

# *CIVIL AVIATION AGENCY SIA*



# **SAFETY REPORT 2012**



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## Summary

Globally, in 2012, similar to 2011, total number of flights continued to increase in air-transport sector, however, speed of the increase slowed down.

In 2012, in commercial aviation, the historically lowest number of accidents was observed with aircrafts produced in Western countries. Globally, in 2012, total number of accidents was loss of 0.2 hulls to million flights, or one accident to every 5 million flights, that is significant improvement (by 46%), comparing to 2011, when the rate was one accident to 2.7 million flights. Furthermore, positive trend may be observed during entire latest decade.

In absolute figures, in 2012, the following statistical figures were observed in aircrafts produced in Western countries:

- › 6 accidents occurred with aircrafts equipped with turbofan engines produced in Western countries (in 2011 – 11 accidents);
- › 75 accidents occurred with aircrafts produced in Eastern and Western countries (in 2011 – 92 accidents);
- › 15 accidents resulting in victims with fatal injuries occurred (in all types of aircrafts), (in 2011 – 22 accidents);
- › 414 human victims with fatal injuries (in 2011 – 486 victims with fatal injuries).

Period	Number of accidents	Fatal accidents	Number of victims with fatal injuries in the aircraft	Number of victims with fatal injuries on the ground
<b>2001–2010 (in average)</b>	25.2	3.4	77.8	0.8
<b>2011 (total)</b>	30	1	6	0
<b>2012 (total)</b>	34	1	0	1

**Table 1: Review of accidents in EASA member states (commercial aviation, aircrafts over 2250 kg)**

As seen from the table, in 2012, in commercial aviation of EASA member states, only 1 fatal accident has occurred in aircrafts over 2250 kg, that is significantly less than the average figures for the latest decade (3.4); furthermore, it shall be noted that in 2012, there have been no victims with fatal injuries in aircraft (comparing to the average figures for the latest decade 77.8).

In 2012, in Latvia, no accidents in commercial aviation occurred. Comparing to 2011, number of serious incidents has increased, and it is 1 serious incident per 24390 flight hours. Analysis of these figures provided in the safety implementation monitoring section of the report.

In 2012 in general aviation, 4 accidents and 4 serious incidents have occurred. From already known accidents, there was one occurrence when the cause was erroneous action while ensuring sealing of fuel system, which resulted in stoppage of the engine during the flight; in turn, there was another accident when the engine stopped during the flight. Investigation of this accident has not been completed yet.

For statistical data analysis of airport and aeronautical services, number of flights is used.

Number of flights in airports of Latvia in 2012, comparing to 2011, decreased, thus, the annual growth trend, which was observed since 2003, was discontinued.

## Introduction

Safety Report has been prepared by the Civil Aviation Agency based upon Item 13 of the Cabinet Regulation No.1033 Procedures for Reporting Occurrences in Civil Aviation adopted 2005, in cooperation with the Transport Accident and Incident Investigation Bureau (TAIIB) to inform public on the safety level in civil aviation flights.

The report summarizes information on occurrences reported within the frame of the Latvian reporting system, and from analysis thereof, risks, safety figures, list of significant factors, as well as efficiency of actions by the Civil Aviation Agency in the area of supervision of flight safety is defined.

The report covers situation in the Latvian civil aviation flight security, using the following sources of information:

- Mandatory occurrence reporting system
- Voluntary occurrence reporting system
- Flight data analysis
- Recommendations from aviation accident and serious incident investigation (TAIIB and investigation offices in other states) reports
- EASA's and other safety directives, flight safety information
- Inspections and audits
- Inspections by SAFA abroad on aircrafts of Latvian operators
- Inspections by SAFA in Latvia on aircrafts of foreign operators
- Information acquired during training
- Other sources

The report reflects activities of the Civil Aviation Agency in the area of flight safety.

## Reporting system

In Latvia Mandatory occurrence reporting system (MOR) and voluntary occurrence reporting system (VOR) have been established based on the Cabinet Regulation adopted on 25 December 2005 No. 1033 Procedures for Reporting Occurrences in Civil Aviation, as it is stated in DIRECTIVE 2003/42/EC OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 13 June 2003 on occurrence reporting in civil aviation.

The reported occurrences are registered in the database of the European Co-ordination Centre for Aviation Incident Reporting System (hereinafter – ECCAIRS). Database of the European Commission Joint Research Centre (JRC) ECCAIRS is maintained and used since May 2006. It is constantly updated and improved, as well as connected to other databases, thus, making it more functional and usable in more extensive applications.

Database registers occurrences (both voluntary and mandatory): incidents, serious incidents and accidents.

Information contained in the database shall serve only for flight safety analysis. The Civil Aviation Agency shall not disclose personal data of those who have reported on occurrences or been involved in an occurrence, except if required by law or if the involved person itself has authorized such disclosure.

According to the Commission Regulation No.1330/2007 (24 September 2007), laying down implementing rules for the dissemination to interested parties of information on civil aviation occurrences referred to in Article 7(2) of Directive 2003/42/EC of the European Parliament and of the Council, in order to enhance flight safety. Further information available from the Civil Aviation Agency website [www.caa.lv](http://www.caa.lv).

The Civil Aviation Agency continuously cooperates with ICAO, EU institutions, accident investigation bureaux and national aviation authorities in the area of exchange of information.

According to the Commission Regulation (EC) No.1321/2007 (12 November 2007), laying down implementing rules for the integration into a central repository of information on civil aviation occurrences exchanged in accordance with Directive 2003/42/EC of the European Parliament and of the Council, data from the national database since 19 June 2008 are included into the unified European repository. Latvia was the fourth state starting implementation of data integration into the central repository. The Civil Aviation Agency has been assigned restricted access rights to the European Central Repository.

In 2012, reports on 392 occurrences in civil aviation have been submitted to ECCAIRS database of the Civil Aviation Agency of Latvia. For comparison, in 2011 - 482 occurrences, in 2010 – 589, in 2009 – 409, but in 2008 – 452 occurrences.

Reports are submitted to ECCAIRS database using Accident/Incident Data Reporting (ADREP) taxonomy developed by the International Civil Aviation Organization (ICAO), which is an international data entry standard that can describe almost any occurrence. New version of taxonomy, ADREP 2000, includes SHELL human factor module allowing the analyst to state, *why* the occurrence has taken place (if it occurs due to human factor). Latvia actively participates in the process of improvement of ECCAIRS taxonomy.

After receipt of reports, the Civil Aviation Agency:

- a) Assesses them and enters in the database,
- b) Decides, which occurrence shall require investigation, and, if any further information is required,
- c) Verifies, if aircraft operators (ACO), technical service providers, air navigation service providers (ANS) and airport organizations carry out operations to prevent or correct situations stated in the report,
- d) Assures foreign aviation authorities to carry out necessary operations to prevent or correct situations stated in the report,
- e) Carries out general analysis of reports to establish negative trends, which may not be visible to each individual reporter,
- f) Based on law of the Republic of Latvia, publishes information acquired from the reports,
- g) Presents the acquired results of the flight safety analysis to those who might benefit therefrom in the area of flight safety,
- h) Within the frame of their competence, provides recommendations and instructions for specific sectors of the industry,
- i) Within the frame of their competence, carries out activities in relation to changes in regulatory enactments, for instance, developing amendment proposals for law „On aviation”, the Cabinet regulations and other binding documents,
- j) Participates in the exchange of data from the reports with other EU states.

Mandatory and voluntary occurrence reporting systems serve as a tool for assessment of flight safety level, as well as potential enhancement thereof. A goal of Civil Aviation Agency is to ensure that the flight safety information is announced, collected, saved, protected and distributed. List of persons (or organization), to whom the reporting provisions shall be applicable, as well as list of occurrences, on which reports shall be submitted, is specified in the Cabinet Regulation No. 1033.

Voluntary reporting system is significant, since it allows acquisition of information on occurrences, which must not be reported mandatory, however, which may disclose latent conditions.

Flight safety analysis must enhance free data exchange. *Just culture* or *reporting culture* principle means that reports are collected to enhance the level of flight safety, understand causes of occurrences and consequences thereof. Data are not collected to punish anyone, but to establish and analyse shortcomings, in particular, systemic shortcomings, and to eliminate them. *Just culture* principle is not applicable to those occurrences, which are obviously related to illegal actions, gross negligence or intentional malicious actions.

**Report shall be sent to the Civil Aviation Agency within 72 hours from establishing of the occurrence:**

**E-mail: [SIDD@latcaa.gov.lv](mailto:SIDD@latcaa.gov.lv)**

**Fax: +371 67 507 910**

**Forms available from website: <http://www.caa.lv/lv/veidlapas/gaisa-kugu-drosiba>**

**Phone: + 371 67 830 969; + 371 67 507 968 (business hours)**

**TNGIIB Phone: + 371 67 288 172**

## **Disclaimer**

Data on occurrences contained in this report have been provided for information only. The data from the Civil Aviation Agency database, acquired from the aviation sector, is used, which reflect information available at the time of preparing of the report.

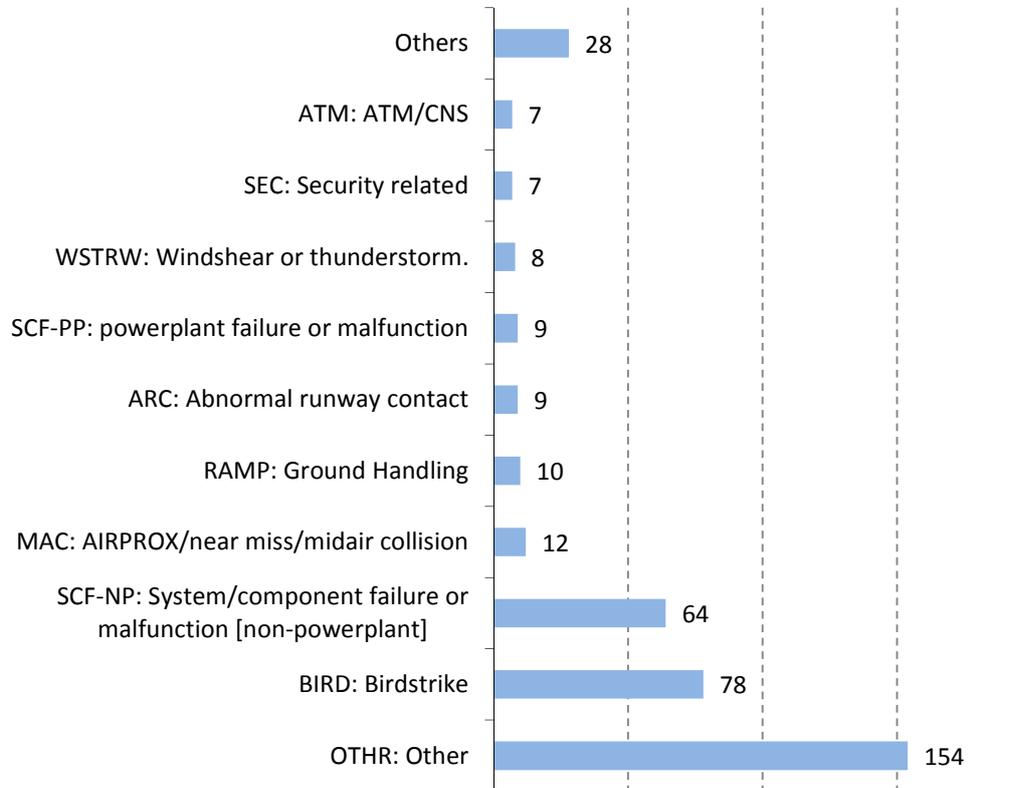
The report has been prepared very carefully; however, the agency shall not guarantee accuracy, completeness of the information content or compliance thereof with the latest data. Within the permissible frame of the European and national law, the agency shall not be liable for any loss, complaints or claims due to faulty, insufficient or invalid information or use, reproducing or disclosure of such information.

Information contained in the report shall not be considered legal statement.

Photographs contained in the report shall be considered property of authors thereof. Use of any photograph shall be agreed with the author.

## Safety Analysis

### Categories of occurrences



**Figure 1: Categories of occurrences (mandatory and voluntary reporting system)**

The highest number of occurrences in 2012 was observed in the category OTHR or „Other occurrences”. It is due to CICCTT classification, since comparatively more frequent occurrences, for instance, extension of working hours, occurrences related with piloting of aircraft, etc., do not fall into any of the categories defined by ICAO. However, since this category is the most frequent one, in the occurrence event analysis section of the report, it will be reviewed separately.

The second most frequent category is BIRD – bird strike. For this category, please see chapter „Bird strike” of the report. The third most frequent category is SCF-NP – system/component failure or malfunction (non-powerplant).

A tendency may be observed that these three categories have been the most frequent ones for few years already, considerably exceeding number of other occurrences. Comparing to 2011, these categories maintain similar apportionment.

## Event Analysis

In the civil aviation occurrence database of the Civil Aviation Agency, each occurrence is encoded using events, descriptive factors and explanatory factors specified in ADREP2000.

Occurrences are encoded in chronological sequence, creating the chain of occurrences. When filling in the *event* section, answer to the question *WHO?* is provided.

Each occurrence is formed of sequential *events*. It means that one occurrence may include one or more events, which have caused one another. It may be considered that the first event is the cause of the following event, thus, forming a chain of events.

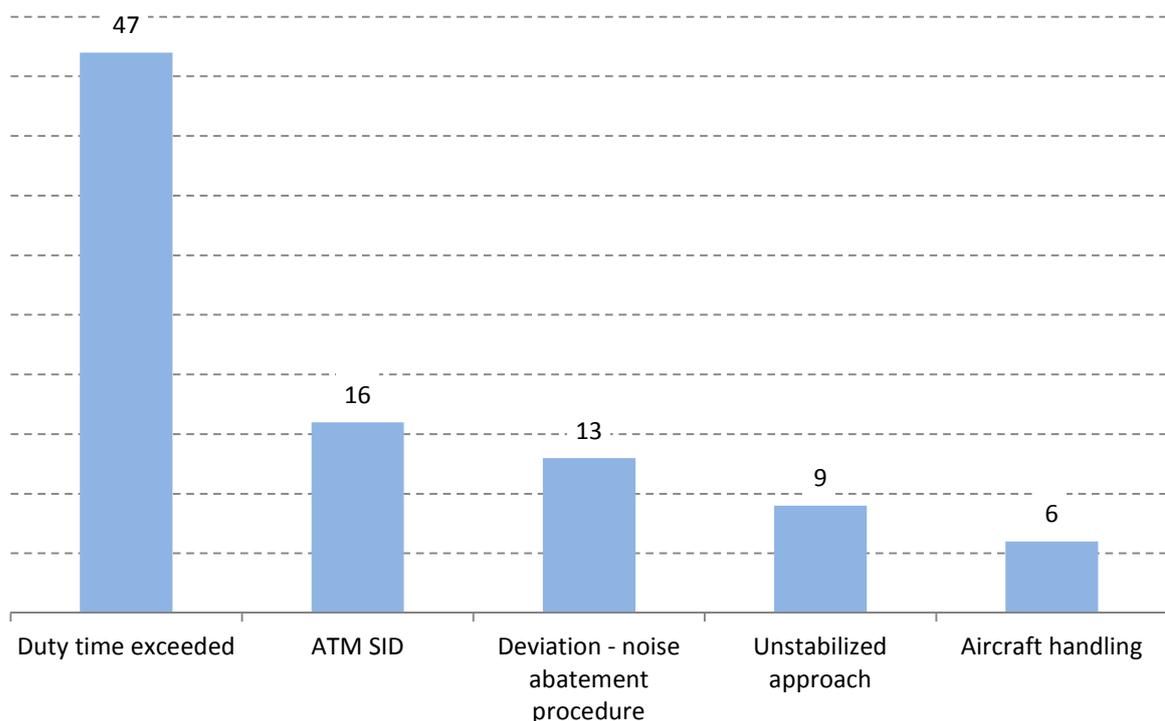
This event analysis includes data from occurrences in civil aviation, registered in the Civil Aviation Agency database and received for 2012 both within the frame of mandatory and voluntary reporting system.

Events may be considered hazards in aviation system. Thus, occurrence reporting system shall be considered one of the ways to determine hazards.

This analysis includes events, which have occurred with aircrafts registered in Latvia, or operators whereof have been certified in Latvia, or, in some cases, if the occurrence has taken place within the territory of Latvia.

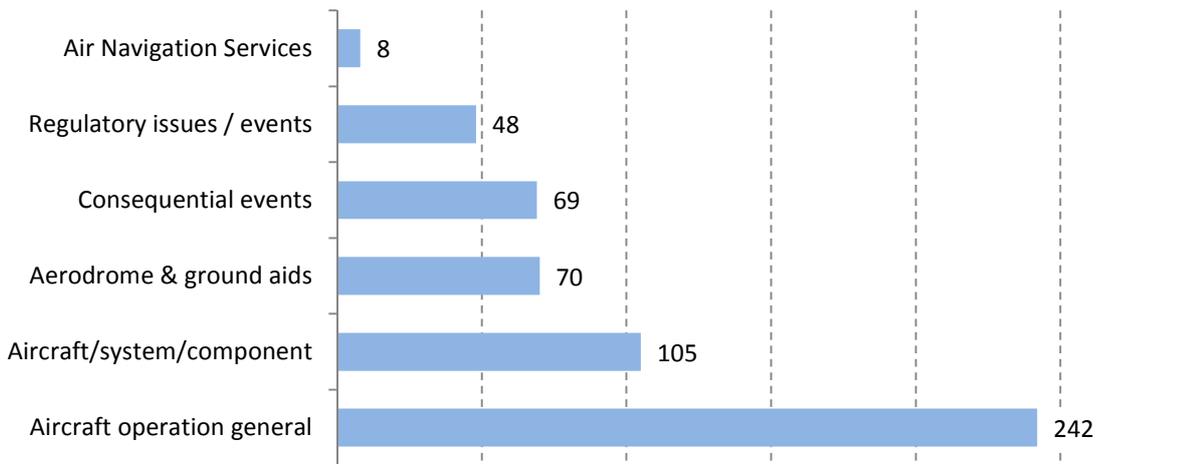
Since the occurrence category section stated that OTHR or occurrences of other categories were the most frequent ones, Figure 2 shows the most frequent events in occurrences of the category OTHR (Other).

*Notice: one occurrence may include more than one event*



**Figure 2: The most frequent events in occurrences of the category OTHR**

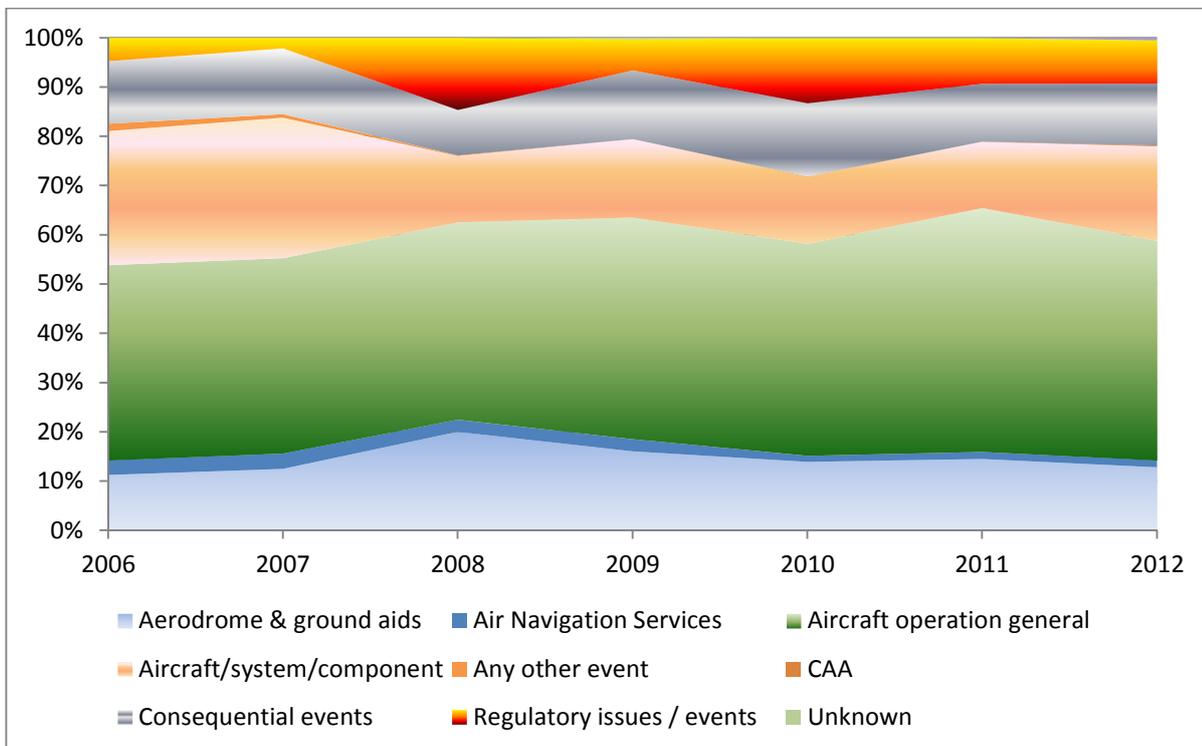
Mostly, events in occurrences of the category OTHR (Other) are related to exceeded (extended) working hours of aircraft crew. These events were the most frequent ones also in previous years. Further frequent events (which were frequent also in previous years) were entering noise restricted area, violation of SID procedure, events in relation to handling of the aircraft, as well as non-stabilized approach.



**Figure 3: Division by type of the event – all events**

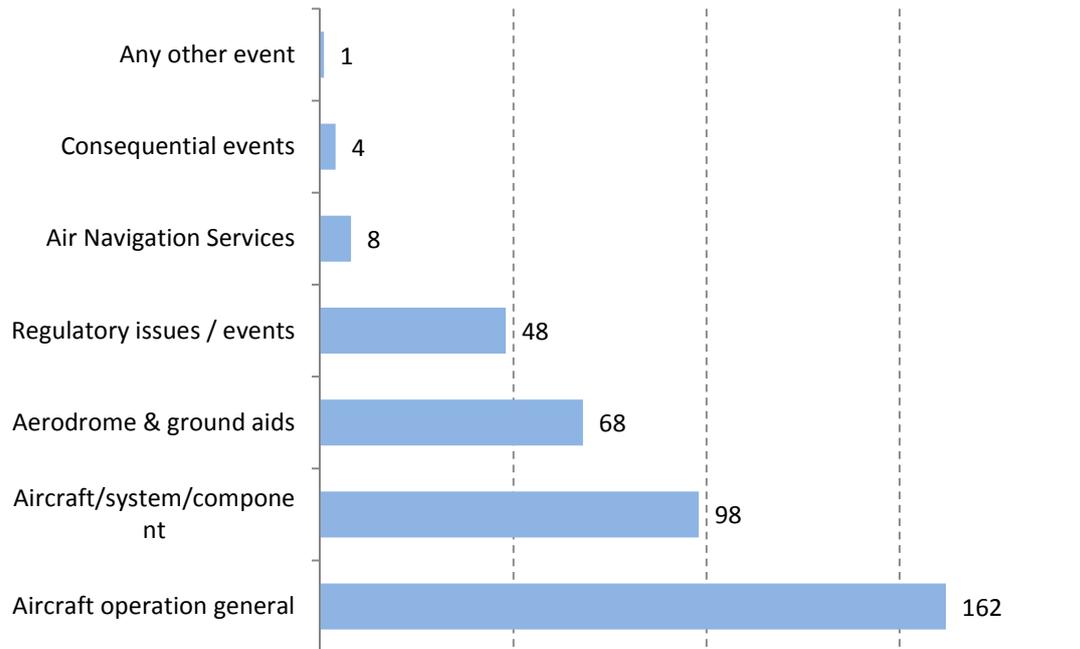
Figure 3 shows division of events by type of the event or hazard, considering all events, even, if there were few of them in one occurrence. Majority of events have occurred in the area of aircraft operation, the second most frequent type of the event is related with aircraft systems and components, while the third most frequent type of the event – related with aerodromes.

When analysing specific events, which occur most frequently, two events shall be highlighted – bird strikes and exceeded crew working hours. Further events are observed more rarely.



**Figure 4: Division by type of the event – all events (2006 – 2012)**

When analysing trends during the latest years, it may be observed that on the pro-rata basis categories of events remain in comparatively similar positions, only the category „Regulatory safety issues” has been increased, which may be due to extension of working hours. In 2012, this category on the pro-rata basis had no increase. Comparing to 2011, the largest increase on the pro-rata basis was observed in the category „Aircraft/system/component failure”, as well as in the category „Consequential events”, other categories either have remained at the same level, or have decreased.



**Figure 5: Division by type of the event – first event**

Significant portion of occurrences are composed of several interrelated events, and often the first event has effect also on next one or other event, thus, it is important to know, which events are more frequently the first ones in the chain of events. Figure 5 shows distribution of occurrences by the first type of event. Majority of hazards have been related to operation of aircrafts. From this aspect, significantly exceeding other events, the most frequent events are bird strikes. Although bird strikes often cause no further events, they are hazardous and may cause very serious consequences. In the second place, technical issues or aircraft system, or component failure appear with the following events – aircraft/ system/ component failure, hermetic system failure, cockpit window failure etc. Until 2012, proportion of these events had tendency of being comparatively constant, however, in 2012, proportion thereof increased.

Third group of the most frequent events is related to operation of airports and ground service – the most frequent events are failure to ensure bird control, mostly related to bird strikes within the airport territories. These events significantly exceed other areas in operation of airports and ground aid – such as approach lighting system issues and ground aids to the aircraft.

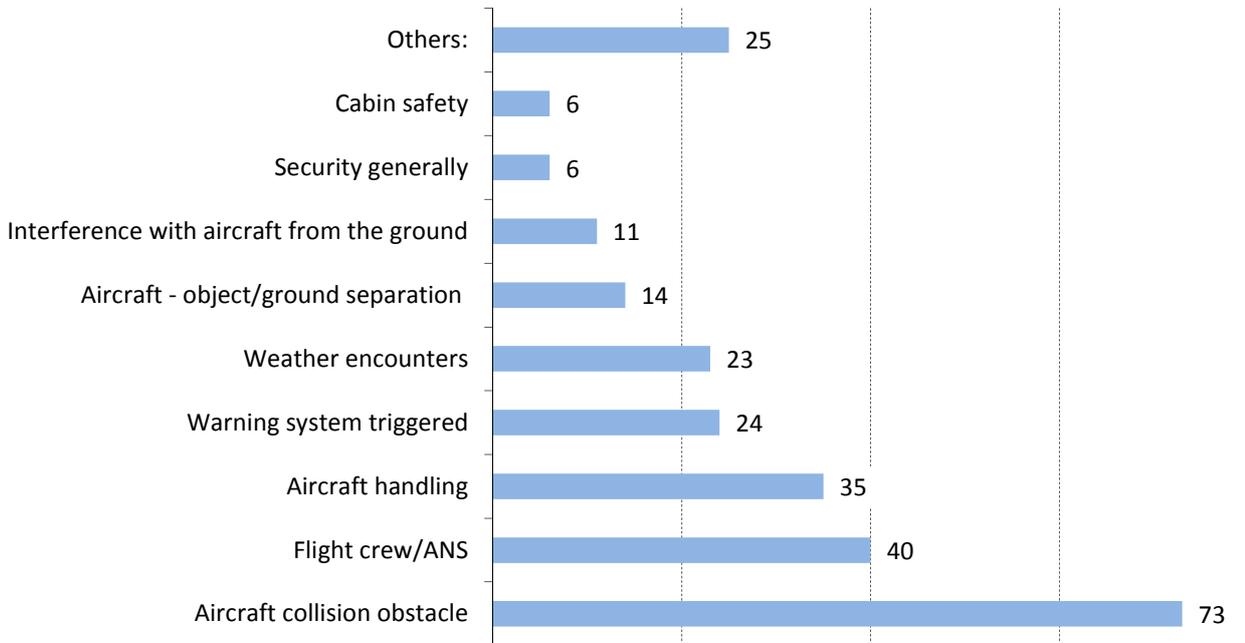
## Operation of aircrafts

### Commercial aviation

Figure 6 shows the most frequent hazards (events) registered in the database of the Civil Aviation Agency in relation to operation of aircrafts in commercial aviation.

The first place is taken by events related to collision of aircraft with various objects (major portion is bird strikes). The second most frequent events are related to cooperation of the aircraft crew with air navigation service provider (for instance, deviation from SID, airspace infringement and level bust). The third place is taken by events related to aircraft handling. Furthermore, other categories of events, for instance, triggering of warning system (in majority of events, it has been warning about hazardous approach to the ground), may be caused by incorrect aircraft handling, thus, aircraft handling issues shall be considered serious hazard.

Aircraft handling may include events in relation to unstabilised approach, landing at high speed, heavy landing, etc.



**Figure 6: Hazards – operation of commercial aviation aircrafts (control of aircrafts)**

Hazards causing higher risk (depending on severity):

- Deviation from flight level/altitude specified in ATS permit;
- Unstabilised approach.

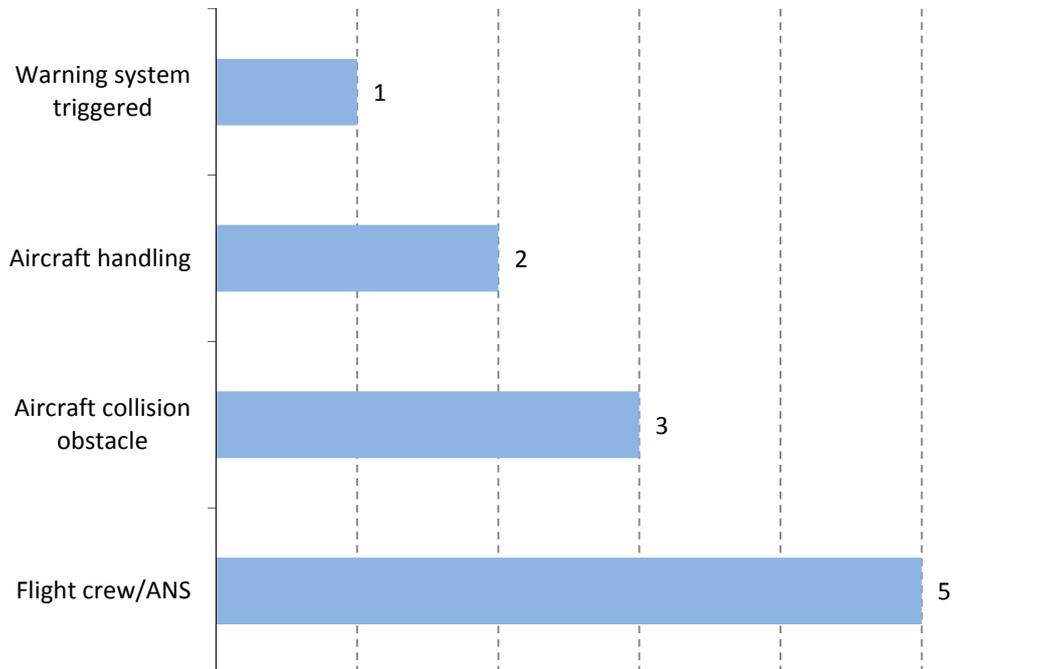
## General aviation

Information on occurrences in general aviation is inaccurate, since there still is a trend to report on serious occurrences only, which cannot be *hidden*. In general aviation, it is necessary to enhance culture of flight operation safety – this issue is discussed at flight instructor workshops.

If considering no serious incidents and accidents, as well as ATS reports on airspace violations in general aviation, then, only 5 reports for 2012 and only 8 for 2011 have been registered in the database that is a very insignificant part of the *small aircrafts*. From the abovementioned 13 occurrences, only one in 2012 and three in 2011 presented pilot reports on own flights (own faults or description of events), the rest ones were reports on other operators. Currently, CAA has access only to TNGIIB reports allowing reactive actions, i.e. carrying out actions when the accident has already occurred, rather than proactive actions – based upon the reports received and other significant information.

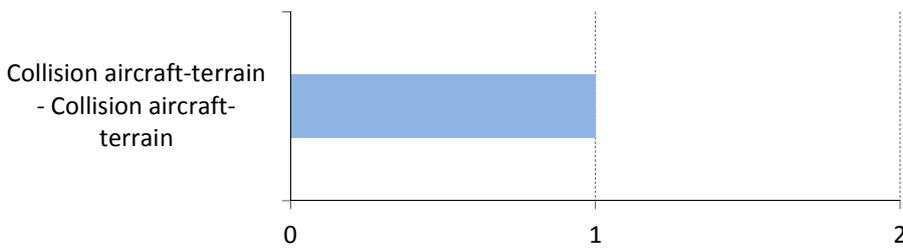
Non-reporting and distrust to regulatory bodies has been, in part, inherited from the previous experience when the offender was severely punished, because there was an opinion that one shall never make mistakes. Currently, there is different opinion, which is based upon mutual confidence and exchange of safety information, admitting that anyone can make mistakes and these mistakes may become valuable lesson for every participant of civil aviation. This issue has been discussed at flight instructor workshops, since instructors may help to teach this culture to the existing and prospective participants of aviation system.

Figure 7 lists the most frequent hazards registered in the database of the Civil Aviation Agency in relation to operation of aircrafts in general aviation (including serious incidents and accidents).



**Figure 7: Hazards – operation of general aviation aircrafts**

The most frequent events, which were hazards in 2012, shall be unauthorized entering of a controlled airspace. This has been the most frequent occurrence within the previous years, and this category of occurrence has been included into EASp as one of the issues.

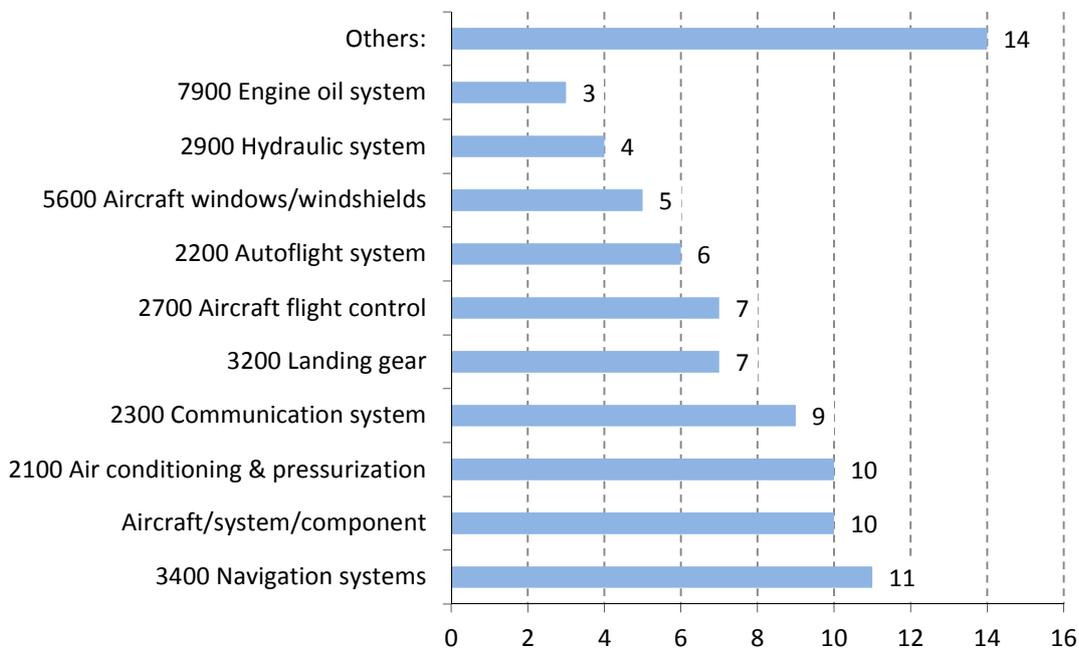


**Figure 8: Hazards – operation of aircrafts in special aviation work**

In the category of special aviation works in 2012, there was only one occurrence (accident), when collision of the aircraft (helicopter) with terrain occurred.

**Technical condition of aircrafts**

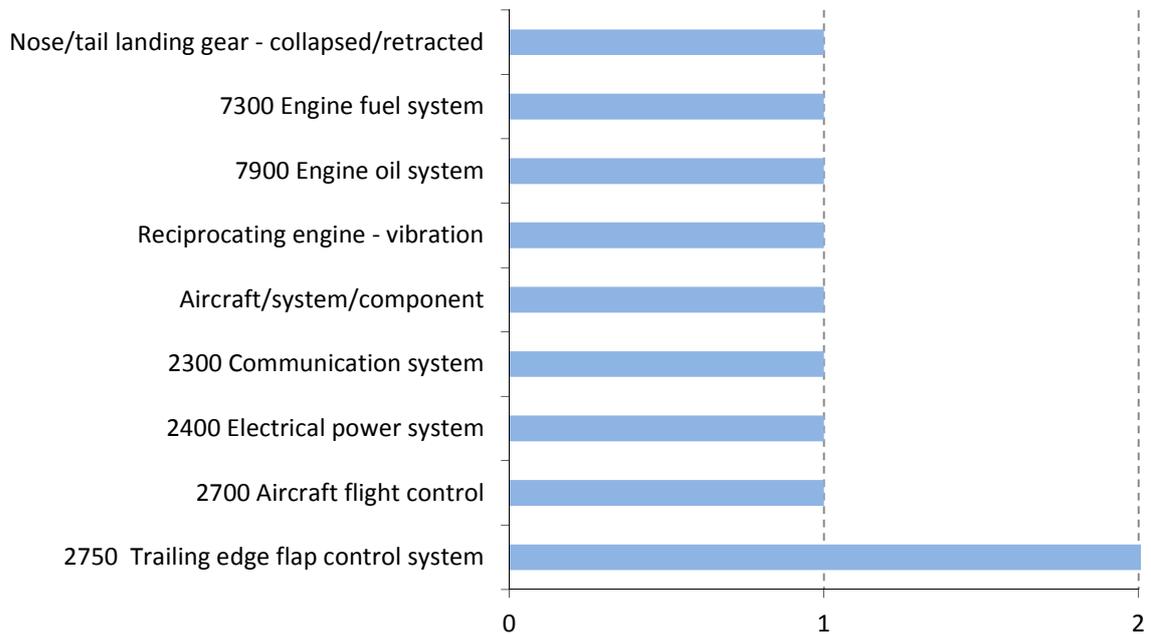
**Commercial aviation**



**Figure 9: Hazards – technical condition of commercial aviation aircrafts**

In 2012, proportion and number of occurrences in relation to aircraft navigation systems has increased, which is the most frequent category of events in commercial aviation in relation to technical condition of aircrafts. During recent years, tendency of increase in number of issues with navigation systems may be observed. Number of occurrences with aircraft conditioning system and pressure maintenance system issues has increased; though, number of occurrences in relation to aircraft landing gear has slightly decreased.

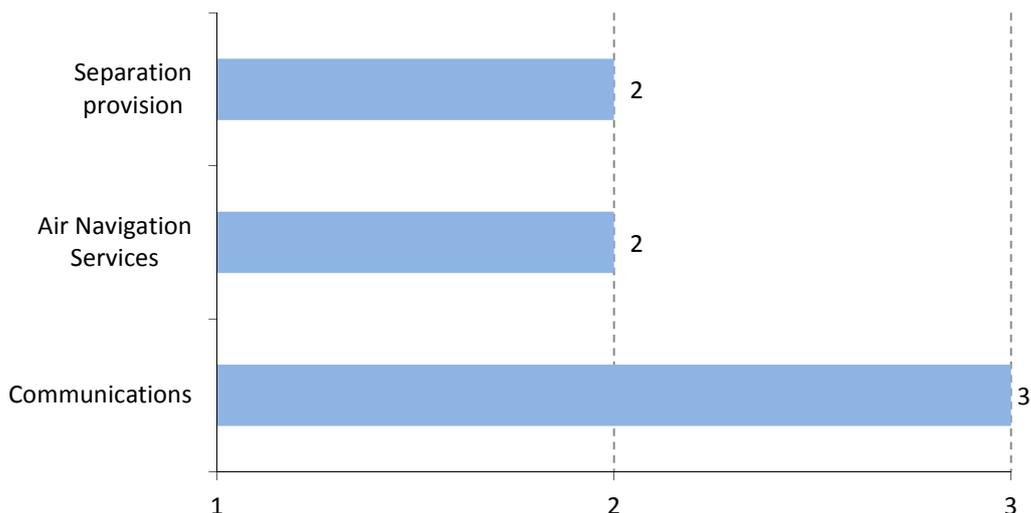
**General aviation**



**Figure 10: Hazards – technical condition of general aviation aircrafts**

In 2012, in 10 events technical issues in general aviation aircrafts have been registered. Each of these issues is different, thus, no specific trend may be established.

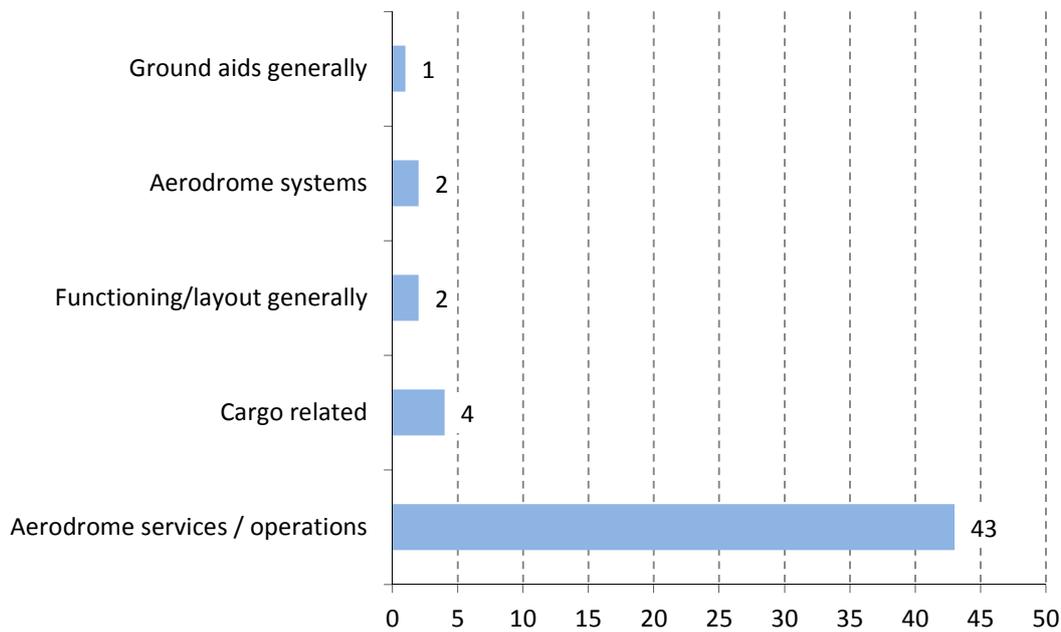
**Air navigation services**



**Figure 11: Hazards – air navigation services**

In 2012, 7 events in relation to air navigation services were observed (for comparison: in 2011 – 6 occurrences, in 2010 – 10). Number of occurrences is so small that no trend may be established.

### Airports and ground services



**Figure 12: Hazards – airports and ground services**

In 2012, among occurrences in relation to airports and ground services, the main issue was the control of birds (aerodrome services/operations). Other categories were observed significantly more rarely.

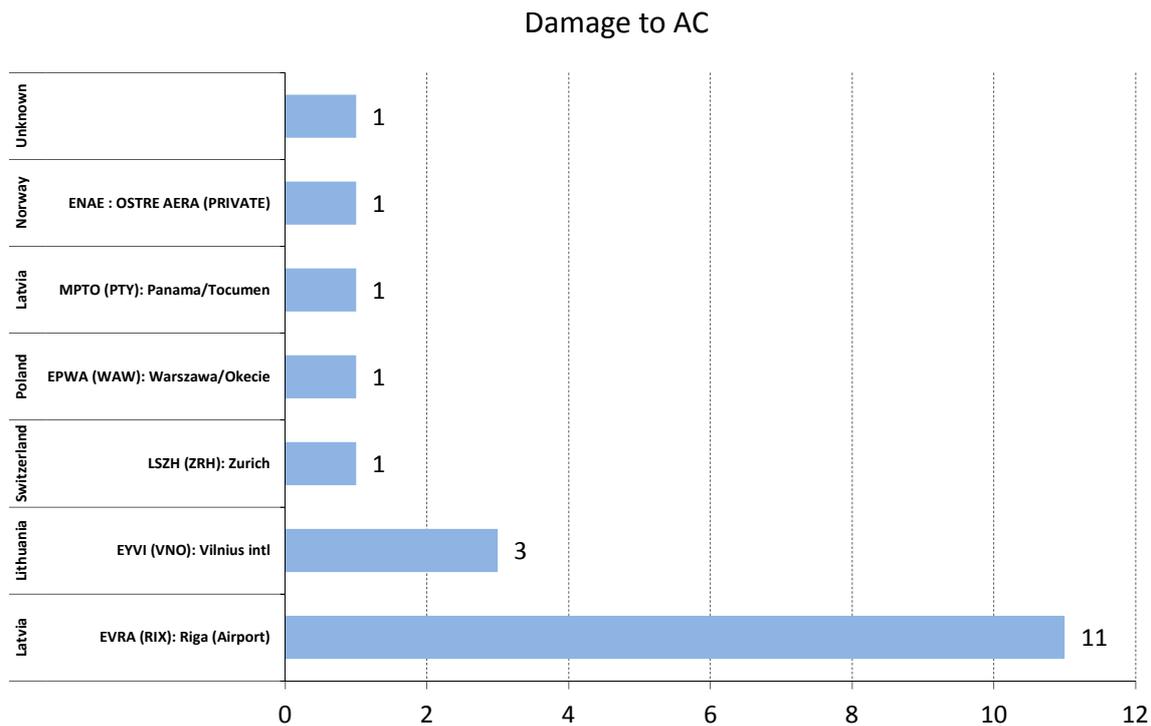
**Bird strikes**

Aircraft bird strikes shall be considered hazard for flight safety. Along with increase in air traffic, number of such collisions increase as well. Since implementation of the *ICAO Bird Strike Information System (IBIS)*, it is possible to assess scale of the issue more accurately. In global civil aviation, approximately 40 000 bird strikes occur each year.

IBIS<sup>1</sup> information shows that 96% of strikes occur in the vicinity of airports. Airports and vicinity thereof attract birds due to various reasons; mostly, they are related to physiological needs, for instance, searching for food. Bird strikes mostly have no effect on flight safety, however, in 11%, they cause damage to the aircraft. From the aspect of operation of airports, the accelerate-stops or emergency, or precautionary landing shall be considered the most hazardous ones. Globally, approximately 6% or approximately 2400 bird strikes result in accelerate-stop or precautionary landing. These disturbances in operation of airports are not only inconvenient to passengers – they cause also additional costs and affect flight safety.

The safety level to be achieved, which has been specified in ICAO SMS, is 1 bird strike per 1000 flights with 50% decrease in the number of such occurrences within 5 years.

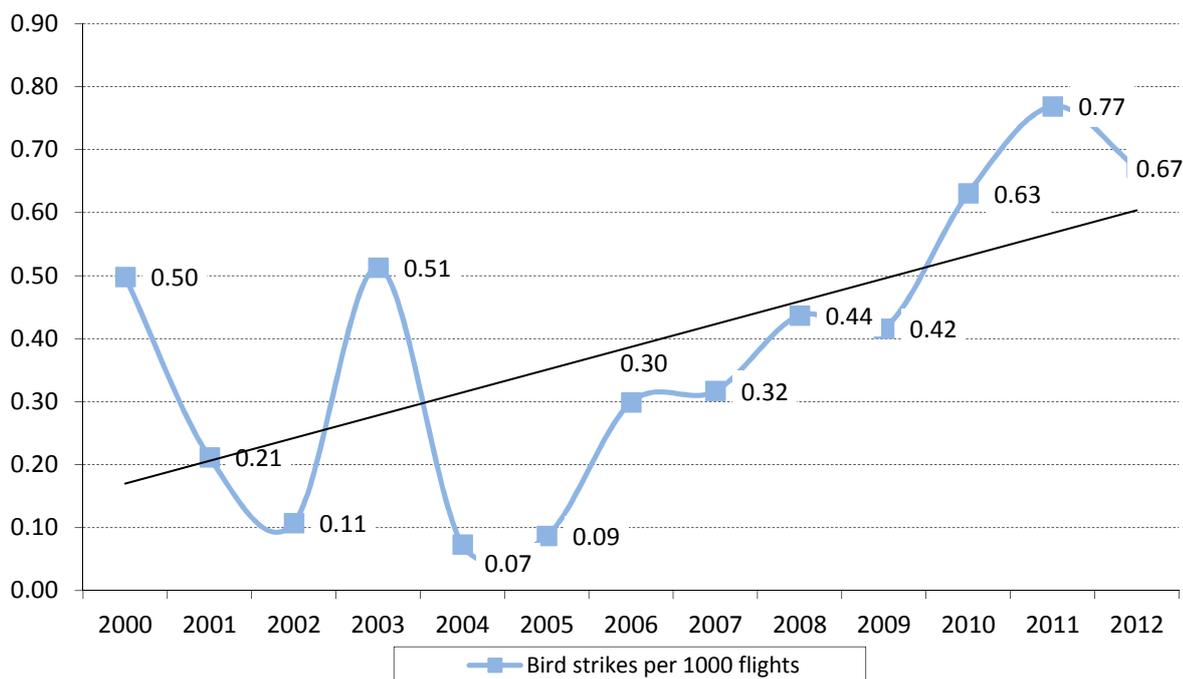
Form of the report on bird-related incidents available from the Civil Aviation Agency website – section *Flight Safety*.



**Figure 13: Damaged aircrafts, registered in Latvia and operated by aircraft operators, after bird strike in airports in 2000–2012**

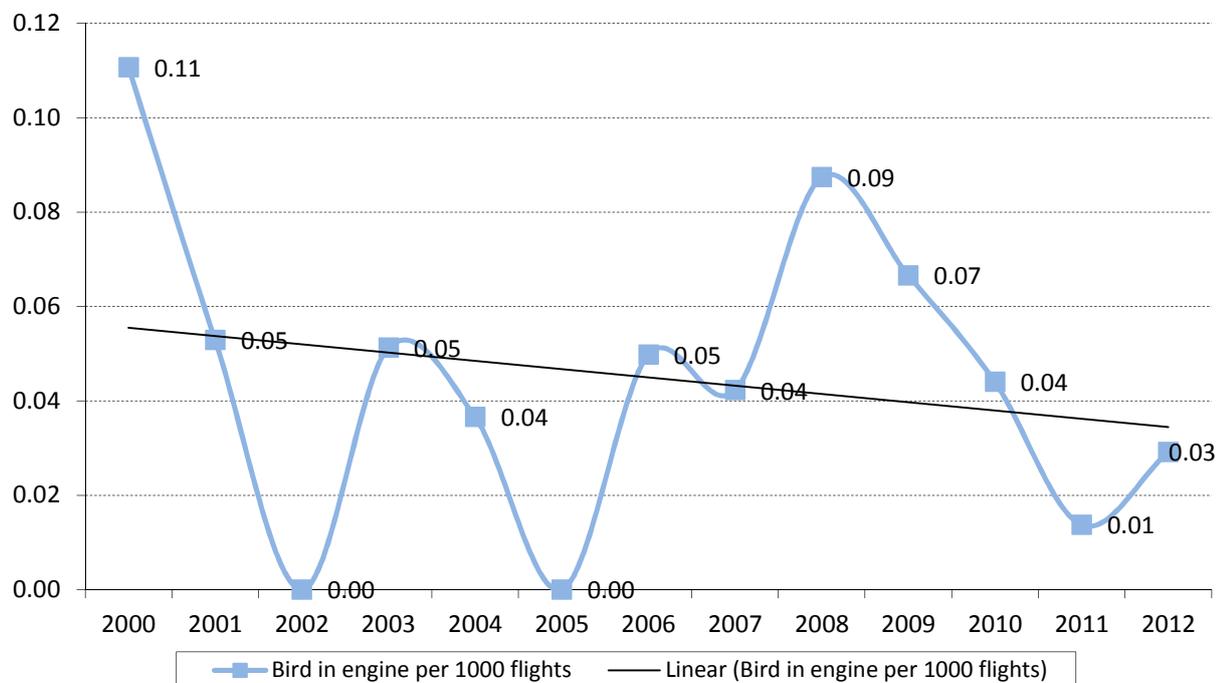
Figure 13 presents statistics of occurrences when the aircraft has been damaged at bird strike since 2000 with distribution by airports (for aircraft operators or aircrafts registered in Latvia). In all occurrences, the damage has been minor.

<sup>1</sup>ICAO - ELECTRONIC BULLETIN (EB 2009/37), 11 December 2009



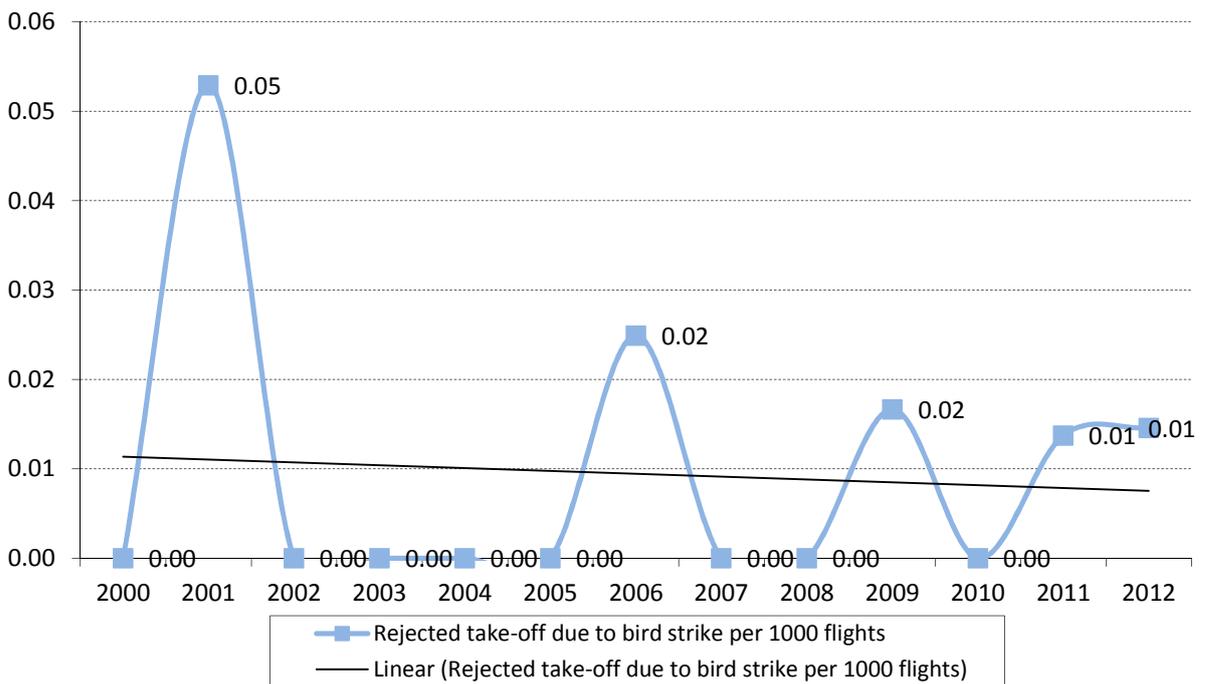
**Figure 14: Bird strikes per 1000 flights in Riga airport**

According to information available to CAA, the number of strikes per 1000 flights in Riga airport has tendency to increase, although, in 2012, decrease was observed. This statistics include occurrences when pilot has reported bird strike even, if no signs of such collision are established (damage to the aircraft, impresses, blood or feathering on the aircraft, dead bird found etc.), namely, including the so called „unconfirmed collisions”.



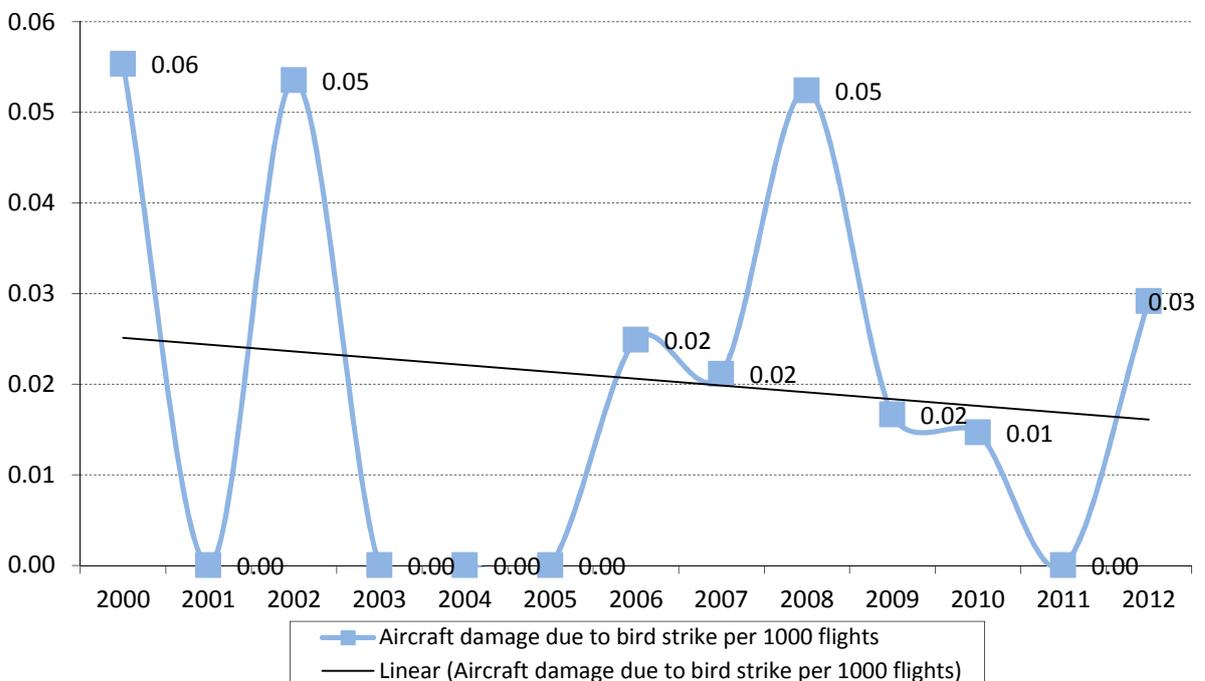
**Figure 15: Bird strikes with bird in engine per 1000 flights in Riga airport**

Number of bird strikes with bird in engine in Riga airport tends to decrease since 2008, although, in 2012, increase has been observed.



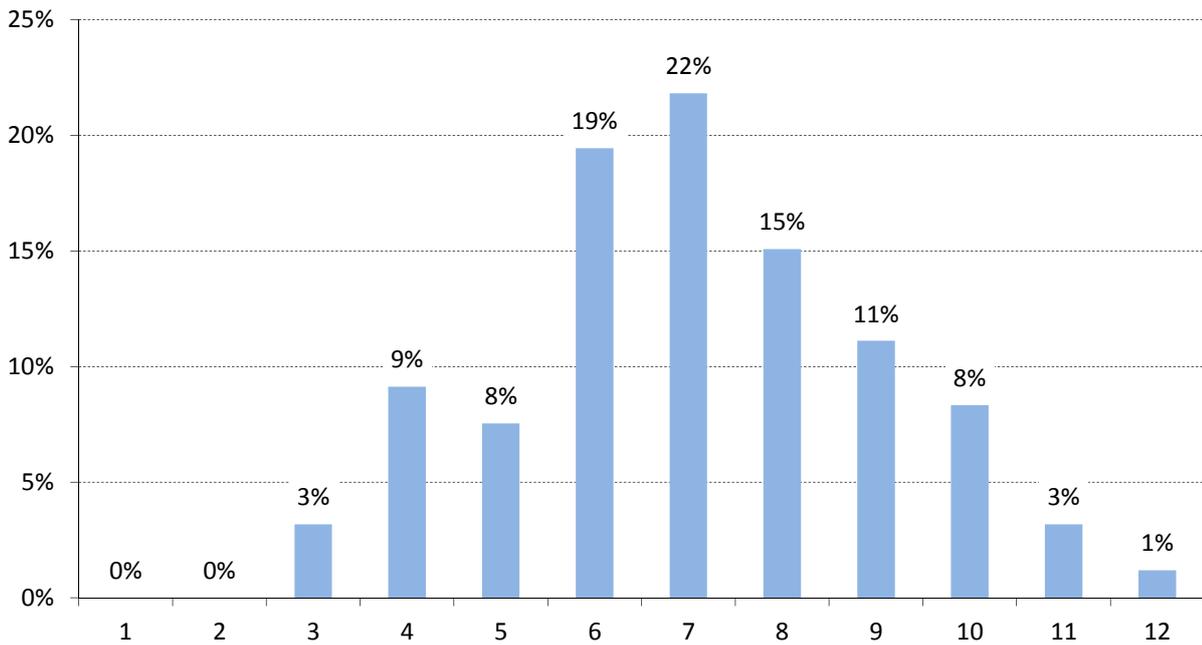
**Figure 16: Rejected take-off due to bird strikes per 1000 flights in Riga airport**

Occurrences of rejected take-off due to bird strike historically show unsteady statistics, since these occurrences are comparatively rare. In 2012, similar to 2011, this figure remains 0.01.



**Figure 17: Damage to the aircraft due to bird strikes per 1000 flights in Riga airport**

During the latest year, in the Riga airport, tendency is observed when the aircraft after bird strike is damaged, although, in 2012, there was an increase.



**Figure 18: Bird strikes in Riga airport by months**

Seasonality of bird strikes is shown in Figure 17, where distribution of all bird strikes registered in the database of Riga airport by month (2000–2012). The highest activity may be observed from June to September; during the latest years, number of bird strikes in June has increased proportionally.

## SAFA inspections

Inspections of the European Community SAFA Programme are carried out for aircrafts of member states of the European Union or the European Economic Area, as well as for aircrafts of third parties to verify their compliance with the international flight safety requirements. Information is summarized in the database of the European SAFA Programme. If aircraft inspections show any serious deviations from international flight safety requirements



foto: Uldis Mauriņš

(especially, if they repeat), competent authorities of civil aviation shall immediately report it to the European Commission. This behaviour of the Community in the area of transport is mainly aimed at ensuring high level of safety and protecting passengers against safety risks. To ensure maximum transparency, the Community has prepared list of those air carriers, who fail to comply with the respective safety criteria. Decision on actions at the Community level shall be taken according to the point of matter (Regulation (EC) No.2111/2005 of the European Parliament and of the Council on the establishment of a Community list of air carriers subject to an operating ban within the Community and on informing air transport passengers of the identity of the operating air carrier).

Aircrafts and aircraft operators are verified both according to the principle of randomness and in accordance with requirements of Regulation (EC) No. 351/2008 of the Commission as regards the prioritisation of ramp inspections on aircraft using Community airports.

Cabinet Regulation Nr.856 *Pre-flight (Post Flight) Inspection Procedures for Foreign Aircraft*, adopted 14 October 2008, distinguish 3 categories of non-compliance:

- non-compliance Category 3 – the non-compliance of the aircraft creates a direct threat to the safety of the aircraft;
- non-compliance Category 2 – the non-compliance of the aircraft may have a significant influence on the safety of the aircraft;
- non-compliance Category 1 – the non-compliance of the aircraft is minor and does not have a significant effect on the flight safety of the aircraft.

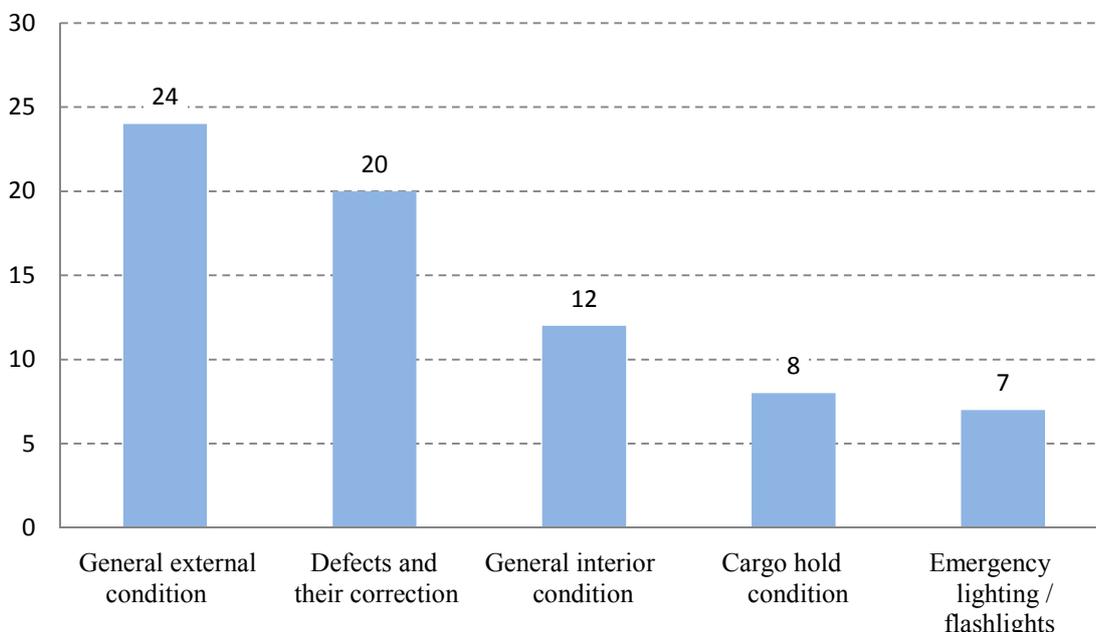
### SAFA inspections carried out by foreign authorities on aircrafts of operators registered in Latvia

In accordance with data of the European Union SAFA Programme database, 101 SAFA inspections have been carried out in aircraft operators registered in Latvia in 2012, which is 22 inspections less than in 2011. During these inspections, 85 non-compliances have been established, which is 13 non-compliances less than in 2011. The non-compliances have been assigned the following categories:

- 19 times – first category, in 2011 – 28,
- 38 times – second category, in 2011 – 36,
- 28 times – third category, in 2011 – 34.

Shortcomings established during SAFA inspections draws attention to shortcomings of technical maintenance and those in aircraft operation procedures or documentation.

Responding to the established shortcomings, the Civil Aviation Agency has requested the respective aircraft operators to implement effective corrective actions to prevent these shortcomings and avoid re-occurrence thereof.



**Figure 19: The most frequent shortcomings, as well as observations in relation to aircraft operators registered in Latvia**

The most frequently observed non-compliances, as well as observations in relation to aircraft operators registered in Latvia have been in the following areas:

- General external condition of the aircraft, as well as identification of defects and elimination thereof – 24 and 20 non-compliances, respectfully. The main non-compliances were observed as the aircraft painting damages (including when the composite material was uncovered), impressions, and damages to bonding wires, as well as worn labelling and service labels. Non-compliances in these categories predominate throughout the entire aviation sector as they are obvious, however, influence thereof to safety is insignificant;

- General condition of the aircraft salon condition and aircraft safety – 12 non-compliances and observations due to defects in the salon of the aircraft, namely, fire-safety of garbage bins (bins shall close automatically to restrict flow of oxygen in case of fire), unfixed luggage and equipment in the salon, damages to service bogie brake gears, as

well as other shortcomings;

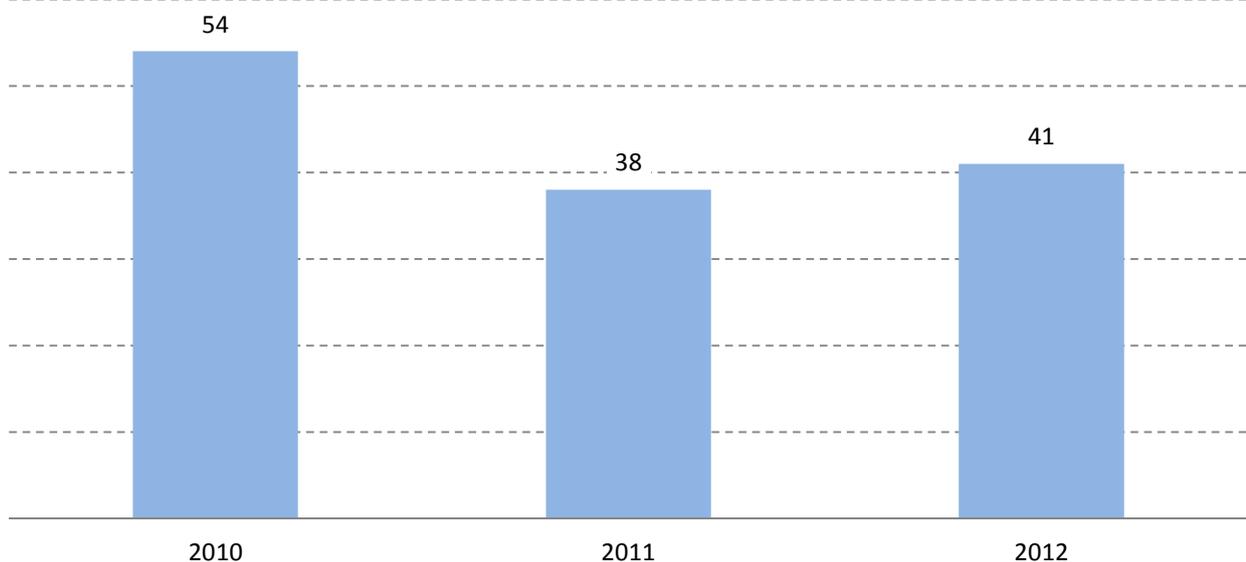
– Fixing of luggage and defects of luggage compartments – 8 non-compliances and observations. Main reasons thereof were damages to fixing nets, platforms or panels, as well as damages to smoke detectors and luggage room lighting due to luggage loading. Number of such defects and shortcomings in 2011 increased significantly, while in 2012, it decreased.

– Shortcomings in relation to aviation lighting and lamps served as reason for 7 non-compliances and observations, mainly, because some of bulbs in the emergency exit signs were damaged, which, however, was in accordance to permissible norms of the producer. In one case, the emergency exit sign at the exit above the wing failed to operate, thus, corrective measures had to be taken prior the departure.

Based upon regulatory documents, both the Civil Aviation Agency and operators of aircrafts have contacted governmental authorities, which have carried out inspection, and objected justification of several non-compliances. It shall be admitted that, as a result of EASA standardization process, the situation has improved, and unjustified non-compliances occur rarely. Aircraft operators must continue enhancement of their procedure and documentation, as well as to continue training of crew, technical personnel and external station agents in relation to SAFA inspections.

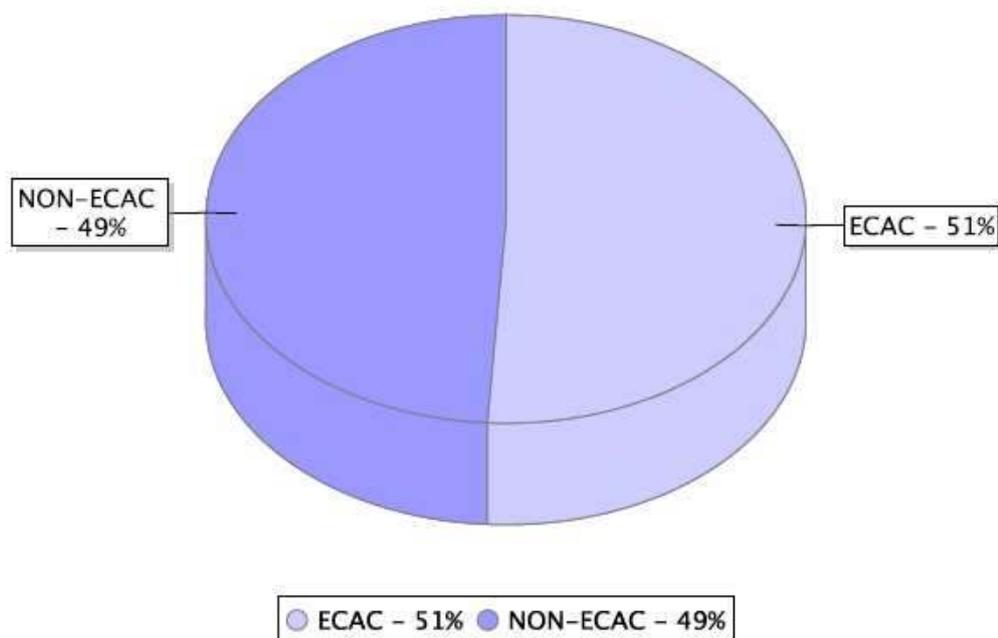
### SAFA inspections carried out by the Civil Aviation Agency on foreign aircrafts

The Civil Aviation Agency, in 2012 in Latvia, has carried out 41 inspections on foreign aircrafts (Figure 20). All inspections have been carried out in the Riga International Airport.



**Figure 20. Distribution of SAFA inspections by the Civil Aviation Agency by years**

Distribution of SAFA inspections carried out in Latvia by the state of registration of the aircraft operators shown in the Table.



**Figure 21. Distribution of SAFA inspections carried out in Latvia in 2012 on ECAC /non-ECAC operator aircrafts**

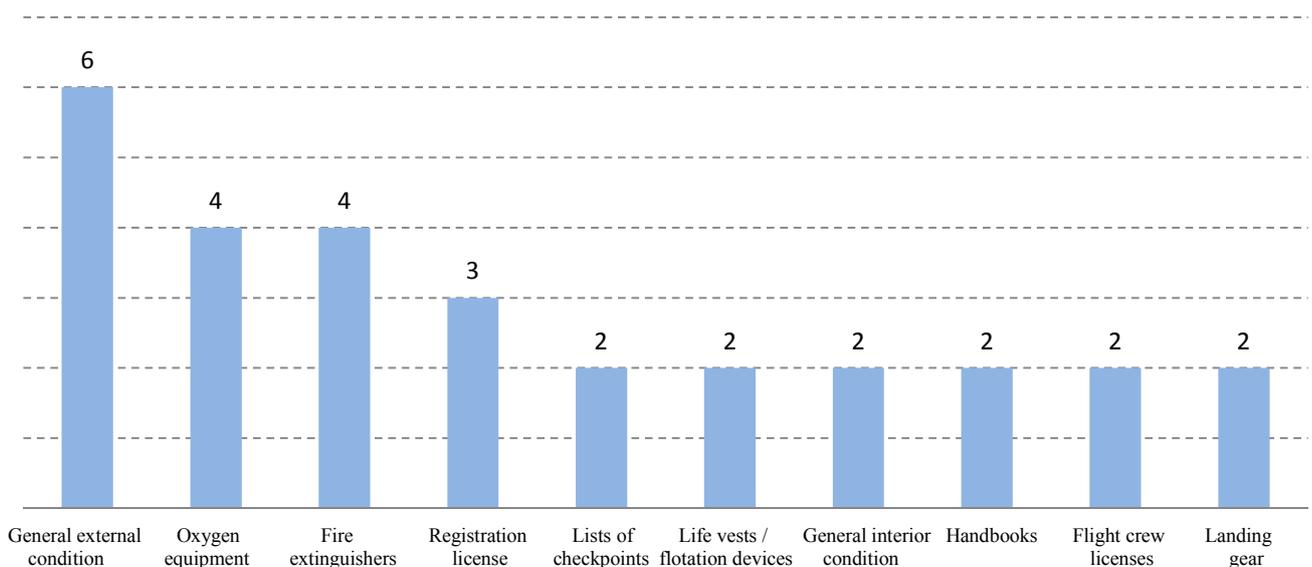
During inspections, the following actions have been carried out and the following decisions have been taken in accordance with procedures: See Table 2.

Action	2010	2011	2012	Total
1) Information reported to the pilot-in-command	54	38	31	123
2) Information delivered to ACO and ACO	11	6	8	25
3a) Aircraft operation restriction established	0	0	0	0
3b) Corrective actions carried out prior to departure	3	0	4	7
3c) Prohibition to depart	0	0	0	0
3d) Restrictions for repeated flights	0	0	0	0

**Table 2. Operations carried out during SAFA inspections in Latvia (number thereof)**

Number of non-compliances	Number of inspections
Inspections with no non-compliances	30
1 non-compliance	4
2 non-compliances	1
3 non-compliances	1

**Table 3. Number of non-compliances and number of inspections in 2012**



In 2012, non-compliances have been observed mostly in relation to general external condition of aircraft, namely, painting defects, loose or missing bolts, inadequate labelling and bonding wire defects.

In four cases, deficiencies in relation to oxygen equipment in passenger salon, aircraft galley and cockpit have been established. Such shortcomings have been observed also in relation to fire extinguishers.

The Civil Aviation Agency of Latvia verified, if shortcomings, which may significantly jeopardize flight safety, would be prevented prior to the next flight.

### **Collection of information**

The Civil Aviation Agency actively collects information on the safety of aircraft flights. Passengers and other persons involved in civil aviation operations or being witnesses of any occurrence may report to the Civil Aviation Agency on the existing or potential flight safety hazards. The acquired information may give reason to verify the facts specified in the report, performing inspections on the planes of aircraft operators certified abroad. These reports are confidential, identity of the reporter is not disclosed to any third parties.

For more information on reporting options, please refer to the Civil Aviation Agency webpage <http://www.caa.lv/lv/lidojumu-drosiba/arvalstu-aviokompanijas>

### **More on SAFA Programme**

For more information on the European Union SAFA Programme – please see the European Commission webpage (in English)

[http://ec.europa.eu/transport/modes/air/safety/safa\\_en.htm](http://ec.europa.eu/transport/modes/air/safety/safa_en.htm)

### **Implementation of recommendations (FACTOR)**

In the Civil Aviation Agency, database of follow-up action on occurrence report (FACTOR) operates. This database registers recommendations received from accident and incident investigation bureaux in Latvia and abroad. Thus, it is possible to register applicability of recommendations, to follow-up recommendation status and to control operations of the Civil Aviation Agency to implement recommendations into ACO operation. Thus, implementation of recommendations in ACO, ANS, airports, technical service organizations, training organizations etc. will be controlled.

Recommendation database has been developed in MS ACCESS environment, and it is partially connected to ECCAIRS database.

## Safety implementation monitoring and indicators

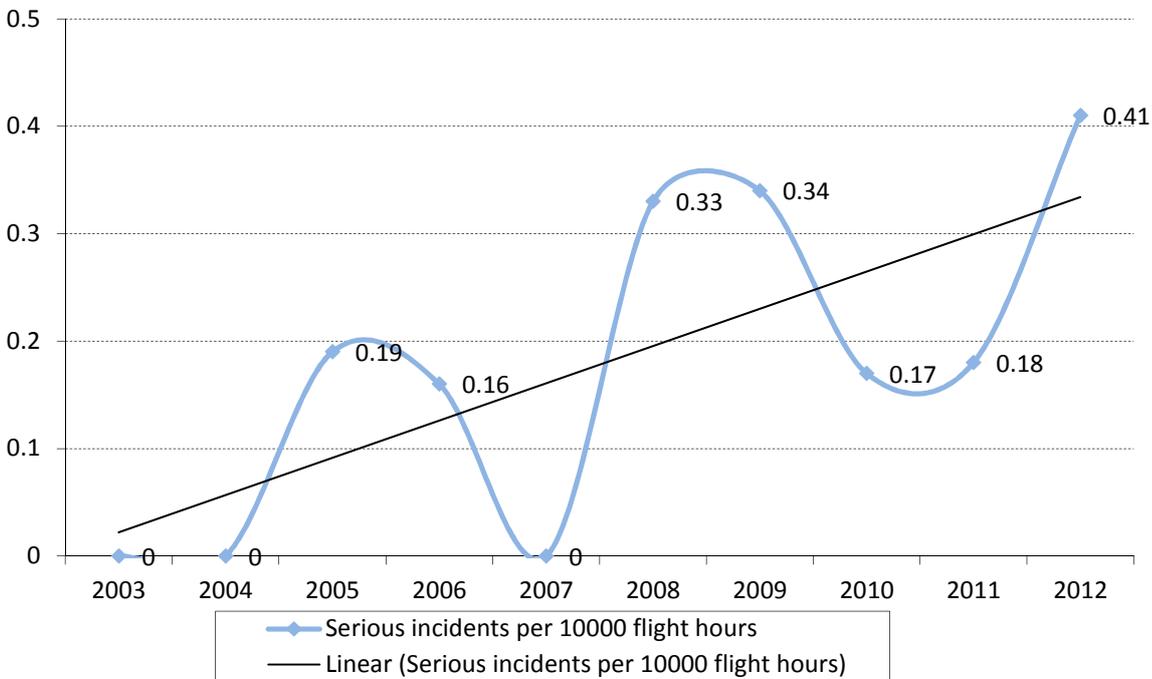
Flight safety performance indicators (SPI) – information from the database of the Civil Aviation Agency in Latvia against flight data (number of flights or number of flight hours), acquired from airlines, representatives of general aviation (owners of aircrafts and operators of aircrafts, pilots and clubs), airports and air navigation service provider.

Indicators are stated for those occurrences, which recur and outline trends, create direct hazard to safety of flights.

This section presents actual figures – in accordance with the data registered in the Civil Aviation Agency database.

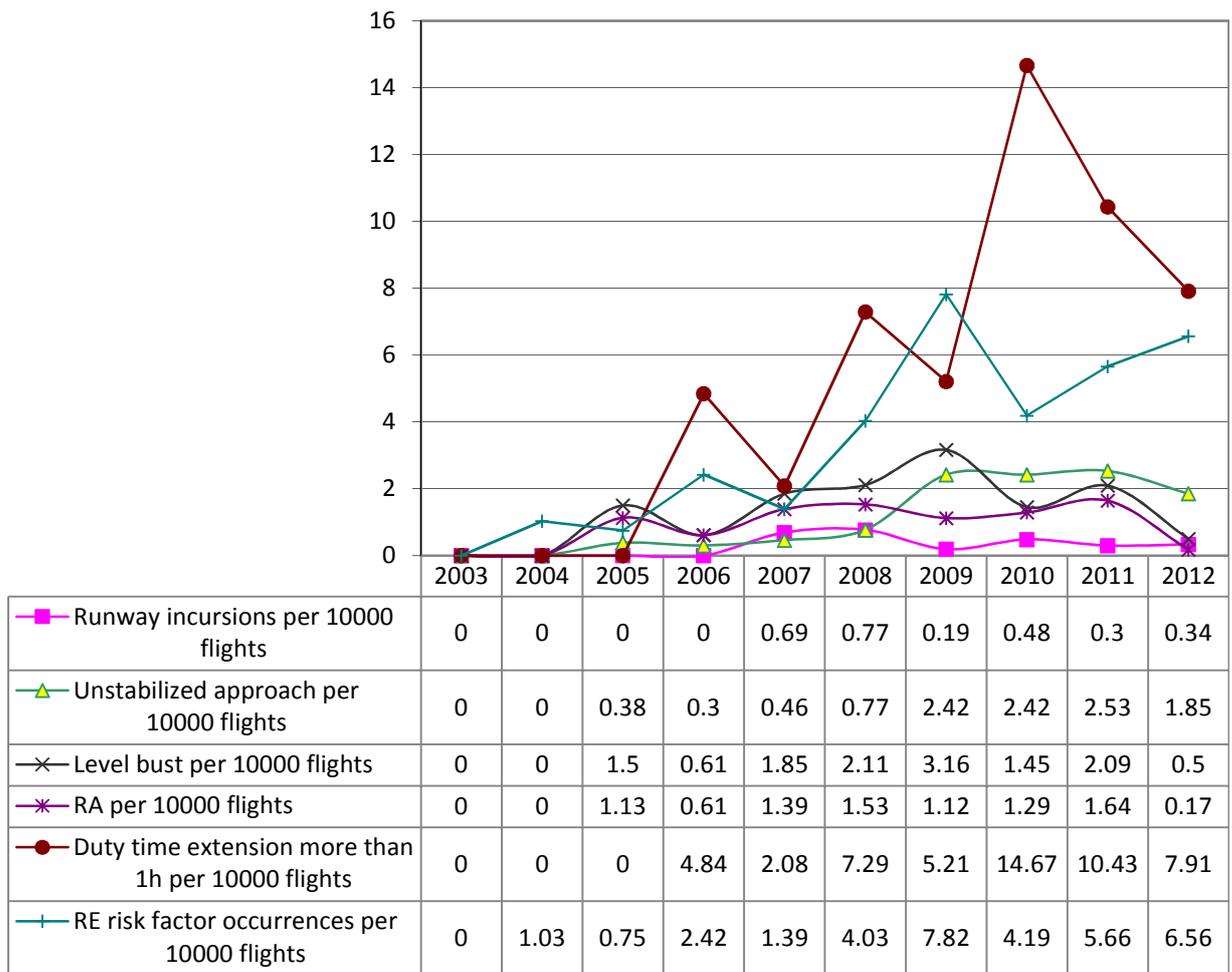
### Commercial aviation

In commercial aviation, the ICAO proposed flight safety level shall be less than 0.2 lethal aviation accidents per 100 000 flight hours.



**Figure 23: Serious incidents in commercial aviation per 10 000 flight hours**

Serious incidents in commercial aviation have explicitly cyclic trend, and in 2012, the increase from the lowest point in 2010 continued. In 2012, several significant incidents occurred in relation to decompression, as well as failure to ensure distancing aircrafts.



**Figure 24: Flight safety performance indicators in commercial aviation**

In 2012, 0.34 occurrences of unauthorized stay on runway<sup>2</sup> per 10 000 flights were reported, which means slight increase comparing to 2011, however, irrespective of this increase, in 2012, this figure has been the lowest one since 2005 and, in general, during the latest years, tendency of decrease in this figure may be observed.

Indicator of unstabilised approaches per 10000 flights has decreased from 2.53 in 2011 to 1.85 in 2012. Within the latest 4 years, comparatively stable trend may be observed, as since 2009, when there was significant increase, this figure has been more than 2 until 2012, and unstabilised approaches still are covered by the list of significant factors.

Level busts have significantly decreased: from 2.09 in 2011 to 0.5 per 10000 flights in 2012, achieving the lowest level since 2004. Within the latest years, this indicator has been unstable.

Indicator of RA occurrences (air traffic collision avoidance system (TCAS/ACAS has given directions to aircraft crew to prevent the risk of collision with other aircrafts) per 1000 flights in 2012 has significantly decreased – from 1.64 in 2011 to 0.17, achieving the lowest level since 2004. In general, this figure, within the latest years, has had unstable increasing trend.

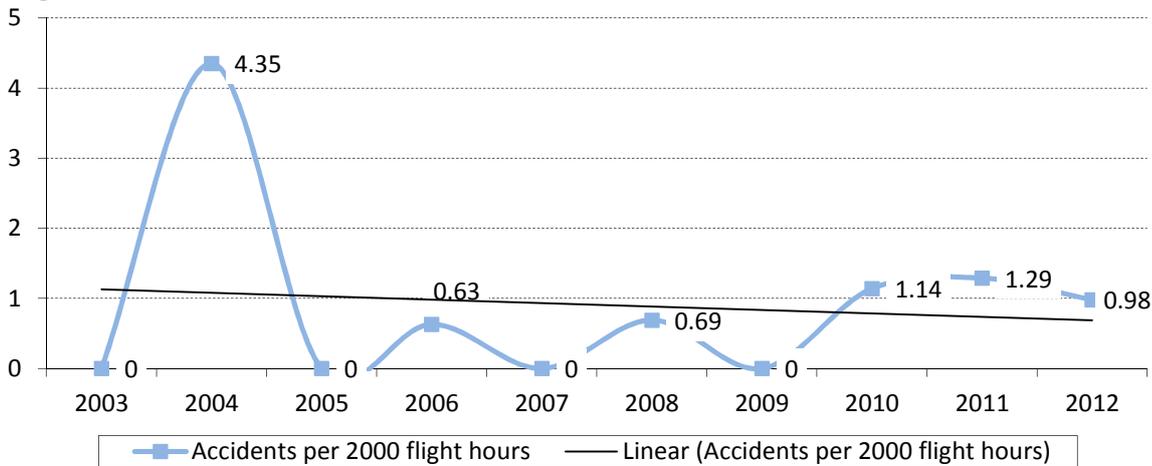
Duty time extensions by more than 1h per 10000 flights have decreased from 10.43 in 2011 to 7.91 in 2012, although, in general, this indicator shows unstable increasing trend and, in 2012, this figure was higher than at any time before 2010.

<sup>2</sup> In this report, this figure shows runway incursions by aircraft, and shall not include any other runway incursions ( by person, animal, vehicle)

Indicator of risk factors of occurrences with RE (veer off from or overrun of a runway by aircraft during take-off or landing) (for instance, due to landing gear extension issues during approach) per 10 000 flights has slightly increased from 5.66 in 2011 to 6.56 in 2012. In general, this indicator, similar to duty time extension, in the latest years has a trend to increase – although, in 2010, significant decrease was observed, in 2012, the figure has approximated the figure recorded in 2009, when it was the highest (7.82).

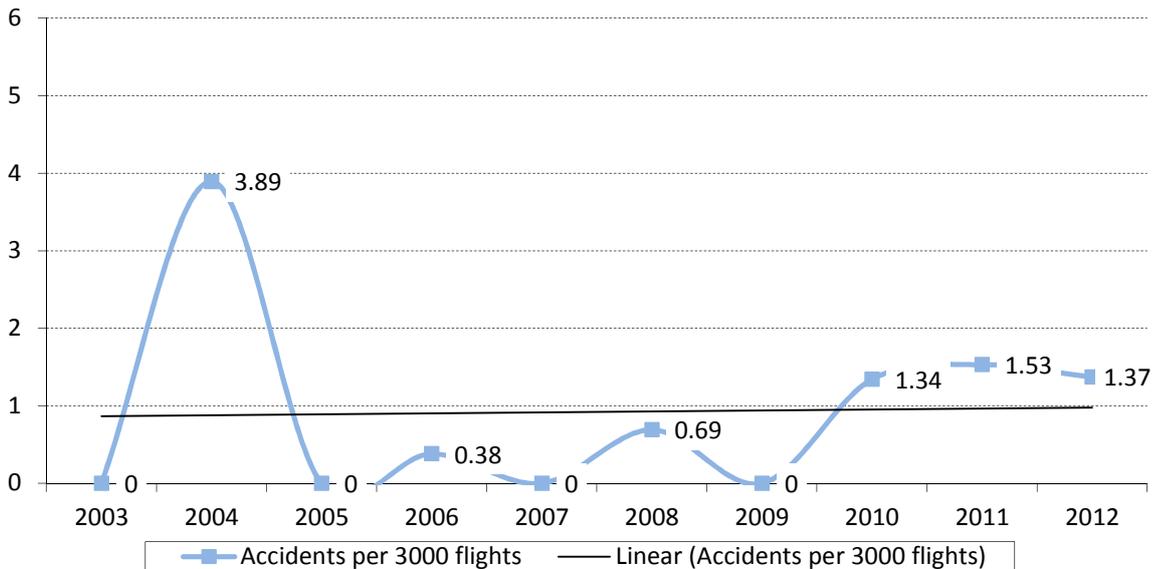
## General aviation

Safety performance indicators have been established for aircrafts registered in the Aircraft Register of Latvia.



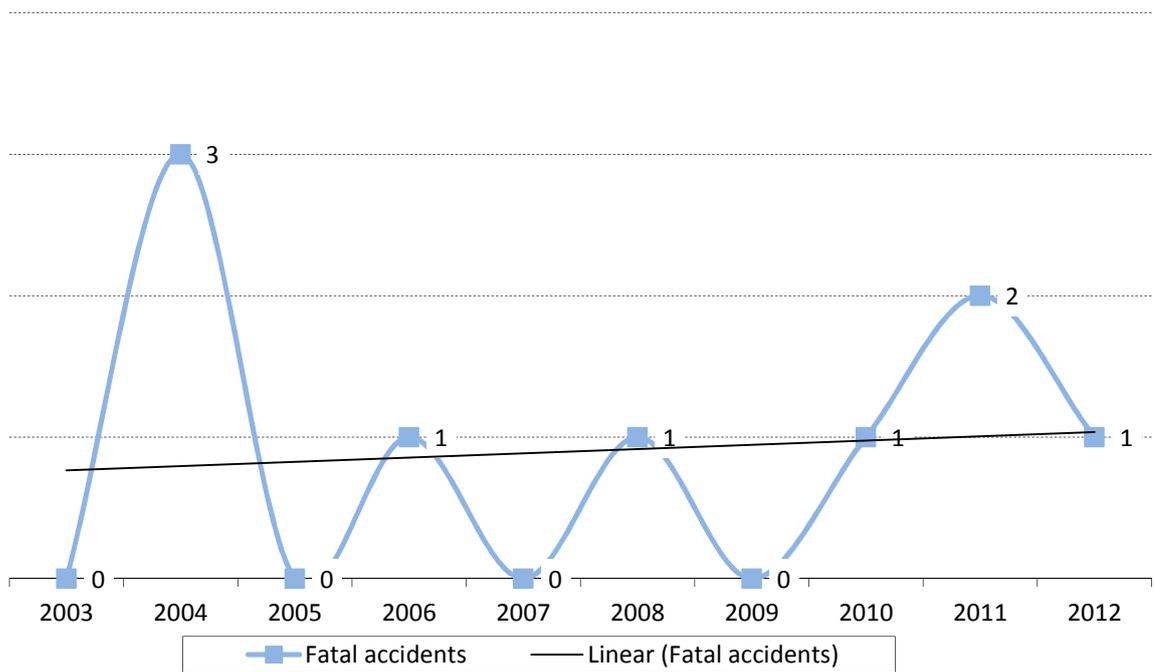
**Figure 25: Number of accidents in GA per 2000 flight hours**

Figure 25 shows data on accidents in general aviation per 2000 flight hours during the time period from 2003 to 2012. In 2012, this figure has decreased and is the lowest within the latest three years.



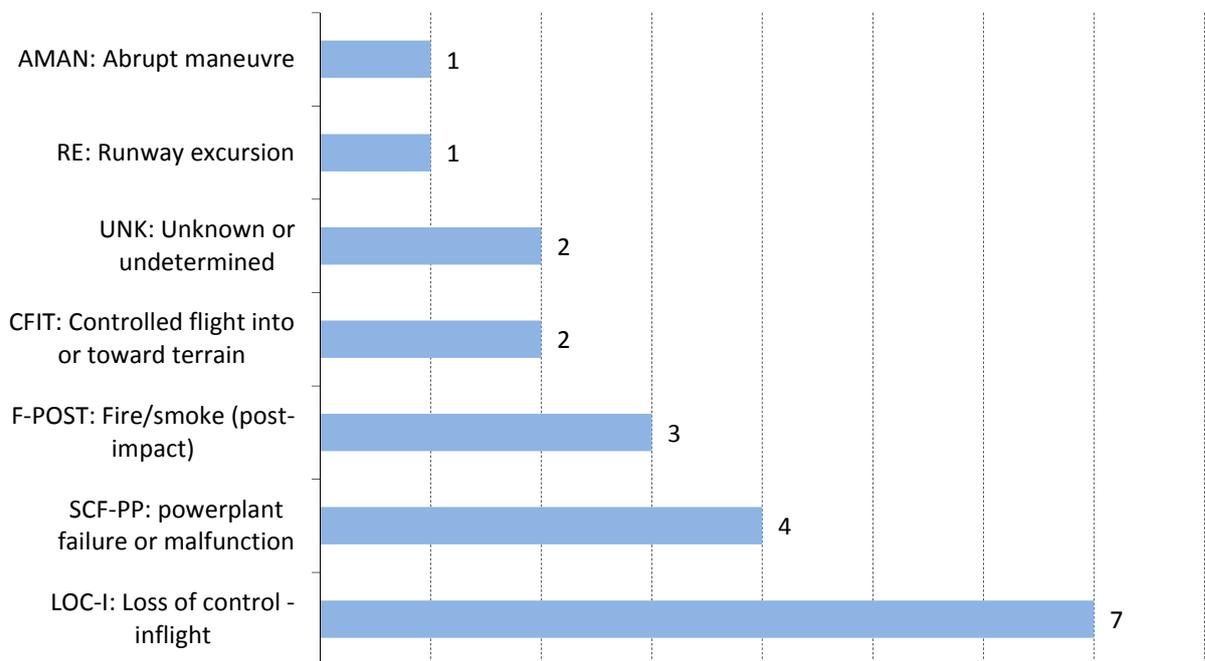
**Figure 26: Accidents in GA per 3000 flights**

Furthermore, number of accidents in GA per 3000 flights (Figure 26) in 2012 has decreased, although, it is still slightly higher than in 2011. The highest figure was observed in 2004.



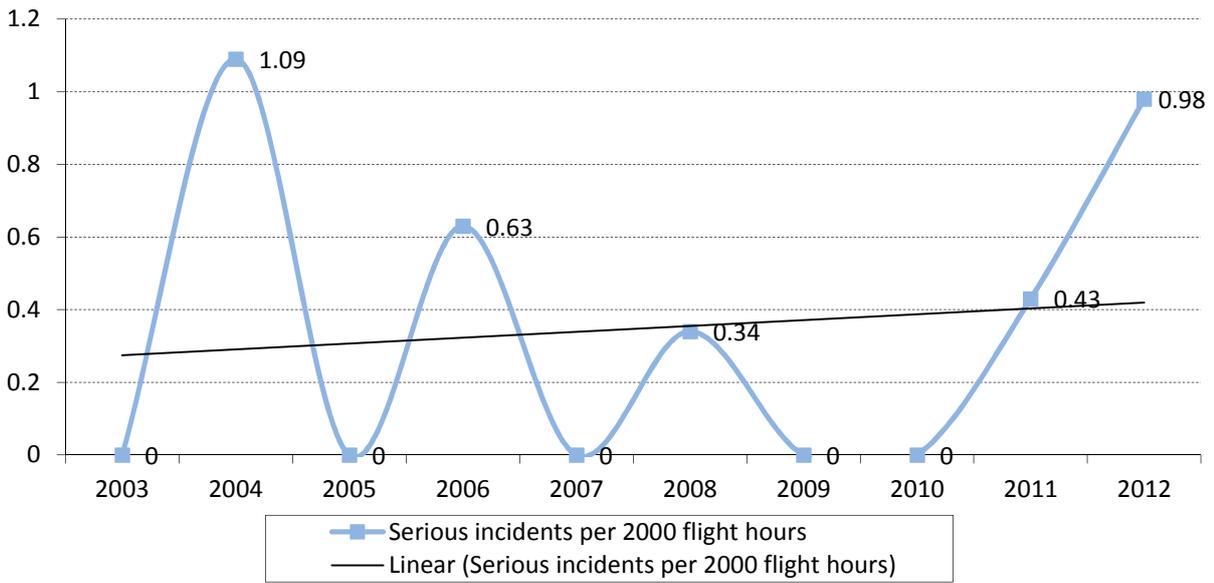
**Figure 27: Accidents in GA resulting in victims with fatal injuries**

Figure 27 shows accidents in GA with at least one person with fatal injuries. The figure was highest in 2004, while in 2012, it decreased – there was 1 person with fatal injuries (in 2011 – 2 accidents with persons having fatal injuries).



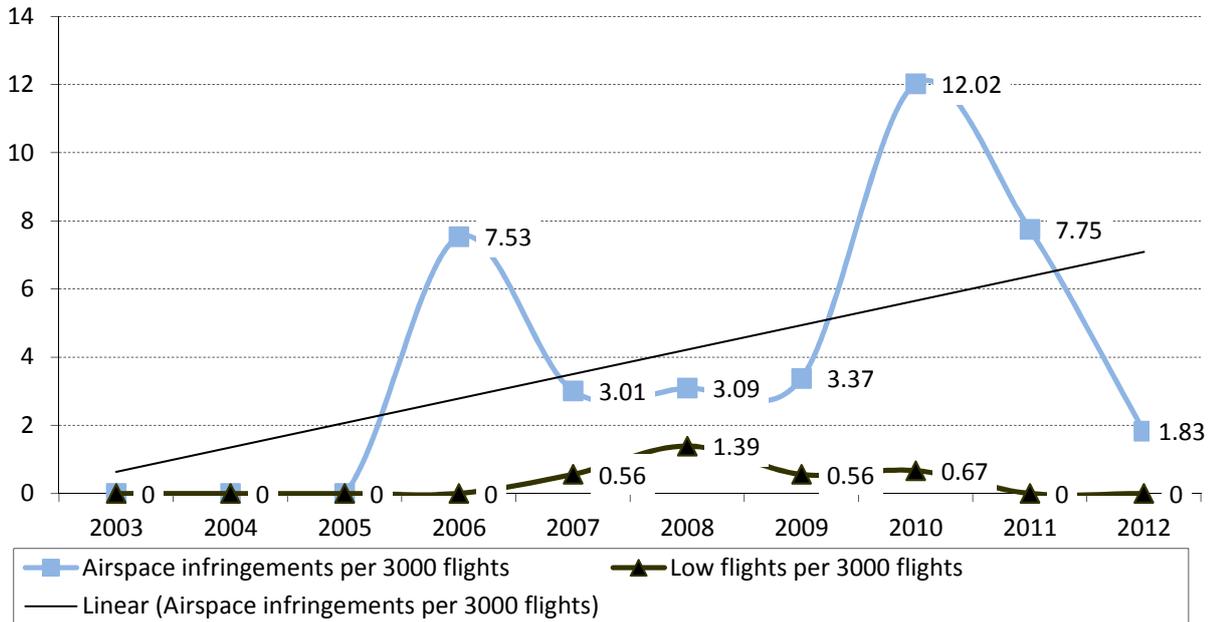
**Figure 28: Distribution of occurrence categories in GA aviation accidents**

Figure 28 shows distribution of occurrence categories in GA aviation accidents during the time period from 2003 to 2012. The most frequent category shall be considered LOC-I (loss of aircraft control when in the air). Number of occurrences of SCF-PP category (aircraft engine failure) has increased.



**Figure 29: Number of serious incidents in GA per 2000 hours**

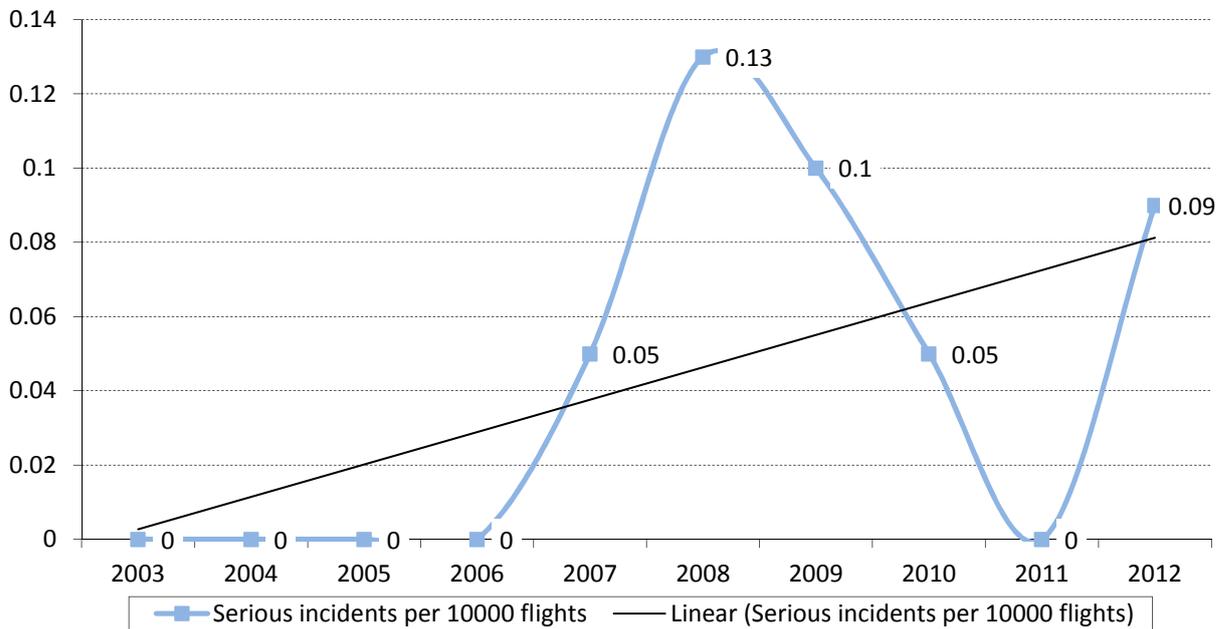
When analysing number of serious incidents in GA per 2000 hours (Figure 29), it may be concluded that within the latest years, it has trend to increase, and in 2012, this figure was only behind 2004, when it was the highest one.



**Figure 30: Safety performance indicators in GA per 3000 flights**

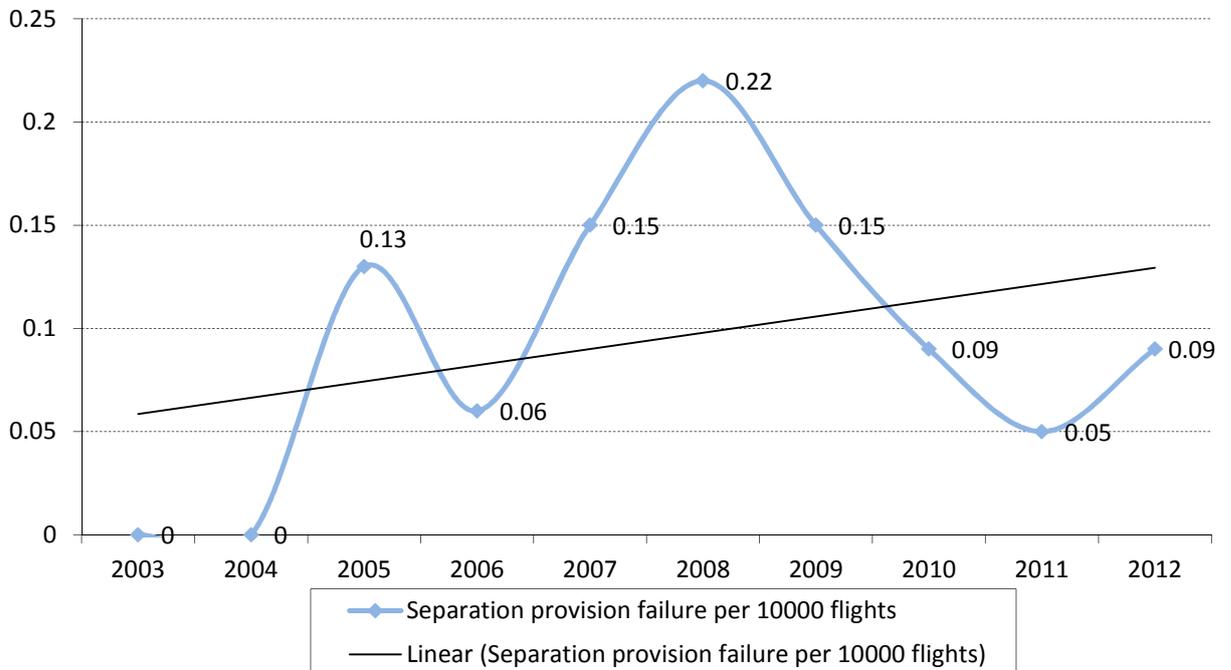
Safety performance indicators in GA per 3000 flights have decreased significantly, and occurrences both in relation to airspace infringement and low flights have decreased to the lowest level since 2005.

**Air navigation**



**Figure 31: Serious incidents per 10000 flights**

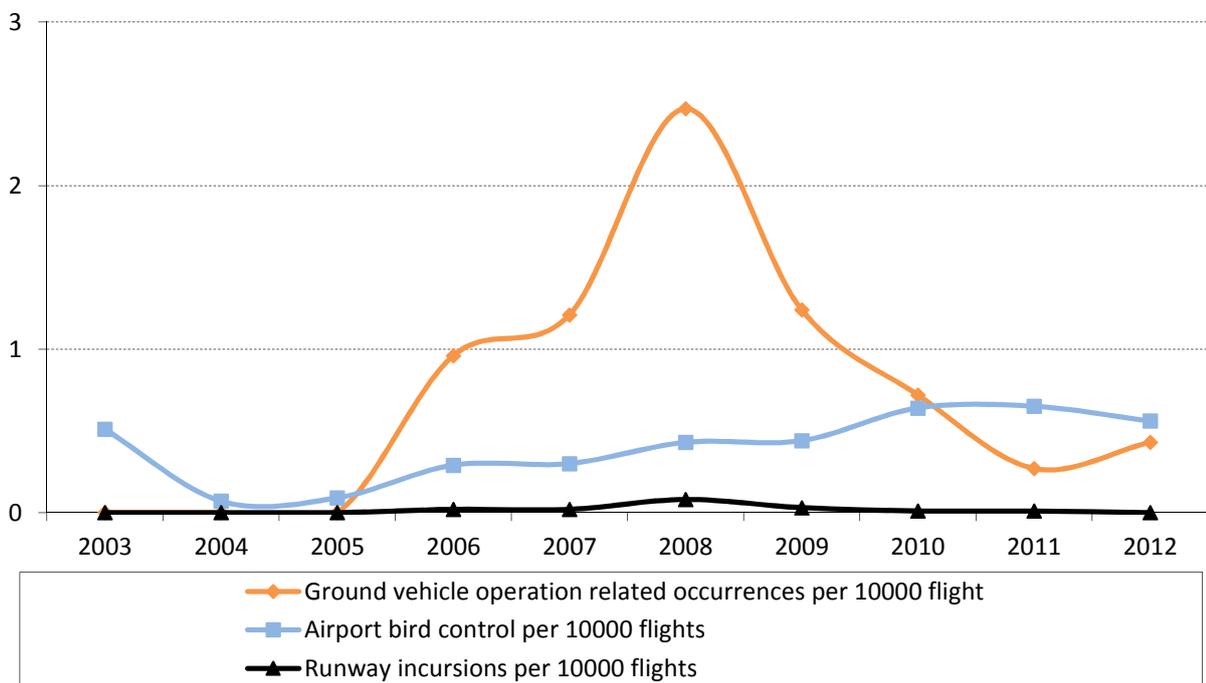
In 2012, figure in relation to serious incidents per 10000 flights related to air navigation (Figure 31) has achieved the highest level since 2009.



**Figure 32: Separation provision failure per 10000 flights**

Occurrences with separation provision failure within the latest years have tendency to decrease, but in 2012, this figure, however, increased up to the level of 2010.

## Airports and ground services



**Figure 33: Safety performance indicators in airports and ground services**

In relation to occurrences with airport and ground service, in 2012, number of occurrences related to ground vehicle operations has increased again, as from 2008, tendency of decrease in the number of these occurrences was observed. In 2012, number of occurrences related to airport bird control has slightly decreased, though, this change is too small to outline changes in the trend of bird control occurrences. Since 2004, these occurrences are encountered more often.

### Significant issues list – SIL

SIL list has been developed to attract more attention to those occurrences, which repeat and may be hazardous. SIL is prepared considering information from the following sources:

- Mandatory occurrence reporting system;
- Voluntary occurrence reporting system;
- Inspections and audits;
- Flight data analysis (FDA);
- Other sources.

The Civil Aviation Agency carries out analysis of factors and operations to increase level of flight safety. SIL list is dynamic; it shall be reviewed once a year and is supplemented by high risk factors, while factors where the risk has decreased (proportion of probability and seriousness) are excluded. In Latvia, this list is prepared by use of statistics for all the previous years, since statistics for several years allows identification of risks more accurately than the statistics for one year – due to comparatively low flight intensity. When analyzing global and European trends within the area of flight safety and assessing situation in Latvia, risk factors are included in the list.

**Table 4: List of factors significant in 2012**

Area	Significant factor	Commentary Explanation
<b>Commercial aviation</b>	Aircraft control (unstabilised approach)	Unstabilised approach is such approach, where aircraft has not been duly prepared for landing, for instance, approach is carried out at an inadequate speed or reducing the height of the flight, the required configuration is failed to be achieved (landing gear or wing flaps have not been extended, inadequate engine power mode applied etc.). Instead of going to the second circle, continuing of unstabilised approach, after minimum height, shall be considered the most frequent cause of accidents and serious incidents at landing. This has been identified by EASA as a significant hazard.
	SAFA inspection results abroad	Results of aircraft operator SAFA inspection in Latvia may serve as reflection of efficiency of the aviation authority and, mainly, reflection of actions of aircraft operators itself.
	Cooperation of crew with air navigation service provider	Incapability to agree on unification of procedures among airlines, Riga airport and LGS in

		relation to non-standard situations. Extraordinary situation levels <i>readiness</i> or <i>emergency</i> have been announced frequently, even when not required. Considering the stir in such case, there is a risk that pilots may cease to report less significant occurrences to controllers, thus, affecting the overall reporting culture.
	Duty time extensions more than 1 hour.	When exceeding duty time of crew and reducing time for rest, consequences of the crew's fatigue may appear as loss of guard, inattentiveness, inability to respond adequately to stress or load etc.
<b>Specific aviation works</b>	Reporting culture	Currently, there are no reports on any issues with actions by operators or flight crew. Only reports on violations by third parties, organizational issues etc. have been received.
	Hazards in the environment where specific aviation works have been carried out (unauthorized stay on the runway, possible collision with an object in the air etc.)	Unauthorized stay on the runway as significant hazard is recognized by EASA
<b>General aviation</b>	Low reporting culture	Low reporting culture prevents from identification of risks, carrying out of analysis of reasons and from carrying out actions to minimize the risk.
	Airspace infringement	In 2012, number of infringements has reduced. Risk in infringements of this kind can be considered aircraft collisions in the air.
	Flights with unregistered aircrafts and flights without adequate pilot's certificate	The situation has not improved comparing to the previous year.
	Loss of control during the flight	In accordance with data from the Civil Aviation Agency database, loss of control has been the most frequent causes for accidents and serious incidents in general

		aviation.
	Low flights	Low flights – especially over the places where large number of people gather, – shall be considered of very high risk. When going at low speed, for instance, above seaside, the low speed reduces opportunities to land the aircraft successfully. Electric power and communication lines, other obstacles, as well as sharp manoeuvring at low height shall be considered additional hazards, which have caused accidents before.
<b>Air navigation services</b>	Separation provisions	This has been recognized as significant hazard also by EASA. In 2012, this figure has increased.
<b>Airport and ground aid</b>	Airport bird control	See section <i>Bird Strike</i>
	Damages to aircrafts caused by ground service vehicles	Situation has improved. See Section <i>Airport and ground aids</i>

## Activities of the Civil Aviation Agency in the area of flight safety

### Aircraft operation division (AOD)

AOD, within the frame of their competence, has verified compliance of organizations with requirements to be fulfilled prior to the issuance of the certificate or approval of the organization, or prior to issuance of the permit; as well as has verified continuous compliance of the certifies and approved organizations with the applicable requirements.

Supervisory programme for supervisory activities specified in provisions has been developed and maintained, considering peculiarities of the organization, complicity of operation thereof and results of previous certification and/or supervision based upon assessment of related risks.

In February and March 2012, AOD provided advice for the Ministry of Transport on regulation of ground aid services in Latvia, to develop position for meetings of the Transport, Telecommunication and Power Industry Council.

In April 2012, draft document – action plan for implementation of the National safety programme has been developed.

In cooperation with the Division of Aviation Personnel Certification, plan for implementation of requirements contained in the Commission Regulation (EU) No.1178/2011 and No.290/2012 has been developed. Assessment of the influence by the Commission Regulation (EU) No.965/2012 on operation of the Civil Aviation Agency has been carried out; announcement has been prepared and the programme for implementation of the Commission Regulation (EU) No.965/2012 has been developed.

Specific tasks within the frame of functions of the European Air Safety Committee have been carried out.

Analysis of EASA and ICAO third party audit reports, as well as results of inspections in airlines included in the priority list have been carried out within the frame of SAFA Programme.

## Certification of aviation personnel

### Safety monitoring

Aviation Personnel Certification Division, in accordance with their functions in relation to operators and service providers – educational institutions and organizations – shall ensure continuous control and monitoring of the following:

- Compliance of qualification of pilot professional training organizations, registered training courses, as well as that of the aircraft crew with *ICAO* and *JAR-FCL* standards and requirements approved by the Civil Aviation Agency;
- Compliance with requirements contained in *JAR-FCL* of documentation and certificates issued by the pilot professional training organizations in the respective EU member state involved into training of aircraft crew;
- Applicability of simulators and procedures available in training centres of the third party (Ukraine) with *JAR-FCL*, *JAR-FSTD*, as well as requirements and industry standards of *EASA*.

### Supervision of the safety level provided

The achieved safety level in the area of professional training of personnel may be considered satisfactory, and it suggests opportunity to further increase the level of the applicable requirements and standards.

In relation to risk analysis in the frame of *PEL*, risk elements still occur in general aviation, mainly, related to organizational strategies, supervision, and personal interest and resource attraction factors. Thus, considering these principal indicators of increase in risks, both personal and public spheres may be distinguished, in which an individual's actions may cause consequences that, in turn, may result in increase of the risk level.

### Activities:

#### 1) Verification of fulfilment of the safety regulatory requirements

Certification of the registered training courses by the pilot professional training has been carried out in accordance with the procedures established in the *PEL* Operational Manual approved in 2011, which are based upon the Quality Manual Procedures of the Civil Aviation Agency, *JAR* requirements and *ICAO* standards, instructions provided during *EASA* audit. Inspectors of the Personnel Certification Division have carried out inspections in accordance with an approved timetable, training course applications and adequate test cards.

#### 2) Regulatory safety audits in 2012

- Two pilot professional organizations have been certified anew – *TRTO (SmartLynx)* and *FTO (TEKARA)*.
- Two registered training courses – *Flights unlimited* and *First fly*.
- Four additional training programmes *TRTO* approved – *airBaltic* and *FTO ERIVA*.

#### 3) Corrective measures

- During the course of certification of training organizations and training programmes, the established non-compliances were eliminated in accordance with the valid procedures until issuance or amending of the approval certificate.

– Non-compliances established within the course of the audit of registered training courses were quickly eliminated in accordance with timings specified in the non-compliance sheets, carrying out the respective corrective actions and giving written approval of the fact of elimination of non-compliances.

#### 4) Monitoring of functional system amendment safety

In accordance with *ICAO* standards, in 2012, supplementary requirements were applicable to all personnel of the aircraft crew and examination with the aim to establish level of knowledge of aviation English continued. Quality control during this process was ensured by a qualified and certified educational institution in UK *May Flower*.

#### 5) Procedure of review of the suggested changes

Aviation Personnel Certification Division in 2012 continued to prepare amendments to *PEL* Manual, considering the new requirements for flight crew in accordance with EU Regulations 216/08; 1178/11/ and 290/12. The updated version of the manual will be approved in the first half of 2013.

Amendments to the Operational Manuals of the pilot professional training organizations *airBaltic* and *BCAT TRTO*, as well as to Operational Manuals of several private pilots have been submitted and re-approved.

Amendments have been approved after compliance checks with *ICAO* standards and *EASA* requirements.

#### 6) Approved organizations

Certified educational institution in UK *May Flower* continued to carry out independent assessment of aviation English.

#### 7) Ability to ensure safety monitoring

Aviation Personnel Certification Division has been combined of qualified aviation experts, who have gained supplementary professional training in various courses for the improvement of professional skills and training under *EASA* system.

All employees of *PEL* continue to improve their qualification at various workshops, meetings, as well as using self-education methods, expanding their knowledge and skills.

#### 8) Safety guidelines

Training process guidelines in transport aviation are mainly defined and regulated by the operator, while the Aviation Personnel Certification Division ensures control of organization of this educational process and examining of flight crew. However, in general aviation, the Aviation Personnel Certification Division is still assigned more extensive functions – each year, a workshop for general aviation flight instructors has been organized with participation of supervisors of the training courses and lecturers.

#### 9) Challenges for 2013 in relation to flight safety

– Organizational activities required to use aerodromes in Latvia and equipment thereof for training flights in order to acquire instrumental and night qualification.

– Implementation of hazard and fault management (*TEM*), *CRM*, *SMS* principles in transport and general aviation shall be continued.

#### 10) Initiative of the division

- Inspectors of the Aviation Personnel Certification Division shall continue their activities in relation to the general aviation personnel using such training forms as individual interviews with instructors on the improvement of the level of flight safety.
- Flight safety workshops in general aviation aerodromes in Spilve and Ādaži shall be arranged and attended.
- Implementation of requirements of EU Regulations 216/08, 1178/11/ and 290/12 shall be continued.
- Until the middle of 2013, the new version of PEL operational manual shall be approved.

## Operation and safety of aerodromes, supervision of actions by aerodrome operators

In accordance with the programme of aerodrome certification and continuous monitoring, in 2012, 15 inspections in the certified aerodromes have been carried out to assess safety-critical aerodrome elements (aerodrome equipment, aerodrome planning, compliance of aerodrome services and personnel to standards and practice, compliance of the procedures to be carried out to flight safety requirements).

During the year of account, aerodrome certification requirements were fulfilled and the term of validity of aerodrome certificate was extended by the general aviation aerodromes „Cēsis”, „Centra Jaunzemji” and „Daugavpils”. The aerodrome „Tukums Jūrmala” was re-certified for servicing of day and night visual flights. The aerodrome „Spilve” acquired certificate of general aviation aerodrome.

**To 31 December 2012, in Latvia, total number of certified aerodromes was as follows:**

- 2 aerodromes for air transportation – Riga, Tukums Jūrmala;
- 8 general aviation aerodromes – Ikšķile, Cēsis, Limbaži, Ādaži, Daugavpils, Ventspils, Liepāja, Spilve;
- 4 general aviation helicopter aerodromes Centra Jaunzemji, Baltijas Helikopters, M Sola, Amo Plant.

In the year of account, during the operator supervision process, 10 new non-compliances have been established, of which half was in relation to insufficient management of changes and entries in aerodrome operation.

In 2012, in 67 objects within the territory of Latvia, approving of construction, arrangement and placement of objects potentially hazardous for aircraft flights and procedures of acceptance of protective lighting and labelling of the structures have been carried out to prevent occurrence of hazardous obstacles within the vicinity of aerodromes.

### Abbreviations and terms used in the report

APPBREVATIONS AND TERMS		EXPLANATION
<b>ADREP</b>		Accident/Incident Data Reporting to ICAO
<b>ANS</b>		Air Navigation Services
<b>Hazard</b>		Condition with the potential to cause injuries to people or damages to property or environment
<b>Occurrence</b>		Interruption in operation, defect, shortcoming or any other extraordinary conditions affecting flight safety, but not in the way as to cause any accident or serious incident (occurrence)
<b>ATM</b>		Air Traffic Management
<b>Accident</b>		<p>An occurrence associated with the operation of an aircraft which takes place between the time any person boards the aircraft with the intention of flight until such time as all such persons have disembarked, in which:</p> <ol style="list-style-type: none"> <li>1) a person is fatally or seriously injured as a result of: <ol style="list-style-type: none"> <li>a) being in the aircraft, or,</li> <li>b) direct contact with any part of the aircraft, including parts which have become detached from the aircraft, or,</li> <li>c) direct exposure to jet blast;</li> </ol> </li> <li>2) the aircraft sustains damage or structural failure which: <ol style="list-style-type: none"> <li>a) adversely affects the structural strength, performance or flight characteristics of the aircraft, and,</li> <li>b) would normally require major repair or replacement of the affected component, except for engine failure or damage, when the damage is limited to the engine, its cowlings or accessories, or for damage limited to propellers, wing Type, antennas, tires, brakes, fairings, small dents or puncture holes in the aircraft skin;</li> </ol> </li> <li>3) the aircraft is missing or is completely inaccessible.</li> </ol> <p>Event, during which in cases specified in Item 1, when the injuries are from natural causes, self-inflicted or inflicted by other persons, or when the injuries are to stowaways hiding outside the areas normally available to the passengers and crew, shall not be considered accident.</p>
<b>Hazard category</b>		Hazard value is assigned after assessment of potential hazard of the occurrence with the value scale from A to E, where A means <i>Extremely hazardous</i> and E means <i>No effect on safety</i>
<b>CAA</b>		<i>Civil Aviation Agency S/A</i>
<b>CAST</b>		Commercial Aviation Safety Team
<b>CICTT</b>		CAST/ICAO Common Taxonomy Team
<b>CFIT</b>		Controlled flight into terrain
<b>CNS</b>		Communication, Navigation and Surveillance
<b>CRM</b>		Crew Resource Management
<b>Regulatory requirements</b>	<b>safety</b>	Requirements established by the Community or governmental regulatory enactments in relation to provision of services or functions related to technical and operational competence and suitability to ensure safety management thereof

APPREVIATIONS AND TERMS	EXPLANATION
<b>Safety requirements</b>	Risk minimization measures as defined in the Risk Minimization Strategy, by which to achieve specific safety goal, including organizational operation procedures, functional, performance and compatibility requirements or environmental description
<b>Safety Management System</b>	A systematic approach to managing safety including the necessary organizational structure, accountabilities, policies and procedures, and at least: 1) Defining flight safety hazards, 2) Ensuring corrective measures required for maintenance of acceptable safety level, 3) Ensuring continuous monitoring and assessment of the achieved safety level, 4) Tending to continuous enhancement of safety level
<b>SMS</b>	Safety Management System
<b>EASA</b>	European Aviation Safety Agency
<b>EASp</b>	European Aviation Safety Plan
<b>ECAC</b>	European Civil Aviation Conference
<b>ECCAIRS</b>	European Co-ordination Centre for Aviation and Incident Reporting Systems
<b>FACTOR</b>	Follow-up Action on Occurrence Report
<b>FCL</b>	Flight crew licensing
<b>FDA</b>	Flight Data Analysis
<b>FDM</b>	Flight data monitoring
<b>FSTD</b>	Flight Simulation Training Device
<b>A/C</b>	Aircraft
<b>ACO</b>	Aircraft operator
<b>GPS</b>	Global Positioning System
<b>ATS</b>	Air Traffic Control Service
<b>IATA</b>	The International Air Transport Association
<b>ICAO</b>	International Commercial Aviation Organization
<b>IFR</b>	Instrument Flight Rules
<b>Incident</b>	An occurrence, other than an accident, associated with the operation of an aircraft which affects or could affect the safety of operation
<b>IOSA</b>	IATA Operational Safety Audit
<b>JAA</b>	Joint Aviation Authorities
<b>JAR</b>	Joint Aviation Requirements
<b>JRC</b>	Joint Research Centre
<b>JSSI</b>	JAA Safety Strategy Initiative
<b>QMS</b>	Quality Management System
<b>LGS</b>	Latvijas Gaisa satiksme
<b>Flight safety</b>	Condition, in which the risk of hazard to person or risk of damage to property is limited to acceptable level, ensuring continuous management of hazard identification and risk prevention and minimization process
<b>FIR</b>	Flight information region

APPREVIATIONS AND TERMS	EXPLANATION
<b>MTOW</b>	Maximum takeoff weight
<b>Serious incident</b>	An incident involving circumstances indicating that an accident nearly occurred. Note: The difference between an accident and a serious incident lies only in the result
<b>PEL</b>	Personnel licensing
<b>RA</b>	An indication by TCAS/ACAS given to the flight crew recommending a manoeuvre intended to provide separation from all threats
<b>RE</b>	Runway excursion
<b>Risk gradation</b>	Based upon five values of hazard category and five values of probability category, each occurrence shall be assessed, inserting it into the table where in 5 x 5 cell matrix flight safety level shall be marked as <i>Safe</i> (green), <i>Satisfactory</i> (yellow) and <i>Unsafe</i> (red)
<b>Risk</b>	Possibility of loss or injury measured in terms of severity and probability. Possibility that something will happen, and possible consequences, if it happens
<b>SAFA</b>	Safety Assessment of Foreign Aircraft
<b>SID</b>	Standard Instrument Departure
<b>SIL</b>	Significant Instrument List
<b>MT</b>	Ministry of Transport
<b>SHELL</b>	SHELL model, which is used to assess interrelation between the person and other people, equipment, procedures and environment, giving response to the question <i>WHY?</i>
<b>SMS</b>	Safety Management System
<b>SPI</b>	Safety Performance Indicators
<b>Statistical data</b>	Data on A/c hours, number of flights, number of passengers, number of flights within the Riga flight information district etc. (Exposure data)
<b>TCAS/RA</b>	Automatic warning on expected collision with another aircraft; traffic collision avoidance system
<b>TNGIIB</b>	Transport Accident and Incident Investigation Bureau
<b>State Safety Programme</b>	Complex of regulations and measures to improve safety of civil aviation aircraft flights
<b>SSP</b>	State Safety Programme
<b>GA</b>	General aviation

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### Accidents and serious incidents from 01.01.2005 to 31.12.2012

▶

<b>Occurrence registration number:</b>	<b>20120214B</b>
<b>Occurrence class:</b>	<b>Serious incident</b>
<b>Occurrence category:</b>	<b>OTHR: Other</b>
<b>Aircraft:</b>	<b>SAAB 340</b>
<b>Headline:</b>	<b>Descent below GS and deviation from the track during initial approach route.</b>
<b>Date/Time (UTC):</b>	<b>14.02.2012 / 4:40:00</b>
<b>Site:</b>	<b>Finland - EFMA (MHQ): Mariehamn</b>
<b>Damage to the aircraft:</b>	<b>No</b>
<b>The most severe injuries:</b>	<b>No</b>

▶

<b>Occurrence registration number:</b>	<b>TAIIB20120504</b>
<b>Occurrence class:</b>	<b>Accident</b>
<b>Occurrence category:</b>	<b>SCF-PP: powerplant failure or malfunction</b>
<b>Aircraft:</b>	<b>Flyitalia S.r.l. / MD3-RIDER</b>
<b>Headline:</b>	<b>Aircraft collision with terrain</b>
<b>Date/Time (UTC):</b>	<b>04.05.2012 / 9:14:00</b>
<b>Site:</b>	<b>Latvia, Jelgava Region, Jaunsvirlauku Civil Parish</b>
<b>Damage to the aircraft:</b>	<b>Significant</b>
<b>The most severe injuries:</b>	<b>Severe</b>

▶

<b>Occurrence registration number:</b>	<b>20120504A</b>
<b>Occurrence class:</b>	<b>Accident</b>
<b>Occurrence category:</b>	<b>SCF-PP: powerplant failure or malfunction</b>
<b>Aircraft:</b>	<b>PIPER PA-28</b>
<b>Headline:</b>	<b>Emergency landing outside airport after uncommanded engine</b>
<b>Date/Time (UTC):</b>	<b>04.05.2012 / 20:55:00</b>
<b>Site:</b>	<b>Estonia - EETU (Tartu)</b>
<b>Damage to the aircraft:</b>	<b>Significant</b>
<b>The most severe injuries:</b>	<b>No</b>

▶

<b>Occurrence registration number:</b>	<b>TAIIB20120515</b>
<b>Occurrence class:</b>	<b>Serious incident</b>
<b>Occurrence category:</b>	<b>SCF-NP: System/component failure or malfunction [non-powerplant]</b>
<b>Aircraft:</b>	<b>PIPER PA-28</b>
<b>Headline:</b>	<b>Emergency landing</b>
<b>Date/Time (UTC):</b>	<b>15.05.2012 / 10:30:00</b>
<b>Site:</b>	<b>Latvia, EVRS (Spilve)</b>
<b>Damage to the aircraft:</b>	<b>No</b>
<b>The most severe injuries:</b>	<b>No</b>

▶

<b>Occurrence registration number:</b>	<b>TAIIB20120519</b>
<b>Occurrence class:</b>	<b>Serious incident</b>
<b>Occurrence category:</b>	<b>MAC: AIRPROX/near miss/midair collision</b>
<b>Aircraft:</b>	<b>AIRBUS INDUSTRIES A320</b>
<b>Headline:</b>	<b>Infringement of separation standards during approach</b>
<b>Date/Time (UTC):</b>	<b>19.05.2012 / 8:19:00</b>
<b>Site:</b>	<b>Latvia, EVRA (Riga)</b>
<b>Damage to the aircraft:</b>	<b>No</b>
<b>The most severe injuries:</b>	<b>No</b>

▶

<b>Occurrence registration number:</b>	<b>20120612B</b>
<b>Occurrence class:</b>	<b>Serious incident</b>
<b>Occurrence category:</b>	<b>SCF-NP: System/component failure or malfunction [non-powerplant]</b>
<b>Aircraft:</b>	<b>AIRBUS INDUSTRIES A320</b>
<b>Headline:</b>	<b>Emergency descent</b>
<b>Date/Time (UTC):</b>	<b>12.06.2012 / 13:33:00</b>
<b>Site:</b>	<b>Airspace of Belarus</b>
<b>Damage to the aircraft:</b>	<b>No</b>
<b>The most severe injuries:</b>	<b>No</b>

▶

<b>Occurrence registration number:</b>	<b>TAIIB20120706</b>
<b>Occurrence class:</b>	<b>Serious incident</b>
<b>Occurrence category:</b>	<b>AMAN: Abrupt manoeuvre</b>
<b>Aircraft:</b>	<b>A AEROPRAKT FIRMA A-22</b>
<b>Headline:</b>	<b>Aircraft collision with terrain</b>
<b>Date/Time (UTC):</b>	<b>06.07.2012. / 16:34:00</b>
<b>Site:</b>	<b>Latvia, Adazi aerodrome</b>
<b>Damage to the aircraft:</b>	<b>Minor</b>
<b>The most severe injuries:</b>	<b>No</b>

▶

<b>Occurrence registration number:</b>	<b>20120712A</b>
<b>Occurrence class:</b>	<b>Accident</b>
<b>Occurrence category:</b>	<b>SCF-PP: powerplant failure or malfunction</b>
<b>Aircraft:</b>	<b>MCDONNELL-DOUGLAS HELICOPTER MD-500</b>
<b>Headline:</b>	<b>Helicopter collision with terrain</b>
<b>Date/Time (UTC):</b>	<b>12.07.2012 / 6:45:00</b>
<b>Site:</b>	<b>Latvia, Riebiņi Region</b>
<b>Damage to the aircraft:</b>	<b>Destroyed</b>
<b>The most severe injuries:</b>	<b>No</b>

▶

**Occurrence registration number:** 20120820A  
**Occurrence class:** Serious incident  
**Occurrence category:** SCF-PP: powerplant failure or malfunction  
**Aircraft:** TECNAM P-92 ECHO, SEASKY  
**Headline:** Powerplant failure, emergency landing  
**Date/Time (UTC):** 20.08.2012 / 6:31:00  
**Site:** Latvia, Pūre vicinity  
**Damage to the aircraft:** No  
**The most severe injuries:** No



**Occurrence registration number:** 20120909B  
**Occurrence class:** Serious incident  
**Occurrence category:** OTHR: Other  
**Aircraft:** DHC-8-402  
**Headline:** Pressurization problem due to operational issue  
**Date/Time (UTC):** 09.09.2012. / 16:55:00  
**Site:** Latvia, EVRR FIR  
**Damage to the aircraft:** No  
**The most severe injuries:** No



**Occurrence registration number:** 20121020A  
**Occurrence class:** Serious incident  
**Occurrence category:** ATM: ATM/CNS  
**Aircraft:** BOEING 737-800  
**Headline:** Infringement of separation  
**Date/Time (UTC):** 20.10.2012. / 11:50:00  
**Site:** Latvia, vicinity of waypoint ATRAK  
**Damage to the aircraft:** No  
**The most severe injuries:** No



**Occurrence registration number:** 20121113B  
**Occurrence class:** Accident  
**Occurrence category:** UNK: Unknown or undetermined  
**Aircraft:** Tecnam P2006T  
**Headline:** Aircraft collision with terrain  
**Date/Time (UTC):** 13.11.2012 / 13:40:00  
**Site:** Latvia, Bukulti  
**Damage to the aircraft:** Destroyed  
**The most severe injuries:** Fatal

▶

<b>Occurrence registration number:</b>	<b>TAIIB20111015</b>
<b>Occurrence class:</b>	<b>Accident</b>
<b>Occurrence category:</b>	<b>LOC-I: Loss of control – during flight;</b>
<b>Aircraft:</b>	<b>Zlin Aviation Savage Cruiser</b>
<b>Headline:</b>	<b>Aircraft collision with terrain</b>
<b>Date/Time:</b>	<b>15.10.2011 / 15:59:00</b>
<b>Site:</b>	<b>Krimulda area (Latvia)</b>
<b>Damage to the aircraft:</b>	<b>Destroyed</b>
<b>The most severe injuries:</b>	<b>Fatal</b>

▶

<b>Occurrence registration number:</b>	<b>20110726A</b>
<b>Occurrence class:</b>	<b>Serious incident</b>
<b>Aircraft:</b>	<b>BOEING - 737-300</b>
<b>Headline:</b>	<b>Depressurization</b>
<b>Date/Time:</b>	<b>26.07.2011 / 17:53:00</b>
<b>Site:</b>	<b>PEMIR ()</b>
<b>Damage to the aircraft:</b>	<b>No</b>
<b>The most severe injuries:</b>	<b>No</b>

▶

<b>Occurrence registration number:</b>	<b>20110714B</b>
<b>Occurrence class:</b>	<b>Serious incident</b>
<b>Aircraft:</b>	<b>DHC-8-402</b>
<b>Headline:</b>	<b>Depressurization</b>
<b>Date/Time:</b>	<b>14.07.2011.</b>
<b>Site:</b>	<b>RUSNE ()</b>
<b>Damage to the aircraft:</b>	<b>No</b>
<b>The most severe injuries:</b>	<b>No</b>

▶

<b>Occurrence registration number:</b>	<b>20110709A</b>
<b>Occurrence class:</b>	<b>Serious incident</b>
<b>Occurrence category:</b>	<b>LOC-I: Loss of control – during flight; ARC: Abnormal runway contact</b>
<b>Aircraft:</b>	<b>Rotax 582 powered ultra-light</b>
<b>Headline:</b>	<b>Hard landing on water</b>
<b>Date/Time:</b>	<b>09.07.2011 / 12:45:00</b>
<b>Site:</b>	<b>Rumbula, EVRC (Latvia)</b>
<b>Damage to the aircraft:</b>	<b>Significant</b>
<b>The most severe injuries:</b>	<b>No</b>

▶

<b>Occurrence registration number:</b>	<b>TAIB20110605</b>
<b>Occurrence class:</b>	<b>Accident</b>
<b>Occurrence category:</b>	<b>LOC-I: Loss of control – during flight;</b>
<b>Aircraft:</b>	<b>Flylab Tucano Delta 3</b>
<b>Headline:</b>	<b>Collision with ground</b>
<b>Date/Time:</b>	<b>05.06.2011 / 13:30:00</b>
<b>Site:</b>	<b>Airfield Cesis (Latvia)</b>
<b>Damage to the aircraft:</b>	<b>Destroyed</b>
<b>The most severe injuries:</b>	<b>No</b>

▶

<b>Occurrence registration number:</b>	<b>20110521A</b>
<b>Occurrence class:</b>	<b>Serious incident</b>
<b>Occurrence category:</b>	<b>SCF-NP: System/component failure or malfunction [except engines];</b>
<b>Aircraft:</b>	<b>GRYF - MD-3 Rider</b>
<b>Headline:</b>	<b>Fuel starvation</b>
<b>Date/Time:</b>	<b>21.05.2011 / 14:20:00</b>
<b>Site:</b>	<b>Jelgava, EVEA (Latvia)</b>
<b>Damage to the aircraft:</b>	<b>Minor</b>
<b>The most severe injuries:</b>	<b>No</b>

▶

<b>Occurrence registration number:</b>	<b>20110520B</b>
<b>Occurrence class:</b>	<b>Serious incident</b>
<b>Aircraft:</b>	<b>BOEING - 767-300</b>
<b>Headline:</b>	<b>Hard landing with structural damage</b>
<b>Date/Time:</b>	<b>20.05.2011 / 8:33:00</b>
<b>Site:</b>	<b>GCXO (Canary Islands)</b>
<b>Damage to the aircraft:</b>	<b>Minor</b>
<b>The most severe injuries:</b>	<b>No</b>

▶

<b>Occurrence registration number:</b>	<b>TAIB20110218</b>
<b>Occurrence class:</b>	<b>Accident</b>
<b>Occurrence category:</b>	<b>RE: Runway excursion</b>
<b>Aircraft:</b>	<b>TECNAM P92-JS</b>
<b>Headline:</b>	<b>Runway excursion</b>
<b>Date/Time:</b>	<b>18.02.2011 / 11:00:00</b>
<b>Site:</b>	<b>Aerodrome Spilve, Riga (Latvia)</b>
<b>Damage to the aircraft:</b>	<b>Significant</b>
<b>The most severe injuries:</b>	<b>No</b>

▶

<b>Occurrence registration number:</b>	<b>20110109A</b>
<b>Occurrence class:</b>	<b>Serious incident</b>
<b>Aircraft:</b>	<b>BOEING - 767-300</b>
<b>Headline:</b>	<b>TCAS RA</b>
<b>Date/Time:</b>	<b>09.01.2011 / 19:55:00</b>
<b>Site:</b>	<b>FL160 abeam PBL VOR (Venezuela)</b>
<b>Damage to the aircraft:</b>	<b>No</b>
<b>The most severe injuries:</b>	<b>No</b>

▶

<b>Occurrence registration number:</b>	<b>20101205A</b>
<b>Occurrence class:</b>	<b>Serious incident</b>
<b>Aircraft:</b>	<b>DHC-8-402</b>
<b>Headline:</b>	<b>Decompression</b>
<b>Date/Time:</b>	<b>05.12.2010 / 18:30:00</b>
<b>Site:</b>	<b>50 NM of EVRA (Latvia)</b>
<b>Damage to the aircraft:</b>	<b>No</b>
<b>The most severe injuries:</b>	<b>No</b>

▶

<b>Occurrence registration number:</b>	<b>20101002</b>
<b>Occurrence class:</b>	<b>Accident</b>
<b>Occurrence category:</b>	<b>CFIT: Controlled collision with terrain</b>
<b>Aircraft:</b>	<b>Kvant 03S</b>
<b>Headline:</b>	<b>Accident with flexiwing "Kvant 03S"</b>
<b>Date/Time:</b>	<b>02.10.2010 / 16:15:00</b>
<b>Site:</b>	<b>Vecsaliena, Daugavpils Region (Latvia)</b>
<b>Damage to the aircraft:</b>	<b>Destroyed</b>
<b>The most severe injuries:</b>	<b>Fatal</b>

▶

<b>Occurrence registration number:</b>	<b>20100823B</b>
<b>Occurrence class:</b>	<b>Serious incident</b>
<b>Aircraft:</b>	<b>AIRBUS INDUSTRIES - A320</b> <b>AIRBUS INDUSTRIES - A320</b>
<b>Headline:</b>	<b>ELECTRIC FIRE IN COCKPIT/TCAS RA</b>
<b>Date/Time:</b>	<b>23.08.2010</b>
<b>Site:</b>	<b>(Bulgary)</b>
<b>Damage to the aircraft:</b>	<b>Minor</b>
<b>The most severe injuries:</b>	<b>No</b>

▶

**Occurrence registration number:** 20100717B  
**Occurrence class:** Serious incident  
**Aircraft:** AIRBUS INDUSTRIES - A330-200  
 AIRBUS INDUSTRIES - A320

**Headline:** TCAS  
**Date/Time:** 17.07.2010 / 20:15:00  
**Site:** NINTA (Latvia)  
**Damage to the aircraft:** No  
**The most severe injuries:** No

▶

**Occurrence registration number:** TAIIB100510  
**Occurrence class:** Accident  
**Aircraft:** WT-9 DYNAMIC - (not coded) (General Aviation -  
 Pleasure - Local);

**Headline:** Aircraft collision with terrain  
**Date/Time:** 10.05.2010 / 20:43:00  
**Site:** Village Adazhi (Latvia)  
**Damage to the aircraft:** Destroyed  
**The most severe injuries:** Serious

▶

**Headline:** TCAS/RA  
**Occurrence registration number:** 20090831A  
**Date/Time:** 31.08.2009  
**Date/Time (UTC):** 31.08.2009 / 14:14:00  
**Occurrence class:** Serious incident  
**Occurrence category:** ATM: AIR TRAFFIC ORGANIZATION  
 (ATM)/COMMUNICATION, NAVIGATION AND  
 MONITORING (CNS); MAC: Dangerous mutual  
 approach/ collision in air

**Site:** Riga FIR (Latvia)  
**The most severe injuries:** No  
**A/c damages:** No  
**Damages to aerodrome:** No

**Take-off site:** Norway - ENGM (OSL): Oslo  
**Planned destination:** Latvia - EVRA (RIX): Riga Airport  
**Flight phase:** En route

**Take-off site:** Japan - RJAA (NRT): Tokio  
**Planned destination:** Germany - EDDF (FRA): FRANKFURT  
**Flight phase:** En route

**Aircraft:**

Aircraft	Type	Type of engine
BOEING - 737-300	Rigid winged	Turbo-jet
BOEING - 777	Rigid winged	Turbo-jet

**Headline:** Dangerous mutual approach with departing A/c when going the second circle  
**Occurrence registration number:** 20090213B  
**Date/Time:** 13.02.2009 / 6:50:00  
**Date/Time (UTC):** 13.02.2009 / 8:50:00  
**Occurrence class:** Serious incident  
**Occurrence category:** MAC: Dangerous mutual approach/ collision in air;  
**Site:** EVRA (Latvia)  
**The most severe injuries:** No  
**A/c damage:** No  
**Damage to aerodrome:** No

**Take-off site:** Lithuania - EYVI (VNO): Vilnius airport  
**Planned destination:** Latvia - EVRA (RIX): Riga Airport  
**Flight phase:** Approach

**Take-off site:** Unknown  
**Planned destination:** Unknown  
**Flight phase:** Unknown

**Aircraft:**

Aircraft	Type	Type of engine
BOEING - 737-300	Rigid winged	Turbo-jet
AIRBUS INDUSTRIES - A320	Rigid winged	Turbo-jet

**Headline:** The external wheel of the main chassis lost  
**Occurrence registration number:** 20081231A  
**Date/Time:** 31.12.2008  
**Date/Time (UTC):** 31.12.2008 / 13:30:00  
**Occurrence class:** Serious incident  
**Occurrence category:** SCF-NP: System/component failure or malfunction [except engines]  
**Site:** DUB (Ireland)  
**The most severe injuries:** No  
**A/c damage:** Minor  
**Damage to aerodrome:** No

**Take-off site:** Ireland - EIDW (DUB): Dublin  
**Planned destination:** Latvia - EVRA (RIX): Riga Airport  
**Flight phase:** Take-off

**Aircraft:**

Aircraft	Type	Type of engine
BOEING - 737-500	Rigid winged	Turbo-jet

▶

**Headline:** Loss of control  
**Occurrence registration number:** 20080816A  
**Date/Time:** 16.08.2008 / 10:00:00  
**Date/Time (UTC):** 16.08.2008  
**Occurrence class:** Accident  
**Occurrence category:** LOC-I: Loss of control – during flight  
**Site:** EVTA (Latvia)  
**The most severe injuries:** Fatal  
**A/c damage:** Not reconstructable (Destroyed)  
**Damage to aerodrome:** No

**Take-off site:** Latvia - EVRS : Riga/(Spilve)  
**Planned destination:** Latvia - EVTA : Tukums  
**Flight phase:** Approach

**Aircraft:**

Aircraft	Type	Type of engine
PIPER - PA-31	Rigid winged	Reciprocating

▶

**Headline:** Infringement of separation standards during approach in the TCA  
**Occurrence registration number:** TAIB082507  
**Date/Time:** 25.07.2008 / 23:37:00  
**Date/Time (UTC):** 25.07.2008 / 20:37:00  
**Occurrence class:** Serious incident  
**Occurrence category:** MAC: Dangerous mutual approach/ collision in air;  
ATM: AIR TRAFFIC ORGANIZATION (ATM)/COMMUNICATION, NAVIGATION AND MONITORING (CNS);  
**Site:** EVRA, Terminal Control Area (Latvia)  
**The most severe injuries:** No  
**A/c damage:** No  
**Damage to aerodrome:** No

**Take-off site:** Belgium - EBBR (BRU): Bruxelles/National  
**Planned destination:** Latvia - EVRA (RIX): Riga Airport  
**Flight phase:** En route

**Take-off site:** Tunisia - DTMB (MIR): Monastir/Habib Bourgiba  
**Planned destination:** Latvia - EVRA (RIX): Riga Airport  
**Flight phase:** Approach

**Aircraft:**

Aircraft	Type	Type of engine
BOEING - 737-500	Rigid winged	Turbo-jet
AIRBUS INDUSTRIES - A320	Rigid winged	Turbo-jet

**Headline:**

**INFRINGEMENT OF SEPARATION STANDARDS OVER THE BALTIC SEA NEAR REPORTING POINT ON REQUEST EVONA IN THE VICINITY OF LIEPĀJA**

**Occurrence registration number:**

**TAIB082805**

**Date/Time:**

**28.05.2008 / 13:57:00**

**Date/Time (UTC):**

**28.05.2008 / 10:57:00**

**Occurrence class:**

**Serious incident**

**Occurrence category:**

**ATM: AIR TRAFFIC ORGANIZATION (ATM)/COMMUNICATION, NAVIGATION AND MONITORING (CNS); MAC: Dangerous mutual approach/ collision in air;**

**Site:**

**LIEPĀJA (Latvia)**

**The most severe injuries:**

**No**

**A/c damage:**

**No**

**Damage to aerodrome:**

**No**

**Aircraft:**

Aircraft	Type	Type of engine
EMBRAER - 190 / 195	Rigid winged	Turbo-jet
PREDUZECE SOKO - G-4 SUPER GALEB (N-62)	Rigid winged	Turbo-jet

**Headline:**

**LANDING ON THE CLOSED PART OF RUNWAY IN RIGA AIRPORT**

**Occurrence registration number:**

**TAIB083004**

**Date/Time:**

**30.04.2008 / 10:05:00**

**Date/Time (UTC):**

**30.04.2008 / 7:05:00**

**Occurrence class:**

**Serious incident**

**Occurrence category:**

**USOS: Undershoot/overshoot; ADRM: Aerodrome;**

**Site:**

**EVRA (Latvia)**

**The most severe injuries:**

**No**

**A/c damage:**

**No**

**Damage to aerodrome:**

**No**

**Take-off site:**

**Latvia - EVRA (RIX): Riga Airport**

**Planned destination:**

**Latvia - EVRA (RIX): Riga Airport**

**Flight phase:**

**Landing**

**Aircraft:**

Aircraft	Type	Type of engine
PILATUS - PC-6B TURBO-PORTER	Rigid winged	Turbo-jet

**Headline:** AIRCRAFT COLLISION WITH TERRAIN  
**Occurrence registration number:** TAIB082704  
**Date/Time:** 27.04.2008  
**Date/Time (UTC):** 27.04.2008  
**Occurrence class:** Accident  
**Occurrence category:** LOC-I: Loss of control - inflight;  
**Site:** Near TUKUMS (Latvia)  
**The most severe injuries:** Minor  
**A/c damage:** Not reconstructable(Destroyed)  
**Damage to aerodrome:** No

**Take-off site:** Latvia - EVTA : Tukums  
**Planned destination:** Latvia - EVTA : Tukums  
**Flight phase:** En route

**Aircraft:**

Aircraft	Type	Type of engine
X-32 BEKAS - (to be coded)	Rigid winged	Reciprocating

**Headline:** INFRINGEMENT OF SEPARATION STANDARDS OVER THE SEA IN THE VICINITY OF LIEPAJA  
**Occurrence registration number:** TAIB082104  
**Date/Time:** 21.04.2008 / 12:05:00  
**Date/Time (UTC):** 21.04.2008 / 15:05:00  
**Occurrence class:** Serious incident  
**Occurrence category:** MAC: Dangerous mutual approach/ collision in air;  
 ATM: AIR TRAFFIC ORGANIZATION (ATM)/COMMUNICATION, NAVIGATION AND MONITORING (CNS);  
**Site:** NEAR LIEPĀJA , LATVIA (Latvia)  
**The most severe injuries:** No  
**A/c damage:** No  
**Damage to aerodrome:** No

**Take-off site:** United Kingdom - EGKK (LGW): London/Gatwick  
**Planned destination:** Latvia - EVRA (RIX): Riga Airport  
**Flight phase:** En route

**Take-off site:** India - VIDP (DEL): Delhi/Indira Gandhi Intl

**Planned destination:** United Kingdom - EGLL (LHR): London/Heathrow  
**Flight phase:** En route

**Aircraft:**

Aircraft	Type	Type of engine
BOEING - 757-200	Rigid winged	Turbo-jet
AIRBUS INDUSTRIES - A340-600	Rigid winged	Turbo-jet

**Headline:** LOSS OF SEPARATION OVER THE SEA NEAR REPORTING POINT ON REQUEST LASMA IN THE VICINITY OF LIEPAJA

**Occurrence registration number:** TAIB072008  
**Date/Time:** 20.08.2007. / 11:34:00  
**Date/Time (UTC):** 20.08.2007. / 8:34:00  
**Occurrence class:** Serious incident  
**Occurrence category:** MAC: Dangerous mutual approach/ collision in air;  
 ATM: AIR TRAFFIC ORGANIZATION (ATM)/COMMUNICATION, NAVIGATION AND MONITORING (CNS);

**Site:** NEAR LIEPĀJA , LATVIA (Latvia)

**The most severe injuries:** No

**A/c damage:** No

**Damage to aerodrome:** No

**Take-off site:** Latvia - EVRA (RIX): Riga Airport  
**Planned destination:** United Kingdom - EGSS (STN): London/Stansted  
**Flight phase:** En route

**Take-off site:** Netherlands, Kingdom of the - EHAM (AMS): Amsterdam/Schiphol

**Planned destination:** Russian Federation - UUEE (SVO): Moskva/Sheremetyevo

**Flight phase:** En route

**Aircraft:**

Aircraft	Type	Type of engine
BOEING - 737-800	Rigid winged	Turbo-jet
BOEING - 747-100/200	Rigid winged	Turbo-jet

**Headline:** Aeroprakt A-22 Serious incident

**Occurrence registration number:** 20060912A

**Date/Time:** 12.09.2006 / 8:35:00

**Date/Time (UTC):** 12.09.2006 / 5:35:00

**Occurrence class:** Serious incident

**Occurrence category:** LOC-I: Loss of control - inflight;

**Site:** Adazi (Latvia)

**The most severe injuries:** No  
**A/c damage:** Significant  
**Damage to aerodrome:** No

**Take-off site:** Adazi - (to be coded)  
**Planned destination:** Adazi - (to be coded)  
**Flight phase:** Take-off

**Aircraft:**

Aircraft	Type	Type of engine
AEROPRAKT FIRMA - A-22	Rigid winged	Reciprocating

▶  
**Headline:** CESSNA 152 Accident (Ikškile)  
**Occurrence registration number:** 20060628A  
**Date/Time:** 28.06.2006 / 17:37:00  
**Date/Time (UTC):** 28.06.2006 / 14:37:00  
**Occurrence class:** Accident  
**Occurrence category:** SCF-PP: powerplant failure or malfunction; F-POST: Fire/smoke (post-impact);  
**Site:** Ikškile (Latvia)  
**The most severe injuries:** Fatal  
**A/c damage:** Not reconstructable (Destroyed)  
**Damage to aerodrome:** No

**Take-off site:** Latvia - EVPA : Ikškile  
**Planned destination:** Latvia - EVPA : Ikškile  
**Flight phase:** En route

**Aircraft:**

Aircraft	Type	Type of engine
CESSNA - 152	Rigid winged	Reciprocating

▶  
**Headline:** Hydraulic system issues  
**Occurrence registration number:** 20060518A  
**Date/Time:** 18.05.2006  
**Date/Time (UTC):** 18.05.2006 / 10:42:00  
**Occurrence class:** Serious incident  
**Occurrence category:** SCF-PP: powerplant failure or malfunction;  
**Site:** LED - initial-climb (Russian Federation)  
**The most severe injuries:** No  
**A/c damage:** No  
**Damage to aerodrome:** No

**Take-off site:** Russian Federation - ULLI (LED): Sankt-Peterburg/Pulkovo

**Planned destination:** Latvia - EVRA (RIX): Riga Airport  
**Flight phase:** Take-off

**Aircraft:**

Aircraft	Type	Type of engine
FOKKER - 50	Rigid winged	Turbo-jet

▶  
**Headline:** High cabin altitude  
**Occurrence registration number:** 20051125A  
**Date/Time:** 25.11.2005  
**Date/Time (UTC):** 25.11.2005 / 5:22:00  
**Occurrence class:** Serious incident  
**Occurrence category:** SCF-NP: System/component failure or malfunction [except engines];  
**Site:** LISGO (En-Route) (Lithuania)  
**The most severe injuries:** No  
**A/c damage:** No  
**Damage to aerodrome:** No

**Take-off site:** Lithuania - EYVI (VNO): Vilnius airport  
**Planned destination:** Finland - EFHK (HEL): Helsinki/Vantaa (National Board Of Aviation)  
**Flight phase:** En route

**Aircraft:**

Aircraft	Type	Type of engine
FOKKER - 50	Rigid winged	Turbo-jet

▶  
**Headline:** Engine oil temperature fluctuations  
**Occurrence registration number:** 20050727B  
**Date/Time:** 27.07.2005 / 10:25:00  
**Date/Time (UTC):** 27.07.2005  
**Occurrence class:** Serious incident  
**Occurrence category:** SCF-PP: powerplant failure or malfunction;  
**Site:** Airfield *Rezekne* (Latvia)  
**The most severe injuries:** No  
**A/c damage:** No  
**Damage to aerodrome:** No

**Take-off site:** Latvia - EVNA : Rezekne  
**Planned destination:** Latvia - EVNA : Rezekne  
**Flight phase:** En route

**Aircraft:**

Aircraft	Type	Type of engine
AGUSTA - AB 206B	Helicopter	Turboshaft

▶

**Headline:** Decompression  
**Occurrence registration number:** 20050519A  
**Date/Time:** 19.05.2005 / 15:46:00  
**Date/Time (UTC):** 19.05.2005 / 12:46:00  
**Occurrence class:** Serious incident  
**Occurrence category:** SCF-NP: System/component failure or malfunction [except engines];  
**Site:** St.Petersburg-Vienna (Latvia)  
**The most severe injuries:** No  
**A/c damage:** No  
**Damage to aerodrome:** No

**Take-off site:** Russian Federation - ULLI (LED): Sankt-Peterburg/Pulkovo  
**Planned destination:** Austria - LOWW (VIE): Wien/Schwechat  
**Flight phase:** En route

**Aircraft:**

Aircraft	Type	Type of engine
FOKKER - 100	Rigid winged	Turbo-jet

▶

**Headline:** Kesco Bermuda Ltd Serious incident  
**Occurrence registration number:** 20050125A  
**Date/Time:** 25.01.2005 / 11:48:00  
**Date/Time (UTC):** 25.01.2005 / 9:48:00  
**Occurrence class:** Serious incident  
**Occurrence category:** SCF-NP: System/component failure or malfunction [except engines];  
**Site:** Ventspils (Latvia)  
**The most severe injuries:** Significant  
**A/c damage:** Significant  
**Damage to aerodrome:** Significant

**Take-off site:** Russian Federation - UUWW (VKO): Moskva/Vnukovo  
**Planned destination:** Latvia - EVVA : Ventspils  
**Flight phase:** Landing

**Aircraft:**

Aircraft	Type	Type of engine
RAYTHEON - PREMIERE I	Rigid winged	Turbo-jet

**For feedback**

Should you have any comments on the Safety Report 2012 and information included therein, or recommendations for the safety report of the next year, please contact persons in charge of the report:

[SIDD@latcaa.gov.lv](mailto:SIDD@latcaa.gov.lv)