

AERODROME CERTIFICATION FOR SPORTS

Bibiána Hudáková, Peter Koščák

Technical University in Kosice, Faculty of Aeronautics, Rampova 7, 041 21 Kosice, Slovakia

*Corresponding author: peter.koscak@tuke.sk

Summary. The work deals with the advantages and disadvantages that accompany phenomena in the construction of sports airport. Is dedicated to the certification of airports, without which today's airports could not perform the operation. Description of system safety and quality management at the airport. Transport Authority and its tasks, scope, describes this work as a professor and executive body of the Slovak Republic in the field of certification of aerodromes. The work also deals with the certification of its own sports airport and obligations of this type of airport. The last section is devoted to manual building of a sports airport, which refers to documents such as an airport operations manual, administrative and other documents necessary for the construction of sports airport.

Keywords: Establishment of sports airport, certified airports, Transit authorities, Manual to build a sports airport

1. INTRODUCTION

Certification is nowadays not only in the industry, but also in air transport. It is vital to achieve a certain level of quality that can compete well in the market. Certification means improvement and building system, so it is necessary to certify the sports airports, which thus increases the level of security and that is the aviation's first.

Topic is relevant due to the fact that most of the attention is given to large and international airports, which certify the airport results from various binding provisions and treaties. Certification in this work is directly applied to the construction of new sports airport Lastomír and its supporting portion pattern aerodrome operating manual that contains methods and procedures for airport operations.

The first chapter describes the advantages and disadvantages of construction of sports airport. It deals with the location where the airport Lastomír is going to be built. The next section describes aerodrome certification as methods of certification and what is required of an applicant who applies for certification of the airport. The third chapter is devoted to transport Authority and its role, and scope. The last section of this topic affects the aerodrome operating manuals of airport Lastomír, drawn up as a model for possible future airport construction Lastomír. The fourth chapter deals with the fees that are indicative and to the airport operator and show a financial margin of such construction.

2. ESTABLISHMENT SPORTS AIRPORT

Airport for sports purposes shall be at the lower Zemplín where no airport of similar type is. Specifically, it will be in Lastomír location near the village and will be located near the river Laborec. The area is in the warm regions of Slovakia and therefore the construction of an airport in this area is satisfactory. Construction of the airport brings benefits not only the visitors but also the village itself. It is for the visualization of community, revenue in the general cashbox or the increase of the population in the village and others. Regarding the contribution of the airport for visitors of Zemplín, the airport could offer various sightseeing flights, since the surrounding landscape is provided by the beauty of nature and its diversity. Each airport has its drawbacks, and in this case it may be noise of the actual construction of the airport or the burden of municipal infrastructure construction equipment.

On the negative side it may also be that the airport will take arable land and if it occurred in the operation of the airport emergency, it could contaminate the soil or groundwater.

3. CERTIFICATION OF AIRPORTS

Certification means conformity with the requirements of standards. This applies to products, services or processes, quality systems and controls. Conformity is certified by the appropriate authority which manages the technical standards or other documents. Certification is actually the applicant's assurance that the products, services or processes are in accordance with established rules and standards.[1]

Airports and their operation is subject to these regulations imposing the certification:

- Prescription ICAO which is part of the ICAO Annexes
- National legislation on safety of airports- backbone homework again rules that are based on the ICAO.[2]

Table 1 Overview Aeroclubs and certified aerodromes some EU countries[2]

Country	Airports	
	Aeroclubs	Listed as certified airports (soon to be certified)
Belgium	0	6
Czech	5	9
Denmark	0	36
Estonia	0	11
Finland	0	28
France	13	70
Ireland	0	28
Latvia	0	8
Netherlands	0	14
Portugal	0	50
Romania	0	33
Slovakia	7	8
Slovenia	0	67
Spain	0	45
Sweden	0	99
United Kingdom	0	142
Sum	25	701

3.1. Safety management system

ICAO requires the operator of a certified aerodrome safety management system that meet the following points:

- identification of security risks,
- maintaining adequate security and if necessary perform remedy,
- monitoring and evaluation of the safety level achieved
- focus on continuous improvement of safety and its level[2]

SMS policy on security

Safety management system provides active, integrated and systematic approach to governing the safety of airport operations. The importance of safety risk management processes is important to

analyse and evaluate. Airports that have implemented SMS should continue to train and educate their employees. It is vital to ensure the highest possible level of security for passengers.[3]

3.2. Requirements of Traffic Bureau on safety management systems

Requirements for SMS based on rules L and Annex. It is a systematic approach to managing security. Necessity of such a system is to systematically manage safety and availability, as demonstrated especially in investigating air accidents. Manage security, means following the procedures of preordained plans.[4]

SMS management system ensures connectivity of security with daily flight operations, suggesting that the activity of the organization is linked to security. The operator provides the agreed procedures of proper security and cooperation with other organizations that are part of management.[4]

Intention of Safety Policy

It provides targets for the provision of services and minimize the proportion of people at risk of aircraft accidents, as much as possible. Management should ensure a level of security that each worker is responsible in the conduct of his work, maintain a high level of safety. Senior employee, is again responsible for the processes that are carried out for security purposes.[4]

Achieving security

To allow a maximum safety, within the prescribed action by personnel licenses, it ensures their training, motivation and adequate performance of the work that is required of them. It applies to register the information concerning the status deployment of personnel involved in activities relating to safety. Register includes:

- workers- managers are responsible for functions relating to security ,
- professional technical and operational workers- are professionally trained and qualified ,
- locations and duties that are assigned technical and operating staff (this also applies to methods and rostering).[4]

3.3. Certification of sports airport

Before certification of airport, transport authority must ensure that the manual contains a precise description of the airport infrastructure and ground. Manual should include detailed information on the regulations that are essential for the construction of the airport.[5]

The airport operator is obliged to prove Transport Authority that the airport is safe for operation of aircraft that has the necessary experience to operate sports airport as well as its maintenance.[5]

Certificate airport may force open or limited. Individual countries of the world have different duration, it may be five or three years or validity can also be specified. The airport operator may surrender the certificate airport, but in this case, the traffic authorities to submit an application for decertification. Following the revocation of the certificate is airport operations closed up until the certificate will not be renewed or it moves further to the airport operator.[5]

Certified aerodrome manual must be changed or repaired by the airport operator, always has to ensure the timeliness and accuracy of the information. Any change that was made in the manual of airport must the airport operator report to Transport Authority, which it must approve.[5]

4. TASKS TRAFFIC BUREAU

Transport Authority as a strong and professional oversight of government civil aviation performs the tasks entrusted to it by law on air. 143/1998 Coll. Carry out their activities in the field of airworthiness and environmental certification of airworthiness of aircraft, it is dedicated to aircraft operations, flight personnel of his professional capacity. Issues certificates facilities for training and relates to the safety or security of civil aviation.[6]

4.1. Transport Authority and its scope

Transport Authority has defined scope and meets various tasks, including carrying out state supervision in civil aviation. It acts as a special supervision for civil aviation, documentary and conditions for continuing airworthiness. Cooperates with the Ministry of Defence and declares prohibitions, restrictions of respective flights in a volume of airspace. Approve the arrangement of Aviation Days, competitions related to aviation, air or other events, where they participate in the general public.[3]

5. GUIDE TO BUILD A SPORTS AIRPORT LASTOMÍR

Building a new airport with an unpaved runway is a relatively complicated process. This process involves selecting a suitable surface, then the construction itself and eventually permission to operate the airport. Already airport operations involve various administrative formalities which are time complicated. Therefore, it needs precise preparation of documents in advance.[7]

Selection of the appropriate areas is also influenced by other aspects. For the selection of area, as much as it is possible is essential to take to account:

- length and width flat- takes account of the area to create a clearway end safety areas,
- falls area and its ripple,
- bearing capacity and drainage areas,
- space around flat- selected in this case the village, shrubs and planting cereals, near river,
- obstacles around flat- their height, distance from the area, affecting the operation of the airport,
- factors affecting environment- noise and emissions, leakage of oil.[7]

The request about the establishment of a new airport is handed to the Ministry of Transport, Construction and Regional Development of the Slovak Republic and the new airport is given identification code of building- application also includes technical and operational aero- assessment, which is beneficial to the intention of the applicant and to the transport policy of the state. Although this is a sport airport in terms of administrative fees to be paid in an adequate amount. If the ministry approves the request the establishment of a new airport and other statements concerning the persons and bodies such as municipalities, the applicant may commence treatment area of an aerodrome by already established building- technical assessment decided by the transport authority.[7]

5.1. Airport Operations Manual sports airport Lastomír

Airport operations manual is a living document, which falls under the Amendment. It is essential that LPP was to date with correct information about the airport. This document is the responsibility of the holder airport operation and is also responsible for change management, and for any operational changes, approved by the transport authority. The airport operator is obliged to create such a system, any changes to be incorporated into LPP without any problems. LPP should have your administrator, who is appointed by the airport operator, who should ensure timeliness of document.[8]

Sports airport Lastomír that could be realized is essential to have approved documents which express individual opinions of the authorities to create such an entity. It is therefore necessary that the airport operator Lastomír has the following documents:

- The application, containing information about protection zones and any restrictions
- An application of the territories examined in the light of buffer zones
- The request to grant a derogation from the protection zone
- An application declaring protection zones of the airport or aeronautical ground facility.[9]

Each airport, both public and private, whether with paved or unpaved runway must pay administrative fees to Transportation Agency. Airport Lastomír is actually a national, non-public airport with unpaved runways. Administrative charges of airport

Lastomír are contained in the following table:

Table 2 Fees for the establishment of airport¹

Entry fee amount of the fees	The amount of charge
Non- instrument, without light safety equipment	80 euro
The decision on issuing a document on the determination of the buffer zones	
Airport	500 euro
Ornithological buffer zone euros	80 euro
The suitability of the site for the construction of an aerodrome survey	
Aerial works in agriculture, forestry and water resources	280 euro
Other airports with the length of the runways to 1200 m	660 euro
Reconciliation of airport operations manual for the airport Lastomír	
Non- instrument, without light safety equipment	80 euro
Authorization to carry out aerial work and other business in civil aviation pursuant to special legislation	
First Edition	660 euro
Total:	2330 euro

The resulting sum of € 2330 is only indicative amount, as regards the establishment airport Lastomír. No administration itself around aerodrome equipment to purchase, respectively to rent a property for the establishment of an airport to allow different species to the real operation of the airport, this amount multiplies.

4. LITERATURE LIST

- [1] Certification products- conformity assessment, Prešov 2015 [online] Available at: <http://www.eic.eu.sk/sluzby-spolocnosti/certifikacia-vyrobkov>
- [2] Extensions of scope of EASA. 3/2007 [online] Available at: <https://easa.europa.eu/system/files/dfu/EASA-2007-0012-01-00-ENSK.pdf>
- [3] KOŠČÁK, Peter- FERENC, Ján: Organisation and management of airport operations. Košice : TU- LF, 2010. 183 p. ISBN 80- 978- 553- 03567
- [4] The requirements of the Transport Office of the Slovak Republic on safety management system (SMS), Bratislava 2009 AIC C16 / 09 [online] Available at: http://www.caa.sk/pdf/letiska/aic_16_2009.pdf
- [5] Manual for aerodrome certification, First edition- 2001 [online] Available at: http://www.rld.kvalitne.cz/tahak/Manual_pre_certifikaciu_letiska.pdf
- [6] The characteristics and mission of Traffic Bureau, Bratislava 2013 [online] Available at: <http://www.caa.sk/pdf/informacie/charakteristika.pdf>
- [7] The transport officials to build the airport, Bratislava 2015 [online] Available at: <http://letectvo.nsat.sk/letiska-a-stavby/letiska/prevadzka-letisk/>
- [8] Contains aerodrome operating manuals, Bratislava 2014 [online] Available at: http://www.caa.sk/pdf/letiska/letiskova_prevadzka_prirucka.pdf

¹ Source : Transport official airport operations and safety zones, fees, Bratislava 2015 [online] Available at: <http://nsat.sk/dopravny-urad-menu-udaje-a-dokumenty/poplatky/divizia-civilneho-letectva/prevadzka-letisk-a-ochranne-pasma/>

- [9] The protection zones and air prekážky- Application files, Bratislava 2014 [online] Available at: <http://www.caa.sk/pdf/stavby/podklady-ziadosti.pdf>