

PROCESS OF CREATING AIRPORT EMERGENCY PLAN

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ABSTRACT

This paper deals with emergency planning in aviation from airport point of view. It contains an analysis of the current state of emergency plans at aerodromes in the Czech Republic and highlights the differences and errors due to emergency plans formed according to modern requirements and the flawless functionality in its use. The article describes the process that should be performed for creation and maintenance of the airport emergency plan.

Key words:

safety, airport procedures, aviation safety, airport emergency plan, emergency situation

ABSTRACT

Príspevek sa zaoberá pohotovostným plánovaním v letectví z pohľadu letísk. Obsahuje analýzu súčasného stavu pohotovostných plánů letísk v ČR a poukazuje na rozdiely a chyby vzhľadom k pohotovostným plánům tvořeným dle moderních požadavků a požadavku na bezchybnou funkčnost při jeho využívání. V příspěvku je popsán proces, který by měl být vykonáván při tvorbě a následném udržování letištního pohotovostního plánu.

Key words:

Safety, letištní postupy, letecká bezpečnost, letištní pohotovostní plán, krizová situace

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1 INTRODUCTION

Emergency planning is a key element that can save lives and finance in case of realization of events with an impact on safety or security. Emergency plan for the airport is a necessary part of its documentation and is required also supervising authorities before issuing the license of airport operator.

The current state of the emergency plans at some airports is disastrous and it would be almost impossible to use them in emergency situation.

In this article, we deal with the process of creating emergency plan for the airport in the way as it should be done at every airport.

2 EMERGENCY PLANNING

The primary objective in aviation, like in any other business, is to generate profit. This is the basic premise, but its achievement is not always easy. The basis is to divide finance by the company between 2Ps (Figure 1) - production and protection goals and to determine the correct ratio.



Figure 1 Dilemma of 2P [10]

In terms of emergency planning, this issue is supported by two contradictory approaches, which are to spend small funds to create and continuously maintain emergency plan and extreme costs of the realization of air accident with almost zero probability. Because of this dilemma it is ordered by law to have at each airport emergency plan (AEP).

Its structure is mentioned in several laws, rules and regulations; ICAO Annex 14, Act No. 49/1997Sb. supplemented by Decrees No. 108/1997 Sb. and No. 410/2000 Sb. But for the operation of the airport, the emergency plan (along with the safety program) must always been tailor made for specific airport to be able to use it in case of an event with an impact on the safety.

It is important to realize that the emergency plan affects a large number of activities at the airport. Virtually every process that is going on at the airport should be safe and secured. In the event that any part of this processes are assessed by the risk

that must be managed, it is possible to manage it with the emergency plan. Emergency planning has also a relationship with processes at the airport in the “other way” when can hazard identification and risk assessment could reveal some process which is appropriate to modify so that it has less influence on events with impact on safety.

The above have then also a positive economic impact on the entire airport (operator, owner, ...), as small investments of funds in emergency planning could reveal a hidden threat to the airport, which could have fatal consequences.

For the compilation of emergency plan, it is advisable to use at least fundamental modern approach; to cover an important point of airport recovery to full operational condition after emergency event. This point is completely ignored in almost all emergency plans.



Figure 1 Emergency Management Cycle [5]

3 CURRENT STATE OF AIRPORT EMERGENCY PLANS

As already mentioned, the current state of the airport emergency plans is completely inadequate in the view of their possible use in emergency situation. This condition is caused by two factors. The first one is legislative influence and the second one the approach of the airports (the operators).

The legislation specifies only the fundamental points that should be included in emergency plans. An example might be the Decree No. 108/1997 Sb., which refers to the need to have emergency plan by: "Description of the airport emergency plan for emergencies at the airport, including:

1. plans for action in emergencies at the airport and its surroundings, including aviation accidents, malfunctions and aircraft emergencies during flight, fire of airport equipment, unlawful acts, environmental accidents and all non-standard situations, having the character of an emergency under specific legislation, (Act No. 239/2000 Sb.),
2. description of the procedures of training and testing of facilities and equipment which will be used in emergency situations, (Act No. 240/2000 Sb.), including the frequency of such tests,

3. description of the test procedures training in emergency situations, including the frequency of such exercises,
4. list of the legal and physical entities at the airport and outside, carrying on activities related to the operation of the airport, their telephone and fax numbers, email addresses, addresses of the Society for Aeronautical Telecommunications and Information Services (SITA), or their allocated radio frequencies within an Integrated Rescue System
5. establishment of the airport command staff for the organization of partial exercise of emergencies,
6. nominating the person accountable for conducting the intervention on site emergency,
7. list of organizations operating at the airport, contact persons and phone numbers on which are continuously available.“ [8]

Approach of airports to the emergency plans is negative in the sense that airports do not want to spend the time to create a document that is not accurately described by the law, so that they would have to figure out how it should look. In transferred meaning it is again influence of the legislation, but in this case extended by the unclear process of creating emergency plan. This situation is not helped by the involvement of supervisor authorities which has not clearly specified how should emergency plan look like and therefore what they will check. This further supports the reluctance of airports to create these documents. However, it is necessary to highlight the approach of major airports, in the Czech Republic primarily Prague Airport, which can realize the benefits of a high quality airport emergency plan and devote sufficient resources in its preparation.

The situation described above is unbearable and at the present time should not exist. Therefore, it is essential to change the approach of the airports to this issue through demonstrating the benefits of AEP and with help in the process of AEP creation.

4 PROCESS OF CREATING AIRPORT EMERGENCY PLAN

Airport emergency plan should respect the following five rules:

- Sequence - individual information should follow each other. There should be no violations of succession among the items in AEP.
- Organization - sections of AEP should help users find what they need without the need to actually go through the entire document.
- Consistency - all part of the airport emergency plan should use the same logical order, so that the reader did not have to change the focus in each section.
- Adaptability - sort of information should allow the use of information in unexpected situations.
- Compatibility - AEP should be compatible with other emergency plans at regional, national or international level. Compatibility issues should be

resolved by reformatting the AEP or creating a chart of coordination relationships.

The application of these rules should be linked to all collected information about the airport and its surroundings, which are required for emergency plan. This information usually comes from the first risk analysis, which is necessary for the airport to handle. At this meeting should meet representatives of airport, experts from the emergency services, the representatives of the operators based at the airport and surrounding communities. It is also beneficial to use experts from the National Civil Aviation Authorities and air accident experts.

The extent of emergency plan for the airport will come from the risk analysis, respectively from the first step of risk analysis, which is a brainstorming of above listed persons, i.e. events that need to be ensured by the emergency plan. This step is also useful to create division of events into individual areas that can be addressed in a similar manner, because each event is unique and therefore cannot be described in the emergency plan. Simple generalization allows ensuring all events with similar denominators. It is necessary, however, to rightly set out competences, so that a responsible person should always have sufficient powers and sufficient resources to carry out the decision.

The basic division of emergency plan may be in terms of safety and security or from the perspective of a need for the involvement of internal or also external units to resolve the incident. This separation is necessary for the subsequent update of the emergency plan, as it allows communicating only with stakeholders and is not required to invite all representatives who participated in the first creation of AEP.

The procedure of creating and maintaining airport emergency plan is starting with risk analysis from which arise events that need to be included in the AEP. The person responsible for the AEP (airport representative) then gather all the information from risk analysis and according to the rules will create a first draft of AEP. This first proposal then goes to the first amendment procedure, which is internal in the airport, and here are expressed comments from the relevant airport employees. After incorporating of comments, the proposal is submitted to the next round of amendment procedure, which should be comments from external bodies, primarily from the integrated rescue services. These observations are essential for the proper operation of emergency plan in case of necessary involvement of external units for intervention to prevent a collision between assumed competences.

Drawn up emergency plan must be also tested before it can be used. This can be done in two ways, exercising from the table and / or a practical exercise. The best way is to use both options, as the exercise from the table can find almost all the shortcomings of AEP and it is from a financial point of view very inexpensive. Consequently, it is good to perform also practical exercises. After the exercise it is again necessary to incorporate comments and findings into AEP. After that, AEP is ready to use and provides certainty to be functional.

The completion of the AEP, however, does not mean that work on this vital document is over. The risk analysis must be continuously performed and in the case of a new process that is not captured in the AEP, the AEP must be expanded to contain this event.

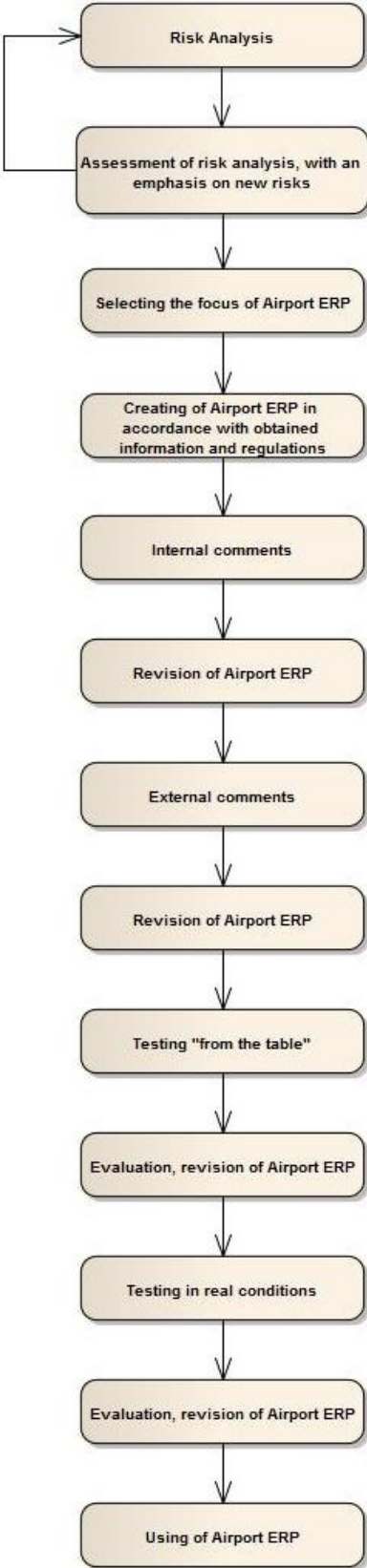


Figure 2 Process of Emergency planning at airport

CONCLUSION

The current approach to the issue of airport emergency planning is inadequate and needs to be changed. In this article, we therefore summarize the current condition of making contingency plans in the Czech Republic and showed a process that should be established for creating an airport emergency plan for each individual airport. Due to lack of funds at smaller airports the process model is as simple as possible so it can be applied in a very short time.

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