



**Naslov / Implementacija sistema upravljanja sigurnošću (Safety Management System - SMS)**

*Title / Implementation of Safety Management Systems (SMS)*

Pursuant to Article 6, paragraph 1, point 10, in conjunction with Article 106 paragraph 7 of the Law on Air Transport ("Official Gazette of Montenegro", No. 30/12), the Civil Aviation Agency, hereby issues:

**SAFETY INFORMATION  
Number: 2014/006 Rev.00**

**Application:**

This Safety Information is applicable to the aviation entities obliged to establish a Safety Management System (hereinafter: SMS) in accordance with International Civil Aviation Organization (hereinafter: ICAO) standards and applicable EU regulations.

Within the context of this Information the term "aviation entity" refers to any organization providing aviation services listed in Annex 4 to this Safety Information.

This Safety Information is applicable from the day of publishing and will also be available on Agency web site.

**Regulation Reference:**

Law on Air Transport ("Official Gazette of Montenegro" no. 30/2012)

**Guidance Material Reference:**

ICAO Annex 19  
ICAO Doc 9859, Safety Management Manual (SMM)  
European Strategic Safety Initiative website  
(<http://www.easa.europa.eu/essi/>)

**Purpose:**

Legal persons from Article 105 paragraph 2 of the Law on Air Transport and Annex 4 to this information shall establish, maintain and adhere to an SMS that is appropriate to the size, nature and complexity of the operations/activities authorized to be conducted under its certificate and the safety hazards and risks related to the operations/activities of its organization.

The purpose of this Safety Information is to provide guidance on the implementation of SMS for aviation entities. The Safety Information is designed to provide the reader with basic information on SMS concept and the development of management policies and processes.

Na osnovu člana 6, stav 1 tačka 10, a u vezi sa članom 106 stav 7 Zakona o vazдушnom saobraćaju ("Službeni list CG", broj 30/12), Agencija za civilno vazduhoplovstvo, donijela je:

**SIGURNOSNA INFORMACIJA  
Broj: 2014/006 Rev.00**

**Primjena :**

Ova Sigurnosna informacija primjenjuje se na vazduhoplovne subjekte koji su dužni da uspostave sistem upravljanja sigurnošću (u daljem tekstu: SMS) u skladu sa standardima Organizacije međunarodnog civilnog vazduhoplovstva (u daljem tekstu: ICAO) i primjenjivim EU propisima.

Izraz vazduhoplovni subjekt (u daljem tekstu VS) u smislu ove informacije je organizacija koja pruža usluge u vazдушnom saobraćaju, a navedena je u Dodatku 4 ove informacije.

Ova Sigurnosna informacija se primjenjuje od dana objavljivanja, a biće dostupna na internet stranici Agencije.

**Referentni propisi:**

Zakon o vazдушnom saobraćaju („Službeni list CG”, broj 30/12)

**Reference uputstva za primjenu:**

ICAO Aneks 19  
ICAO Doc 9859, Priručnik menadžmenta sigurnosti (SMM)  
Stranica evropske strateške inicijative za sigurnost  
(<http://www.easa.europa.eu/essi/>)

**Svrha:**

Pravna lica iz člana 105 stav 2 Zakona o vazдушnom saobraćaju i Dodatka 4 ove informacije dužni su da uspostave, održavaju i da se pridržavaju SMS-a, koji je primjeren veličini, prirodi i kompleksnosti operacija/aktivnosti, koje sprovode na osnovu izdatog certifikata, kao i opasnostima i rizicima sigurnosti vezanim za operacije/aktivnosti svoje organizacije.

Svrha ove informacije je da se vazduhoplovnim subjektima dâ uputstvo o implementaciji SMS-a. Ovom informacijom se korisnicima pružaju osnovne informacije



## 1. SMS Introduction

SMS is clearly defined in the ICAO standards, EU regulations and in the Law on Air Transport which declares it to be a cornerstone of the aviation safety policy which is further elaborated by this "Safety Information".

Safety Information provides initial background and understanding of the SMS implementation plan. This information's intention is to provide a general overview of the requirements, approach to be taken for implementation of SMS and explanation of basic mandatory actions.

## 2. General Considerations

A SMS is an organized approach to safety management which includes the necessary organizational structures, accountabilities, policies and procedures.

It is important to recognise that SMS are top down driven systems, which means that the Accountable Manager of the organisation is responsible for the implementation and continuing compliance of the SMS. Only with full support of the Accountable Manager an SMS will be effective.

There is no 'one size fits all' model of an SMS that will cater for all types and size of aviation entities. Complex SMS systems are likely to be inappropriate for small aviation entities, and such organizations should tailor their SMS to suit the size, nature and complexity of the activities and allocate resources accordingly.

The aviation entities are responsible for establishing an SMS within their organizations. The CAA is in charge for the acceptance and oversight of the aviation entity's SMS. The CAA will use regulatory acts to define conditions for obtaining certificates as well as possible exemptions in relation to general requirements of SMS.

## 3. SMS Framework

ICAO Doc. 9859 – Safety Management Manual provides generic guidance for implementation of SMS.

o konceptu SMS-a i uspostavljanju politike i procesa upravljanja.

## 1. Uvod u SMS

SMS je jasno definisan ICAO standardima, relevantnim evropskim propisima, odredbama Zakona o vazдушnom saobraćaju kao osnova politike vazduhoplovne sigurnosti koja se dodatno razrađuje ovom sigurnosnom informacijom.

Sigurnosna informacija utvrđuje osnovna načela i pojašnjenja plana implementacije SMS-a. Cilj informacije je da da opšti pregled postojećih zahtjeva, prikaz pristupa implementaciji SMS-a i pojašnjenje osnovnih obaveznih koraka.

## 2. Opšte uputstvo

SMS je organizovani pristup upravljanja sigurnošću koji uključuje odgovarajuće organizacione strukture, odgovornosti (accountabilities), politike i procedure.

Važno je prepoznati činjenicu da je SMS sistem koji se uspostavlja „od vrha prema dolje“, što znači da je odgovorni rukovodilac (Accountable Manager) organizacije odgovoran za implementaciju i konstantno ispunjavanje zahtjeva SMS-a. SMS će biti efikasan samo uz punu podršku odgovornog rukovodioca (Accountable Manager).

Ne postoji jedan unificirani SMS model koji odgovara svim tipovima i veličinama vazduhoplovnih subjekata. Složeni SMS sistemi u većini slučajeva nisu odgovarajući za male vazduhoplovne subjekte, tako da takve organizacije treba da prilagode svoj SMS veličini, prirodi i kompleksnosti svojih aktivnosti i u skladu sa tim izdvoje potrebne resurse.

Vazduhoplovni subjekti su odgovorni za uspostavljanje SMS-a unutar svojih organizacija. Agencija je nadležna za odobravanje i nadzor SMS-a vazduhoplovnog subjekta. Agencija će putem regulatornih akata urediti uslove za dobijanje sertifikata kao i pitanja eventualnih izuzeća u odnosu na opšte zahtjeve vezane za SMS.

## 3. SMS okvir

Accordingly, the ICAO has determined that the framework of aviation entity's SMS should include the following 4 components (12 elements):

**Safety policy and objectives**

- 1.1 Management commitment and responsibility
- 1.2 Safety accountabilities
- 1.3 Appointment of key safety personnel
- 1.4 Coordination of emergency response planning
- 1.5 SMS Documentation

**Safety risk management**

- 2.1 Hazard identification
- 2.2 Risk assessment and mitigation

**Safety assurance**

- 3.1 Safety performance monitoring and measurement
- 3.2 The management of change
- 3.3 Continuous improvement of the SMS

**Safety promotion**

- 4.1 Training and education
- 4.2 Safety communication

An expanded explanation of what is to be understood under each of the above mentioned elements is found in Annex 1 to this Safety Information.

**4. Implementation**

For aviation entities the CAA is determined to pursue a phased, "stepwise approach".

Detailed view of the Phase 1 - 4 is contained in Annex 2 to this Information. A phased approach allows aviation entities gradual implementation of the SMS, better planning and use of existing resources, compliance with deadline for the implementation of SMS thus ensuring the validity of existing approvals.

Implementation of SMS must be completed (full implementation of SMS achieved) for all aviation entities in accordance with the deadlines set in Annex 4 to this Safety information.

**5. Process**

ICAO Doc 9859 – Priručnik upravljanja sigurnošću daje opšte uputstvo za implementaciju SMS-a.

U skladu sa tim smjernicama ICAO je definisao da u okviru SMS-a vazduhoplovnog subjekta treba da budu sadržane 4 komponente (12 elemenata) i to:

**Politika i ciljevi sigurnosti**

- 1.1 Opredijeljenost i odgovornost rukovodstva
- 1.2 Odgovornost za sigurnost
- 1.3 Imenovanje ključnog osoblja za sigurnost
- 1.4 Koordinacija planiranja postupaka u slučaju

**nužde**

- 1.5 SMS dokumentacija

**Upravljanje rizicima sigurnosti**

- 2.1 Identifikacija opasnosti
- 2.2 Procjena i ublažavanje rizika

**Obezbjedivanje sigurnosti**

- 3.1 Praćenje i mjerenje performansi sigurnosti
- 3.2 Upravljanje promjenama
- 3.3 Konstantno unaprjeđenje SMS-a

**Promocija sigurnosti**

- 4.1 Obuka i obrazovanje
- 4.2 Komunikacija

Zbog lakšeg razumijevanja, pojašnjenje svakog navedenog elementa dato je u Dodatku 1 ove informacije.

**4. Implementacija**

Za vazduhoplovne subjekte Agencija utvrđuje fazni pristup.

Detaljni prikaz Faza 1 - 4 je dat je u Dodatku 2 ove informacije. Fazni pristup omogućava vazduhoplovnim subjektima postepenu implementaciju SMS-a, bolje planiranje i korišćenje postojećih resursa, i ispunjavanje roka za implementaciju SMS-a, čime se obezbeđuje validnost postojećih odobrenja.

Implementacija SMS-a mora biti završena (potpuna implementacija SMS-a postignuta) kod svih vazduhoplovnih subjekata u skladu sa rokovima utvrđenim u Dodatku 4 ove informacije.

**5. Proces**



The SMS is a management system which needs to be fully incorporated (or integrated) in the daily activities of the organization. Therefore, it follows that the SMS is not "approved" by the regulator (the CAA) as a stand-alone process, but rather accepted as an essential part of the certification / surveillance process for an organizational approval.

(Such as an AOC, EASA Part 145 certification, aerodrome certification, etc)

Aviation entity will be considered to be compliant with requirements for the establishment of SMS system not before the CAA determines that all the elements defined in Annex 2 to this Safety Information are implemented.

Guidance on the development of an SMS Implementation Plan for aviation entities is provided in ICAO Doc 9859, Appendix 2 of Chapter 10.

## 6. Management Systems

The management system of an organisation should ideally comprise two complementary systems, the Quality Management System (QMS) and the SMS. The QMS and SMS should correspond to the size, nature and complexity of the organisation regarding all the hazards and risks associated with activities of the organization.

Aviation entities must ensure that the QMS based processes are in compliance with the SMS requirements.

The role of the QMS is to monitor compliance of organization with applicable requirements.

## 7. Guidance Material

The following are examples of generically acceptable, guidance material:

- ICAO Doc 9859 – Safety Management Manual
- Transport Canada - TCCA TP-14135 – Safety Management Systems for Small Aviation Operations
- Transport Canada - TCCA TP-13739 – Safety Management Systems
- EHEST – European Helicopter Safety Team - Toolkit

SMS je sistem upravljanja koji mora biti u potpunosti integrisan u svakodnevne aktivnosti određene organizacije. Iz toga proizilazi da se SMS ne odobrava od strane Agencije kao samostalni proces, već se smatra značajnim dijelom procesa certifikovanja/nadzora koji je od značaja za odobrenje organizacije.

(npr. kroz proces izdavanja AOC, EASA Part 145 certifikata, certifikacije aerodroma itd.).

Smatra se da je vazduhoplovni subjekt ispunio zahtjeve za uspostavljanje SMS sistema tek kada Agencija utvrdi da su implementirani svi elementi utvrđeni u Dodatku 2 ove informacije.

Uputstvo o razvoju SMS plana implementacije za vazduhoplovne subjekte dato je u ICAO Doc 9859, Dodatak 2 Poglavlja 10.

## 6. Sistemi upravljanja

Sistem upravljanja treba da čine dva komplementarna sistema: sistem upravljanja kvalitetom (QMS) i SMS. Oba sistema, QMS i SMS, treba da odgovaraju veličini, prirodi i kompleksnosti organizacije, uzimajući u obzir sve opasnosti i rizike u vezi sa aktivnostima organizacije.

Vazduhoplovni subjekti moraju uskladiti procese zasnovane na QMS sa zahtjevima SMS.

Uloga QMS-a je praćenje usklađenosti organizacije sa primjenjivim zahtjevima.

## 7. Uputstvo za primjenu

Primjeri opšte prihvatljivih uputstava su:

- ICAO Doc 9859 – Priručnik upravljanja sigurnošću
- Transport Canada - TCCA TP-14135 – Sistemi upravljanja sigurnošću za izvođenje operacija male avijacije
- Transport Canada - TCCA TP-13739 – Sistemi upravljanja sigurnošću
- EHEST - European Helicopter Safety Team Toolkit
- CASA Australia - Advisory Circular AC 119270(0) Sistemi upravljanja sigurnošću



<ul style="list-style-type: none"> <li>• CASA Australia - Advisory Circular AC 119270(0) Safety Management Systems</li> <li>• CAA UK - "Safety Management Systems – Guidance to Organisations"</li> <li>• EASA Acceptable Means of Compliance and Guidance Material</li> </ul> <p><i>This list is non-exclusive and will be updated in time.</i></p> <p><b>8. EASA Requirements</b></p> <p>The inclusion of SMS requirements in the European aviation system is undisputed. This Information takes into account published and developing European Aviation Safety Agency (EASA) Implementing Rules (IR) on Management Systems.</p> <p><b>9. Annexes to this Safety Information</b></p> <table border="0"> <tr> <td>Annex 1</td> <td>SMS Framework Elements</td> </tr> <tr> <td>Annex 2</td> <td>SMS Implementation Phases</td> </tr> <tr> <td>Annex 3</td> <td>ICAO SMS Gap Analysis guidance</td> </tr> <tr> <td>Annex 4</td> <td>List of aviation entities obligated to establish SMS with deadlines for implementation</td> </tr> </table> <p><b>10. Further Information</b></p> <p>Relevant documentation in regards to SMS implementation that can be found on ICAO and EASA web sites provide:</p> <ul style="list-style-type: none"> <li>• European Strategic Safety Initiative (<a href="http://www.easa.europa.eu/essi/">http://www.easa.europa.eu/essi/</a>)</li> <li>• Flight Safety Information Exchange – Library (<a href="http://www.icao.int/FSIX/library1.cfm">http://www.icao.int/FSIX/library1.cfm</a>)</li> <li>• ICAO – Safety Management (<a href="http://www.icao.int/anb/safetymanagement/Documents.html">http://www.icao.int/anb/safetymanagement/Documents.html</a>)</li> </ul> <p>In addition, the CAA will use its website (<a href="http://www.caa.me">www.caa.me</a>) to provide further general information for SMS implementation.</p>	Annex 1	SMS Framework Elements	Annex 2	SMS Implementation Phases	Annex 3	ICAO SMS Gap Analysis guidance	Annex 4	List of aviation entities obligated to establish SMS with deadlines for implementation	<ul style="list-style-type: none"> <li>• CAA UK - Sistemi upravljanja sigurnošću – Uputstvo organizacijama"</li> <li>• EASA prihvatljivi načini usaglašavanja i uputstvo AMC i GM</li> </ul> <p><i>Spisak nije konačan i vremenom će se dopunjavati.</i></p> <p><b>8. EASA zahtjevi</b></p> <p>Uključenje SMS zahtjeva u evropski vazduhoplovni sistem je nesporno. Ova informacija uzima u obzir Pravila implementacije (IR) koja se odnose na sisteme upravljanja, objavljena ili u izradi od strane Evropske agencije za sigurnost vazdušnog saobraćaja (EASA).</p> <p><b>9. Dodaci ovoj Sigurnosnoj informaciji</b></p> <table border="0"> <tr> <td>Dodatak 1</td> <td>Elementi SMS okvira</td> </tr> <tr> <td>Dodatak 2</td> <td>Faze implementacije SMS-a</td> </tr> <tr> <td>Dodatak 3</td> <td>Uputstvo za ICAO SMS analizu razlika</td> </tr> <tr> <td>Dodatak 4</td> <td>Pregled vazduhoplovnih subjekata koji su dužni implementirati SMS, sa rokovima implementacije</td> </tr> </table> <p><b>10. Dodatne informacije</b></p> <p>Dokumentacija relevantna za proces implementacije SMS-a može se naći na web stranicama:</p> <ul style="list-style-type: none"> <li>• Evropska strateška inicijativa za sigurnost (<a href="http://www.easa.europa.eu/essi/">http://www.easa.europa.eu/essi/</a>)</li> <li>• Razmjena informacija sigurnosti leta -Biblioteka (<a href="http://www.icao.int/FSIX/library1.cfm">http://www.icao.int/FSIX/library1.cfm</a>)</li> <li>• ICAO – Safety Management (<a href="http://www.icao.int/anb/safetymanagement/Documents.html">http://www.icao.int/anb/safetymanagement/Documents.html</a>)</li> </ul> <p>Dodatno, Agencija će koristiti svoju web stranicu (<a href="http://www.caa.me">www.caa.me</a>) za objavljivanje dodatnih informacija o implementaciji SMS-a.</p>	Dodatak 1	Elementi SMS okvira	Dodatak 2	Faze implementacije SMS-a	Dodatak 3	Uputstvo za ICAO SMS analizu razlika	Dodatak 4	Pregled vazduhoplovnih subjekata koji su dužni implementirati SMS, sa rokovima implementacije
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<p><b>Direktor/ Director</b> <b>Dragan Đurović</b></p>		<p><b>Datum / Date</b></p>															



ANNEX 1 - SMS FRAMEWORK ELEMENTS	DODATAK 1 - ELEMENTI SMS OKVIRA
<p><b>1. SAFETY POLICY AND OBJECTIVES</b></p> <p><b>1.1 Management commitment and responsibility</b></p> <p>Aviation entities shall define the organization's safety policy which shall be in accordance with international and national requirements, and which shall be signed by the accountable executive of the organization. The safety policy shall reflect organizational commitments regarding safety; include a clear statement about the provision of the necessary human and financial resources for its implementation; clearly indicate which types of behaviours are unacceptable related to the aviation entity's activities and include the circumstances under which disciplinary action would not apply; be signed by the accountable executive of the organization; and be communicated, with visible endorsement, throughout the organization.</p> <p>The safety policy shall, inter alia, include the following objectives:</p> <ul style="list-style-type: none"> <li>• commitment to implement an SMS;</li> <li>• commitment to continual improvement in the level of safety;</li> <li>• commitment to the management of safety risks;</li> <li>• commitment to encourage employees to report safety issues;</li> <li>• establishment of clear standards for acceptable behaviour; and</li> <li>• identification of responsibilities of management and employees with respect to safety performance.</li> </ul> <p>The safety policy shall be periodically reviewed to ensure it remains relevant and appropriate to the organization.</p> <p><b>1.2 Safety accountabilities</b></p> <p>Aviation entities shall designate the accountable executive who, irrespective of other functions, shall have ultimate responsibility and accountability, on behalf of the aviation entity, for the implementation and maintenance of the SMS. The aviation entity shall</p>	<p><b>1. POLITIKA I CILJEVI SIGURNOSTI</b></p> <p><b>1.1 Opredijeljenost i odgovornosti rukovodstva</b></p> <p>Vazduhoplovni subjekti moraju definisati politiku sigurnosti organizacije koja mora biti u skladu sa međunarodnim i nacionalnim zahtjevima, i potpisana od strane odgovornog izvršnog lica organizacije. Politika sigurnosti mora odražavati opredijeljenost organizacije za sigurnost; sadržati jasan stav (izjavu) o obezbjeđivanju neophodnih ljudskih i finansijskih resursa za implementaciju politike; jasno navoditi koji tipovi ponašanja su neprihvatljivi u odnosu na aktivnosti vazduhoplovnih subjekata i sadržati okolnosti u okviru kojih se disciplinarnе akcije neće primjenjivati; biti potpisana od strane odgovornog izvršnog lica organizacije; icijela organizacija mora biti upoznata sa politikom sigurnosti.</p> <p>Politika sigurnosti mora, između ostalog, uključiti sljedeće ciljeve:</p> <ul style="list-style-type: none"> <li>• opredijeljenost za implementaciju SMS-a;</li> <li>• opredijeljenost za konstantno unaprjeđenje nivoa sigurnosti;</li> <li>• opredijeljenost za upravljanje sigurnosnim rizicima;</li> <li>• opredijeljenost za podsticanje zaposlenih na izvještavanje o pitanjima/problemima sigurnosti;</li> <li>• uspostavljanje jasnih standarda o prihvatljivom ponašanju; i</li> <li>• određivanje odgovornosti (responsibilities) rukovodstva i zaposlenih obzirom na performanse sigurnosti.</li> </ul> <p>Politika sigurnosti mora se periodično preispitivati kako bi ostala relevantna i adekvatna (odgovarajuća) za organizaciju.</p> <p><b>1.2 Odgovornosti (Accountabilities) za sigurnost</b></p> <p>Vazduhoplovni subjekti moraju imenovati odgovorno izvršno lice, koje u ime vazduhoplovnog subjekta, bez obzira na ostale funkcije, ima krajnju odgovornost (responsibility and accountability) za implementaciju i održavanje SMS-a. Vazduhoplovni subjekt, takođe mora jasno utvrditi odgovornost svih članova višeg</p>

also identify the safety accountabilities of all members of senior management, irrespective of other functions, as well as of employees, with respect to the safety performance of the SMS. Safety responsibilities, accountabilities and authorities shall be documented and communicated throughout the organization.

### 1.3 Appointment of key safety personnel

The aviation entity required to designate a manager in charge for safety management system (Hereinafter: the safety manager), will recognize that the position holder is responsible and that his function is of key importance in development, administration and maintenance of an efficient SMS.

The Safety Manager must be appointed by Senior Management in order to provide the necessary degree of authority when dealing with safety matters, and safety manager shall report directly to the Accountable Manager of the organisation.

The Safety Manager should possess:

- operational management experience;
- technical background sufficient to understand the systems that support the operation;
- people skills;
- analytical and problem solving skills;
- project management skills; and
- oral and written communication skills.

It is important to note that accountability for the SMS lies with the Accountable Manager not the Safety Manager.

The Safety Manager should carry out the following functions:

- managing the SMS implementation plan on behalf of the Accountable Manager;
- performing/facilitating hazard identification and safety risk analysis;
- monitoring corrective actions and evaluating their results;
- provide periodic reports on the organization's safety performance;

rukovodstva po pitanju sigurnosti, bez obzira na njihove druge funkcije, kao i zaposlenih u odnosu na performance sigurnosti SMS-a. Odgovornosti (responsibilities and accountabilities) za sigurnost i nosioci odgovornosti i ovlaštenja moraju biti dokumentovani i objavljeni cijeloj organizaciji.

### 1.3 Imenovanje ključnog osoblja za sigurnost

Vazduhoplovni subjekt koji ima obavezu da imenuje rukovodioca za upravljanje sistemom sigurnošću (u daljem tekstu: rukovodilac sigurnosti), utvrdiće da je isti nadležan (responsible) i da ima ključnu ulogu u poslovima razvoja, administriranja i održavanja efikasnog SMS-a.

Rukovodilac sigurnosti mora biti imenovan od strane višeg rukovodstva da bi imao neophodno ovlaštenje za postupanja po pitanjima/problemima sigurnosti i rukovodilac sigurnosti direktno odgovara odgovornom izvršnom licu organizacije.

Rukovodilac sigurnosti treba da ima:

- operativno iskustvo u rukovođenju;
- tehničko obrazovanje dovoljno za razumijevanje sistema za pružanje podrške operacijama;
- vještinu u međuljudskim odnosima;
- analitičke vještine i vještine za rješavanje problema;
- vještine upravljanja projektima; i
- vještinu pisanog i usmenog komuniciranja.

Glavnu odgovornost za SMS snosi odgovorno izvršno lice, a ne rukovodilac sigurnosti.

Funkcije rukovodioca sigurnosti su:

- upravljanje planom implementacije SMS-a u ime odgovornog rukovodioca;
- sprovođenje i olakšavanje identifikacije rizika i analize sigurnosnog rizika;
- praćenje korektivnih akcija i procjena njihovih rezultata;
- pripremanje periodičnih izvještaja o performansama sigurnosti organizacije;
- održavanje evidencije i dokumentacije o sigurnosti;



- maintaining records and safety documentation;
- planning and facilitating staff safety training;
- providing independent advice on safety matters;
- monitoring safety concerns in the aviation industry and their perceived impact on the organization's operations aimed at service delivery;
- coordinating and communicating (on behalf of the accountable executive) with the State's oversight authority and other State agencies as necessary on issues relating to safety; and;
- coordinating and communicating (on behalf of the accountable executive) with international organizations on issues relating to safety.

#### **1.4 Coordination of emergency response planning (ERP)**

Aviation entities shall develop, coordinate and maintain an emergency response plan that ensures orderly and efficient transition from normal to emergency operations, and return to normal operations.

The ERP should be integrated into the SMS and reflect the size, nature and complexity of the activities performed by the organisation.

The ERP should ensure:

- an orderly and efficient transition from normal to emergency operations;
- designation of emergency authority;
- assignment of emergency responsibilities;
- authorisation by key personnel for actions contained in the plan;
- coordination of efforts to resolve the emergency; and
- safe continuation of operations or return to normal operations as soon as possible.

The ERP should set out the responsibilities, roles and actions for the various bodies and personnel involved in dealing with emergencies.

#### **1.5 SMS Documentation**

- planiranje i olakšavanje osposobljavanja zaposlenih u oblasti sigurnosti;
- davanje nezavisnih savjeta o pitanjima iz oblasti sigurnosti;
- praćenje zabrinutosti za sigurnost u avijaciji i njihov uočeni uticaj na operacije organizacije koje se odnose na pružanje usluga;
- koordinacija i komunikacija (u ime odgovornog izvršnog lica) sa državnim nadzornim organom i drugim državnim agencijama u mjeri koliko je to potrebno u odnosu na pitanja sigurnosti; i;
- koordinacija i komunikacija (u ime odgovornog izvršnog lica) sa međunarodnim organizacijama u odnosu na pitanja sigurnosti.

#### **1.4 Koordinacija planiranja postupaka u slučaju nužde (ERP)**

Vazduhoplovni subjekti moraju razviti, koordinirati i održavati plan postupanja u slučaju nužde koji obezbjeđuje uređen i efikasan prelaz iz normalnih operacija u operacije u slučaju nuždi, kao i povratak normalnim operacijama.

ERP treba da bude integrisan u SMS i prilagođen veličini, prirodi i kompleksnosti aktivnosti relevantne organizacije.

ERP mora da obezbjedi:

- uređen i efikasan prelaz iz normalnih operacija u operacije u slučaju nužde;
- određivanje nadležnosti u slučaju nužde;
- određivanje odgovornosti (responsibilities) u slučaju nužde;
- ovlašćenje od strane ključnih kadrova za akcije sadržane u planu
- koordinaciju aktivnosti i mjera u cilju razrješenja nužde;
- siguran nastavak operacija ili povratak normalnim operacijama, u što kraćem roku.

ERP treba da definiše odgovornosti (responsibilities), uloge i aktivnosti-radnje različitih organa i osoblja uključenih u postupke u slučaju nužde.

#### **1.5 SMS dokumentacija**

Vazduhoplovni subjekti moraju izraditi i održavati SMS dokumentaciju koja predstavlja politiku sigurnosti i ciljeve, SMS zahtjeve, SMS procedure i





Aviation entities shall develop and maintain SMS documentation to describe the safety policy and objectives, the SMS requirements, the SMS procedures and processes, the accountabilities, responsibilities and authorities for procedures and processes, and the SMS outputs.

As part of the SMS documentation, aviation entities shall develop and maintain a safety management system manual (SMS manual), to communicate its approach to safety throughout the organization.

The SMS manual shall document all aspects of the SMS, and its contents shall include the following:

- Document control;
- SMS regulatory requirements;
- Scope and integration of the safety management system;
- Safety policy;
- Safety objectives;
- Safety accountability and key personnel;
- Safety reporting and remedial actions;
- Hazard identification and risk assessment;
- Safety performance monitoring and measurement;
- Safety-related investigations and remedial actions;
- Safety training and communication;
- Continuous improvement and SMS audit;
- SMS records management;
- Management of change; and
- Emergency/contingency response plan.

*Note: The SMS manual may be stand-alone document, or may be included as part of existing documentation, for example, as a chapter or division of an air operator's operations manual.*

## **2. SAFETY RISK MANAGEMENT**

Safety is a condition in which the risk of harm or damage is limited and maintained at or below an acceptable level through a continuing process of hazard identification and safety risk management. The process of moving from hazard identification to risk assessment and risk mitigation is a risk management process.

procesu, odgovornosti (accountabilities, responsibilities) i ovlaštenja za procedure i procese, i izlazne SMS podatke.

Vazduhoplovni subjekti, moraju kao dio SMS dokumentacije, da razviju i održavaju Priručnik sistema upravljanja sigurnošću (SMS priručnik), putem kojeg saopštavaju pristup sigurnosti kroz organizaciju.

(SMS priručnik) mora dokumentovati sve aspekte SMS-a, i mora da sadrži:

- kontrolu dokumenata;
- regularatone zahtjeve SMS-a;
- polje primjene i integrisanje sistema upravljanja sigurnošću;
- politiku sigurnosti;
- sigurnosne ciljeve;
- odgovornost (accountability) za sigurnost i ključno osoblje;
- sigurnosno izvještavanje i popravne aktivnosti;
- prepoznavanje opasnosti i procjenu rizika;
- praćenje i procjenu performansi sigurnosti;
- istraživanja i popravne aktivnosti koje se odnose na sigurnost;
- obuka i komunikacija u oblasti sigurnosti;
- kontinuirano unaprjeđivanje i pregled SMS-a;
- upravljanje SMS evidencijom;
- upravljanje promjenama; i
- postupak u slučaju nužde ili nepredviđenih okolnosti..

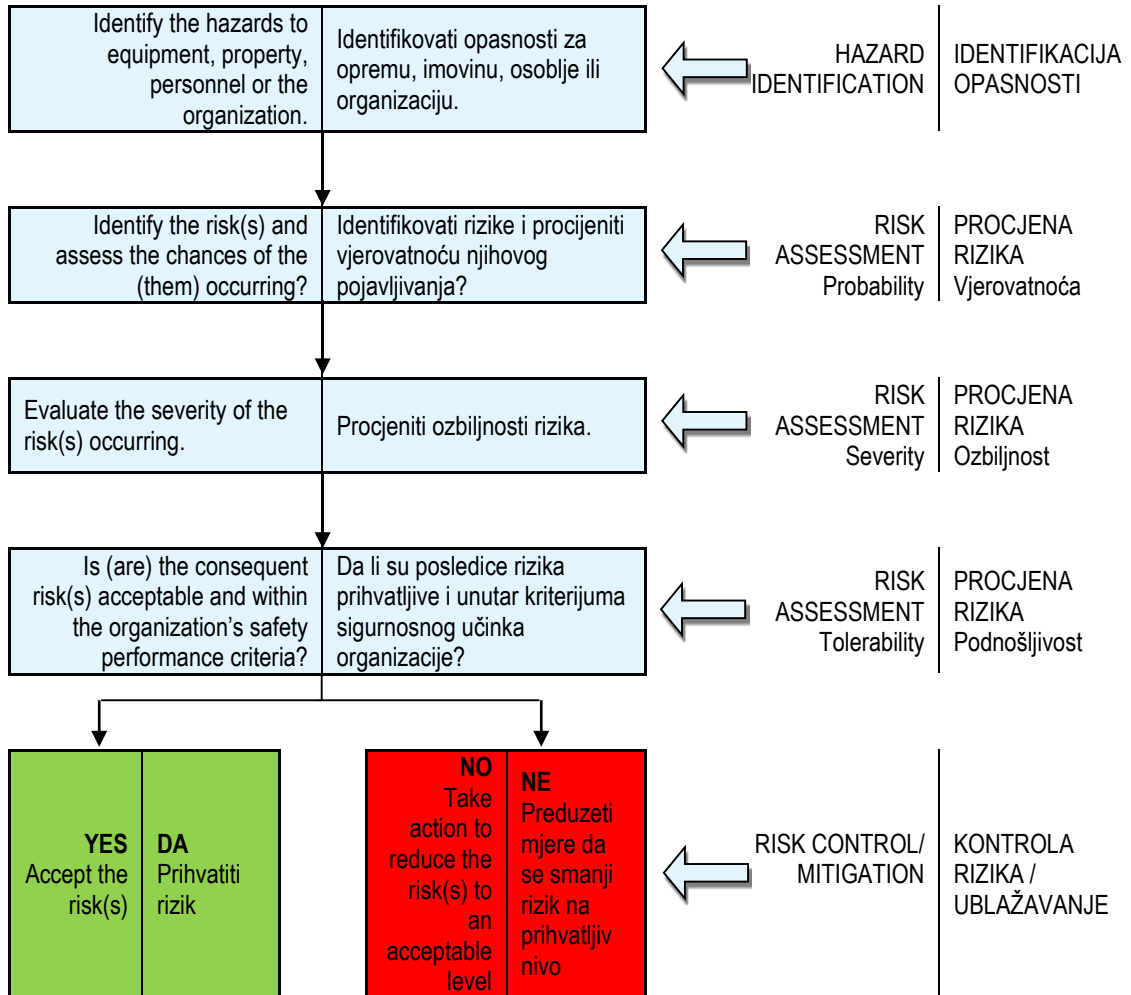
*Napomena: SMS priručnik može biti samostalni dokument ili može biti dio već postojeće dokumentacije, kao na primjer, poglavlje Operativnog priručnika vazdušnog prevoznika.*

## **2. UPRAVLJANJE SIGURNOSNIM RIZIKOM**

Sigurnost je stanje u kojem je rizik od ugrožavanja života i zdravlja ljudi i nanošenja štete licima ili imovini smanjen i održavan na prihvatljivom nivou rizika, kroz kontinuirani postupak identifikacije opasnosti i upravljanja sigurnosnim rizikom. Proces koji vodi od uočavanja opasnosti prema procjeni rizika i ublažavanju rizika je proces upravljanja rizicima.



<p><b>2.1 Hazard identification</b></p> <p>A hazard is generically defined by safety practitioners as a condition or an object with the potential to cause death, injuries to personnel, damage to equipment or structures, loss of material, or reduction of the ability to perform a prescribed function. For the purpose of aviation safety risk management, the term hazard should be focused on those conditions which would cause or contribute to unsafe operation of aircraft or aviation safety-related equipment, products and services. The aviation entities shall develop and maintain a formal process that ensures that hazards associated with its aviation product or services are identified. Hazard identification shall be based on a combination of reactive, proactive and predictive methods of safety data collection.</p> <p>Reactive method (schemes) includes data from accidents, incidents and mandatory occurrence report (MOR). Proactive schemes include voluntary occurrences reporting, confidential reporting schemes, safety surveys, operational safety audits and safety assessments.</p> <p>Predictive safety data collection methods are based on FDA and direct observation system.</p> <p><b>2.2 Safety risk assessment and mitigation</b></p> <p>The risk is defined as: assessed predicted likelihood and severity of the consequence(s) or outcome(s) of a hazard.</p> <p>Aviation entity shall develop and maintain a formal risk management process that ensures analysis (in terms of probability and severity of occurrence), assessment (in terms of tolerability) and control (in terms of mitigation) of risks to an acceptable level.</p> <p>Aviation entities shall also define those levels of management with authority to make decisions regarding safety risks tolerability. A diagram showing the hazard analysis and risk assessment process is shown below:</p>	<p><b>2.1 Identifikacija opasnosti</b></p> <p>Opasnost je definisana od strane lica koja se u praksi bave sigurnošću kao stanje ili predmet koji ima mogućnost da uzrokuje smrt, povrede osoblja, štetu opreme ili konstrukcije, gubitak materijala, ili umanjenje mogućnosti obavljanja propisane funkcije. U smislu upravljanja sigurnosnim rizikom u avijaciji, termin opasnost se fokusira na one uslove koji bi izazvali ili doprinijeli nesigurnim operacijama vazduhoplova ili opreme, proizvoda i usluga koje se odnose na sigurnost u avijaciji. Vazduhoplovni subjekti moraju izraditi i održavati formalnu proceduru koja će obezbijediti da se identifikuju opasnosti koje se odnose na njihove vazduhoplovne proizvode ili usluge. Identifikacija opasnosti se zasniva na kombinaciji reaktivnih, proaktivnih i prediktivnih metoda sakupljanja sigurnosnih podataka.</p> <p>Reaktivne metode (šeme) uključuju podatke o nesrećama i ozbiljnim nezgodama, te obavezno izvještavanje o događajima koji ugrožavaju sigurnost. Proaktivna šeme sadrže dobrovoljno izvještavanje o događajima koji ugrožavaju sigurnost, povjerljivi sistem izvještavanja, analize (istrage) sigurnosti, provjere operativne sigurnosti i procjene sigurnosti.</p> <p>Prediktivne metode prikupljanja podataka o sigurnosti se zasnivaju na FDA i sistemu direktnog opažanja.</p> <p><b>2.2 Procjena i ublažavanje sigurnosnog rizika</b></p> <p>Rizik je definisan kao: procjena predviđene vjerovatnoće i težine posljedice(a) ili ishod(a) opasnosti. Vazduhoplovni subjekat mora da izradi, uspostavi i održava formalni proces upravljanja rizicima koji obezbjeđuje analizu (u terminima vjerovatnoće i ozbiljnosti događaja koji ugrožavaju sigurnost), procjenu (u terminima prihvatljivosti / tolerantnosti) i kontrolu (u terminima ublažavanja) rizika na prihvatljivom nivou. Vazduhoplovni subjekti moraju takođe odrediti rukovodstvo koje ima ovlašćenje za donošenje odluka o prihvatljivosti sigurnosnog rizika. Dijagram procesa analize opasnosti i procjene rizika je prikazan na slici ispod:</p>
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5 Učestalo <i>Frequent</i>	5A	5B	5C	5D	5E
4 Povremeno <i>Occasional</i>	4A	4B	4C	4D	4E
3 Rijetko <i>Remote</i>	3A	3B	3C	3D	3E
2 Nazatno <i>Improbable</i>	2A	2B	2C	2D	2E
1 Izuzetno neznatno <i>Extremely imp</i>	1A	1B	1C	1D	1E
	A Katastrofalna <i>Catastrophic</i>	B Opasna <i>Hazardous</i>	C Znatna <i>Major</i>	D Mala <i>Minor</i>	E Neznatna <i>Negligible</i>

Ozbiljnost / *Severity*

*Risk Assessment* involves taking into account the probability and severity of any adverse consequences resulting from an identified hazard.

*Example Risk Assessment Matrix:*

A Risk Matrix is useful for assessing hazard. While the severity of the consequences can be defined, the probability of occurrence may be more subjective.

*Procjena rizika* uzima u obzir vjerovatnoću i ozbiljnost bilo koje negativne posljedice koja može biti rezultat identifikovane opasnosti.

*Primjer Matrice procjene rizika:*

Matrica rizika je korisna za procjenjivanje opasnosti. Za razliku od ozbiljnosti posljedica nekog događaja koji ugrožava sigurnost, koje se mogu definisati, procjena vjerovatnoće događaja koji ugrožava sigurnost može biti subjektivna.

Vjerovatnost/*Probability*

$Risk = Severity \times Probability;$

Rizik= Ozbiljnost x Vjerovatnost

Neprihvatljivo područje – neprihvatljivo prema postojećim zahtjevima  
*Intolerable region – unacceptable under existing circumstances*

Područje koje se toleriše- prihvatljivo na osnovu procjene rizika i ublažavanja (ukoliko se procijeni neophodnim). Može zahtjevati odluku rukovodstva.  
*Tolerable region- Acceptable based on risk assessment and mitigation (if necessary). It may require management decision.*

Prihvatljivo područje  
*Acceptable region*



*Risk mitigation:* Risks should be managed to be as low as reasonably practicable. Risk must be balanced against the time, cost and difficulty of taking measures to reduce or eliminate the risk. The level of risk can be lowered by reducing the severity of the potential consequences, reducing the probability of occurrence or by reducing exposure to that risk. Corrective action will take into account any existing defences and their inability to achieve an acceptable level of risk. Corrective action should be subject to further risk assessment, in order to determine that the risk is now acceptable and that no further risk has been introduced into operational activities.

*Internal safety investigations:* In addition to requirements defined in Regulation on reporting on, analysing and treatment of data on safety jeopardizing, aircraft accidents and serious incidents, an aviation entity shall, as part of the SMS, develop and maintain formal processes for the internal investigation of occurrences that jeopardize safety which are not required to be reported to the CAA and Commission for Aircraft Accident and Serious Incident Investigation.

### **3. SAFETY ASSURANCE**

#### **3.1 Safety performance monitoring and measurement**

Aviation entity shall develop and maintain the means to verify the safety performance of the organization compared to the safety policy and objectives, and to validate the effectiveness of safety risks controls. The safety reporting procedures related to safety performance and monitoring shall clearly indicate which types of operational behaviours are acceptable or unacceptable, and include the conditions under which immunity from disciplinary action would be considered. Information used to measure the organization's safety performance is generated through its safety reporting systems. There are two types of reporting systems, mandatory incident reporting systems and voluntary incident reporting systems.

*Ublažavanje rizika:* Rizicima se upravlja na način koji obezbjeđuje da rizici budu na što nižem nivou. Rizikom se upravlja tako da se balansira između vremena, troškova i teškoće sprovođenja mjera u cilju smanjenja ili eliminisanja rizika. Nivo rizika se može smanjiti umanjujući ozbiljnost potencijalnih posljedica, umanjujući vjerovatnoću događaja koji ugrožava sigurnost, ili umanjujući izloženost tom riziku. Korektivna akcija mora u obzir uzeti bilo koje elemente postojeće odbrane, kao i nemogućnost te odbrane da postigne prihvatljiv nivo sigurnosti. Korektivna akcija treba da bude predmet daljnjih postupaka procjene rizika, kako bi se odredilo da je rizik sada na prihvatljivom nivou i da se u operacijama nisu pojavili dodatni rizici.

*Interno istraživanje problema sigurnosti:* Uz zahtjeve utvrđene Pravilnikom o načinu obaveštavanja, ispitivanja, analiziranja i postupanja sa podacima o ugrožavanju sigurnosti, nesrećama i ozbiljnim nezgodama vazduhoplova, vazduhoplovni subjekt mora, kao dio SMS sistema, da izradi, uspostavi i održava formalni proces internih istraga događaja koji ugrožavaju sigurnost za koje nije propisano obavezno izvještavanje Agencije i Komisije za istraživanje nesreća i ozbiljnih nezgoda.

### **3. OBEZBJEĐIVANJE SIGURNOSTI**

#### **3.1 Praćenje i mjerenje performansi sigurnosti**

Vazduhoplovni subjekat mora izraditi, uspostaviti i održavati načine utvrđivanja (verifikacije) performansi sigurnosti organizacije u poređenju sa zahtjevima politike sigurnosti i ciljevima organizacije potvrđujući efikasnost metode kontrole sigurnosnog rizika. Procedure izvještavanja koje se odnose na performanse sigurnosti i praćenje moraju jasno definisati vrste prihvatljivog ili neprihvatljivog operativnog ponašanja, te jasno naznačiti uslove pod kojima se razmatra imunitet od disciplinskih mjera. Informacije koje se koriste za mjerenje performansi sigurnosti organizacije se dobijaju iz sistema izvještavanja o sigurnosti. Postoje dva tipa sistema izvještavanja, sistemi obaveznog izvještavanja o nezgodama i sistemi dobrovoljnog izvještavanja o nezgodama.



<p>Other sources of safety information to support safety performance monitoring and measurement may include:</p> <ul style="list-style-type: none"> <li>• safety studies;</li> <li>• safety reviews;</li> <li>• safety surveys;</li> <li>• audits; and</li> <li>• internal investigations.</li> </ul> <p><b>3.2 The management of change</b></p> <p>The aviation entity shall develop and maintain a formal process to identify changes within the organization which may affect established processes and services; to describe the arrangements to ensure safety performance before implementing changes; and to eliminate or modify safety risk controls that are no longer needed or effective due to changes in the operational environment.</p> <p><b>3.3 Continuous improvement of the SMS</b></p> <p>Continuous improvement is measured through the monitoring of an organization's safety performance indicators and is related to the maturity and effectiveness of an SMS. Safety assurance processes support improvements to the SMS through continual verification and follow-up actions. These objectives are achieved through the application of internal evaluations and independent audits of the SMS.</p> <p>Internal evaluations involve assessment of the aviation entity's activities that can provide information useful to the organization's decision making processes. It is here where the key activity of the SMS – hazard identification and risk mitigation (HIRM) takes place. Evaluations conducted for the purpose of this requirement must be conducted by persons or organizations that are functionally independent of the technical processes being evaluated. The internal evaluation function includes evaluation of safety management functions, policymaking, safety risk management, safety assurance and safety promotion throughout the organization.</p>	<p>Drugi izvori sigurnosnih informacija sa ciljem podrške praćenja i mjerenja performansi sigurnosti mogu sadržati:</p> <ul style="list-style-type: none"> <li>• studije o sigurnosti;</li> <li>• procjenu stanja sigurnosti;</li> <li>• sigurnosna istraživanja; ;</li> <li>• istraživanja (analize); i</li> <li>• interne istrage.</li> </ul> <p><b>3.2 Upravljanje promjenama</b></p> <p>Vazduhoplovni subjekt mora da izradi, uspostavi i održava formalni proces za identifikaciju promjena unutar organizacije koje mogu uticati na uspostavljene procese i usluge; da odredi načine osiguranja performansi sigurnosti prije implementacije promjena; i da eliminiše ili modifikuje metode kontrole rizika sigurnosti koje više nisu potrebne ili nisu efikasne zbog promjena u operativnom okuženju.</p> <p><b>3.3 Konstantno unaprjeđenje SMS-a</b></p> <p>Konstantno unaprjeđenje se mjeri kroz praćenje indikatora performansi sigurnosti organizacije i povezano je sa zrelošću i efikasnošću SMS-a. Procesi obezbjeđivanja sigurnosti podržavaju unaprjeđenje SMS-a putem konstantne verifikacije i propratnih radnji. Ovi ciljevi se postižu kroz primjenu internih procjena i nezavisnih provjera SMS-a.</p> <p>Interne procjene uključuju procjenu aktivnosti vazduhoplovnih entiteta koje mogu obezbijediti informacije od koristi za procese donošenja odluka u organizaciji. Ovdje se odvija ključna aktivnost SMS-a – identifikacija rizika i ublažavanje rizika (HIRM). Procjene koje se obavljaju zbog ovog zahtjeva moraju obavljati lica ili organizacije koji su funkcionalno nezavisni od tehničkih procesa koji se procjenjuju. Funkcija interne procjene obuhvata procjenu funkcija sigurnosnog upravljanja, kreiranje politike, upravljanje sigurnosnim rizikom, obezbjeđivanje sigurnosti i promovisanje sigurnosti u organizaciji.</p>
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Internal audits involve the systematic and scheduled examination of the aviation entity's activities, including those specific to the implementation of the SMS. To be most effective, internal audits are conducted by persons or departments that are independent of the functions being evaluated. Such audits provide the accountable executive, as well as senior management officials responsible for the SMS, the ability to track the implementation and effectiveness of the SMS as well as its supporting systems.

External audits of the SMS may be conducted by relevant authorities responsible for acceptance of the aviation entity's SMS. These external audits enhance the internal audit system as well provide independent oversight.

In summary, the evaluation and audit process contribute to the aviation entity's ability to achieve continuous improvement in safety performance. Ongoing monitoring of the SMS, its related safety controls and support systems assures that the safety management process is achieving its objectives.

#### **4. SAFETY PROMOTION**

##### **4.1 Training and education**

Aviation entities shall develop and maintain a safety training program that ensures that personnel are trained and competent to perform the SMS duties. The aviation entity shall specify initial and recurrent safety training standards.

The scope of the safety training programme shall be appropriate to each individual's involvement in the SMS.

Operational Personnel - Safety training for operational personnel should address safety responsibilities, including following all operating and safety procedures, and recognizing and reporting hazards. The training objectives should include the organization's safety policy and SMS fundamentals.

Managers and Supervisors - Managers and supervisors should understand the safety process,

Interne provjere uključuju sistematska i redovna ispitivanja aktivnosti vazduhoplovnog subjekta, uključujući one koje se posebno odnose na implementaciju SMS-a. Da bi efikasnost bila na najvišem nivou, interne provjere sprovode lica ili sektori koji su nezavisni od funkcija koje se procjenjuju. Te provjere pružaju odgovornom izvršnom licu, kao i članovima višeg rukovodećeg osoblja koji su odgovorni za SMS, mogućnost da prate implementaciju i efikasnost SMS-a kao i njegovih pomoćnih sistema.

Spoljne provjere SMS-a mogu obavljati nadležne vlasti koje su odgovorne za odobrenje SMS-a vazduhoplovnog subjekta. Ove spoljne provjere unapređuju sistem interne provjere i obezbjeđuju nezavisan nadzor.

U suštini, proces procjene i provjere doprinosi sposobnosti vazduhoplovnog subjekta da postigne konstantno unapređenje u performansama sigurnosti. Tekuće praćenje SMS-a, povezana kontrola sigurnosti i pomoćni sistemi obezbjeđuju da procedura upravljanja sigurnošću postiže svoje ciljeve.

#### **4. PROMOCIJA SIGURNOSTI**

##### **4.1 Osposobljavanje**

Vazduhoplovni subjekti moraju izraditi, uspostaviti i održavati program osposobljavanja za područje sigurnosti kojim obezbjeđuje da je osoblje osposobljeno i kompetentno za SMS dužnosti. Vazduhoplovni subjekt mora definisati standarde za inicijalnu obuku i obuku obnove znanja.

Obim obuke za područje sigurnosti zavisice o uključenosti pojedinca u SMS.

Operativno osoblje – Obuka operativnog osoblja za područje sigurnosti treba da obuhvati odgovornosti (responsibilities) za sigurnost, sve operativne procedure i procedure sigurnosti, kao i prepoznavanja i izvještavanja o opasnostima. Ciljevi obuke su i upoznavanje politike sigurnosti organizacije i osnove SMS-a.

Rukovodioci i nadzornici – Rukovodioci i nadzornici treba da poznaju i razumiju proces sigurnosti, identifikaciju opasnosti, upravljanje i ublažavanje



hazard identification, risk management and mitigation and the management of change. In addition to the contents specified for operational personnel, the training contents for supervisors and managers should include safety data analysis.

Senior Managers - Safety training for senior managers should include safety responsibilities, compliance with regulatory safety requirements, allocation of resources, ensuring effective interdepartmental safety communication and active promotion of the SMS. In addition to the objectives of the two previous employee groups, safety training for senior managers should include safety assurance, safety roles and responsibilities, and establishing acceptable levels of safety.

Accountable Manager - The Accountable Manager should have an awareness of SMS roles and responsibilities, safety policy, SMS standards and safety assurance.

#### **4.2 Safety communication**

The aviation entity shall develop and maintain formal means for safety communication that ensures that all personnel are fully aware of the SMS; conveys safety critical information; and explains why particular corrective actions are taken and why safety procedures are introduced or changed.

Safety communication is an essential foundation for the development and maintenance of an adequate safety culture. The modes of communication may include:

- SMS manual;
- safety policies and procedures
- newsletters;
- presentations;
- safety notices;
- informal workplace meetings between staff and the Accountable Manager or Senior Managers; etc.

rizika i upravljanje promjenama. Uz sadržaj specifikovan za operativno osoblje, sadržaj obuke za nadzornike i rukovodioce treba da sadrži i analizu podataka o sigurnosti.

Više rukovodeće osoblje – Obuka višeg rukovodećeg osoblja za područje sigurnosti treba da sadrži odgovornosti (responsibilities) za sigurnost, usaglašenost sa regulatornim sigurnosnim zahtjevima, izdvajanje resursa, osiguranje efikasne međusektorske komunikacije i aktivno promovisanje SMS-a. Uz ciljeve određene za prethodne dvije grupe zaposlenih, sadržaj obuke za više rukovodeće osoblje treba uključiti i obezbjeđivanje sigurnosti, dužnosti i odgovornosti (responsibilities) u području sigurnosti, kao i uspostavljanje prihvatljivih nivoa sigurnosti.

Odgovorni rukovodilac - Odgovorni rukovodilac treba da je upoznat sa svojom ulogom i odgovornostima (responsibilities) u SMS-u, politikom sigurnosti, SMS standardima i obezbjeđivanjem sigurnosti.

#### **4.2 Komunikacija u oblasti sigurnosti**

Vazduhoplovni subjekat mora da izradi, uspostavi i održava formalni način komuniciranja u oblasti sigurnosti kojim se obezbjeđuje da je svo osoblje u potpunosti upoznato sa SMS-om; prenosi kritične informacije o sigurnosti; i objašnjava zbog čega su preduzete određene korektivne akcije iz oblasti sigurnosti, kao i zbog čega su procedure o sigurnosti donešene ili izmijenjene.

Komunikacija u oblasti sigurnosti je osnov za razvoj i održavanje adekvatne kulture sigurnosti. Načini komuniciranja mogu biti:

- SMS priručnik;
- politika i procedure sigurnosti
- bilteni;
- prezentacije;
- informacije o sigurnosti;
- neformalni sastanci na radnom mjestu između osoblja i odgovornog rukovodioca ili višeg rukovodećeg osoblja itd.





<p><b>ANNEX 2</b></p> <p><b>SMS IMPLEMENTATION PHASES</b></p> <p><b>Phase 1: Initial Assessment</b></p> <p>Initial assessment requires that required applicants (aviation entities) provide to CAA:</p> <ul style="list-style-type: none"> <li>• The name of the accountable executive;</li> <li>• The name of the person responsible for implementing the SMS;</li> <li>• A written Safety Policy, including a statement of commitment to the implementation of SMS (signed by the accountable executive) <i>(guidance for the development of an appropriate safety policy is provided in ICAO Doc 9859)</i></li> <li>• Documentation of a provided gap analysis between the organization's existing system and the required SMS framework <i>(a template for conducting such a gap analysis is provided in Annex 3 to this Safety Information)</i>;</li> <li>• The organization's SMS implementation plan, based on the SMS framework and aviation entities' internal gap analysis.</li> </ul> <p>During the Phase 1, the CAA will review the documentation submitted and include the contents in the scheduled surveillance activities of the organization. Dedicated meetings/discussion may be arranged if the aviation entity, or the CAA, finds it necessary to review specific aspects of the SMS implementation.</p> <p><b>Phase 2:</b></p> <p>Aviation entities will demonstrate that their system includes the following components:</p> <ul style="list-style-type: none"> <li>• Documented procedures relating to the required SMS components;</li> <li>• A process for <b>reactive</b> risk management such as: <ul style="list-style-type: none"> <li>- investigation and analysis and</li> <li>- hazard identification and risk management</li> </ul> </li> </ul>	<p><b>DODATAK 2</b></p> <p><b>FAZE SMS IMPLEMENTACIJE</b></p> <p><b>Faza 1: Inicijalna procjena</b></p> <p>U inicijalnoj procjeni se zahtijeva od obavezanog podnosioca zahtjeva (vazduhoplovni subjekt) da dostavi Agenciji:</p> <ul style="list-style-type: none"> <li>• Ime i prezime odgovornog izvršnog lica;</li> <li>• Ime i prezime lica odgovornog za implementaciju SMS-a;</li> <li>• Politiku sigurnosti u pisanoj formi, koja uključuje izjavu o opredijeljenosti za implementaciju SMS-a (potpisanu od strane odgovornog izvršnog lica) <i>(uputstvo za kreiranje odgovarajuće politike sigurnosti se nalazi u ICAO Doc 9859)</i></li> <li>• Dokumentaciju o sprovedenoj analizi razlika između postojećeg organizacijskog sistema i zahtijevanog SMS okvira (primjer za sprovođenje analize razlika može se naći u Dodatku 3 ove informacije);</li> <li>• Organizacijski plan implementacije SMS-a, definisan na osnovu SMS okvira i interne analize razlika vazduhoplovnih subjekata.</li> </ul> <p>Tokom Faze 1, Agencija razmatra dostavljenu dokumentaciju i po potrebi proširuje obim planiranih aktivnosti nadzora organizacije. Posebni sastanci/rasprave mogu se organizovati ukoliko vazduhoplovni subjekat, ili Agencija, smatra neophodnim ponovno preispitivanje specifičnih aspekata SMS implementacije.</p> <p><b>Faza 2:</b></p> <p>Vazduoplovni subjekti moraju dokazati da njihov sistem uključuje sljedeće komponente:</p> <ul style="list-style-type: none"> <li>• Dokumentovane procedure koje se odnose na potrebne SMS komponente;</li> <li>• Proces za <b>reaktivno</b> upravljanje rizikom kao što je: <ul style="list-style-type: none"> <li>- istraga i analiza i</li> <li>- identifikacija opasnosti i upravljanje rizicima</li> </ul> </li> </ul> <p>uz pridružene elemente podrške kao što je osposobljavanje, metoda prikupljanja, arhiviranja i</p>
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with the associated supportive elements such as training, a method of collecting, storing and distributing data and a safety communication within the organization, as well as with associated organizations.

**Phase 3:**

Aviation entities will demonstrate that, in addition to the components already demonstrated during Phase 2, they also have a process for the **proactive** identification of hazards and associated methods of collecting, storing and distributing data and a risk management process.

Required components:

- Documented procedures relating to all required SMS components;
- Process for reactive occurrence reporting
- Training on process for reactive occurrence reporting;
- Process for proactive identification of hazards;
- Selection of safety indicators and targets; acceptable level(s) of safety.

**Phase 4:**

Aviation entities will demonstrate that, in addition to the components already demonstrated during Phases 2 and 3, they have also addressed:

- Training;
- Just culture;
- Quality Assurance;
- SMS continuous improvement;
- Emergency preparedness.

Four phases of SMS Implementation may be found in Attachment 1 to this document.

distribucija podataka i komunikacija iz oblasti sigurnosti unutar organizacije, kao i komunikacija sa drugim povezanim organizacijama.

**Faza 3:**

Vazduhoplovni subjekti moraju dokazati da, pored komponenata demonstriranih tokom Faze 2, takođe posjeduju proces za **proaktivnu** identifikaciju opasnosti i povezane metode prikupljanja, arhiviranja i distribucije podataka, kao i proces upravljanja rizikom.

Zahtijevane komponente:

- Dokumentovane procedure vezane za sve zahtijevane SMS komponente;
- Proces reaktivnog izvještavanje o događajima koji ugrožavaju sigurnost
- Obuka o procesu reaktivnog izvještavanja o događajima koji ugrožavaju sigurnost;
- Proces proaktivne identifikacije opasnosti;
- Izbor indikatora i ciljeva sigurnosti; prihvatljivi nivo(i) sigurnosti.

**Faza 4:**

Vazduhoplovni subjekti moraju dokazati da, pored komponenti već demonstriranih tokom Faze 2 i 3, njihov sistem takođe uključuje:

- Osposobljavanje,
- 'Atmosfera povjerenja'- 'just culture';
- Obezbjedivanje kvaliteta;
- Konstantno unaprjeđivanje SMS-a;
- Pripravnost za nuždu.

Četiri faze implementacije SMS-a se mogu naći u prilogu 1 (Attachment 1) ovog dokumenta.



<p><b>ANNEX 3</b></p> <p><b>SMS - GAP ANALYSIS</b></p> <p>Guidance on the development of an SMS gap analysis for aviation entities is provided in ICAO Doc 9859, Appendix 2 of Chapter 7.</p> <p><b>1. Introduction</b></p> <p>In accordance with the Standards and Recommended Practices (SARPs) contained in ICAO Annex 1 – Personnel Licensing, ICAO Annex 6 — Operation of Aircraft, Part I — International Commercial Air Transport— Aeroplanes, and Part III — International Operations— Helicopters, ICAO Annex 11 — Air Traffic Services, and ICAO Annex 14 — Aerodromes, aviation entities are responsible for the implementation of SMS.</p> <p><b>2. Gap analysis</b></p> <p>The implementation of an SMS requires an aviation entity to conduct an analysis of its system to determine which components and elements of an SMS are currently in place and which components and elements must be added or modified to meet the implementation requirements. This analysis is known as gap analysis, and it involves comparing the SMS requirements against the existing resources in the aviation entity.</p> <p>Once the gap analysis is complete and documented, it will form one basis of the SMS implementation plan.</p>	<p><b>DODATAK 3</b></p> <p><b>SMS - ANALIZA RAZLIKA</b></p> <p>Uputstvo za vazduhoplovne subjekte za razvoj SMS analize razlika je definisano u ICAO Doc 9859, Dodatak 2 Poglavlja 7.</p> <p><b>1. Uvod</b></p> <p>U skladu sa standardima i preporučenom praksom (SARPs) sadržanim u ICAO Aneksu 1- licenciranje osoblja; ICAO Aneksu 6 – operacije vazduhoplova, Dijelu 1 – Međunarodni komercijalni vazduhoplovni prevoz-avioni i Dijelu 3 – Međunarodne operacije – helikopteri, ICAO Aneksu 11 – Usluge u vazдушnom saobraćaju i Aneksu 14 – Aerodromi, Vazduhoplovni subjekti odgovorni su za implementaciju SMS-a.</p> <p><b>2. Analiza razlika</b></p> <p>Implementacija SMS-a od strane vazduhoplovnog subjekta zahtijeva da sprovede analizu svog sistema kako bi utvrdio koje komponente i elemente SMS već postoje u organizaciji, a koje komponente i elementi moraju biti dodati ili izmijenjeni kako bi se ispunili zahtjevi implementacije. Ova analiza, je poznata kao analiza razlika, i podrazumijeva poređenje SMS zahtijeva sa postojećim resursima vazduhoplovnog subjekta.</p> <p>Nakon sprovođenja i dokumentovanja, analiza razlika predstavlja osnovu plana implementacije SMS-a.</p>
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Attachment 1: Four Phases of SMS Implementation

Phase 1 (12 months*)	Phase 2 (12 months*)	Phase 3 (18 months*)	Phase 4 (18 months*)
<p>1. SMS Element 1.1 (i): a) identify the SMS accountable executive; b) establish an SMS implementation team; c) define the scope of the SMS; d) perform an SMS gap analysis.</p> <p>2. SMS Element 1.3: a) develop an SMS implementation plan.</p> <p>3. SMS Element 1.3: a) establish a key person/office responsible for the administration and maintenance of the SMS.</p> <p>4. SMS Element 4.1(i): a) establish an SMS training programme for personnel with priority for the SMS implementation team.</p> <p>5. SMS Element 4.2 (i): a) initiate SMS/safety communication channels</p>	<p>1. SMS Element 1.1 (ii): a) establish the safety policy and objectives.</p> <p>2. SMS Element 1.2: a) define safety management responsibilities and accountabilities across relevant departments of the organization; b) establish an SMS/safety coordination mechanism/committee; c) establish departmental/divisional SAGs where applicable.</p> <p>3. SMS Element 1.4: a) establish an emergency response plan.</p> <p>4. SMS Element 1.5 (ii): a) initiate progressive development of an SMS document/manual and other supporting documentation.</p>	<p>1. SMS Element 2.1 (i): a) establish a voluntary hazard procedure.</p> <p>2. SMS Element 2.2: a) establish safety risk management procedures.</p> <p>3. SMS Element 3.1 (i): a) establish occurrence reporting and investigation procedures; b) establish a safety data collection and processing system for high-consequence outcomes; c) develop high-consequence SPIs and associated targets and alert settings.</p> <p>4. SMS Element 3.2: a) establish a management of change procedure that includes safety risk assessment.</p> <p>5. SMS Element 3.3 (i): a) establish an internal quality audit programme; b) establish an external quality audit programme.</p>	<p>1. SMS Element 1.1 (iii): a) enhance the existing disciplinary procedure/policy with due consideration of unintentional errors or mistakes from deliberate or gross violations.</p> <p>2. SMS Element 2.1 (ii): a) integrate hazards identified from occurrence investigation reports with the voluntary hazard reporting system; b) integrate hazard identification and risk management procedures with the subcontractor's or customer's SMS where applicable.</p> <p>3. SMS Element 3.1 (ii): a) enhance the safety data collection and processing system to include lower-consequence events; b) develop lower-consequence SPIs and associated targets/alert settings.</p> <p>4. SMS Element 3.3 (ii): a) establish SMS audit programmes or integrate them into existing internal and external audit programmes;</p>



Vazduhoplovni subjekti <i>Aviation entities</i>	Primjenljivi međunarodni standardi i propisi <i>Applicable international standards and regulations</i>				Rok za implementaciju SO zahtjeva (svih faza implementacije SMS-a)(**)  <i>Deadline for implementation of SO requirements (all phases of SMS implementation) (**)</i>
	Referentni ICAO standard koji sadrži zahtjev za SMS  <i>Relevant ICAO standard that includes a request for SMS</i>	Datum primjene ICAO standarda u dijelu koji se odnosi na SMS  <i>Date of application of ICAO standard in part related to SMS</i>	Referentni EU/EASA zahtjevi  <i>Relevant EU/EASA requirements</i>	Datum primjene EU/EASA zahtjeva (*)  <i>Date of application of EU/EASA requirements(*)</i>	
ANSP	Annex 11	Nov 2001	Reg. 1035/2011 SI CG broj 65/2012	Nov 2011 Dec 2012	U primjeni od 01.04.2010. <i>Implemented since 01.04.2010.</i>
Operatori aerodroma <i>Aerodrome operators</i>	Annex 14	Nov 2001	Opinion 01/2013	tbd	tbd
Operatori aviona i helikoptera koji se koriste u CAT operacijama <i>Operators of airplanes and helicopters used in CAT operations</i>	Annex 6, Part I & III	01.01.2009	Reg. 965/2012	28.10.2012	28.10.2014 <sup>(6)</sup>
Operatori složenih vazduhoplova na motorni pogon koji nisu CAT i operatori vazduhoplova u komercijalnim operacijama koje nisu CAT  <i>Operators of complex motor-powered aircraft other than CAT and operators of aircrafts used in commercial operations other than CAT</i>	Annex 6, Part II & III	18.11.2010	Opinion 02/2012 Opinion 01/2012	tbd	tbd
Operatori državnih vazduhoplova <i>State aircraft operators</i>	n/a	n/a	n/a	n/a	n/a
Dio M Odjeljak G organizacije u sklopu CAT operatora <i>Part M Section G of the organization within the CAT operator</i>	Annex 6, Part I & III	01.01.2009	NPA 2013-01	tbd	tbd
Dio M Odjeljak G organizacije koje nisu u sklopu CAT operatora <i>Part M Section G of the organizations not within the CAT operator</i>	Annex 6, Part II & III	18.11.2010	NPA 2013-01	tbd	tbd <sup>(5)</sup>
	Primjenljivi međunarodni standardi i propisi <i>Applicable international standards and regulations</i>				Rok za implementaciju SO zahtjeva (svih faza implementacije SMS-a)(**)

Vazduhoplovni subjekti <i>Aviation entities</i>		Referentni ICAO standard koji sadrži zahtjev za SMS <i>Relevant ICAO standard that includes a request for SMS</i>	Datum primjene ICAO standarda u dijelu koji se odnosi na SMS <i>Date of application of ICAO standard in part related to SMS</i>	Referentni EU/EASA zahtjevi <i>Relevant EU/EASA requirements</i>	Datum primjene EU/EASA zahtjeva (*) <i>Date of application of EU/EASA requirements(*)</i>	Deadline for implementation of SO requirements (all phases of SMS implementation) (**)
Organizacije za održavanje odobrene u skladu sa dijelom M Odjeljak F i dijelom 145 <i>Maintenance organizations approved in accordance with Part M Section F and Part 145</i>		Annex 6	01.01.2009	NPA 2013-01	tbd	(5)
Organizacije za održavanje i vođenje kontinuirane plovidbenosti vazduhoplova koji nisu u nadležnosti EASA-e, certifikovane u skladu sa nacionalnim zahtjevima <i>Maintenance organizations and Continuing Airworthiness Management Organization, not under the competence of EASA, but certified under the national requirements</i>		n/a	n/a	n/a	n/a	tbd
Vazduhoplovni medicinski centar (AeMC) <i>Aeronautical medical centre</i>		n/a	n/a	Reg 1178/2011 Reg 290/2011 SI CG broj 8/2013	08.04.2012	8.4.2014 (1) 1.7.2013 (2)
Organizacije za osposobljavanje <i>Training organizations</i>	Pilota aviona Pilota helikoptera <i>Airplane pilots Helicopter pilots</i>	Annex 1	18.11.2010	Reg 1178/2011 Reg 290/2011 SI CG broj 8/2013	08.04.2012	TRTO i FTO do 8.4.2014 ili do isteka važećeg JAR odobrenja, što nastupi ranije, a za PPL RF do 08.04.2015. (1) 1.7.2013 (2) <i>TRTO i FTO by 8.4.2014 or until expiration of current JAR approval, whichever occurs first, and for PPL RF by 08.04.2015(1) 1.7.2013 (2)</i>
	Pilota balona Pilota jedrilica <i>Balloon pilots Sailplane pilots</i>					8.4.2015 (3) 8.4.2014 (4)
		Primjenljivi međunarodni standardi i propisi <i>Applicable international standards and regulations</i>				Rok za implementaciju SO zahtjeva (svih faza implementacije SMS-a)(**)

Vazduhoplovni subjekti <i>Aviation entities</i>	Referentni ICAO standard koji sadrži zahtjev za SMS <i>Relevant ICAO standard that includes a request for SMS</i>	Datum primjene ICAO standarda u dijelu koji se odnosi na SMS <i>Date of application of ICAO standard in part related to SMS</i>	Referentni EU/EASA zahtjevi <i>Relevant EU/EASA requirements</i>	Datum primjene EU/EASA zahtjeva (*) <i>Date of application of EU/EASA requirements(*)</i>	<i>Deadline for implementation of SO requirements (all phases of SMS implementation) (**)</i>
Organizacije za osposobljavanje pilota vazduhoplova na koje se ne primjenjuju ICAO zahtjevi (npr. mikrolaki, istorijske jedrilice, parajedrilice) <i>Pilot training organizations for aircrafts not certified in accordance with ICAO requirements (namely, ultra light, historic gliders, paragliders)</i>	n/a	n/a	n/a	n/a	tbd
Organizacije za osposobljavanje kontrolora leta Air traffic controllers training organizations	Annex 1	18.11.2010	NPA 2012-18	tbd	tbd
Dio 147 organizacije <i>Part 147 of the organization</i>	Annex 1	18.11.2010	NPA 2013-01	tbd	tbd
Organizacije za projektovanje i proizvodnju odobrene u skladu sa Dijelom 21 <i>Part 21 DOA &amp; POA</i>	Annex 8	14.11.2013	tbd EASA MDM.060	tbd	U skladu s EASA IR rokovima <i>In accordance with EASA IR deadlines</i>

(\*) EASA provides possibility of postponing implementation of regulation or some parts (opt-out), to allow existing organizations period for adoption and implementation. CAA will inform about postponed implementation through the website.

(\*\*) In case of deadlines in this SI being longer than the ones in EASA IR which are under current development, deadlines from EASA IR will be used. Requirements from this SI are in compliance with EASA IR which regulate Management System, in parts of SMS.

(1) Applicable for organizations certified by JAR-FCL before 01.07.2013

(2) Applicable for organizations certified after 01.07.2013

(3) Applicable for organizations certified before 08.04.2015 in accordance with national regulations.

(4) Applicable for organizations with Part ATO approval issued after 08.04.2014

(5) 1.4.2013 – completion of Phase I, 01.10.2014- completion of Phase III, 01.04.2015-completion of Phase IV

(6) For organizations operating with piston engine aircraft under 5700kg and helicopters under 3175kg MTOW deadline for implementation of all phases of SMS is 01.01.2014

(\*) EASA predviđa mogućnost odlaganja primjene propisa ili nekih dijelova (opt-out), kako bi postojećim organizacijama omogućila period za prilagođavanje i implementaciju novim zahtjevima. Agencija će o odlaganju primjene blagovremeno objaviti na svojim web stranicama.

(\*\*) ukoliko su rokovi predviđeni ovom SI duži u odnosu na rokove predviđene EASA IR koji su trenutno u pripremi, primjenjivaće se rokovi EASA IR. Zahtjevi ove informacije usklađeni su sa zahtjevima EASA IR koji uređuju područje sistema upravljanja (Management System), u dijelu SMS-a.

(1) primjenljivo za organizacije kojima je JAR-FCL odobrenje izdato prije 01.07.2013.

(2) primjenljivo za organizacije kojima je odobrenje izdato poslije 01.07.2013.

(3) primjenljivo za organizacije sa odobrenjima izdatim do 08.04.2015 u skladu sa nacionalnim propisima

(4) primjenljivo za organizacije kojima je Part ATO odobrenje izdato poslije 08.04.2014

(5) 1.4. 2013 - završetak Faze I, 01.10.2013 – završetak Faze II, 01.10.2014 - završetak Faze III, 01.04.2015 – završetak Faze IV

(6) za operatore koji vrše operacije vazduhoplovima sa klipnim motorima ispod 5700 kg i helikopterima ispod 3175 kg MTOW rok za implementaciju svih faza SMS-a je 01.01.2014.