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Assessment of the influence of profiling on measures to ensure air safety at the airport

Fighting terrorism and ensuring aviation security is one of the main tasks of the state. Aviation security systems at airports should be reliable and comply with world standards. It is worth noting that for the airports of different countries, the contents of optimal security schemes are uneven. International aviation organizations are constantly increasing the requirements and requiring the improvement of technical and technical maintenance of the process of control over aviation safety (AS) with the provision of servicing of livestock and traps. As a result, the level of technical equipment of airports increases, but new methods are emerging as well as the implementation of acts of inadvertent interference that jeopardize the safe operation of civilian aviation.

The airport is a complex of facilities, including aerodromes, terminals, cargo terminals and many other elements. The airport serves as an object of increased interest of terrorists, respectively, the airport is a regime object.

Existing requirements for airport security systems are very high. It is very difficult to organize airport security for several reasons:

- through a large area of the object;
- due to the large number of airport employees;
- because of the constant movement, as well as the fact that thousands of completely new people appear on the site every day.

To solve these problems, in 1994, aviation security services were established at airports and civil aviation enterprises.

At the airport, the Pass and Object mode provides its own Aviation Security Service (ASS). Security inspectors stand at the guard of the lives of air travelers and airport services, they control the perimeter of the airfield without allowing unauthorized persons to enter the airport building and conduct a survey of vehicles and people at checkpoints.

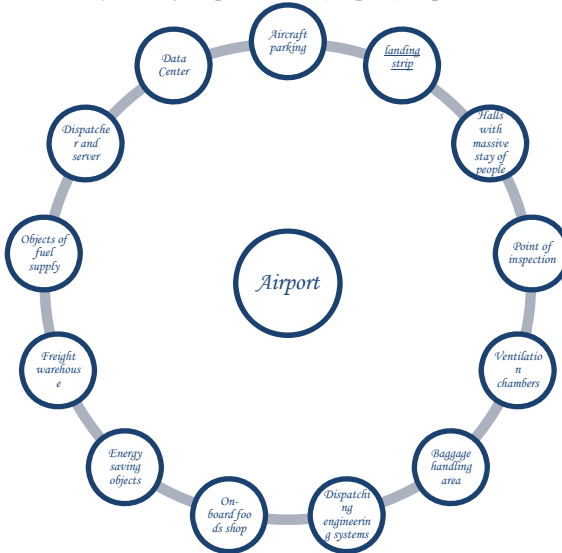
Functions of the ASS service are shown on the fig. 1.1



Preventive measures		Action in EG
Creation and protection of control zones	Overview of passengers and hand luggage	Situation assessment and distribution of functions
Access control in the zone and to the aircraft	Overview of crew members and staff	Realization of a plan in case of emergency
Protection of aircraft and civil aviation facilities	Safety of baggage, cargo, mail and on-board inventory	Interaction of departments involved in emergencies
Patrol and protection of public order	Overview of aircraft and civil aviation facilities	Effective use of forces and means
Training of personnel on aviation security issues	Development and elaboration of a plan in emergency situations	Support for general safety in emergencies

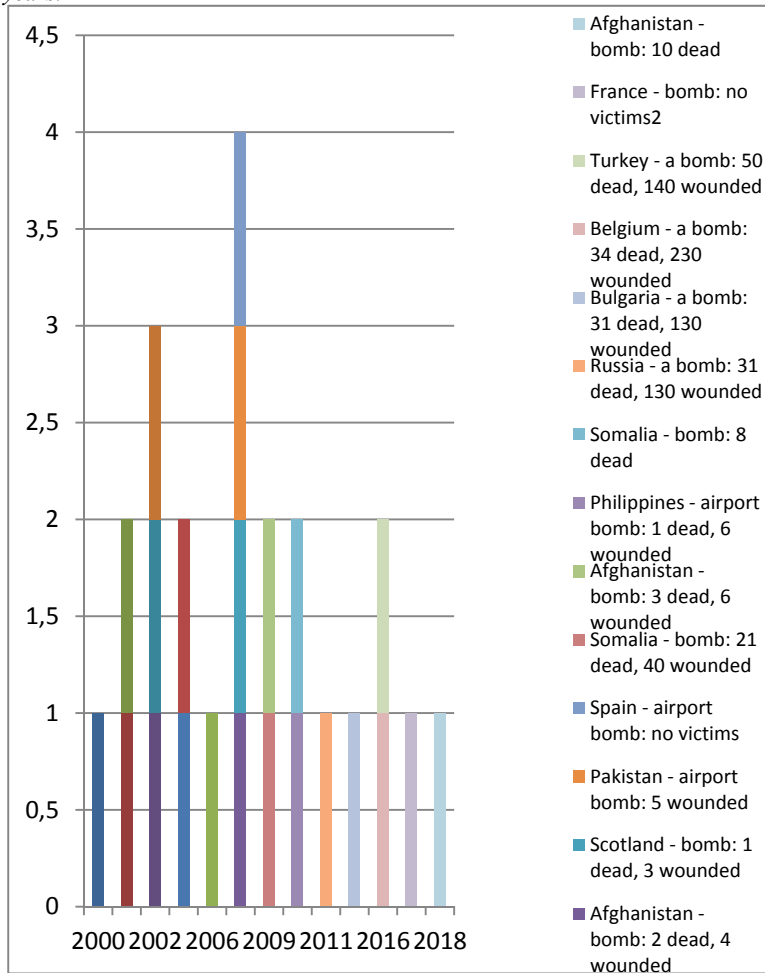
The airport, as an object of protection, can be represented as a set of different zones. Each zone has individual rules and regulations for employee and visitor actions within the zone, as well as for crossings between zones. The territory of the airport is divided into an area of transport security, through which passage through the checkpoints in accordance with the established procedure and the area of free access, access to which individuals, the sweeping of tangible objects is not limited. The aviation security zone in turn is subdivided into the transport and technology sector. Similarly, in the area of aviation security there are sectors of border and customs control.

The model of the object protection (airport) is presented on the fig. 1.2



To date, the concept of "aviation security" can be considered in two keys: the state of aviation security against unlawful interference with aviation activities, or as a set of measures, as well as human and material resources intended to protect civil aviation against acts of unlawful interference (AUI). The AUI from a security perspective is fixed, analyzed, investigated, on the basis of which measures are being taken to prevent the causes / factors of adverse events in the future.

The fig. 1.3 shows the dynamics of the AUI at airports all around the world for 18 years.



Given that events in this area are rather rare, statistical studies do not have the desired effect. On the other hand, the time factor in the implementation of organizational management is relative, is practically not evaluated and not associated with procedures for identifying and eliminating hazards, that is, the provision of aviation security of the airport on the basis of organizational management cannot be considered in terms of optimal management. There is a complex task for assessing the level of aviation security of civil aviation objects. Moreover, if you set the task of managing security on the basis of this

assessment, then it should have a quantitative equivalent, that is, the level of aviation security of the object should be expressed in number. Immediately there is a problem of the existence of the physical meaning of the magnitude, which reflects the level of safety and units of its measurement, not to mention the measurement methods.

The complex of measures for ensuring aviation security should be borne in mind in the program of provision of aviation safety of the airport (its features of the conditions of the base, aircraft and geography of flights, the volume of passenger and freight transportation and other factors) and constantly updated. And, without the competent, operational interaction between the airport's security forces, it is virtually impossible to implement this complex of measures.

The peculiarities of the global threat from terrorist groups prove that formal control measures and the use of IT review technologies are relevant, but do not fully address the issue of prevention of AUI. Therefore, the promising direction of the work of the services in the field of aviation security is profiling.

Profiling is a concept that means a set of psychological methods and techniques for evaluating and predicting human behavior based on the analysis of the most informative private attributes, appearance characteristics, non-verbal and verbal behavior.

The main task facing a specialist profiler at airports and in transport is to identify the main indicators of suspicion from the airport visitors.

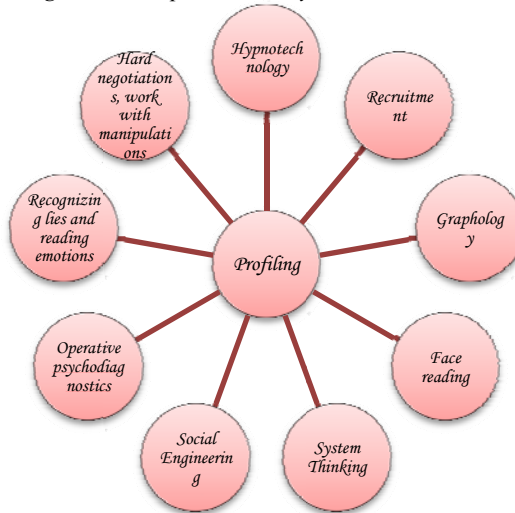
The indicators of suspicion may include such channels of reading information about a person, such as: facial expressions, gestures, appearance of a person, psycholinguistics and speech of a person. It is important to note that all of these indicators are important together and the specialist should be able to trace immediately all behavioral criteria and a number of applied socio-psychological techniques, whose purpose is to assess the reliability of information on non-verbal human behavior, that is, non-instrumental detection of lies.

The methodological principles of profiling are research П. Екмана, В. Фрізена, К. Шерера [6], М. Цукерман, Б. ДеПауло [7], В. А. Лабунської [8], О. Фрай [9] and other.

Peculiarities of the behavior of a criminal person were obtained as a result of research conducted on already convicted offenders. Thus, it was possible to identify the main leading psycho types of personality, which usually commit crimes and assess the statistics of the presence of such people, the severity of the crimes themselves.

The practice of applying various methods and techniques of profiling on objects of transport infrastructure shows that most of the two most commonly used varieties of profiling - operational and criminal are often used precisely operational profiling. It is realized in a rather short period of time (which is not surprising in the conditions of constant passenger traffic) and, as a rule, reduces to assigning one or another passenger to a certain type (profile): a potentially safe passenger (or a passenger with "positive" features); Potentially dangerous passenger (or passenger with "negative" signs).

The profiling stages in airport security are shown on the fig. 1.4



Thus, the competent use of the observation skill and the algorithm for conducting a polling interview allows police officers to implement in practice a profiling technology, minimizing the possibility of the implementation of AUI at airports.

It is important to emphasize the importance of profiling and psychological testing precisely in the framework of preventive measures, since these techniques contribute to the initial discovery of the characteristic features of the planned AUI.

But, if it turned out that the terrorist was still in the place of a large crowd of people, it is important to have time to detect such a criminal and take all measures to disarm him and prevent the tragedy. Preparation for the successful prevention of a terrorist attack is the unconditional preparation of the psychological profile of the offender's personality.

By 2012, more than 3,000 BDO professionals were trained in the United States that were sent to 176 largest airports from 450 airports under the TSA in the United States. From 2011 to 2012, passenger traffic at these 176 airports was approximately 1.3 billion people (2012 - 657 million people). Based on statistics for 2011-2012, profiling (BDO) conducted about 61,000 detentions (2012 - 37 370 detentions) at 49 research airports. Of these detained passengers, 8,700 people (14%) (2,214 in 2012) were transferred to police, of which 365 (4%) (199 in 2012) were arrested, which is only 0.6% of the initial number of detainees and of these 0.6% of the ratio to the preparation of terrorist acts were 0.48%.

Conclusion

In the public sector, the systems of aviation security are characterized by a high level of safety and are characterized by a wide range of integral systems, with a large amount of safety-related safety features.

Security experts believe that the introduction of constantly improved technologies is justified, and the technical means of security and illumination must continue to change.

Having taken a methodological approach to the problem and verified in practice the technological methods of working with passengers and visitors and combined with the experience of security services and law enforcement agencies, it is possible to work out an effective approach to the problem of prevention of AUI, which in the future will lead it to a higher level and determination a place as one of the leading technologies in the field of protection against AUI.

The general introduction of profiling is hampered by the lack of a clear legal framework, the mentality of the overwhelming majority of citizens, as well as the lack of specialists trained in the basics of this subject. Gradual solution of these problems will allow to gradually make profiling one of the leading technologies in the field of protection against AUI.

Particular attention is paid to preventing terrorist activity in transport. In the meantime, profiling is actively working in full at airports, but, of course, profiling techniques need to be introduced in all modes of transport to the extent that this is possible taking into account the development of this direction. Ideally, it's important to prevent the very possibility of committing terrorist attacks in the process of terror preparation.

References

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