

# AIR TRANSPORTATION AS ONE OF THE POSSIBLE TERRORIST TARGETS

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The study presents the results of the survey conducted with an aim to determine the following: how citizens perceive air transport at present, whether the attacks following September 11, 2001 have negatively changed their attitude towards the use of air transport, whether airport security measures imposed in the wake of September 11 are sufficient and whether they are/are not seen as a violation of privacy rights and personal freedom.

**K e y w o r d s:** terrorism, airport security, security of restricted area

## 1. INTRODUCTION

The phenomenon of terrorism knows no borders and represents an imminent risk to all peoples and the survival of democracy, affecting all citizens. The most valuable asset – human life has apparently begun to lose its value. Terrorist organisations have become the users of the most up-to-date forms of communication, including air transport, and utilize new tactics, exceeding the social and moral principles. Their acts not only bring new threats to security of directly affected states, its institutions and citizens, but in term of globalizing world they possess a threat to all humanity. Every terrorist act is unique in itself, and it is the most pronounced in relation to its victims and other catastrophic consequences.

After September 11, 2001, the terrorism has taken on a new dimension. It has been the greatest terrorist attack in the modern history of humanity, carried out against symbols of power and the strongest country in the world. Its consequences have been far-reaching, giving the term “terrorism” a whole new meaning. A great majority of the countries, without regard to nationality, religion and culture have joined to fight such threat. September 11 has started a long-term war against terrorism as a method of solution to social conflicts.

## 2. Methods

The aim of the survey was to determine:

- a) A general attitude of general public towards the air transport;

- b) whether the general public negatively changed their attitude towards the use of air transport in the wake of September 11, 2001;
- c) whether the airport security measures are sufficient;
- d) and whether they are/are not seen as a violation of privacy rights and personal freedom; Prior to testing we prepared our own hypotheses on the peoples' reactions to the event of September 2001 and whether the attack could impact the later use of the air transport.

A younger generation (below 24 years of age) may not be able to comment on the events, as they were rather young in the time of the attacks and may not remember the tragedy. It may be difficult for them to compare and thus change positively/or negatively their attitude towards the use of air transport. Younger generation may be oversensitive to any violation of personal freedom and rights and could be negligent to various decrees, warnings and prohibitions.

A middle generation (24-50 years of age), in contrast to younger generation, is able to compare the situation now and before and thus better evaluate the issue and the attitude towards the air transport, but however, such experience may only slightly change their attitude. Different measures would not affect them in their deciding whether to fly or not, though they may be able to accept certain restrictions to a bearable extent.

An older generation (above 50 years of age) may display apprehensive tendencies to flying that could be reflected in utilisation of air transport. This group could be more tolerable to restrictions than the other two ones.

**2.1 A Questionnaire**

A questionnaire was used to obtain information based on personal opinion. Respondents were informed about the aim of the survey prior to filling the questionnaire anonymously via the Internet.

Three sets of questions were asked:

**Personal information** - used for classifying the respondents into the groups according to the gender, age and region,

**General information** – peoples’ attitude towards air transportation and reasons for using it,

**Specific information** – utilisation of air transport with regards to fear of flying due to terrorism.

**2.2 Sample research**

Prior to testing, we divided respondents into three age-groups: below 24 years of age, 25-50 years of age and above 50 years of age. The reasons are as follows:

- Age-group below 24 years of age - it comprises predominantly students and workers with specific demands and attitude towards air transportation;

- Age-group between 25 and 50 years of age – working age population, their views on use of air transport and fear of flying differ from those of the previous age group;

- Age-group above 50 years of age - people approaching end of their career or retired/ elderly citizens, thus their views are slightly different from those of the two previous age groups;

Totally 202 individuals participated in the questionnaire survey. Despite the fact, that the oldest age group was represented by lower number of individuals than other sample groups, the total number of participants was significant for verifying or refuting our hypotheses.

**3 RESULTS AND DISCUSSION**

Out of the total number of 202 participating individuals, 108 have already used air transport and 98 have never flown by the airplane. The highest number of people (72%) who have used air transport was from the middle age group (25-50

years old). This may be due to the fact that air transport is being increasingly used as the mean of transport to far-away holiday destinations, thus enabling to reach various places and saving time, and energy – in contrast to time and energy consuming travelling by car. Majority of people from this age group is actively working and uses air transport even for the business trips. In the youngest age group (below 24 years) only 14 people have ever flown – not enough financial funds for such mean of transport, or they are unemployed, students, etc. and use cheaper means of transport. In the age group above 50 years of age, out of 26 individuals only 16 have at least once experienced flying.

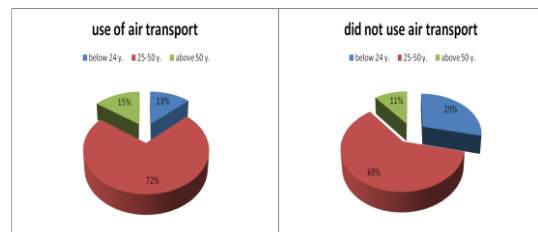


Fig. 1 Structure of the age groups according to using air transport in %

**3.1 Structure of individuals according to personal characteristics**

Out of 202 individuals, 144 were females and 58 males. Out of the female group, the most numerous were the middle age group (25-50 years old). In the other two groups, the numbers are almost even.

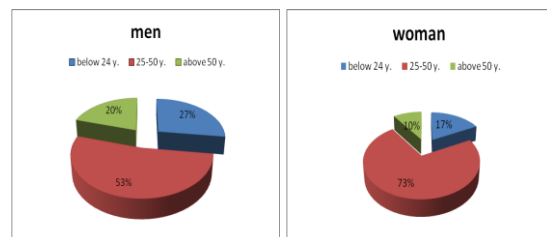


Fig. 2 Structure of age groups according to genders

The lowest numbers of participating individuals were from the Trnava, Banská Bystrica and Nitra regions and people living abroad. The highest percentage (30%) was from Bratislava

region. Košice and Žilina regions both accounted for 19% ( 38 individuals), respectively.

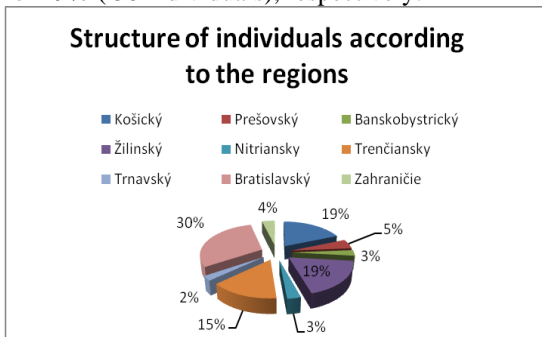


Fig. 3 Structure of individuals according to the regions

### 3.2 General questions about air transport

**„CHOOSING A FLIGHT: WHAT ARE THE MOST IMPORTANT FACTORS?“** As the participants had several simultaneous options, the count can exceed 100 %, therefore we did not assign the responses to individual age groups, but we evaluated them as a whole. As shown in Fig. 12, the price of the airplane ticket is the most crucial factor, what is not surprising with regards to the financial situation in Slovakia. The second most significant factor is an arrival/departure time; crucial for business trips and regular lines. Some people tend to experiment when choosing a flight or airline, therefore third factor is previous good experience.

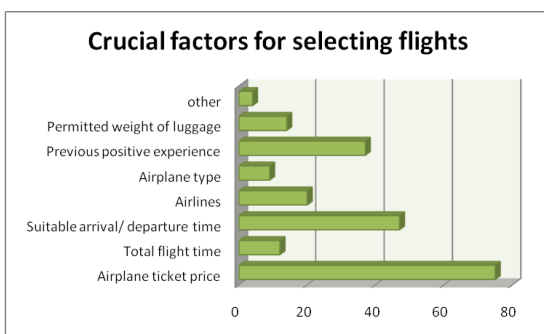


Fig. 4 Crucial factors for selecting flights

The most common destination and purpose of the flight: (this question was answered only by those participants who had travelled by plane before) – the most common purpose is reaching a holiday destination, as reported by 54

participants from the middle age group (25-50 years of age), out of 75. The same age group uses air transport for the purpose of business trips, visiting friends or family members account only for 5 % and only individuals below 24 years of age flew because of the study at a language course.

Table. 1 The most common destinations

	Holidays	Business trip	Visiting friends	Other
Below 24 y.	10	2	0	2
25-50 y.	54	17	7	0
above 50 y.	11	3	2	0
<b>Total</b>	<b>75</b>	<b>22</b>	<b>9</b>	<b>2</b>

**“WHAT IS THE SAFEST WAY TO TRAVEL?“** Out of 202 participants and despite the never-ending media reports on airplane crashes and hi-jacking (e.g. crash of the JAG-42, where all passengers aboard and crew were killed) people still have confidence in air transport. Statistical analyses reveal that the least number of accidents, technical problems and the greatest comfort presents air transportation. The second rank goes to rail transportation and the lowest ranks are occupied by road and ship transport.

Table 2 The safest modes of transport

	Air	Road	Rail	Sea	Inland waterways
Below 24 y.	24	1	13	2	1
25-50r.	70	5	49	4	7
Above 50 y.	14	0	12	0	0
<b>Total</b>	<b>108</b>	<b>6</b>	<b>74</b>	<b>6</b>	<b>8</b>

**„WHAT ARE YOU PREFERENCES IN MEANS OF TRANSPORT?“** Options were air, water or ground transportation. The participants predominantly preferred air transport (55%), however, as much as 43% would prefer ground transportation. These are mostly

individuals who have never flown and use cars. Water transport was the option only in 1 % of the participants.

Table 3 The means of transport and preferences

	Air	Ground	Water
below 24 y.	20	19	2
25-50 y.	74	60	1
above 50 y.	18	8	0
<b>Total</b>	<b>112</b>	<b>87</b>	<b>3</b>

**3.3 Results – specific part**

Herein are included all participants without regard to using or not using air transport.

**“HAVE YOU CHANGED YOUR ATTITUDE TOWARDS AIR TRANSPORTATION IN THE WAKE OF SEPTEMBER 11 ATTACKS?”** As much as 163 participants responded that it had no impact on their view of flying. The ratio of 81% to 19% says it all. The Fig. 14 shows the responses of the participants according to their age group.

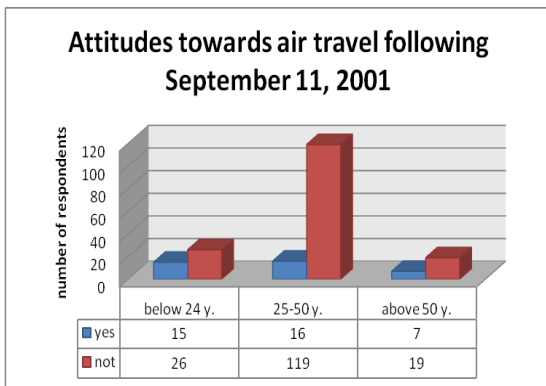


Fig. 5 Attitudes towards air travel following September 11, 2001

**„DO YOU SUPPOSE THAT THERE SUFFICIENT SAFETY MEASURES ARE BEING TAKEN AT AIRPORTS?“** Out of 202 participants, 61 % of them are satisfied with the implemented safety measures and 39 % would welcome certain restrictions, so as not to allow

similar scenario that was those in Domodedovo Airport in Moskva, happen again.

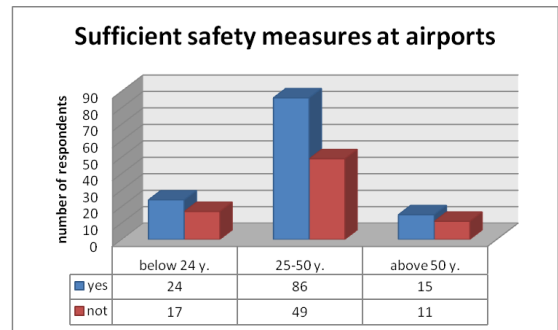


Fig 6 Sufficient safety measures at airports

**„DO YOU AGREE WITH THE RESTRICTIONS APPLIED TO THE QUANTITY OF LIQUIDS ABOARD?“** As much as 51 % do not agree with such limitation, believing that it would not significantly reduce the risk of terrorist attack. Terrorist groups may turn their attention to cargo transport or an airport itself. As much as 29% agree with this restriction and 20 % feel indifferently.

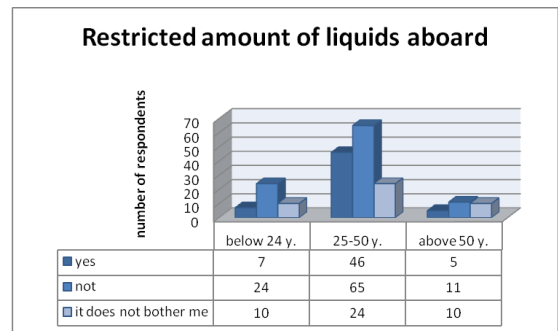


Fig.7 Restricted amount of liquids aboard

**„IS IT NECESSARY TO CONTINUOUSLY WIDEN THE LIST OF ITEMS PROHIBITED FOR AIR TRANSPORTATION?“** Participants below 24 years of age responded evenly both with „Yes“and „Not sure“. This may be due to a lack of experiences with flying, or plenty of experiences and thus realising the risks. Only 5 participants answered „No“ and expressing their feeling of violation of their privacy. In the middle age group, the negative answers were more numerous,

expressing their view of rather safe travelling without any need to widen the list. Participant responding with „Yes“ may feel slightly apprehensive due to previous accidents. The oldest age group does not travel commonly by plane, therefore the participants responded with „ Not sure“

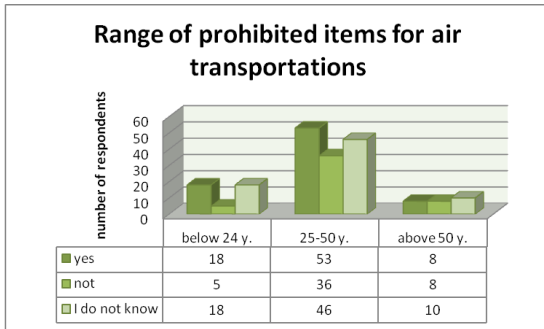


Fig. 8 Range of prohibited items for air transportations

**„STRICT SAFETY MEASURES REQUIRE INCREASED COSTS, REFLECTING IN THE PRICE OF AIRPLANE TICKET.“** The results show that the middle age-group, which the most often uses air transportation, would not agree with the increase in the ticket price. In the other age groups 50 % that use air transport would not agree with the increase and other 50 % would tolerate it if that reflects reflect greater security.

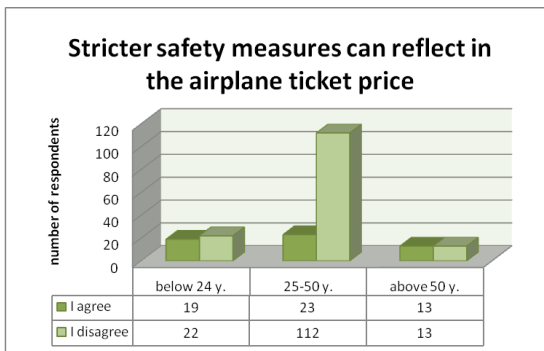


Fig. 9 Stricter safety measures can reflect in the airplane ticket price

**“DO YOU FEEL RESTRICTED BY THE STRICTER CONTROLS AT THE AIRPORTS?“** The responses were rather predictable. In the view of *“Better safe than sorry”*

participants realize that they would rather tolerate longer safety control that faces a terrorist attack.

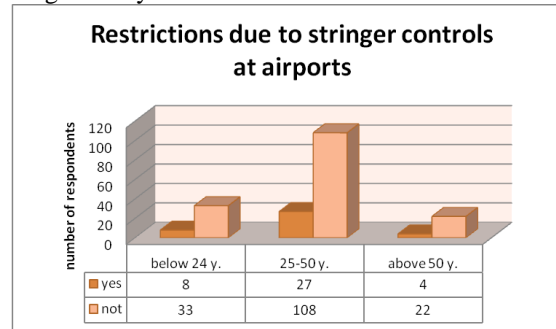


Fig. 10 Restrictions due to stringer controls at airports

**“IS TRAVELLING COMFORT REDUCED OWING TO THE EVER-TIGHTENING RESTRICTIVE MEASURES?“** As it is shown in Fig.11, it is evident that younger and middle generation is oblivious to the tightening safety measures. Only in the middle age group the responses are not univocal, 46% expressed consent and 54% expressed dissent. This may be due to the fact that they have to deal with stressful business life and all those restrictive safety measures reduce their travelling comfort.

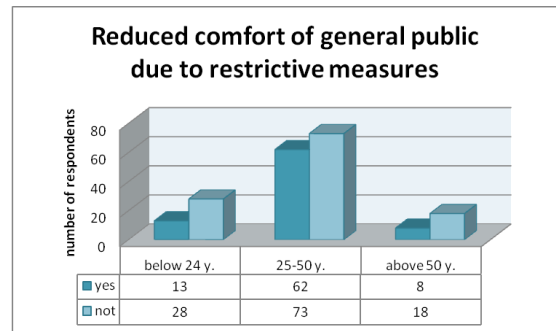


Fig. 11 Reduced comfort of general public due to restrictive measures

**4. CONCLUSION**

Prior to our survey we have proposed three hypotheses that were compared to the Questionnaire responses:

Hypothesis 1: The questionnaire survey showed that in this age-group (below 24 years of age) 34% respondents have experienced flying and 66 % have not used air transport yet. Surprisingly,

despite this fact, they regard the air transport as the most safe and prefer it to ground transportation. The issue of the impact of September 11 on the use of air transport they confirm our hypothesis that the attacks have not triggered any change in their attitudes towards the flying. Our hypothesis was also confirmed in the part where we presumed that creating an evidence files would be regarded as a violation of privacy.

Hypothesis 2: A middle generation – according to the questionnaire survey- uses air transportation very often, up to 72%. A majority of the participants confirmed that their positive attitudes towards flying have not been affected by the attacks, thus confirming our hypothesis. They also agree with the higher restrictive and safety measures, however, only to a certain extent, as e.g. they did not agree with the fluid limits on boards, thus supporting our hypothesis.

Hypothesis 3: Older generation, however, entirely reputed our hypothesis. As much as 62% uses this means of transport and thus presumed fear was unsupported. The events on September, 2011, did not affect their attitude towards air transport, again reputed the hypothesis. Restrictive measures were met ambiguously, though they agree with stricter measure, thus they did not support our hypothesis.

Results of the statistics presented in this study, based on the analysis at the Undergraduate Thesis [1], revealed that despite the terrorists attacks the general public has positive attitude towards the flying, they regard air transport as one the safest means of transport and despite restrictive and safety measures at airport they still *keep their chin up*.

#### BIBLIOGRAPHY

- [1] VARANAIOVÁ, J.: Air Transportation as One of the Possible Terrorist Targets. Undergraduate Study, Faculty of Aeronautics, Technical University in Kosice, 2012
- [2] Škvrnda, František. Terorizmus najvýznamnejšia nevojenská bezpečnostná hrozba súčasnosti, Trenčín, 2003. 158s. ISBN 80-968337-2-3

- [3] GERO, David. : Hrůza v oblacích, Praha: Jan Vašut, 1999. 176 s. ISBN: 80-7236-082-5
- [4] Únos letadla. [cit. 2011-08-10]. Dostupné na internete: <http://unos-letadla.navajo.cz>
- [5] Lukášek, L.: Fenomén mezinárodného terorizmu ve svetle súčasného mezinárodného práva, Plzeň, 2000.632 s. ISBN: 80-7082-690-8
- [6] Price, J., Forrest, J.: Practical aviation security: Predisting and preventing future threats: New York: Butterworth-Heinemann 2009
- [7] Letecká bezpečnosť. Dostupné na internete: [http://www.euractiv.sk/obrana-bezpecnost/zoznam\\_liniek/letecka-bezpecnost-000246](http://www.euractiv.sk/obrana-bezpecnost/zoznam_liniek/letecka-bezpecnost-000246)
- [8] Európska úprava bezpečnostnej ochrany letiska: Dostupné na internete: <http://www.ulclegal.com/sk/bulletin-probono/2010/10/2901-europska-uprava-bezpecnostnej-ochrany-letiska>
- [9] Terorizmus hrozba možných útokov [cit. 2012-01-10]. Dostupné na internete:
- [10] <http://www.patrolguard.sk/osobna-ochrana/terorizmus-hrozba-moznych-utokov/>

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