of their duties to employees or service in the terminal and in other areas of airport infrastructure;
- damage to the passenger terminal, its equipment or other equipment and infrastructure facilities; airport, where it can endanger the safety of people and property,
- violate the order of order and security at the airport,
- violate the conditions of transport, threatening from the moment to close the door of the before launch, until opened after landing by hooligan behaviours, intimidation or threat,
- threatening the order or safety of persons and property d an aircraft,
- impede married couple of the crew performing duties or reducing its ability to perform duties on board an aircraft,
- damage to the aircraft, its equipment or components and equipment,
- a violation of safety rules during flight operations

In the legal system applicable in the Republic of Poland, the Border Guard is, besides the Office of Civil Aviation, the main entity responsible for the safety of civil aviation.

The SG performs his duties in the area of the border crossing, which usually straddles the airport area.

Training activities in the area under discussion concern, inter alia, the following areas:

- carrying out security checks on persons, baggage, goods and other air consignments, as well as on air transport in international air transport;
- take measures in the event of a threat to the safety of air transport, airports and passenger terminals, in particular by identifying and securing luggage and objects of unknown origin left unattended;
- cooperation with the Civil Aviation Office, including information to the ULC President on the threat of acts of unlawful interference in civil aviation;
- participation in the work of airport security teams;
- the implementation of the tasks related to the security on board the aircraft thanks to the display of the ranks of guard (air security agents);
- advise on security plans at airports, air carriers and companies operating in the aviation sector;
- the implementation of quality control tasks in civil aviation;
- ensure public safety in the territory of the airport's border crossing. Border guard duties also include oversight of the implementation of security controls in domestic air transport by airport managers using the airport security service.

These activities include, but are not limited to:

- acting at or near the security checkpoint - at a distance that allows the officer to appear immediately at the checkpoint;
- resolve doubts about the baggage or the person and the objects held by it in order to be admitted to air transport;

- immediate response to public disturbance signals at the security check point and in the adjacent area responding promptly to violations of civil aviation security regulations by airport security personnel;
- immediately forward the requests to the airport manager to eliminate the serious deficiencies identified and inform the President of the Office of Civil Aviation of these shortcomings. Border Guard (SG institution) operates in the airport on the basis of: (.. Consolidated text, Journal of Laws 2005 No. 234, Article 1997, as amended) Law of 12 October 1990. Border guards, the Act of 12 October 1990 on the Protection of National Borders (2005, No. 226, item 1944, as amended) and other provisions 1.2 Airport Protection Program [7].

The persons directly responsible for the performance of airport security control activities are a pyrotechnic control group and the safety of air outlets operating in the SG structures at air border crossings. Currently, these tasks are performed by approximately 1,400 well-trained agents<sup>7</sup>. The substantive control of their activities is exercised by the Frontier Council of the Border Guard Headquarters in Warsaw.

Border guards also have statutory powers to carry out operational and reconnaissance operations at the border crossing point as well as in the field of commercial operations. They are extremely important from the point of view of identifying threats that may arise or possible preparations to create a threat. All persons employed at the airport, who have access to security restricted areas, may be subject to verification and verification by border guards even before they are issued [8]. In the daily service, the border guard operation is supported by specially trained service dogs of different specialties (explosive detection, drug detection, patrol and defense).

In addition, airports have police stations. Their main tasks are to ensure the safety of the people staying at the airport through the implementation of projects of part-interventional and operational-recognition nature. They counter acts of terror sabotage and subversion in air transport. They fight common crime, secure the stay of people with VIP status and act in case of crisis. During the first half of 2009, 177 police officers (full-time 208) carried out security tasks in and around 11 Polish airports. [9] A special role is played by the police during the crisis, as then with the help of the officers of the higher units and the negotiators of the police are conducted negotiations, and in case of their inability to share can enter the anti-terrorist squadrons.

The airport police station operating at the airport (KPPL) operates on the basis of the Police Act of 6 April 1990 (Uniform text DzU 2007, No 43, Article 277). KPPL is a specialized police station, which performs in the area defined in the separate regulations, the tasks of the police in the protection of the security of persons and the maintenance of security and public order, as defined in the laws and regulations established on the basis of laws [10].

KPPL's responsibilities include:

- ensuring the protection and maintenance of public safety and order at the airport;
- Acquisition of breaching airport security terms, in violation of conditions of carriage, or those without authorization obtained or attempted to gain access to a restricted area of the airport, recognized and reported by Airport Security Guard employees ;
- provide advice (reconciliation) on security programs developed or modified by the airport manager, the airport operating carrier and the aviation operating entities;

- escort dangerous passengers;
- give its opinion on projects aimed at countering the crisis situation in civil aviation developed by the airport managing body and the air carriers operating from it.

Customs at the airport performs tasks related to the protection of the financial interests of the state, applying the provisions of the Customs Code (the law of 9 January 1997, as amended) and other legal acts concerning licenses for the export or import of certain products. It effectively counteracts the introduction of endangered animal and bird species in the Republic of Poland, and plants. Regardless of the tax activities, EC officials cooperate with the security services to comply with security procedures and, during the execution of customs controls, ensure that there are items of luggage or cargo likely to pose a threat in flight. Passenger service in the passenger terminal (check-in and check-in, baggage handling, boarding pass inspection) and at the airport (passenger transport to the aircraft, loading and unloading of baggage and cargo, cleaning of the plane) Handling agent [11].

The quality and efficiency of passenger and air service depend primarily on its employees. Due to the relatively long contact with the passenger and luggage, the employees of this institution have an important role in the protection of civil aviation. These are their remarks and observations about the passenger, his behavior, contact with people carrying luggage, baggage, etc., which can provide valuable information for the security services and which may form the basis or premise of a detailed inspection. Airlines or other air carriers are companies operating under strictly defined international law and the law of the State in which they are registered. They deal with the transportation of passengers and goods between airports. A passenger who purchases a ticket for a given flight becomes a customer of a given airline, while an airline is the main customer of the airport and the companies that operate there. That's why the airport manager and the companies that operate there depend on the best service to passengers, including taking such measures to feel safe. On the other hand, airlines competing with other airlines undertake a number of actions to attract a potential customer. In addition to using various marketing procedures, they must meet certain international standards in maintaining a high level of security, both as part of the applied security procedures, as maintenance of the means of transport - aircraft in an impeccable technical condition. The deficiencies noted over the years or the failure to ensure a high level of passenger protection have become the subject of reflection and specific actions of the European Parliament [12].

Already in 2005, a regulation was implemented, and in 2006 a regulation was implemented, in which a list of airlines whose aircraft do not meet international safety standards, the so-called blacklist<sup>10</sup>. This list is established on the basis of common criteria established at EU level and is gradually being updated (last updated on 14 July 2009). This list proves to be an effective tool that not only prevents dangerous European carriers from transporting and providing information to passengers worldwide, but also ensures that airlines and civil aviation authorities take appropriate measures to ensure a high level of security. Statistics show that about 70% of aircraft disasters and fires occur at or near airports, so they are located in the airport's operational zone, at a distance of 8 kilometers. from the central point of the airport.

The company's Aircraft Fire Brigade is an independent rescue and firefighting unit equipped with high quality specialized equipment to be used when needed. In spite of the efforts made to organize the protection system, every airport must take into account the fact that a plane crash or other crisis may occur at a given moment when it will be necessary to

undertake an operation. effective rescue and firefighting [13]. Accidents and disasters happen unexpectedly and surprise you, so you should always be prepared for them and have the right amount of strength and resources to eliminate the effects, and especially to save the wounded. One of the basic tasks of firefighters is to control the fire in the aircraft, thus creating the conditions for effective evacuation of passengers and the crew of the fuselage. This is why the so-called concept of a critical zone that involves extinguishing activities in the area adjacent to the fuselage [12]. On the other hand, firefighters' daily tasks include refueling aircraft.

There are also other users of the airport, namely companies, companies and even people engaged in business that rely on the license obtained and signed contracts carry out the activities of airport services. Among these companies, there are those without whom it is difficult to imagine the efficient operation of the airport and those who provide their services solely for the convenience of the passenger. The first group undoubtedly includes ground handling, technical services, energy service and catering. For other shops, snack bars, restaurants, post office, car rental, etc. Group entities at airports performing functions related to the creation of practice and attractive for travelers and people waiting in zones can certainly play a role in the detection of danger signs and thus contribute to compliance with safety standards passenger terminals [14].

This cannot be underestimated. Please note that restaurants, bars, lounges, restrooms, etc. are usually places of public spaces, focusing a large number of people, and so it is very attractive in terms of carrying out a terrorist attack in order to obtain publicity, the presentation of terrorist targets, cause fear and the state of emergency.

As a result, 100% of the goods delivered to stores, restaurants, bars and kiosks in the security zone are subject to security checks. It is the vigilance of the restaurant owner who helped to thwart the May 2010 coup in Times Square in New York. A special protection procedure concerns supplies of aircraft on board. Before taking any production or supply-in-flight activity provides air from the entity running a present business to the President of the CAO for approval, a plan to protect against attacks from unlawful interference, and in addition [15]:

- presents its new access control system in the facilities where it operates;
- submit security checks to all persons employed in the manufacture of supplies on board;
- verifies safety products and semi-finished products used to make bridging products;
- Carry deck equipment under surveillance in closed and sealed vehicles. Supplies on board are subject to random security checks carried out in the security zone regulated by the border guards or the airport security service.

Inspection activities are carried out by the operators registered by the ULC President in the list. These are people who have undergone appropriate tests to work on food. The supplies on board must also be checked by the crew of the aircraft.

#### **4. CONCLUSIONS**

The special nature and importance of airports mean that the issues of their protection have been reflected in many legal regulations. At the same time, the multiplicity of these regulations and, above all, the institutions that implement them, means that the coordination

of activities in the field of protection, with a particular focus on airport critical infrastructures, requires a great deal of effort. The very specific nature of an airport facility is also not facilitated, so when performing security tasks, it is necessary to focus on the correlation of these activities carried out under the aegis of the managing entity. of the airport.

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