

Working on Preventive Measures



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What is the status of the State Commission on Aircraft Accident Investigation and what does it do?

The commission was appointed by the minister of infrastructure in November 2002. It works to the minister of infrastructure but is not subordinate to him. Law is designed to provide the members of the commission with the greatest possible autonomy and independence in adopting resolutions concerning the investigated cases. Therefore, the minister appoints the members of the commission for an indefinite period and to dismiss such a person some precisely defined circumstances have to be fulfilled, e.g. such a person has to be the subject of a conviction by final judgment for an intentional offence or can be dismissed by other members of the commission in voting. Initially, there were six persons in the commission; now there are fourteen members. The main task of the commission is to investigate accidents and serious incidents for the purposes of preventive safety measures in a broad sense. In the adopted resolutions, the commission does not indicate persons guilty or responsible for the accident; its members cannot be expert witnesses in the cases investigated by the commission. The reports we publish, when the works on a given case is finished, do not include assessment who made the mistake. They focus on specifying the cause of accident and include guidelines, if possible, how to behave to avoid such mistakes in the future.

So, they are a kind of preventive measures?

Exactly. The commission was created to propagate knowledge about air occurrences; therefore, the reports concerning a given case are made public after the works are finished. The works of the commission are separate from the works of a public prosecutor. Moreover, a member of the commission cannot be called on by a public prosecutor's office to be an expert in the case of an accident he had earlier investigated on behalf of the State Commission on Aircraft Accident Investigation. At the same time, the reports cannot be used by courts or prosecutors, since it is stated there that every time a given report is used for other purposes different conclusions may be drawn. The opinions issued by the commission have to be objective. That is one of the reasons for the protection of the commission members, I have already mentioned.

How are the air occurrences classified?

The classification of the air occurrences is quite clearly described both in air law and in the document, which is the basis when it comes to aircraft accidents investigation, i.e. Annex 13 of the Chicago Convention, signed also by Poland. According to this classification, among the air occurrences it is possible to distinguish aircraft accidents, serious incidents, incidents and other occurrences which do not fulfill the conditions to be classified as accidents. If during a

flight, i.e. from the moment when any person boards the aircraft with the intention of flight until the last person disembarks after the flight, the structure of the aircraft is seriously damaged – this is an accident. A serious incident takes place, if the structural damage is just slightly smaller than in the case of an accident. Occurrences both in the air traffic and in the ground traffic can be classified as serious incidents. Incidents are such occurrences which do not meet the criteria for an accident or a serious incident. Other occurrences include remaining incidents connected with flights, e.g. aid to navigation which does not function.

On average, there are 70-100 accidents every year, from a dozen to several dozen serious incidents and several hundred incidents. The number of reported incidents increases as their reportability is improving. The current system has been functioning since the end of 2002, therefore, the air companies, operators, schools still learn how to classify the occurrences. We are glad that the number of accidents remains on more or less the same level; taking into account the increased air traffic and growing number of aircrafts this is a proof of an increasing flight safety.

The more incidents are reported, the safer it is, since the occurrences are noticed at the level of operators – users of the aircrafts. If they recognize any abnormal situation and report it to us, this means that their awareness in the scope of air occurrences is increasing and there is a greater chance that the occurrences are noticed before they turn into accidents.

We fight stereotypes, since it is still a common belief that if you do not report anything, this means you do not have any accidents, any occurrences. As a matter of fact it is on the contrary. If you do not report anything, it means that the situation is very bad, because either you sweep under the carpet or you cannot find anything. There is no such a thing as no problems.

What course one have to complete to be a pilot of an ultralight aircraft?

Airplanes are the easiest way to fly with an engine. To learn how to fly an airplane and to obtain a private pilot licence, i.e. a licence accepted all over the world, it is necessary to complete a course with 35 hours of flight time – in the case of persons with experience in the air, or with 50 hours for persons who have never sat in a cockpit of an aircraft before. Completing such a course gives you a right to make private flights – not for profit-making – in airplanes not heavier than 5,700 kg.

When it comes to the ultralight aircrafts, to become a pilot of such an airplane it is necessary, similarly to the previous case, to take aero-medical examination and to complete a 25-hour course, which finishes with obtaining a licence of an ultralight aircraft pilot. It allows you to fly airplanes not heavier than 495 kg, which means very small airplanes. During such a

course, the pilots are trained mainly how to behave in dangerous situation, among other things in a situation of an emergency landing. An instructor teaches the course participants to think ahead to be able to keep calm if the engine stalls during flight, practices landings with the engine off.

In the mass media a theory prevails that pilots flying ultralight aircrafts are inexperienced, and they pose a greater threat than the pilots of other aircrafts. I cannot agree with this, since an ultralight airplane has around 30 litres of fuel in its tank and is not heavier than 490 kg; it is constructed of tubes, canvas and, sometimes, composites. Therefore, force with which it crashes or the following losses are not huge. Larger airplanes can carry 200-300 litres of fuel and a fire, which breaks out when they fail, may be very dangerous.

So, a pilot licence course looks similar to a driving licence course.

It is similar. A person who obtains a driving licence takes a sit behind a steering wheel and, in some sense, begins to pose a threat on a road. A young driver is equally inexperienced as a pilot of an airplane. About 20 pilots die every year in Poland. Compare this to the number of victims of car accidents happening during a week. About 20 drivers can be killed in accidents during a weekend. I think that a person driving a car to get to work takes much greater risk than a pilot of an airplane. Only the airplane crashes are presented in media more often than car accidents.

Apart from regular inspection, is it also necessary for an airplane to have an overhaul right before the take-off?

Every year an airplane has to pass a special inspection to prolong the validity of its airworthiness certificate. Apart from this, every airplane which flies a specified number of hours has an overhaul made by a specialist company. Before a flight, the pilot who takes the plane on a given day makes an inspection of the airplane. This is the standard course of action. There is also a pre-flight inspection, conducted when the aircraft has e.g. a one-hour stopover.

Contrary to the common belief, private aircrafts are often in much better condition than the aircrafts belonging to aero clubs; if their owners can afford a good airplane, they can afford also maintenance. The supervision system of the Civil Aviation Office and the inspections included in the directions aim at having safe and airworthy aircrafts flying across the sky.

What is the most frequent cause of aircraft accidents?

So called human factor is the cause of 85 percent of accidents. It is not only about pilot errors, but also about the mistakes made by mechanics, companies renovating the airplane, bad weather analysis. Technology is second, constituting a cause of several to over a dozen percent of accidents. The remaining reasons include, e.g. a sudden change of weather situation, which could not have been predicted earlier. These can be also some little problems, like a cracked head or dirt blocking the fuel flow.

What are the procedures binding in the case of an air occurrence?

Under the following phone number: 0 500 233 233 it is possible to notify us about air accidents round the clock. The chairman of the commission or one of his deputies is in constant attendance and answers the calls. The following services are sent at first to the site of an air accident: fire service conducting the rescue action, medical emergency service and police protecting the accident site. When those services finish their works, the State Commission on Aircraft Accident Investigation comes in.

Are there some guidelines you could give to the firefighters taking part in such actions?

When it comes to the fire service, they give us a note describing the rescue action conducted before our arrival. The commission cannot interfere here. If the action is finished and there is no risk of explosion, the wreck should remain intact, since from its condition it is possible to find out how the aircraft fell down, how it was burning, where the fire broke out, etc. In the course of works of the commission it may turn out that we need equipment used by fire service units, e.g. metal cutting tools or a jack.

At the same time, firefighters should be aware of the threats that may arise at the site of such an accident. Aircrafts produced currently are equipped in high flight installation, e.g. oxygen cylinders, which can explode in the case of a fire. Also pneumatic installation, e.g. pressure tanks, pose some threat to the persons conducting the rescue action. What is new in the airplanes are the pyrotechnic rescue systems; a parachute is pulled out from a container and the whole airplane floats down to the ground with the parachute. During an accident, if the pilot had no time to use the system but it was disturbed – it is possible that during the works of a fire brigade there may be a self-ignition of the system followed by ignition of fuel and inflammable elements. Basing on isotopes, the iced detectors used in helicopters, may contaminate locally the area when they burn or may be dangerous in case of skin contact.

Does it last long to investigate an air accident?

It depends on the accident. Sometimes the investigation is described on several pages of the report, sometimes it may last several years.

Does the commission investigate also accidents of military aircrafts?

No, this is the task of the commission on aircraft accident investigation, which was created by the Ministry of National Defence and which is subordinate to the military section. We investigated together e.g. the accident of the helicopter with Prime Minister Miller on board, since civilians were on board during the flight, although the helicopter belonged to the army.

Is there seasonality when it comes to air occurrences?

The highest number of accidents is reported in summer – from April until the end of September. In autumn and winter there are more accidents in air rescue, since the services have to intervene more often then. We investigate occurrences with all the machines complying with the definition of an aircraft, i.e. apart from passenger airplanes, helicopters or ultralight airplanes, we investigate also accidents of paragliders, ultralight trikes, gliders, balloons or parachutes. We need experts knowing everything. One person being an expert in a given field is not the solution.

Who can become a member of the State Commission on Aircraft Accident Investigation?

The requirements one has to meet to be a member of the commission are specified by air law. It is also necessary to have experience in the field one is employed in, e.g. when dealing with ultralight airplanes, it is necessary to have experience in flying them. It is also necessary to have analytical skills, since our profession is a kind of a detective job: basing on incomplete data we have to find out what had happened and caused the accident. One has to have a good opinion in the expert circle, enjoy the trust of the circle. We were selecting the members of the commission carefully, we were observing them, collecting data on them. This is a very responsible job and we have to be absolutely sure that the employed person would not give in to pressure. There are pilots, instructors, mechanics and parachutists among the members of the commission. Our job is a kind of mission of people who come from different air centres and care about making the flights increasingly safe.

There is a global tendency to make such institutions as our commission separate units, subordinate e.g. to parliament, and to turn them into joint commissions, so that a maritime com-

mission, railway commission, road transport commission or energy transfer commission would act within one organization. It turns out that some of the issues, like expert opinions, means of transport, law, are very similar in the case of all these institutions. Moreover, one commission means de facto lower operating costs than having three or four separate commissions acting to different ministers. Such joint commissions act in Finland, the Netherlands or in the United States.

Interview by Agnieszka Wójcik

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