STATE SAFETY PLAN

CIVIL AVIATION DIRECTORATE OF REPUBLIC OF SERBIA

2017-2018

State Safety Plan (SSp) 2017 – 2018

Acronyms

ALoSP	Accepted level of safety performance
Directorate	Civil Aviation Directorate of the Republic of Serbia
EAPAIRR	European Airspace Infringement Action Plan
EAPRE	European Action Plan for the Prevention of Runway Excursions
EAPRI	European Action Plan for the Prevention of Runway Incursions
EASA	European Aviation Safety Agency
EASP	European Aviation Safety Programme
EASp	European Plan for Aviation Safety
EC	European Commission
ECAA	European Common Aviation Area
ECCAIRS	European Co-ordination Centre for Accident and Incident Reporting Systems
EGAST	European General Aviation Safety Team
ESSI	European Strategic Safety Initiative
ICAO	International Civil Aviation Organization
SARPs	Standards and recommended practices (ICAO)
SMS	Safety management systems
SPI	Safety performance indicators
SRB	Safety Review Board
SRG	Group for safety risk assessment
SSP	State Safety Programme
SSp	State Safety Plan
USOAP CMA	Universal Safety Oversight Audit Programme Continuous Monitoring Approach conducted by ICAO

STATE SAFETY PLAN IN CIVIL AVIATION OF REPUBLIC OF SERBIA

INTRODUCTION

The Civil Aviation Directorate of the Republic of Serbia, as a regulatory and supervisory authority responsible for the safety oversight of air transport in the Republic of Serbia and within its duties and responsibilities, is empowered to implement the SSP in civil aviation.

Based on the item 1.2.7 of the SSP (Official Gazette RS No 38/2015), the Directorate has defined the State Safety Plan (SSp) for the period 2017 - 2018.

SSp is founded on safety information assessment, gathered through mandatory occurrence reporting, international and national safety data, data gathered in the course of inspections, also on the basis of safety objectives set in the Republic of Serbia, ICAO GASP, including the activities foreseen by EASp.

The first edition of the plan was based on the European division, which comprises three broad areas: systematic, operational and newly emerging safety issues. In addition, the SSp includes issues identified on the national level and which are related to the problems in the general aviation and aircraft that are other than the complex motor aircraft.

SSp defines actions and measures to implement SSP by making safety analyses, identifying safety issues at the national level, as well as, including the safety issues recognized at the pan-European level by EASA through EASp.

The structure of the SSp has been prepared in accordance with EASp, where in the activities have been devided into the following categories:

* systemic
* operational
* emerging
* state level

The purpose of such division is to provide for proactive and reactive approach to safety management in a comrehensive manner.

The version 1 of the SSP incorporates **systemic**, **operational** and **national issues** to be dealt with.

SYSTEMIC ISSUES

Systemic issues are the issues pertaining to the civil aviation as a whole. Their connection to a particular event or situation is not immediately evident. These comprise inherent factors which become visible only after the high-risk factors having the main role in the development of safety occurrences have been identified. Such issues often relate to the deficiencies within the organizational processes and procedures.

SYS.RS.001 Development and implementation of State Safety Program (SSP)

Reference to *EASp*
SYS 1.7

Description
The purpose of this activity is to implement SSP in civil aviation.

Activities
SYS.RS.001 (1). The Directorate is to develop and initiate implementation of SSP.

Time-frames
SYS.RS.001 (1). 01.01.2017.

Results
SYS.RS.001 (1). SSP Published and implementation initiated.

Status
SYS.RS.001 (1). Underway.

SYS.RS.002 Promoting Safety Management System (SMS)

Reference to EASp
SYS 2.7

Description
The purpose of the activity is to support aviation entities in the development and implementation of their SMSs.

Activities
SYS.RS.002 (1). Directorate shall publish the guidelines developed by ESSI.

Time frame
SYS.RS.002 (1). 01.01.2017.

Results
SYS.RS.002 (1). Directorate shall publish on its official webpage the link referring to the *ESSI* guidelines.

Status
***SYS.RS.002* (1).** Underway.

SYS.RS.003 Use of Flight Data Monitoring (FDM)

Reference to *EASp*
SYS 3.11

Description
Current FDM programs of national operators do not include all the operational issues established on the European level.

Activities
SYS.RS.003 (1). The Directorate shall ensure through its safety oversight function that operators within their FDM programs define occurrences related to all operational issuess established on the European level.

Time frame
***SYS.RS.003* (1).** 31.12.2017.

Results
***SYS.RS.003* (1).** Parameters monitored through FDM program are harmonized with the SSP.

Status
***SYS.RS.003* (1).** Underway.

SYS.RS.004 Lack of resources at civil aviation authorities

Reference to EASp
SYS 5.9

Description
The lack of resources at particular CAAs in EU and promoting secondment from different CAAs to the Sates in need of those resources.

Activities
***SYS.RS.004* (1).** Since the Republic of Serbia is not EU member state, the activities regarding this questions shall not be applicable as referred to in *EASp.*

OPERATIONAL ISSUES

Operational issues are usually established through occurrence reporting and analysis. Operational safety issues have been devided into eight different categories within public air transport, comprising important occurrences that can have caused an accident. Such occurrences are the final phase in the series of occurrences procuring the accident. Prior to such occurrences, a series of evident safety risks usually appear in the first place, which have an adverse effect to the safety system. Those are often related to weather conditions, air navigation services, airdrome services, flight crew procedures, etc.
It is important to emphasise that particular problems such as unstable approaches, procedures preformed in adverse weather conditions or inadequate procedures undertaken by flight crews have their impact on more than one area of recognized risks. In addition, human factors affect different areas of the recognized risks.

OPS.RS.001 - Runway Excursion (RE)

Reference to *EASp*
AER 1.5, 1.9

Description
The purpose of this activity is to reduce risks from runway excursions.

Activities
OPS.RS.001 (1). The Directorate shall use safety indicators for covering the cases of runway excursion and the factors behind it.
OPS.RS.001 (2). The Directorate shall ensure that all the aviation entities in the Republic of Serbia are aware of the recommendations from *EAPRE* recommendation 3.6.8.
OPS.RS.001 (3). The Directorate shall ensure within its safety oversight programme that the occurrences preceding runway excursion are included in Operator`s FDM (*EAPRE* recommendation 3.4.2).
OPS.RS.001 (4). The Directorate shall ensure that the measures for preventing runway excursions are included within initial and recurrent training of pilots, ATCOs and airport staff (*EAPRE* recommendations 3.1.5 and 3.6.6.).
OPS.RS.001 (5). The Directorate shall ensure the measures for risk assessment for occurrences preceding RE are included within the airport operator`s SMS (*EAPRE* recommendations 3.6.4 and 3.6.7).

Time frame
OPS.RS.001 (1). Implemented
OPS.RS.001 (2). 01.06.2017.
OPS.RS.001 (3). 31.12.2017.
OPS.RS.001 (4). 31.12.2017.
OPS.RS.001 (5). 31.12.2017.

Results
OPS.RS.001 (1). The risk-factors from RE covered in the SSP - safety indicators.
OPS.RS.001 (2). Aviation entities in the Republic of Serbia aware of recommendations from *EAPRE.*

OPS.RS.001 (3). Occurrences preceding RE are included in Operator`s FDM.
OPS.RS.001 (4). RE preventing measures are included in the initial and recurrent training of pilots. ATCOs and airport staff.
OPS.RS.001 (5). Risk assessment of the factors preceding RE are included in the SMS of airport operator.

Status
OPS.RS.001 (1). Implemented.
OPS.RS.001 (2). Underway.
OPS.RS.001 (3). Underway.
OPS.RS.001 (4). Underway.
OPS.RS.001 (5). Underway.

OPS.RS.002 Airspace Infringement Risks

Reference to *EASp*
AER 2.1

Description
The purpose of this activity is to reduce airspace infringement risks.

Activities
OPS.RS.002 (1). The Directorate shall use safety indicators to cover all the cases of airspace infringement and the causes.
OPS.RS.002 (2). The Directorate shall ensure, within the safety oversight pregame, the level of compliance with the recommendations of EAPAIRR.
OPS.RS.002 (3). The Directorate shall apply all the activities pertaining to aviation authorities as referred to in EAPAIRR.

Time frame
OPS.RS.002 (1). Implemented
OPS.RS.002 (2). 31.12.2017.
OPS.RS.002 (3). 31.12.2017.

Results
OPS.RS.002 (1). Airspace infringement risks are covered in the SSP safety indicators
OPS.RS.002 (2). Verifying the level of conformity with the recommendations from the EAPAIRR are included in the Directorate`s safety oversight program.
OPS.RS.002 (3). Each activity pertaining to aviation authorities from the EAPAIRR have been applied.

Status
***OPS.RS.002* (1).** Implemented.
***OPS.RS.002* (2).** Underway.
***OPS.RS.002* (3).** Underway.

OPS.RS.003 MAC-Mid-air collision

Reference to *EASp*
AER 2.8

Description
The purpose of this activity is to reduce risks from mid-air collision of aircraft.

Activities
OPS.RS.003 (1). The Directorate shall use safety indicators to cover all the cases of mid-air collision.
OPS.RS.003 (2). The Directorate shall prioritize activities within the Operator`s SMS / FDM in terms of mid-air aircraft collisions and the preceding factors.

Time frame
OPS.RS.003 (1). Implemented.
OPS.RS.003 (2). 31.12.2017.

Results
OPS.RS.003 (1). The risk-factors for mid-air collision are covered in SSP, in safety indicators
OPS.RS.003 (2). The question of mid-air aircraft collisions and the preceding factors has priority during conducting inspections of the Operator`s SMS /*FDM.*

Status
OPS.RS.003 (1). Implemented.
OPS.RS.003 (2). Underway.

OPS.RS.004 Controlled flight into terrain (CFIT)

Reference to *EASp*
AER 3.4

Description
The purpose of this activity is to reduce the risks from CIFT, including the causes leading to the same.

Activities
OPS.RS.004 (1). The Directorate shall use safety indicators to cover all the cases of CIFT and factors leading to this.
OPS.RS.004 (2). The Directorate shall include in the safety oversight program the issue of CIFT and the possible preceding factors.

Time frame
OPS.RS.004 (1). Implemented.
OPS.RS.004 (2). 31.12.2017.

Results
OPS.RS.004 (1). The risk-factors from CIFT covered in the SSP - safety indicators.

OPS.RS.004 (2). The issue of the CIFT and the possible preceding factors is covered in the Directorate`s safety oversight programs.

Status
OPS.RS.004 (1). Implemented.
OPS.RS.004 (2). Underway.

OPS.RS.005 Loss of control in flight (LOC-I)

Reference to *EASp*
AER 4.6, 4.7 u 4.8

Description
The purpose of this activity is to reduce the risks from LOC-I, including the possible causes leading to LOC-I.

Activities
OPS.RS.005 (1). The Directorate shall use safety indicators to cover all the cases of LOC-I and the risk-factors that can cause it.
OPS.RS.005 (2). The Directorate shall include within its safety oversight programme LOC-I and the possible preceding factors.

Time frame
OPS.RS.005 (1). Implemented.
OPS.RS.005 (2). For the third quarter of 2017.

Results
OPS.RS.005 (1). The risk-factors from LOC-I are covered in the SSP - safety indicators.
OPS.RS.005 (2). The issue of LOC-I and the possible preceding factors is included in the Directorate`s safety oversight programme.

Status
OPS.RS.005 (1). Implemented.
OPS.RS.005 (2). Underway.

OPS.RS.006 Runway incursion (RI)

Reference to *EASp*
AER 5.2 u 5.4

Description
The purpose of this activity is to reduce the risks from RI and identify the causes that can have lead to runway incursions.

Activities
OPS.RS.006 (1). The Directorate shall use safety indicators to cover all the cases of runway incursions and factors that can have lead to that.

***OPS.RS.006* (2).** The Directorate shall ensure that all the aviation entities in the Republic of Serbia are aware of the recommendations under EAPRI, that the recommendation from EAPRI are implemented and that the Runway Safety Teams are appropriately organized and fully operational.

Time frame
OPS.RS.006 (1). Implemented.
OPS.RS.006 (2). 31.12.2017.

Results
OPS.RS.006 (1). The risk-factors from runway incursions are covered in the SSP – in safety indicators.
OPS.RS.006 (2). Aviation entities in the Republic of Serbia are aware of the recommendations from EAPRI, that the recommendation from EAPRI are implemented and that the Runway Safety Teams are appropriately organized and fully operational.

Status
***OPS.RS.006* (1).** Implemented.
***OPS.RS.006* (2).** Underway.

OPS.RS.007 Occurrence of fire, smoke or fumes (FIRE)

Reference to *EASp*
AER 6.2

Description
The purpose of this activity is to reduce the risks from incidence of fires, smoke or fumes on aircraft including the causes that can have led to incidence of fires, smoke or fumes on aircraft.

Activities
OPS.RS.007 (1). The Directorate shall use safety indicators to cover all the cases of incidence of fire, smoke or fumes on aircraft and the risk-factors that can have led to that.
OPS.RS.007 (2). The Directorate shall include in the safety oversight programme the issue of incidence of fire, smoke or fumes on aircraft and the possible preceding factors.

Time frame
OPS.RS.007 (1). Implemented.
OPS.RS.007 (2). The first quart.er of 2017.

Results
OPS.RS.007 (1). The risk-factors from incidence of fire, smoke or fumes on aircraft are covered in the SSP.
OPS.RS.007 (2). The issue of incidence of fire, smoke or fumes on aircraft and the possible preceding factors is included in the Directorate`s safety overnight programme.

Status
***OPS.RS.007* (1).** Implemented.
***OPS.RS.007* (2).** Underway.

OPS.RS.008 Safety of ground operations *(RAMP, G-COL, LOAD, DE-ICE)*

Reference to *EASp*
AER 5.9 and 5.10

Description
The purpose of this activity is to reduce risks in the course of discharging safety-related tasks regarding groundhandling (RAMP, G-COL, LOAD, DE-ICE) inspection.

Activities
OPS.RS.008 (1). The Directorate shall use safety indicators to cover the safety of RAMP, G-COL, LOAD, DE-ICE.
OPS.RS.008 (2). The Directorate shall include in the safety oversight programme the issue of the safety of RAMP, G-COL, LOAD, DE-ICE.

Time frame
OPS.RS.008 (1). Implemented.
OPS.RS.008 (2). The third quarter of 2017.

Results
OPS.RS.008 (1). Safety factors for RAMP, G-COL, LOAD, DE-ICE are covered in the SSP - Safety indicators.
OPS.RS.008 (2). RAMP, G-COL, LOAD, DE-ICE safety is included in the Directorate`s safety oversight program.

Status
OPS.RS.008 (1). Implemented.
OPS.RS.008 (2). Underway.

OPS.RS.009 Safety of helicopter operations

Reference to *EASp*
AER 6.2
To be developed.

OPS.RS.010 Airspace infringements by general aviation aircraft

Reference to *EASp*
GA 1.1 u 1.5

Description
The purpose of this activity is to reduce the risks from airspace infringements by general aviation aircraft which are not complex-motor powered aircraft.

Activities
OPS.RS.010 (1). The Directorate shall analyse the activities described in EAPAIRR pertaining to general aviation aircraft.
OPS.RS.010 (2). The Directorate shall implement the activities described in EAPAIRR

pertaining to general aviation aircraft.

Time frame
OPS.RS.010 (1). Third quarter of 2017.
OPS.RS.010 (2). To be determined.

Results
OPS.RS.010 (1). Activities described in EAPAIRR pertaining to general aviation aircraft have been analysed.
OPS.RS.010 (2). Activities described in *EAPAIRR* pertaining to general aviation aircraft have been implemented.

Status
OPS.RS.010 (1). Underway.
OPS.RS.010 (2). Underway.

OPS.RS.011 Risks from bird strike and wildlife

Reference to *EASp*
None

Description
The purpose of this activity is to reduce the risks from bird strike and wildlife.

Activities
OPS.RS.011 (1). The Directorate shall publish rules and regulations regarding risks from bird strike and wildlife.

Time frame
OPS.RS.011 (1). To be determined.

Results
OPS.RS.011 (1). Regulations and rules published related to risks from bird strike and wildlife.

Status
OPS.RS.011 (1). Underway.

NATIONAL ISSUES

National issues are related to the general aviation operations of aircraft other than complex motor-powered aircraft. Within its SSp, the Directorate shall incorporate the recommendations described in EGAST pertaining to: collision avoidance, decision making, meteorological situation assessment, loss of control due to stall and spin, AIS, flying in mountainous regions, piston engine induction icing, safe use of advanced navigation equipment, and bird strike.

NA.GA.001 Collision avoidance

Reference to *EASp*
None

Description
The purpose of this activity is to reduce the risks from general aviation accidents which may occur as a result of failure to comply with procedures for collision avoidance.

Activities
NA.GA.001 (1). Based on EGAST recommendations, the Directorate will define the safety oversight activities to encompass cases of possible general aviation aircraft accidents that could occur due to failure to comply with the mid-air collision avoidance procedures.
NA.GA.001 (2). Based on EGAST recommendations, the Directorate will define the activities with the purpose of safety promotion (instructions, seminars, procedures, etc.) pertaining to accidents involving general aviation aircraft occurring due to failure to comply with the mid-air collision avoidance procedures.

Time frame
NA.GA.001 (1). Second quarter of 2017.
NA.GA.001 (2). Second quarter of 2017.

Results
NA.GA.001 (1). Safety oversight activities planned and defined for the purpose of safety promotion pertaining to risk mitigation from accidents involving general aviation aircraft that could occur due to failure to comply with the mid-air collision avoidance procedures.
NA.GA.001 (2). Defined activities for the purpose of safety promotion (by developing guidelines, procedures, organizing workshops, etc.) pertaining to risk reductions from accidents involving general aviation aircraft that could occur due to failure to comply with the mid-air collision avoidance procedures.

Status
NA.GA.001 (1). Underway.
NA.GA.002 (2). Underway.

NA.GA.002 Decisions making

Reference to *EASp*
None

Description
The purpose of this activity is to reduce the risks from accidents involving general aviation aircraft that can occur due to failure to make correct decisions.

Activities
NA.GA.002 (1). Based on EGAST recommendations, the Directorate will define the safety oversight activities to encompass cases of possible general aviation aircraft accidents that could occur due to failure to make correct decisions.
NA.GA.002 (2). Based on EGAST recommendations, the Directorate will define the activities with the purpose of safety promotion (by developing guidelines, procedures, organizing workshops, etc.) to encompass cases of possible general aviation aircraft accidents that could occur due to failure to make correct decisions.

Time frame
NA.GA.002 (1). Second quarter 2017.
NA.GA.002 (2). Second quarter 2017.

Results
NA.GA.002 (1). The defined oversight activities for improvement of safety pertaining to risk-factors reduction from accidents involving general aviation aircraft that could occur due to failure to make correct decisions.
NA.GA.002 (2). Defined activities for the purpose of safety promotion (instructions, seminars, procedures, etc.) pertaining to risk-factors reduction from accidents involving general aviation aircraft that could occur due to failure to make correct decisions.

Status
NA.GA.002 (1). Underway.
NA.GA.002 (2). Underway.

NA.GA.003 Meteorological situation assessment

Reference to *EASp*
None

Description
The purpose of this activity is to reduce the risks from accidents involving general aviation aircraft that could occur due to incorrect assessment of meteorological conditions.

Activities
NA.GA.003 (1). Based on EGAST recommendations, the Directorate will define the safety oversight activities to encompass cases of possible general aviation aircraft accidents that could occur due to incorrect assessment of meteorological conditions.

NA.GA.003 (2). Based on EGAST recommendations, the Directorate will define the activities with the purpose of safety promotion (by developing guidelines, procedures, organizing workshops, etc.) to encompass cases of possible general aviation aircraft accidents that could occur due to incorrect assessment meteorological conditions.

Time frame
NA.GA.003 (1). Second quarter of 2017.
NA.GA.003 (2). Second quarter of 2017.

Results
NA.GA.003 (1). The defined oversight activities for improvement of safety pertaining to risk-factors reduction from accidents involving general aviation aircraft that could occur due to incorrect assessment meteorological conditions.
NA.GA.003 (2). Defined activities for the purpose of safety promotion (instructions, seminars, procedures, etc.) pertaining to risk-factors reduction from accidents involving general aviation aircraft that could occur due to incorrect assessment meteorological conditions.

Status
NA.GA.003 (1). Underway.
NA.GA.004 (2). Underway.

NA.GA.004 Fly in the vicinity of the mountainous terrain

Reference to *EASp*
None

Description
The purpose of this activity is to reduce the risks from possible accidents involving general aviation aircraft that could occur due to flying in the vicinity of mountainous terrain.

Activities
NA.GA.004 (1). Based on EGAST recommendations, the Directorate will define the safety oversight activities comprising possible accidents involving general aviation aircraft that could occur due to flying in mountainous terrain.
NA.GA.004 (2). Based on EGAST recommendations, the Directorate will define the activities with the purpose of safety promotion (by developing guidelines, procedures, organizing workshops, etc.) possible general aviation aircraft accidents that could occur due to flying in mountainous terrain.

Time frame
NA.GA.004 (1). Second quarter 2017.
NA.GA.004 (2). Second quarter 2017.

Results
NA.GA.004 (1). The defined oversight activities for improvement of safety relating to the risk-factors reduction from accidents involving general aviation aircraft that could occur due to flying in mountainous terrain.
NA.GA.004 (2). Defined activities for the purpose of safety promotion (by developing

guidelines, procedures, organizing workshops, etc.) pertaining to risk-factors reduction from accidents involving general aviation aircraft that could occur due to flying in mountainous terrain.

NA.GA.005 Piston engine induction system icing

Reference to *EASp*
None

Description
The purpose of this activity is to reduce the risks from accidents involving general aviation aircraft that could occur due to induction icing.

Activities
***NA.GA.005* (1).** Based on EGAST recommendations, the Directorate will define the safety oversight activities covering general aviation aircraft accidents that could occur due to induction icing.
***NA.GA.005* (2).** Based on EGAST recommendations, the Directorate will define the activities with the purpose of safety promotion (by developing guidelines, procedures, organizing workshops, etc.) covering general aviation aircraft accidents that could occur due to induction icing.

Time frame
***NA.GA.005* (1).** Second quarter 2017.
***NA.GA.005* (2).** Second quarter 2017.

Results
***NA.GA.005* (1).** The defined oversight activities for improvement of safety pertaining to risk-factors reduction from accidents involving general aviation aircraft that can occur due to induction icing.
***NA.GA.005* (2).** Defined activities for the purpose of safety promotion (instructions, seminars, procedures, etc.) pertaining to general aviation aircraft risk reductions due to induction icing.

Status
***NA.GA.005* (1).** Underway
***NA.GA.005* (2).** Underway

NA.GA.006 Safe use of advanced navigation equipment

Reference to *EASp*
None

Description
The purpose of this activity is to reduce the risks from accidents involving general aviation aircraft that could occur due to incorrect of use of navigation equipment.

Activities
***NA.GA.006* (1).** Based on EGAST recommendations, the Directorate will define the safety oversight

activities covering accidents involving general aviation aircraft that could occur due to incorrect use of navigation equipment.
***NA.GA.006* (2).** Based on EGAST recommendations, the Directorate will define the activities with the purpose of safety promotion (by developing guidelines, procedures, organizing workshops, etc.) covering accidents involving general aviation aircraft that could occur due to incorrect use of navigation equipment.

Time frame
***NA.GA.006* (1).** Second quarter 2017.
***NA.GA.006* (2).** Second quarter 2017.

Results
***NA.GA.006 (*1).** The defined oversight activities for improvement of safety pertaining to risk reductions from accidents involving general aviation aircraft that could occur due to incorrect use of navigation equipment.
***NA.GA.006 (*2).** Defined activities for the purpose of safety promotion (by developing guidelines, procedures, organizing workshops, etc.) pertaining to risk reductions from accidents involving general aviation aircraft that could occur due to incorrect use of navigation equipment.

Status
***NA.GA.006* (1).** Underway
***NA.GA.006* (2).** Underway

NA.GA.007 Loss of control due to stall and spin

Reference to *EASp*None

Description
The purpose of this activity is to reduce the risks from accidents involving general aviation aircraft that could occur due to loss of control caused by stall and spin.

Activities
NA.GA.007 (1). Based on EGAST recommendations, the Directorate will define the safety oversight activities covering accidents involving general aviation aircraft that can occur due to loss of control caused by stall and spin.
NA.GA.007 (2). Based on EGAST recommendations, the Directorate will define activities for the purpose of safety promotion (by developing guidelines, procedures, organizing workshops, etc.) covering general aircraft accidents that can occur due to loss of control caused by stall and spin.

Time frame
NA.GA.007 (1). Second quarter 2017.
NA.GA.007 (2). Second quarter 2017.

Results
***NA.GA.007* (1).** The defined oversight activities for improvement of safety pertaining to risk-factors reduction from accidents involving general aviation aircraft that could occur due to loss of control caused by stall and spin.

***NA.GA.007* (2).** Defined activities for the purpose of safety promotion (by developing guidelines, procedures, organizing workshops, etc.) pertaining to risk-factors reduction from accidents involving general aviation aircraft that could occur due to loss of control caused by stall and tail-spin.

Status
***NA.GA.007* (1).** Underway
***NA.GA.007* (2).** Underway

NA.GA.008 Flight Information Service

Reference to *EASp*
None

Description
The purpose of this activity is to reduce the risks from accidents involving general aviation aircraft that could occur due to incorrect service or use of information received by flight information service.

Activities
NA.GA.008 (1). Based on EGAST recommendations, the Directorate will define the safety oversight activities covering accidents involving general aviation aircraft could occur due to incorrect service or use of information received by flight information service.
NA.GA.008 (2). Based on EGAST recommendations, the Directorate will define the activities with the purpose of safety promotion (by developing guidelines, procedures, organizing workshops, etc.) covering accidents involving general aviation aircraft that could occur due to incorrect service or use of information received by flight information service.

Time frame
***NA.GA.008* (1).** Second quarter 2017.
***NA.GA.008* (2).** Second quarter 2017.

Results
***NA.GA.008* (1).** The defined oversight activities for improvement of safety pertaining to risk-factors reduction from accidents involving general aviation aircraft that could occur due to incorrect service or use of information received by flight information service.
***NA.GA.008* (2).** Defined activities for the purpose of safety promotion (instructions, seminars, procedures, etc.) pertaining to risk-factors reduction from accidents involving general aviation aircraft that can occur could occur due to incorrect service or use of information received by flight information service.

Status
***NA.GA.008* (1).** Underway
***NA.GA.008* (2).** Underway

NA.GA.009 Bird strike

Reference to *EASp*
None

Description
The purpose of this activity is to reduce the risks from accidents involving general aviation aircraft that could occur due to bird strike.

Activities
NA.GA.009 (1). Based on EGAST recommendations, the Directorate will define the safety oversight activities covering accidents involving general aviation aircraft that could occur due to bird strike.
NA.GA.009 (2). Based on EGAST recommendations, the Directorate will define the activities with the purpose of safety promotion (by developing guidelines, procedures, organizing workshops, etc.) covering accidents involving general aviation aircraft that could occur due to bird strike.

Time frame
NA.GA.009 (1). The third quarter of 2017
NA.GA.009 (2). The third quarter of 2017

Results
NA.GA.009 (1). The defined oversight activities for improvement of safety pertaining to risk-factors reduction from accidents involving general aviation aircraft that can occur due to bird strike.
NA.GA.009 (2). Defined activities for the purpose of safety promotion (by developing guidelines, procedures, organizing workshops, etc.) pertaining to risk-factors reduction from accidents involving general aviation aircraft that can occur due to bird strike.

Status
NA.GA.009 (1). Underway
NA.GA.009 (2). Underway

NA.GA.010 Aircraft Operations in Airshows

Reference to *EASp*
None

Description
The purpose of this activity is to reduce the risks from accidents that could be caused by aircraft operations in an air show.

Activities
NA.GA.010 (1). Based on EGAST recommendations, the Directorate will define the safety oversight activities that will cover accidents that could be caused by flying aircraft in an air show.
NA.GA.010 (2). Based on EGAST recommendations, the Directorate will define the activities with the purpose of safety promotion (by developing guidelines, procedures, organizing workshops, etc.) that will cover accidents that can be caused by aircraft operations in an air show.

Time frame
NA.GA.010 (1). The third quarter of 2017.
NA.GA.010 (2). The third quarter of 2017.

Results
NA.GA.010 (1). The defined oversight activities for improvement of safety pertaining to risk-factors reduction from accidents that can be caused during airshow.
NA.GA.010 (2). Defined activities for the purpose of safety promotion (by developing guidelines, procedures, organizing workshops, etc.) pertaining to reducing the risk-factors from accidents involving general aviation aircraft that can be caused during flying displays.

Status
NA.GA.010 (1). Underway
NA.GA.010 (2). Underway

NA.GA.011 In-flight icing

Reference to *EASp*
None

Description
The purpose of this activity is to reduce the risks from accidents that can occur due to in-flight icing

Activities
NA.GA.011 (1). The Directorate shall under the EGAST recommendations define the safety oversight activities covering accidents involving general aviation aircraft that can occur due to in-flight icing.
NA.GA.011 (2). The Directorate shall under the EGAST recommendations define the activities with the purpose of safety promotion (by developing guidelines, procedures, organizing workshops, etc.) covering accidents involving general aviation aircraft that can occur due to in-flight icing.

Time frame
NA.GA.011 (1). The third quarter of 2017.
NA.GA.011 (2). The third quarter of 2017.

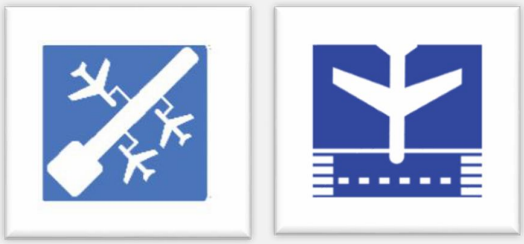
Results
NA.GA.011 (1). The defined oversight activities for improvement of safety pertaining to risk-factors reduction from accidents involving general aviation aircraft that can occur due to in-flight icing
NA.GA.011 (2). Defined activities for the purpose of safety promotion (by developing guidelines, procedures, organizing workshops, etc.) pertaining to risk-factors reduction from accidents involving general aviation aircraft that can occur due to in-flight icing.

Status
NA.GA.011 (1). Underway
NA.GA.011 (2). Underway

SAFETY INDICATORS

ACCIDENTS

INCIDENTS

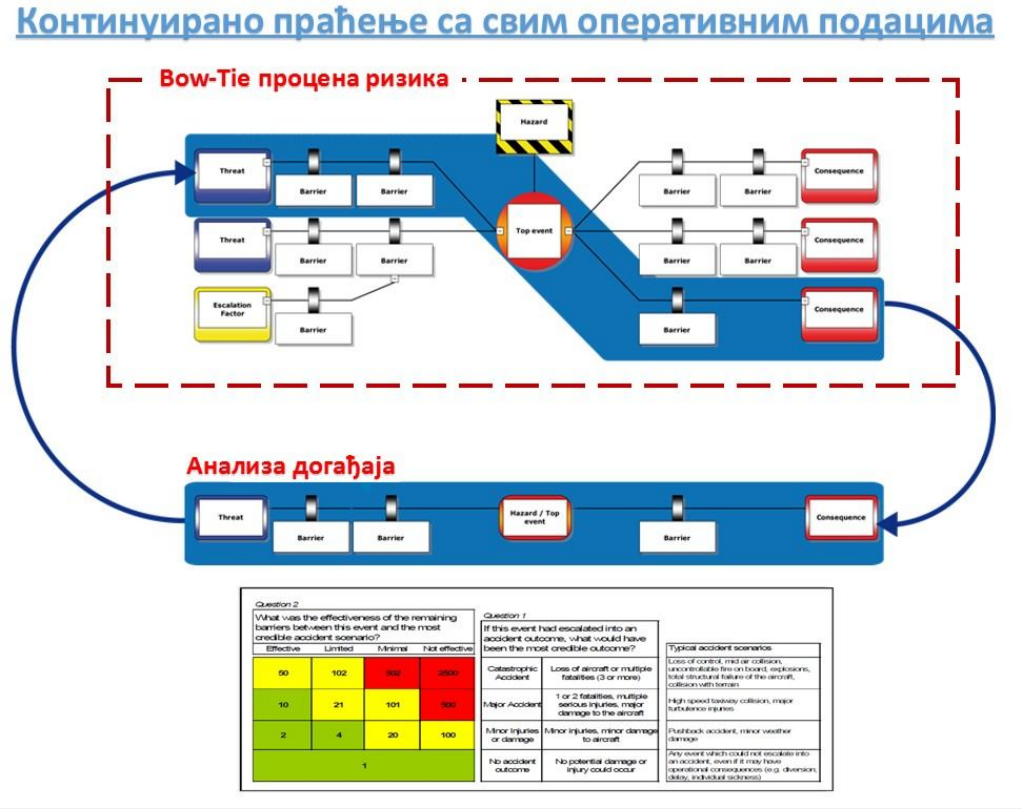


Safety objectives and safety indicators in the Republic of Serbia

The objective of the safety analysis and risk assessment is to thoroughly monitor the overall situation of the system in order to improve civil aviation safety. This approach provides the basis for monitoring of safety performance and efficiency of the control mechanisms (barriers), establisment of oversight methods based on safety performance and risk analysis, and prioritizion of surveillance in the areas of increased risk.

Safety indicators are the main tool in analyzing data, enabling safety hazards to be identified. These indicators are often reflected by changes in the number of occurences. Analyzing the occurences themselves and their causes enables revealing of safety hazards, negative safety trends, as well as, finding the measures for prevention, elimination or reduction of hazards.

Continual monitoring with operational information
Bow-Tie Risk Assessment
Occurrence Analysis



Safety objectives and safety indicators in the Republic of Serbia are defined according to the principles described in EASP.

Safety indicators are grouped into three categories:

Category 1 safety indicators are related to monitoring and measuring events resulting in severe consequences such as accidents or serious incidents.

Category 2 safety indicators used for monitoring the system parts where safety measures are required to be applied, commonly comprising identified accidents or serious incidents. Such types of incidents are defined in accordance with the international definitions ICAO.

Category 3 safety indicators are factors causing Category 2 accident or incident. Following an accident or incident, including their causal factors, their safety indicators are identified. By monitoring the category 3 indicators, defining safety objectives category 2 accidents are avoided. Simultaneously, category 2 safety mentoring is beneficent to measuring of the defined safety objectives.
Category 3 safety indicators may be causal factors for many types of accidents and category 2 incidents.

In the Republic of Serbia, the Directorate adopts safety indicators under point 1.2.7 of the SSP (Official Gazette RS No 38/2015).

Activities undertaken by the Directorate for the purpose of achieving the set up safety objectives and monitoring category 1 and 2 safety indicators are described in the SSp.

1. Category 1 Safety Indicators

1.1 Accidents

Definition

Accident means an occurrence associated with the operation of an aircraft which, in the case of a manned aircraft, takes place between the time any person boards the aircraft with the intention of flight until such time as all such persons have disembarked, or in the case of an unmanned aircraft, takes place between the time the aircraft is ready to move with the purpose of flight until such time it comes to rest at the end of the flight and the primary propulsion system is shut down, in which:

(a) A person is seriously or fatally injured as a result of:
- — being in the aircraft, or
- — direct contact with any part of the aircraft, including parts which have become detached from the aircraft, or
- — direct exposure to jet blast

Except 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; or

(b) The aircraft sustains damage or structural failure which adversely affects the structural strength, performance or flight characteristics of the aircraft, and would normally require major repair or replacement of the affected component, except for engine failure or damage, when the damage is limited to a single engine, (including its cowlings or accessories), to propellers, wing tips, antennas, probes, vanes, tires, brakes, wheels, fairings, panels, landing gear doors, windscreens, the aircraft skin (such as small dents or puncture holes) or minor damages to main rotor blades, tail rotor blades, landing gear, and those resulting from hail or bird strike, (including holes in the redone); or

(c) The aircraft is missing or is completely inaccessible.

Serious injury means an injury which is sustained by a person in an accident and which involves one of the following:

(a) Hospitalisation for more than 48 hours, commencing within 7 days from the date the injury was received;
(b) A fracture of any bone (except simple fractures of fingers, toes, or nose);
(c) Lacerations which cause severe haemorrhage, nerve, muscle or tendon damage;
(d) Injury to any internal organ;
(e) Second or third degree burns, or any burns affecting more than 5 % of the body surface;
(f) verified exposure to infectious substances or harmful radiation.

Sources of Information
Major source of information is **mandatory occurance reporting**.

Measuring
It is necessary to monitor the number of occurrences, in total and divided into public air transport and general aviation, taking into account number of occurrences according to flying time or time period.

Safety objectives

2017:
Commercial Air-Transport: No accidents
General Aviation: No accidents

1.2 Serious incident

Definition

Serious incident in air transport

Serious incident means an incident involving circumstances indicating that there was a high probability of an accident and is associated with the operation of an aircraft, which in the case of a manned aircraft, takes place between the time any person boards the aircraft with the intention of flight until such time as all such persons have disembarked, or in the case of an unmanned aircraft, takes place between the time the aircraft is ready to move with the purpose of flight until such time it comes to rest at the end of the flight and the primary propulsion system is shut down. Serious incidents comprise cases such as near collision requiring an avoidance manoeuvre to avoid a collision or an unsafe situation or when an avoidance action would have been appropriate, cases of controlled flight into terrain only marginally avoided, aborted take-offs on a closed or engaged runway, on a taxiway, excluding authorised operations by helicopters, or from an unassigned runway, take-offs from a closed or engaged runway, from a taxiway, excluding authorised operations by helicopters, or from an unassigned runway, endings or attempted landings on a closed or engaged runway, on a taxiway, excluding authorised operations by helicopters, or from an unassigned runway, fires and smoke in the passenger compartment, in cargo compartments or engine fires, even though such fires were extinguished by the use of extinguishing agents, events requiring the emergency use of oxygen by the flight crew, aircraft structural failure or engine disintegration, including uncontained turbine engine failures, not classified as an accident, multiple malfunctions of one or more aircraft systems seriously affecting the operation of the aircraft, flight crew incapacitation in flight, fuel quantity requiring the declaration of an emergency by the pilot, runway incursions classified with severity A according to the Manual on the Prevention of Runway Incursions (ICAO Doc 9870) which contains information on the severity classifications, take-off or landing incidents. Incidents such as undershooting, overrunning or running off the side of runways, system failures, weather phenomena, operation outside the approved flight envelope or other occurrences which could have caused difficulties controlling the aircraft, failure of more than one system in a redundancy system mandatory for flight guidance and navigation. (Reference EU 996/2010)

Sources of Information
Major source of information is **mandatory occurance reporting**.

Measuring

It is necessary to monitor the number of serious incidents, in total and classified in relation to commercial air transport and general aviation. It is necessary to take into account the number of incidents relative to the total flight hours per each category.

Safety objectives

2017:

Commercial Air-Transport: Reduce the rate of serious incident occurrence related to the total flight hours (taking into account the five-year average).

General aviation: Reducing the number of serious incidents.

CATEGORY 2 SAFETY INDICATORS

RUNWAY EXCURSION					
Number	Occurrence	Definition	Sources of Information	Measuring	Safety Objective
2.1	**Runway Excursion (RE)**	Runway excursion is an uncontrolled veer off or overrun off the runway surface during take-off or landing. Excursion may be unintentional or intentional, for example as the result of a particular manoeuvre.	Major source of information is mandatory safety reporting.	Abbreviation: RE The requirement is to monitor the total of cases against general aviation and the value of the indicators out of the group of indicators for the air navigation service providers.	Year 2017: The requirement is to make the risk assessment of the operations; determine the necessary activities aiming at reducing or eliminating risks; implement the determined activities and monitor their effects.

RUNWAY INCURSION					
Number	Occurrence	Definition	Sources of Information	Measuring	Safety Objective
2.2	**Runway Incursion-RI-VAP**	Runway incursion – VAP is the situation where incorrect presence of any vehicle, aircraft or person on the runway or on its protected surface, without the proper authorization or otherwise. "Any occurrence at an aerodrome involving the incorrect presence of an aircraft, vehicle or person on the protected area of a surface designated for the landing and take-off of aircraft." (ICAO)	Major source of information is mandatory safety reporting.	Abbreviation: RI-VAP The requirement is to monitor the total of cases against general aviation and the value of the indicators out of the group of indicators for the air navigation service providers.	Year 2017: The requirement is to make the risk assessment of the operations; determine the necessary activities aiming at reducing or eliminating risks; implement the determined activities and monitor their effects.

MID AIR COLLISION					
Number	Occurrence	Definition	Sources of Information	Measuring	Safety Objective
2.3	**Mid-Air Collisions and Near Misses**	Mid-air collision is the situation where an aircraft comes into contact with another. Aircraft Proximity (Near miss) is a situation in which, in the opinion of a pilot or air traffic services personnel, the distance between aircraft as well as their relative positions and speed have been such that the safety of the aircraft involved may have been compromised. Classification of air proximity: A - Risk of collision. The risk classification of an aircraft proximity in which serious risk of collision has existed. B - Safety not assured. The risk classification of an aircraft proximity in which the safety of the aircraft may have been compromised. C - No risk of collision. The risk classification of an aircraft proximity in which no risk of collision has existed. D - Risk not determined. The risk classification of an aircraft proximity in which insufficient information was available to determine the risk involved, or inconclusive or conflicting evidence precluded such determination. (ICAO Doc 4444) This safety indicator comprises cases in which minimal separation in flight and all TCAS RA cases.	Major source of information is mandatory safety reporting.	Abbreviation: MAC The requirement is to monitor the total of cases against general aviation and the value of the indicators out of the group of indicators for the air navigation service providers.	Year 2017: The requirement is to make the risk assessment of the operations; determine the necessary activities aiming at reducing or eliminating risks; implement the determined activities and monitor their effects.

CONTROLLED FLIGHT INTO TERRAIN					
Number	Occurrence	Definition	Sources of Information	Measuring	Safety Objective
2.4	**Controlled flight into terrain and similar situations**	Controlled flight into terrain (towards terrain) occurs when an airworthy aircraft serviceable for a safe flight, and under full control by the pilot is inadvertently flown into terrain, water, or an obstacle. This safety indicator comprises cases where in-flight and obstacle minimal separation is lost.	Major source of information is mandatory safety reporting.	Abbreviation: C-FIT The requirement is to monitor the total of cases against general aviation and the value of the indicators out of the group of indicators for the air navigation service providers.	Year 2017: The requirement is to make the risk assessment of the operations; determine the necessary activities aiming at reducing or eliminating risks; implement the determined activities and monitor their effects.

LOSS OF CONTROL IN FLIGHT					
Number	Occurrence	Definition	Sources of Information	Measuring	Safety Objective
2.5	**Loss of control in flight**	Loss of control in flight is a situation in which the pilot loses control of aircraft in flight resulting in significant departure from the intended flight path. The loss of control can be of a slower or higher rate, and caused by human error, mechanical failure or an external factor.	Major source of information is mandatory safety reporting.	Abbreviation: LOC-I The requirement is to monitor the total of cases against general aviation and the value of the indicators out of the group of indicators for the air navigation service providers.	Year 2017: The requirement is to make the risk assessment of the operations; determine the necessary activities aiming at reducing or eliminating risks; implement the determined activities and monitor their

GROUND HANDLING					
Number	Occurrence	Definition	Sources of Information	Measuring	Safety Objective
2.6	**Ground handling safety (*RAMP, G-COL, LOAD, DE-ICE*)**	This category includes accidents on ground that may be caused due to servicing, boarding, loading or unloading of aircraft, while taxying, propeller/rotor/fan blade strikes., pushback/power back/towing events, this category includes improper loading and improperly secured doors and latches (*RAMP*). If collision occurs on ground during taxying to or from runway when one aircraft comes into contact with another aircraft, vehicle, person, animal, building structure or obstacle, while on a surface other than the runway, excluding aircraft towing case, these are categorized as collision while taxying to or from runway (*GCOL*). Occurrences related to groundhandling operations include two categories of collisions depending on aircraft using its own power or otherwise, and improper loading, icing and de-icing. Ground collisions resulting from events categorized under Runway Incursion (RI) or Ground Handling (RAMP) are excluded from this category.	Major source of information is mandatory safety reporting.	Abbreviations: GH (RAMP, GCOL, LOAD, DE-ICE) The requirement is to monitor the total of cases against general aviation and the value of the indicators out of the group of indicators for the air navigation service providers.	Year 2017: The requirement is to make the risk assessment of the operations; determine the necessary activities aiming at reducing or eliminating risks; implement the determined activities and monitor their effects.

FIRE					
Number	Occurrence	Definition	Sources of Information	Measuring	Safety Objective
2.7	**Fire/smoke non-impact F-NI**	Fire or smoke in or on the aircraft, in flight or on the ground, which is not the result of impact.	Major source of information is mandatory safety reporting.	Abbreviation: FIRE The requirement is to monitor the total of cases against general aviation and the value of the indicators out of the group of indicators for the air navigation service providers.	Year 2017: The requirement is to make the risk assessment of the operations; determine the necessary activities aiming at reducing or eliminating risks; implement the determined activities and monitor their effects.

Category 3 safety indicators

RUNWAY EXCURSION					
Number	Occurrence	Definition	Sources of Information	Measuring	Safety Objective
3.1	**UA**	Unstable approach is the situation in which aircraft approach is unstable in line with the provisions of the Operations Manual. *(Reference (EU) 2015/1018 Annex I, 1.3 (8))* UA can result in RI-E and/or controlled flight into terrain.	Main source of information is FDM, including the data obtained from mandatory reporting.	Abbreviation**:** *UA* This safety indicator is monitored on an annual basis.	For year 2017: Tthe requirement is to perform risk safety assessment of its operations, necessary activities, implement the determined activities and monitor their effects. The requirement is to reduce the number of cases within the operations. Related category 2 safety performance indicators SPI: Runway excursion-RE, Controlled flight into terrain - CFIT
3.2	**Landing gear and reverse thrust malfunctions**	Cases comprising landing gear or reverse thrust malfunctions. These include tyre puncture, excluding errors in instrument pointer. Landing gear and reverse thrust malfunctions can cause RE. *(Reference (EU) 2015/1018 Annex I, 2)*	Major source of information is mandatory safety reporting.	Abbreviation**:** LG/REV This safety indicator is monitored on an annual basis.	Necessary activities: Implement the determined activities and monitor their effects. The requirement is to reduce the number of cases within its operations. Related category 2 safety performance indicators SPI: Runway excursion - RE

3.3	***Deficiencies in runway condition and related information***	Cases when the information on runway condition are not available or are available but are incorrect (for example incorrect information for SNOWTAM, ATIS, when ATS failed to give correct information). (Reference (EU) 2015/1018 Annex I, 3 (1), 5(6)) Such cases can lead to RE.	Major source of information is mandatory safety reporting.	Abbreviation**:** *RWY CON* This safety indicator is monitored on an annual basis.	For year 2017 The requirement is to perform risk safety assessment of its operations, necessary activities, implement the determined activities and monitor their effects. The requirement is to reduce the number of cases within its operations. Related category 2 safety performance indicators SPI: Runway excursion - RE
3.4	***Downwind landings and take-offs***	Cases when wind speed exceeds the defined maximum (landing/take-off into the wind, crosswind, tailwind), while the aircraft proceeds with the take-off/landing *(Reference (EU) 2015/1018 Annex I, 5)* Such cases can lead to RE.	Main source of information is occurrence reporting. FDM may be used as a supplement.	Abbreviation**:** *WIND* This safety indicator is monitored on an annual basis.	For year 2017 The requirement is to perform risk safety assessment of its operations, necessary activities, implement the determined activities and monitor their effects. The requirement is to reduce the number of cases within its operations. Related category 2 safety performance indicators SPI: Runway excursion - RE

3.5	***Abnormal runway contact***	Any landing or take off involving abnormal runway or landing surface contact. (Hard/heavy landings, long/fast landings, off-centre landings, tail strikes, etc.). (*Reference (EU) 2015/1018 Annex I*, 1.3 (7), (11),(12)) Such cases can lead to RE.	Main source of information is occurrence reporting. FDM may be used as a supplement.	Abbreviation**:** ARC This safety indicator is monitored on an annual basis.	For year 2017 The requirement is to perform risk safety assessment of its operations, necessary activities, implement the determined activities and monitor their effects. The requirement is to reduce the number of cases within its operations. Related category 2 safety performance indicators SPI: Runway excursion - RE
3.6	***Any rejected take off***	Comprises cases of rejected take off. *(Reference (EU) 2015/1018 Annex I, 1.3 (4))* Rejected take-off at high speeds can result in RE.	Main source of information is occurrence reporting. FDM may be used as a supplement.	Abbreviation**:** RTO This safety indicator is monitored on an annual basis.	For year 2017 the requirement is to perform risk safety assessment of its operations, necessary activities, implement the determined activities and monitor their effects. The requirement is to reduce the number of cases within its operations. Related category 2 safety performance indicators SPI: Runway excursion - RE

3.7	***Inability to achieve required or expected performance during take-off, go-around or landing***	Inability to achieve required or expected performance during take—off, go-around or landing *(Reference (EU) 2015/1018 Annex I, 1.3 (5))*	Main source of information is occurrence reporting. FDM may be used as a supplement.	This safety indicator is monitored on an annual basis.	For year 2017 the requirement is to perform risk safety assessment of its operations, necessary activities, implement the determined activities and monitor their effects. The requirement is to reduce the number of cases within its operations. Related category 2 safety performance indicators SPI: Runway excursion – RE and loss of control in flight - *LOC-I*
3.8	***Actual or attempted take-off, approach or landing with incorrect configuration setting***	Actual or attempted take-off, approach or landing with incorrect configuration setting (Reference (EU) 2015/1018 Annex I, 1.3 (6))	Main source of information is occurrence reporting. FDM may be used as a supplement.	This safety indicator is monitored on an annual basis.	For year 2017 the requirement is to perform risk safety assessment of its operations, necessary activities, implement the determined activities and monitor their effects. The requirement is to reduce the number of cases within its operations. Related category 2 safety performance indicators SPI: Runway excursion – RE and loss of control in flight - *LOC-I*

RUNWAY INCURSION					
Number	Occurrence	Definition	Sources of Information	Measuring	Safety Objective
3.9	***Runway incursion by aircraft***	The movement of aircraft is contrary to the instructions received by ATC leading to a situation in which the aircraft finds itself on a taxiway or runway. *(Reference (EU) 2015/1018 Annex I, 1.3 (2))*	Major source of information is mandatory safety reporting.	Abbreviation: *RI-VAP* The requirement is to monitor the total of cases against general aviation and the value of the indicators out of the group of indicators for the air navigation service providers.	For year 2017: The requirement is to perform risk safety assessment of its operations, necessary activities, implement the determined activities and monitor their effects. The requirement is to reduce the number of cases within its operations. Related category 2 safety performance indicators: *Runway incursion – RI-VAP*
3.10	**Runway incursion with direct/indirect ATC contribution**	The instances where ATC activity led (directly or indirectly) to a situation where an aircraft found at taxiway or runway. *(Reference (EU) 2015/1018 Annex I, 1.3 (2))*	Major source of information is mandatory safety reporting.	Abbreviation: RI-ATCO This safety indicator is monitored on an annual basis. It is necessary to investigate each case of runway incursion in order to establish whether the operator or ATC cause the occurrence.	For year 2017: The requirement is to perform risk safety assessment of its operations, necessary activities, implement the determined activities and monitor their effects. The requirement is to reduce the number of cases within its operations. Related category 2 safety performance indicators: *Runway incursion – RI-VAP*

3.11	***Runway incursion by vehicle or person***	Cases of presence of vehicles or persons on runway. *(Reference (EU) 2015/1018 Annex I, 1.3 (2))*	Major source of information is mandatory safety reporting.	Abbreviation**:** *RI-OTHER* This safety indicator i monitored on a annual basis.

MID AIR COLLISION					
Number	Occurrence	Definition	Sources of Information	Measuring	Safety Objective
3.12	***Separation minima infringements caused by aircraft***	This refers to a situation in which prescribed separation minima were not maintained between aircraft, or between aircraft and airspace to which separation minima is prescribed. *(Reference (EU) 2015/1018 Annex III, 1 (2))*	Major source of information is mandatory safety reporting.	Abbreviation**:** *SMI* This safety indicator is monitored on an annual basis. It is necessary to investigate each case of separation minima infringement in order to establish whether the operator or ATC cause the occurrence.	For year 2017: The requirement is to perform risk safety assessment of its operations, necessary activities, implement the determined activities and monitor their effects. The requirement is to reduce the number of cases within its operations. Related category 2 safety performance indicators: *Mid-air collision and near misses MAC*
3.13	***Separation minima infringements with direct/indirect ATC contribution***	Cases in which the ATC procedures contributed to separation minima infringements between aircraft, aircraft and terrain, or between aircraft in the controlled airspace. *(Reference (EU) 2015/1018 Annex III, 1 (2))*	Major source of information is mandatory safety reporting.	Abbreviation**:** *SMI ATCO* This safety indicator is monitored on an annual basis. It is necessary to investigate each case of separation minima infringement in order to establish whether the operator or ATC cause the occurrence.	For year 2017: The requirement is to perform risk safety assessment of its operations, necessary activities, implement the determined activities and monitor their effects. The requirement is to reduce the number of cases within its operations. Related category 2 safety performance indicators: *Mid-air collision and near misses MAC*

3.14	***Airspace infringements***	Airspace infringements including unauthorized penetration of airspace. *(Reference (EU) 2015/1018 Annex III, 1 (10)(б))*	Major source of information is mandatory safety reporting.	Abbreviation**:** *AI* This safety indicator is monitored on an annual basis. It is necessary to investigate each case of separation minima infringement in order to establish wither the operator or ATC cause the occurrence.	For year 2017: The requirement is to perform risk safety assessment of its operations, necessary activities, implement the determined activities and monitor their effects. The requirement is to reduce the number of cases within its operations. Related category 2 safety performance indicators: *Mid-air collision and near misses MAC*
3.15	***Level bust***	A level bust occurs when an aircraft fails to fly at the level to which it has been cleared, regardless of whether actual loss of separation from other aircraft or the ground results. *(Reference (EU) 2015/1018 Annex I, 1.4 (3))*	Major source of information is mandatory safety reporting.	Abbreviation**:** *LB* This safety indicator is monitored on an annual basis.	For year 2017: The requirement is to perform risk safety assessment of its operations, necessary activities, implement the determined activities and monitor their effects. The requirement is to reduce the number of cases within its operations. Related category 2 safety performance indicators: *Mid-air collision and near misses MAC*

3.16	**ACAS-RA (*ACAS-RA*)**	Cases in which the activation of ACAS-RA occurred. *(Reference (EU) 2015/1018 Annex I, 5 (2))*	Major source of information is mandatory safety reporting.	Abbreviation**:** *ACAS-RA* This safety indicator is monitored on an annual basis.	For year 2017: The requirement is to perform risk safety assessment of its operations, necessary activities, implement the determined activities and monitor their effects. The requirement is to reduce the number of cases within its operations. Related category 2 safety performance indicators: *Mid-air collision and near misses MAC*
3.17	***Lateral deviations from cleared flight path***	Deviation from cleared flight path, lateral deviations cleared by ATC, deviation from SID/STAR: 1. Use of incorrect data or erroneous entries into equipment used for navigation or performance calculations which has or could have endangered the aircraft, its occupants or any other person. *(Reference (EU) 2015/1018 Annex 1, 1, 1.1 (1))* 2. Unintentional deviation from intended or assigned track of the lowest of twice the required navigation performance or 10 nautical miles. *(Reference (EU) 2015/1018 Annex I, 1.4 (5))* 3. Deviation from the assigned flight path can result in loss of separation, airspace infringement, or near misses.	Major source of information is mandatory safety reporting.	Abbreviation**:** NAV ERROR This safety indicator is monitored on an annual basis.	For year 2017: The requirement is to perform risk safety assessment of its operations, necessary activities, implement the determined activities and monitor their effects. The requirement is to reduce the number of cases within the operations. Related category 2 safety performance indicators: *Mid-air collision and near misses MAC*

CONTROLLED FLIGHT INTO TERRAIN					
Number	Occurrence	Definition	Sources of Information	Measuring	Safety Objective
3.18	***Ground Proximity Warning System (GPWS) terrain warnings***	Activation of genuine ground collision system such as GPWS (Ground Proximity Warning System)/TAWS (Terrain Awareness and Warning System) 'warning' *(Reference (EU) 2015/1018 Annex 1, 5 (3))* If air crew fail to undertake the appropriate action in cases of GPWS, the result is controlled flight into terrain.	Main source of information is occurrence reporting. FDM may be used as a supplement.	Abbreviation**:** *GPWS* This safety indicator is monitored on an annual basis.	For year 2017: The requirement is to perform risk safety assessment of its operations, necessary activities, implement the determined activities and monitor their effects. The requirement is to reduce the number of cases within the operations. Related category 2 safety performance
3.19	***Errors and omissions in aeronautical database***	Missing or significantly incorrect, corrupted, inadequate or misleading information for SID/STAR. *(Reference (EU) 2015/1018 Annex III, 2 (2))*. Incorrect information in navigation databases can lead to separation minima infringement or controlled flight into terrain.	Major source of information is mandatory safety reporting.	Abbreviation**:** *NAV DAT* This safety indicator is monitored on an annual basis.	For year 2017: The requirement is to perform risk safety assessment of its operations, necessary activities, implement the determined activities and monitor their effects. The requirement is to reduce the number of cases within the operations. Related category 2 safety performance indicators: Controlled flight into terrain C-FIT; and Mid-air collision and near misses MAC

3.20	***Operation with incorrect altimeter setting***	Operation with incorrect altimeter setting. This indicator comprises cases in which change in altimeter setting from QNH to a standard pressure, or vice versa, has been forgotten or in which the incorrect altimeter setting occurred. *(Reference (EU) 2015/1018 Annex I, 1.4 (7))*	Major source of information is mandatory safety reporting.	Abbreviation**:** *ALT* This safety indicator is monitored on an annual basis.	For year 2017: The requirement is to perform risk safety assessment of its operations, necessary activities, implement the determined activities and monitor their effects. The requirement is to reduce the number of cases within the operations. Related category 2 safety performance indicators: *Controlled flight into terrain C-FIT*

LOSS OF CONTROL IN FLIGHT					
Number	Occurrence	Definition	Sources of Information	Measuring	Safety Objective
3.21	***Low speed and high speed cases***	Cases of exceedance of speed limits above maximum allowed speed or below minimal allowed speed during any flight phase. *(Reference (EU) 2015/1018 Annex I, 1.4 (6))* Flying below minimal speed leads to stall. Flying above maximum allowed speed causing hazard to aircraft structure and loss of control.	Main source of information is occurrence reporting. FDM may be used as a supplement.	Abbreviation**:** *SPEED* This safety indicator is monitored on an annual basis.	For year 2017: The requirement is to perform risk safety assessment of its operations, necessary activities, implement the determined activities and monitor their effects. The requirement is to reduce the number of cases within the operations. Related category 2 safety performance indicators: *Loss of control in flight LOC-I*
3.22	***Wake turbulence incidents***	Cases of wake turbulence incidence. *(Reference (EU) 2015/1018 Annex I, 5 (7))*	Main source of information is occurrence reporting. FDM may be used as a supplement.	Abbreviation**:** *WAKE* This safety indicator is monitored on an annual basis.	For year 2017: The requirement is to perform risk safety assessment of its operations, necessary activities, implement the determined activities and monitor their effects. The requirement is to reduce the number of cases within the operations. Related category 2 safety performance indicators: *Loss of control in flight LOC-I*

3.23	***Serious turbulence encounter or any encounter resulting in injury to occupants or deemed to require a "turbulence check" of the aircraft***	Flying through serious turbulence or through a turbulence causing injuries of the occupants or it is mandatory to check an aircraft after the flight. *(Reference (EU) 2015/1018 Annex I, 5 (11))*	Main source of information is occurrence reporting. FDM may be used as a supplement.	Abbreviation**:** *TURB* This safety indicator is monitored on an annual basis.	For year 2017: The requirement is to perform risk safety assessment of its operations, necessary activities, implement the determined activities and monitor their effects. The requirement is to reduce the number of cases within the operations. Related category 2 safety performance indicators: *Loss of control in flight LOC-I*
3.24	***A significant winds hear or thunderstorm encounter which has or could have endangered the aircraft, its occupants or any other person***	Encountering a significant winds hear or thunderstorm that exposed or can have exposed to risk the aircraft safety or the occupants, or other persons. *(Reference (EU) 2015/1018 Annex I, 5 (12))*	Main source of information is occurrence reporting. FDM may be used as a supplement.	Abbreviation**:** *WSTRW* This safety indicator is monitored on an annual basis.	For year 2017: The requirement is to perform risk safety assessment of its operations, necessary activities, implement the determined activities and monitor their effects. The requirement is to reduce the number of cases within the operations. Related category 2 safety performance indicators: Loss of control in flight LOC-I

3.25	***Icing encounter resulting in handling difficulties, damage to the aircraft or loss or malfunction of any aircraft system***	In-flight icing causing handling difficulties, damage to the aircraft or loss or malfunction of any aircraft system. *(Reference (EU) 2015/1018 Annex I, 5 (13))*	Main source of information is occurrence reporting. FDM may be used as a supplement.	Abbreviation**:** *ICE* This safety indicator is monitored on an annual basis.	For year 2017: Tthe requirement is to perform risk safety assessment of its operations, necessary activities, implement the determined activities and monitor their effects. The requirement is to reduce the number of cases within the operations. Related category 2 safety performance indicators: *Loss of control in flight LOC-I*
3.26	***Aircraft upset, exceeding normal pitch attitude, bank angle or airspeed inappropriate for the conditions***	Aircraft upset, exceeding normal pitch attitude, bank angle or airspeed inappropriate for the conditions. *(Reference (EU) 2015/1018 Annex I, 1.4 (2))*	Main source of information is occurrence reporting. FDM may be used as a supplement.	Abbreviation**:** *A/C UPSET* This safety indicator is monitored on an annual basis.	For year 2017: The requirement is to perform risk safety assessment of its operations, necessary activities, implement the determined activities and monitor their effects. The requirement is to reduce the number of cases within the operations. Related category 2 safety performance indicators: *Loss of control in flight LOC-I*

3.27	***Activation of any flight envelope protection, including stall warning, stick shaker, stick pusher and automatic protections***	Activation of any flight envelope protection, including stall warning, stick shaker, stick pusher and automatic protections. *(Reference (EU) 2015/1018 Annex I, 1.4 (4))*	Main source of information is occurrence reporting. FDM may be used as a supplement.	This safety indicator is monitored on an annual basis.	For year 2017: The requirement is to perform risk safety assessment of its operations, necessary activities, implement the determined activities and monitor their effects. The requirement is to reduce the number of cases within the operations. Related category 2 safety performance indicators: *Loss of control in flight LOC-I*
3.28	***Transport of dangerous goods***	Cases in which during carriage of dangerous goods it has been established that the dangerous goods are packaged inconsistent with the applicable rules, damaged during package causing its incineration in the cargo compartments or damaged during loading causing incineration in the cargo compartments, cases in which prohibited and non-registered dangerous goods are transported incinerating in the passenger cabin, cases of fire or smoke in electronic equipment powered by lithium batteries. *(Reference (EU) 2015/1018 Annex I, 1.1 (2))*	Main source of information is occurrence reporting.	Abbreviation**:** DG This safety indicator is monitored on an annual basis.	For year 2017: The requirement is to perform risk safety assessment of its operations, necessary activities, implement the determined activities and monitor their effects. The requirement is to reduce the number of cases within the operations. Related category 2 safety performance indicators: Fire or smoke during flight or on ground being not a result of ground impact. (*Fire/smoke non-impact F-NI*),Loss of control in flight LOC-I)

3.29	***De-icing and anti-icing errors***	Cases in which the operator failed to apply or incorrect application of de-icing/anti-icing procedures. Such cases do not include de-icing/anti-icing system malfunctions. *(Reference (EU) 2015/1018 Annex I, 1.2 (2))*	Main source of information is occurrence reporting.	Abbreviation**:** *DE-ICE* This safety indicator is monitored on an annual basis.	For year 2017: The requirement is to perform risk safety assessment of its operations, necessary activities, implement the determined activities and monitor their effects. The requirement is to reduce the number of cases within the operations. Related category 2 safety performance indicators: Loss of control in flight LOC-I, Runway excursions
3.30	***Weight and balance errors***	Cases which include incorrect handling or unloading of passengers, baggage, mail or cargo likely to have a significant effect on aircraft mass and/or balance (Reference (EU) 2015/1018 Annex IV, 2.3 (1)) Incorrect calculation of mass and center of gravity of an aircraft may cause shift in center of gravity and loss of control in flight.	Main source of information is occurrence reporting.	Abbreviation**:** *LOAD* This safety indicator is monitored on an annual basis.	For year 2017: The requirement is to perform risk safety assessment of its operations, necessary activities, implement the determined activities and monitor their effects. The requirement is to reduce the number of cases within the operations. Related category 2 safety performance indicators: Loss of control in flight LOC-I

3.31	***Control system failures***	Cases including one or more flight control system failures, flight control surfaces failures, automatic system malfunction, and the appropriate indicators. *(Reference (EU) 2015/1018 Annex I, 2)* Malfunction of flight control system impacts controlling the aircraft and situational awareness.	Main source of information is occurrence reporting and FDM.	Abbreviation**:** *FCONT* This safety indicator is monitored on an annual basis.	For year 2017: The requirement is to perform risk safety assessment of its operations, necessary activities, implement the determined activities and monitor their effects. The requirement is to reduce the number of cases within the operations. Related category 2 safety performance indicators: *Loss of control in flight LOC-I*), *Runway excursions*
3.32	***Dual system failures***	More than one system failure. *(Reference (EU) 2015/1018 Annex I, 2.1 (3))*	Main source of information is occurrence reporting.	Abbreviation**:** *DUAL* This safety indicator is monitored on an annual basis.	For year 2017: The requirement is to perform risk safety assessment of its operations, necessary activities, implement the determined activities and monitor their effects. The requirement is to reduce the number of cases within the operations. Related category 2 safety performance indicators: these cases may be related to *loss of control in flight - LOC I*.

3.33	***Occurrences in Minimum Equipment List and technical log use***	Cases in which defects specified in the MEL are not dealt with for in due course, including cases in which the operator concerned failed to extend the time limit within MEL defect. Such cases include non-compliance with technical book procedures**.** *(Reference (EU) 2015/1018 Annex II, 3 (8))*	Main source of information is occurrence reporting.	Abbreviation**:** *MEL* This safety indicator is monitored on an annual basis.	For year 2017 the requirement is to perform risk safety assessment of its operations, necessary activities, implement the determined activities and monitor their effects. The requirement is to reduce the number of cases within the operations. Related category 2 safety performance indicators: these cases may be related to *loss of control in flight - LOC I*.
3.34	***Occurrences in maintenance and airworthiness monitoring***	These cases comprise maintenance and continual airworthiness defects (occurrences related to Part-M organizations) such as incomplete, incorrect information on airworthiness, inadequate monitoring of airworthiness directives, certification issues or errors, incorrect assembly, deficiencies in components monitoring, incorrect monitoring, maintenance errors, incorrect entering of data into the logbook, etc. *(Reference (EU) 2015/1018 Annex II)*	Main source of information are occurrence reporting, inspections and audits.	Abbreviation**:** *MC* This safety indicator is monitored on an annual basis.	For year 2017 the requirement is to perform risk safety assessment of its operations, necessary activities, implement the determined activities and monitor their effects. The requirement is to reduce the number of cases within the operations. Related category 2 safety performance indicators: cases connected with Loss of control in flight - LOC I.

3.35	***Occurrences in maintenance operations***	Cases in which the maintenance procedures were incomplete, incorrect, or were not applied at all. *(Reference (EU) 2015/1018 Annex II)* Maintenance should be implemented according to established procedures. Failure to perform oversight of maintenance leads to aircraft being non-airworthy.	Main source of information is occurrence reporting.	Abbreviation**:** *IM* This safety indicator is monitored on an annual basis.	For year 2017: The requirement is to perform risk safety assessment of its operations, necessary activities, implement the determined activities and monitor their effects. The requirement is to reduce the number of cases within the operations. Related category 2 safety performance indicators: these cases can be related to Loss of control in flight - LOC I and can cause serious incidents and accidents.
3.36	***Serious technical problems in aircraft***	Technical malfunctions can produce interruption of a flight and call for immediate emergency procedures to be applied, or until landing. *(Reference (EU) 2015/1018 Annex I, 4)* Serious technical malfunctions can produce serious incidents and accidents.	Main source of information is occurrence reporting.	Abbreviation**:** *TECHNICAL* This safety indicator is monitored on an annual basis.	For year 2017: The requirement is to perform risk safety assessment of its operations, necessary activities, implement the determined activities and monitor their effects. The requirement is to reduce the number of cases within the operations. Related category 2 safety performance indicators: these cases can be related to Loss of control in flight - LOC I and can cause serious incidents and accidents.

GROUND HANDLING					
Number	Occurrence	Definition	Sources of Information	Measuring	Safety Objective
3.37	***Ground handling damage***	Occurrences where damage to aircraft occurred on ground due to contact with another vehicle. These cases occur immediately prior to take-off or after landing. *(Reference (EU) 2015/1018 Annex IV, 2.3 (12))* The damage produced can cause loss of control in flight, if not timely detected. Furthermore, repairs caused by these occurrences cause delays and extra expenses.	Main source of information is occurrence reporting.	Abbreviation**:** GH This safety indicator is monitored on an annual basis.	For year 2017: The requirement is to perform risk safety assessment of its operations, necessary activities, implement the determined activities and monitor their effects. The requirement is to reduce the number of cases within the operations. Related category 2 safety performance indicators: *LOC- I*
3.38	***Pushback or taxi interference***	Случајеви где је дошло до ометања кретања ваздухоплова од стране возила, особе или опреме приликом превлачења или таксирања.Ови случајеви обухватају судар - ваздухоплов/ ваздухоплов и ваздухоплов/возило. *(Референца ЕУ 2015/1018 Annex IV, 1.1 (9))*	Main source of information is occurrence reporting.	Abbreviation**:** PB This safety indicator is monitored on an annual basis.	For year 2017: The requirement is to perform risk safety assessment of its operations, necessary activities, implement the determined activities and monitor their effects. The requirement is to reduce the number of cases within the operations. Related category 2 safety performance indicators:*G- COL*

3.39	***Insufficient supervision at apron***	Insufficient supervision at apron leading to situation in which passengers are present at places where access is forbidden. *(Референца ЕУ 2015/1018 Annex IV, 1.1 (10))*	Main source of information is occurrence reporting.	Abbreviation**:** APRON This safety indicator is monitored on an annual basis.	For year 2017: The requirement is to perform risk safety assessment of its operations, necessary activities, implement the determined activities and monitor their effects. The requirement is to reduce the number of cases within the operations. Related category 2 safety performance indicators: GH
3.40	***Foreign Object Debris FOD in the manoeuvring area and apron and damaged caused GCOL***	Foreign Object Debris FOD in the maneuvering area and apron, including presence of an object and material at aerodrome in places where they should not be present and where they can produce damage to equipment and cause injuries. *(Reference (EU) 2015/1018 Annex I, 5 (5))*	Main source of information is occurrence reporting.	Abbreviation**:** FOD This safety indicator is monitored on an annual basis.	For year 2017: The requirement is to perform risk safety assessment of its operations, necessary activities, implement the determined activities and monitor their effects. The requirement is to reduce the number of cases within the operations. Category 2 safety indicators SPI:G- COL, RE

OTHER					
Number	Occurrence	Definition	Sources of Information	Measuring	Safety Objective
3.41	***Refuelling incidents and occurrences***	Cases in which an accident or incident occurred as a result from procedure non-compliance. *Annex I, 1.2(1))*	Main source of information is occurrence reporting.	Abbreviation**:** *FUELLING* This indicator is monitored on an annual basis.	For year 2017: The requirement is to perform risk safety assessment of its operations, necessary activities, implement the determined activities and monitor their effects. The requirement is to reduce the number of cases within the operations. Related category 2 safety performance indicators: These occurrences may be connected with a number of category 2 indicators.
3.42	***Occurrences caused by human error***	Occurrences caused by human error. *(Reference (EU) 2015/1018 Annex I, 1.5 (3))*	Main source of information is occurrence reporting.	Abbreviation**:** *PHUF* This indicator is monitored on an annual basis.	For year 2017: The requirement is to perform risk safety assessment of its operations, necessary activities, implement the determined activities and monitor their effects. The requirement is to reduce the number of cases within the operations. Related category 2 safety performance indicators: These occurrences may be connected with a number of category 2 indicators.

3.43	***Fatigue during flight operations and air navigation services***	Cases in which fatigue incapacitating effectiveness of duties Reference *(EU) 2015/1018 Annex I, 4 (11), Annex II, 3 (17), Annex IV, 1.1 (10))*	Main source of information is occurrence reporting.	Abbreviation**:** *FAT* This indicator is monitored on an annual basis.	For year 2017: The requirement is to perform risk safety assessment of its operations, necessary activities, implement the determined activities and monitor their effects. The requirement is to reduce the number of cases within the operations. Related category 2 safety performance indicators: These occurrences may be connected with a number of category 2 indicators.
3.44	**Occurrences resulting from on the job training**	On-the-job training occurrences *(Reference (EC) 216/2008)*	Main source of information is occurrence reporting.	This indicator is monitored on an annual basis.	For year 2017: The requirement is to perform risk safety assessment of its operations, necessary activities, implement the determined activities and monitor their effects. The requirement is to reduce the number of cases within the operations. Related category 2 safety performance indicators: These occurrences may be connected with a number of category 2 indicators.

3.45	***Interference with an aircraft, an ATS unit or a radio communication transmission including by firearms, fireworks, flying kites, laser illumination, high-powered lights lasers, Remotely Piloted Aircraft Systems, model aircraft or similar means***	Occurrences result from interference with aircraft, ATS unit or radio communication transmission, by firearms, flying kites, laser illumination, high-powered lights lasers, Remotely Piloted Aircraft Systems, model aircraft or similar means.	Main source of information is occurrence reporting.	This indicator is monitored on an annual basis.	For year 2017: The requirement is to perform risk safety assessment of its operations, necessary activities, implement the determined activities and monitor their effects. The requirement is to reduce the number of cases within the operations. Related category 2 safety performance indicators: These occurrences may be connected with a number of category 2 indicators.
3.46	***Occurrences related to Air Navigation Services, Degradation or total Loss of services or functions***	Occurrences involving complete or total loss of services or functions in ATM. Partial or total loss of services/functions, and partial incapacitation to deliver services and perform functions, including incorrect, insufficient information or no information cleared by ATS, ATIS, MET, AIS. *(Reference (EU) 2015/1018 Annex III, 2)*	Main source of information is occurrence reporting.	This indicator is monitored on an annual basis.	These indicators are monitoring under values of indicators CNS indicators of the document "Air Navigation in the Republic of Serbia, safety indicators in air navigation and air navigation capacities acceptable levels of safety by 2020" .
3.47	***Other occurrences***	Such cases comprise all the occurrences that cannot be categorized in none of the above.	Main source of information is occurrence reporting	This indicator is monitored on an annual basis.	For year 2017: The requirement is to perform risk safety assessment of its operations.