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# **Sweden's State Safety Programme**

"How do the different parts of aviation safety fit together?"



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## 1 Introduction

The State Safety Programme, SSP, is a governing document on a comprehensive level and is part of the Swedish Transport Agency's (STA) Civil Aviation and Maritime Department's quality management system. By accession to the Chicago Convention and as a member state of the International Civil Aviation Organization (ICAO), Sweden has undertaken to develop a State Safety Programme.

### *The objective and target group of the programme*

The State Safety Programme shows how the different parts of the Swedish aviation safety process combine. The programme's objective is to show, in a structured way, how the aviation safety process is handled in Sweden and how we continue to improve it. The programme can also be used as an aid, as a basis when analysing targets at a more detailed level and planning activities, and when following up aviation safety related activities.

The target group for this document is primarily all personnel, including managers, who work with aviation safety and aviation security. The document can also be used internally and externally to provide a description of the STA's aviation safety work.

The programme consists of the operations described in annexes 1, 6, 8, 11, 13, 14, and 19<sup>1</sup> of the Chicago convention and uses the chapter division and structure suggested by ICAO in annex 19 of the Chicago convention.

Within ICAO, the term *State Safety Programme* does not cover aviation security, but this area is included in applicable parts in this document.

### *Relations to a European State Safety Programme*

At an EU level, the European Commission has initiated a common strategy on how to regulate and improve aviation safety within the Union<sup>2</sup>. Those parts of the aviation safety work (for example development of regulations) which the member states do together within the European institutions (the Council, European Parliament and the Commission) are described in a State

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<sup>1</sup> Annex 1 - Personnel Licensing, Annex 6 - Operation of Aircraft, Annex 8 - Airworthiness of Aircraft, Annex 11 - Air Traffic Services etc., Annex 13 - Aircraft Accident and Incident Investigation, Annex 14 - Aerodromes, Annex 19 - Safety Management.

<sup>2</sup> At the end of 2011, the Commission published a communication which contains a target description of how aviation safety shall be developed within the EU over time. The communication contains several short-term action points and can be found at <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2011:0670:FIN:EN:PDF>

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Safety Programme for the EU published by the Commission<sup>3</sup>. These documents supplement this national State Safety Programme. EASA has also, for the past few years and in collaboration with the member states and other organisations, already published action plans at an EU level (European Plan for Aviation Safety<sup>4</sup>) for commonly identified problems and their respective actions. The latest publication applies from 2016 to 2020.

## 2 Sweden's safety performance targets

### 2.1 Safety performance targets and legal framework

The transport political targets are established in the government bill Targets for Future Journeys and Transports (2008/09:93), and through that, at an overall level, the safety performance targets and safety performance standards which apply in Sweden.

The government bill establishes that the overall target for the transport policy is *to ensure a transport maintenance that is socioeconomically effective and sustainable in the long-term for citizens and industry in the entire country.*

This overall target is to be reached by establishing availability without challenging other values, like health, safety or environment. The overall target is split into two sub targets: a functional target (availability) and an HSE target (which covers health, safety and environment).

This is the functional target: *The design, function and usage of the transport system shall contribute to a fundamental availability with good quality and usability for everyone, as well as contribute to the development force in the entire country. The transport system shall be equal, which means that it shall correspond equally to men's and women's need for transport.*

This is the HSE target: *The design, function and usage of the transport system shall be such that no one is to be killed or seriously injured. It shall also contribute to reaching the targets for environmental quality and the targets for improved health.*

There are a number of specifications and sub targets connected with the functional and HSE targets. Within the HSE target there is a concrete sub

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<sup>3</sup> The programme can be found at [http://ec.europa.eu/transport/modes/air/safety/doc/aviation\\_safety\\_programme\\_2ndedition.pdf](http://ec.europa.eu/transport/modes/air/safety/doc/aviation_safety_programme_2ndedition.pdf)

<sup>4</sup> The document is updated annually and can be found at <https://www.easa.europa.eu/easa-and-you/safety-management/safety-management-system/sms-europe>

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target for aviation safety, namely that the number of dead and seriously injured within the field of aviation is continuously decreasing.

The Swedish Parliament and Government have also specified that in order to live up to the HSE target, Sweden should continue to prioritise safety within the civil aviation area, and actively take part in the international cooperation within the areas of aviation safety and aviation security, and also that the expansion of EASA's authority should lead to a higher and more even aviation safety level in Europe. These targets will be reached by continuously prioritising the design of a transport system that prevents serious aviation accidents, and through an intensified commitment to international aviation safety. The coordination of resources, the follow-up on implementation and the forwarding of feedback from international experiences to the national level are other important areas with regard to further improving aviation safety.

The Government's targets have been supplemented with the Swedish Transport Agency's (STA) own long-term targets, which are directly related to how we can help fulfilling the targets of the Government and the Swedish Parliament. These are the targets for the STA for 2016 to 2020:

- Our organisation is characterised by a comprehensive view.
- We make everyday life easier for citizens and industry.
- We stimulate a dynamic transport market.
- As far as possible, our organisation is risk-based.
- We use new technology and create possibilities for development and application of new technology within the transport area.

The above targets have been broken down and made clearer in the Civil Aviation and Maritime Department's strategy plan for 2016 to 2020, and in the Civil Aviation and Maritime Department's annual activity plan.

In addition, the STA's exercise of authority within the area of civil aviation shall always aim to develop the certificate holders' safety culture.

In the STA's strategy for Swedish civil aviation, it is suggested that the management of safety within the area of commercial aviation should be prioritised and that the HSE target Safety should be adjusted for areas of non-commercial aviation. The regulatory requirements should not restrain citizens from performing a leisure-time activity, like flying a sailplane, as long as it does not pose a risk for or inconvenience to a third party. This work has begun but has not yet led to any changes.

*Legal work*

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From government bill 2008/09:93, it is clear that if the targets for aviation safety are to be met, the following areas will be important: intensified commitment to international aviation safety; coordination of resources; follow-up on implementation; and the forwarding of feedback from international experiences to the national level.

Rules and regulations related to aviation safety are developed through participation in the international regulatory work on aviation safety regulations, and by following the national plan of regulatory development. The international regulatory work has a very big impact on existing and future sets of rules and regulations, especially for Sweden's commercial aviation industry. Participation in this process must therefore be prioritised. This type of process is mainly managed within the EU and ICAO. The development of regulations for coming years is planned in connection with the operational planning. The respective units of expertise are responsible for developing rules within their area of expertise and for including any need for legal development in the regulations plan.

National rules are developed by the Swedish parliament, the Government and the STA. We develop regulations in accordance with a specific process, which is described in our procedure for the development of regulations and incorporated into the Civil Aviation and Maritime Department's quality management system. The development and incorporation of international rules are described in the key plan for rules (*regelöversiktsplan, RÖP*) and regulations plan.

The bulk of the civil aviation regulations is governed by EU legislation. The national development of rules within the aviation sector is therefore done within the framework of EU legislation (for example regulation (EC) No 216/2008 of the European parliament and of the Council), depending on if the regulatory competence remains with the EU member states or if it has been taken over by the EU<sup>5</sup>. When the STA issues regulations it shall adhere to any norms established by ICAO, in accordance with Chapter 12 Section 5 of the Swedish Aviation Ordinance. This means that standards from the annexes to the Chicago convention shall be implemented in Sweden, unless there are good and documented reasons to have deviating standards. If there are valid or coming EU provisions that deviate from the ICAO standards, this might be a reason not to introduce the standards. In order for Sweden to reach the targets for aviation safety, the ICAO standards should be

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<sup>5</sup> It should be noted that aviation security is controlled by regulation (EU) No 300/2008. The competence to create regulations regarding aviation security that is still with the member states are pertaining to requirements of stricter actions, which in turn need to be based on a risk assessment.

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introduced nationally by the time they are to be applied according to ICAO, provided this is possible with regard to EU law.

## **2.2 Distribution of tasks, responsibility and authority for the State Safety Programme**

According to Ordinance (2008:1300) with Instructions for the Swedish Transport Agency, the main task for us is to be responsible for regulation, licensing, oversight and the keeping of registers within the field of transport. The STA shall strive to achieve the transport political targets. The organisation shall, in particular, aim to contribute towards a transport system that is internationally competitive, environmentally friendly, and safe. In the instructions it is stated that we shall carry out oversight of civil aviation, especially regarding aviation safety and aviation security, and that this oversight must comply with the rules that apply to each area. Furthermore, we shall fulfil the tasks within our area of responsibility in accordance with EU acts and other international agreements.

Chapter 2.1 above states the safety targets given by the Swedish Parliament and the Government. In some cases, these targets have been further specified by the STA.

### *Establishing SSP Sverige (SSP Sweden)*

From the STA's instruction above follows, among other things, that we shall strive to achieve the transport political targets, and that we shall contribute towards a safe transport system. It also states that we shall complete tasks in accordance with the agreements Sweden has entered into, for example the Chicago convention. This means, among other things, that it is our duty to create a State Safety Programme (SSP), in accordance with the commitments obligatory to all ICAO member states. In order to ensure that the targets for aviation safety are reached and that standards on aviation safety are followed, we have established SSP Sweden, where we present the ambitions and directions of the STA with regard to the work on aviation safety. The results are presented in the annual safety overview for aviation and shipping.

### *Responsibilities and delegations*

The responsibility for implementation and follow up of the programme within the different oversight areas is described in the respective rules of procedure for the STA, the Civil Aviation and Maritime Department, and for each unit within this department. The implementation of the different tasks is described in the applicable activity plan and performed in accordance with applicable governing and supportive documents. Persons

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responsible for maintaining, developing and assessing SSP are appointed by the Civil Aviation and Maritime Director.

Activities and actions to improve aviation safety are found in the regular activity plans on unit and section level. The follow-up of which actions have been taken is made during the regular activity follow-up, which takes place quarterly, semi-annually and annually. The actions that the STA shall perform according to the European Plan for Aviation Safety (EPAS) are followed up regularly at the department's forum for analysis (*Analysforum*).

Our work with oversight, licensing and keeping of registers is financed by fees paid by the citizens and industry concerned.

For each fee from certificate holders they will receive something in return, and the fee reflects the costs for oversight, licensing and keeping of registers. Consequently, the fee charged corresponds to the STA's costs for carrying on our activities. Some parts of the field of aviation are financed by a collective public authority fee which is charged to passengers departing from Swedish airports. In return for this fee, we perform regulatory work and other public authority tasks. For some specific areas, we have been authorised to use the public authority fee to finance parts of the oversight activities.

#### *Evaluation and development of SSP Sweden*

STA's work on aviation safety shall be evaluated regularly and revised where necessary. The result from the evaluations is used to further develop our work on aviation safety.

The State Safety Programme has been implemented in our activities through governing and supporting documents in the quality management system for the Civil Aviation and Maritime department. The application of governing and supporting documents is mainly inspected and evaluated through internal audits. These audits are performed annually for several sections. The entire organisation shall be revised over a period of three years. In addition, all employees on the Civil Aviation and Maritime department can bring attention to and report deviations, as well as suggest possible improvements regarding the STA's aviation safety work. Employees do this by means of a system for suggestions (known as *Förslagslådan*), which is the Civil Aviation and Maritime Department's system for reporting and handling deviations, and for suggesting improvements. Deviations and suggested improvements which have been identified through internal audits or have been reported through the system for suggestions are handled within the unit or section responsible for the area of expertise in question.

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During the annual safety survey of aviation and shipping, an evaluation is also carried out to see if the targets for aviation safety have been reached. This evaluation is done taking into consideration the documented results on aviation safety, the internal audits and all the information that we have within our area of operation: experiences from oversight, occurrence reports, completed analyses, the market's extension and developing trends, resources employed for different parts of our organisation (e.g. by examining time reports), new international commitments etc.

Other sources for evaluation of SSP Sweden are the audits and inspections (standardisation) that the STA is subject to, carried out by ICAO, EASA, the European Commission and other organisations.

### 2.3 Investigation of accidents and incidents

In accordance with article 5.1 of Regulation (EU) No 996/2010 of the European parliament and of the Council on the investigation and prevention of accidents and incidents in civil aviation, any accidents or serious incidents which include other aircraft than the ones mentioned in annex II of Regulation (EU) No 216/2008, shall be investigated. In article 5.5 of Regulation (EU) No 996/2010 it is stated that the safety investigations in no case shall be concerned with apportioning blame or liability and that the investigations shall be independent of and separate from any judicial or administrative proceedings. The only purpose of the investigations is to prevent future accidents and incidents.

Regulation (EU) No 996/2010 is supplemented by the Swedish accident investigation act (1990:712) and accident investigation ordinance (1990:717). The Swedish complementary legislation shall be applied when the EU provisions admit it.

According to the accident investigation act, an aviation accident shall be investigated if

- a person has died or has been seriously injured,
- the aircraft or property not transported on the aircraft has received significant damage,
- significant damage has been caused on the environment, or
- the aircraft is inaccessible or has gone missing during a flight.

An incident shall be investigated if

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- the incident leads to a serious risk of an accident, or the incident points to a serious fault with the aircraft or other serious deficiencies with regard to safety.

According to article 4 of Regulation (EU) No 996/2010, the investigation authority shall be capable of independently conducting a full safety investigation, either on its own or through agreements with other investigation authorities. The investigation authority shall also be functionally independent of any party whose interests or missions could conflict with the task entrusted to the authority, or influence its objectivity. The investigation authority shall, in the conduct of the safety investigation, neither seek nor take instructions from anybody, and shall have unrestricted authority over the conduct of the safety investigations.

In Sweden, the independent accident investigation authority is SHK (*Statens Haverikommission*, “the Swedish Accident Investigation Authority”). SHK’s investigations are carried out in accordance with Regulation (EU) No 996/2010 and the accident investigation act (1990:712) and ordinance (1990:717). This legislation implements the provisions in annex 13 of the Chicago convention.

If SHK decides not to investigate an accident or incident, the STA can, in some cases, investigate the occurrence in accordance with the accident investigation act, provided that the accident or serious incident does not have to be investigated according to Regulation (EU) No 996/2010. In these cases, SHK can also delegate the investigation to an external party.

As a supervisory authority on aviation safety, the STA shall independently take up a position with regard to the recommendations from SHK’s investigations. We can also, with regard to the accident, decide on other aviation safety actions than those suggested by SHK. Such actions can be oversight activities or limitations of personal licensee, or the reporting of an event for prosecution. The aim of such actions is to promote aviation safety and fulfil the requirements of the legislation. In the management system of the Civil Aviation and Maritime department, there is a procedure on how to handle accidents that are being investigated by the SHK.

Swedish aviation is characterised by a strong reporting culture within most fields, and reporting is an important part of the quality and safety work. The reporting is controlled by Regulation (EU) No 376/2014. The reported information forms an important base for STA’s work with oversight and analysis. One of the objectives is to identify problem areas and add these to

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the aviation safety process. The STA, as well as SHK, has access to the information gathered in ECCAIRS<sup>6</sup>.

## 2.4 Intervening actions

The STA strives towards a culture which encourages a positive aviation safety process that is characterised by openness and confidence between all parties. The main emphasis is on making sure that the STA, licence holders and other operators learn as much as possible from events that have occurred, and that they avoid apportioning blame. The objective is to develop a just culture as defined in Regulation (EU) No 376/2014. According to Chapter 10, Section 15 of the Swedish Aviation Ordinance, an agency must not institute proceedings in respect of unpremeditated or inadvertent infringements of the law which come to its attention solely because they were reported through the mandatory occurrence reporting system. This does not prevent that measures be taken in different ways against deviations caused by wilful violations or gross negligence. The management system of the Civil Aviation and Maritime Department contains a procedure for reporting an event for referral to prosecution<sup>7</sup>. The STA's Civil Aviation and Maritime Department is, however, not required to report an event for referral to prosecution. Normally, a person must have committed an action intentionally in order to be convicted of a criminal action.

The management system of the Civil Aviation and Maritime Department states how different actions shall be taken. All actions which are taken or considered shall be carried out as easily, fast and cheaply as possible without neglecting the rule of law.

The following intervening actions are available to the STA:

- Referral to prosecution
- Fines
- Limiting, suspending or revoking a permission, certificate or approval
- Forbidding or hindering an aircraft from departing.
- Requesting judicial assistance from the Swedish Enforcement Authority in special cases.

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<sup>6</sup> ECCAIRS is a system and a repository to collect and store information on aviation occurrences in Europe. It is based on the directive on occurrence reporting 2003/42/EC.

<sup>7</sup> Procedure for reporting an event for referral to prosecution (TSG 2013-476)

For licence holders who are only covered by Swedish legislation the STA can also

- petition a court to warn the licence holder, and
- petition a court to revoke the certificate.

## 3 Safety Management Systems

### 3.1 The operator's safety management systems

Risks are a part of civil aviation. In order to run safe operations, these risks must be identified and either eliminated or kept at an acceptable level. This is mainly done at a practising level, i.e. by certificate holders and operators. In order to make sure that this is done, the regulations often require that the operators have a system to handle risks and that they are competent in their risk management. These types of safety management systems are usually referred to as SMS and should be completely integrated into the company's general management system according to requirements in applicable EU regulations.

At the moment, there are requirements regarding SMS for several types of operators. Within aviation security, there are requirements regarding quality systems but not SMS.

An SMS shall do the following:

- Identify hazards through a functional reporting system
- Guarantee that actions necessary to maintain safety at an acceptable level are carried through
- Make sure that the achieved aviation safety level is continuously monitored and evaluated in relation to the agreed targets
- Aim to continuously increase aviation safety in general
- Be the direct responsibility of the management. The different responsibilities shall be made clear.<sup>8</sup>

EASA has collected information about SMS on its website. See <http://www.easa.europa.eu/sms>

Our normal licensing and oversight work also covers inspection of the certificate holder's safety management system (SMS). The Safety

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<sup>8</sup> [http://www.icao.int/anb/safetymanagement/DOC\\_9859\\_FULL\\_EN.pdf](http://www.icao.int/anb/safetymanagement/DOC_9859_FULL_EN.pdf) , chapter 6.5.

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Management International Collaboration Group, SM ICG, has developed methods and advisory material to support this new standard in order to facilitate its implementation. This material is available online<sup>9</sup>.

### 3.2 Approving the operators' safety targets

In accordance with the Safety Management System's requirements, the certificate holders shall establish their own targets for their activities. Our oversight is done in order to assure that the certificateholders continue to evaluate their safety with regard to their own targets. The certificate holders' own analyses should therefore give insights about their own operations to maintain, and even improve, aviation safety.

The safety levels for a certificate holder can be based on safety performance indicators (SPI), and the development of these over time. Where it is suitable, these safety performance targets (SPT) are expressed in a quantitative way, otherwise in a qualitative way. If a certain industry establishes indicators which are common for several companies, more benchmarking possibilities arise to improve aviation safety. The Swedish Transport Agency (STA) should facilitate this process by informing and influencing at seminars etc.

Our oversight of safety management systems is continuously developed and harmonised with both different oversight areas and nearby countries.

*The Swedish Transport Agency's internal performance indicators for measuring safety development*

Guidelines for risk management and risk based oversight (TSG 2014-1394), system oversight (TSG 2015-1678) and assessment of safety culture during oversight (TSG 2013-400), together with the routine description of the analytical operations for the Civil Aviation and Maritime Department (TSG 2014-1922) state the direction for the work with SPIs and associated targets. The Civil Aviation and Maritime Department has established about 10 overall safety performance indicators, with additional performance indicators for specific oversight areas. There are also between 8 and 10 common European safety performance indicators developed for the member states, which the member states are expected to follow. Amongst the overall safety performance indicators there are three safety performance indicators which are qualitative, and used within all oversight processes. They describe the oversight team's view on three important aspects in every company's or

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<sup>9</sup>

[http://www.skybrary.aero/index.php/Safety\\_Management\\_International\\_Collaboration\\_Group\\_\(SM\\_ICG\)](http://www.skybrary.aero/index.php/Safety_Management_International_Collaboration_Group_(SM_ICG))

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organisation's activities: management function, quality system and safety culture. These three aspects shall be assessed after each oversight, and the result is stored in a mutual database for the entire Civil Aviation and Maritime Department. Analysing these can provide answers to questions that should be asked about management and planning, for example "which industries struggle with the management function or the quality systems?", or "have our implemented information efforts had any effect?" etc. The process of developing the work on assessing the certificate holders' management function, quality systems and safety culture is ongoing.

The Civil Aviation and Maritime Department evaluates the overall safety performance indicators annually, and additional performance indicators within specific oversight areas are continuously developed to improve the ability to measure safety development.

## **4 Licensing procedure, oversight and analysis**

### **4.1 Licensing procedure**

The rules and regulations describe which operations require a permit, or certificate. Apart from the fact that the pursuit of certain activities is subject to our authorisation, the equipment or the systems used might need to be approved too. Personnel who are going to use or maintain equipment must, in many cases, have special training and fulfil certain competence requirements. Schools where personnel are trained for safety critical roles can also be subject to permit obligations. The detailed rules for operating organisations, for example aviation companies, for material used and for people, can be found in the collective of rules and regulations for aviation.

After having received an application and performed an oversight, the Swedish Transport Agency (STA) issues permits, or certificates, to those who fulfil all requirements. Permits are issued for a specific time frame or until further notice, depending on what is stated in the respective rules and regulations. There is normally a fee for oversight, to cover the cost of our work including the oversight. See chapter 1.2. Further information on fees can be found in our statute book. Detailed routines on how applications for certificates are processed can be found in the Civil Aviation and Maritime Department's management system for each area of operations.

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## 4.2 Oversight

Active aviation safety work requires that the licensing is followed up by an oversight where the STA, on a continuous basis, makes sure that the requirements that were met at the time of the first issue are still being met.

However, many of the operators' requirements cannot be monitored until the organisation has been running for a while. This refers, in particular, to requirements on safety management systems, for example the operator's internal revisions, active reporting of aviation occurrences and active work to find hazards in the organisation and take mitigating actions. To make sure that this is working, we use several information channels and tools:

- Collection of data from oversight, both planned and unannounced ones
- Occurrence reporting, information from accident and incident investigations or other investigations
- Information received by us in other ways.

Oversight is performed in accordance with the STA's strategy for oversight (TSG 2013-1354) and the following guidelines:

- Risk management and risk based oversight (TSG 2014-1394)
- System oversight (TSG 2015-1678)
- Assessment of safety culture during oversight (TSG 2013-400)

The strategy for oversight and the guidelines are implemented in the Civil Aviation and Maritime Department's oversight process and the associated routine descriptions and guidance.

The extent and direction of the oversight process are stated in the oversight plan for each category of permit holders. The oversight plans shall be risk based and designed in an effective way, to make sure that our resources are used in a way that best leads towards the transport political targets.

If it is discovered that the requirements for a permit are not met, through an oversight by the STA or through other sources, we shall immediately start a process to get the permit holder to correct the unsatisfactory conditions.

This is stated in the oversight plan for the respective category of permit holders. We can also take intervening action. See chapter 2.4.

The Civil Aviation and Maritime Department uses the information above together with the results from performed oversight to adapt oversight plans and oversight strategy. If a large amount of reports are received from a

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permit holder or group of permit holders, or if there is a lack of reports from a permit holder, the Civil Aviation and Maritime Department can initiate different types of in-depth analyses and/or oversight actions. Other facts that can affect the need for oversight are the analyses of deviations found in earlier oversight, with the degree of severity taken into account. This can lead to a decision to make a thematic or focused oversight of a problem area, or to survey some permit holders more, while other permit holders are surveyed less. Such analysis and priority work is done through the group *Analysforum* (“forum for analysis”) at department level and within the scope of the analysis meetings which are held in units and sections within every oversight area.

If risks are noted which are outside of the STA’s competence as a national aviation authority, these will be reported to the concerned national authority and/or EASA.

The existing amount of permit holders and the organisation’s complexity, the permit holders’ experience, ability and economic stability, changes in regulations etc. are taken into account when oversight needs are assessed. Any variation of the extent of the oversight shall be done whilst taking into account any requirements on frequency and extent of oversight stated in the rules and regulations in question.

### **4.3 Collection, statistical output and analysis of safety data**

According to Regulation (EU) No 376/2014 and LFS 2007:68 (general aviation), operators and some specific categories of persons must report occurrences. All events which have affected or could have affected aviation safety are to be reported. There are also requirements to report events that have no direct effect on aviation safety, but which affect aviation security.

It is necessary to use common concepts and data structures to be able to make analyses. It is also important to agree with surrounding states, EASA and EUROCONTROL on a mutual effort for aviation safety information, since trends that we want to follow up on only become visible through large amounts of homogeneous data.

The STA is part of European initiatives to develop the information exchange and analytical capacity within the European aviation safety system. One such initiative for aviation safety is the Network of Analysts (NoA), run by EASA. Another forum is ECCAIRS Steering Committee, where discussions are held on how to improve the mutually developed system for storage, analysis and exchange of information about accidents and occurrences.

An example of analysis of received occurrence reports within the Civil Aviation and Maritime Department is the monitoring of some chosen

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occurrence types through so called safety performance indicators. The trends of the occurrence types are studied with the help of statistics. *Analysforum* (“forum for analysis”) is responsible for this analysis at department, unit and section level.

#### *Handling of occurrence reports and examination reports*

Received occurrence and examination reports are analysed with the purpose of gaining knowledge about how to improve aviation safety, and possibly suggesting actions to be taken in view of the occurrence. Analyses and suggestions shall be made from a just culture perspective, in accordance with Regulation (EU) No 376/2014. The base for an analysis within the unit can be either an individual report or several reports about similar occurrences.

Occurrences which are classified as accidents or serious incidents, and are under investigation by the Swedish Accident Investigation Authority (SHK) or by a foreign investigation authority, are handled in accordance with the routine description on handling accidents (TSG 2014-1742). Initiating a development of a rule, taking action related to oversight or carrying out an analysis are examples of actions to be taken in accordance with this routine description.

The events that have been classified as accidents or serious incidents and which are not investigated by the Swedish Accident Investigation Authority (SHK) (such as accidents with leisure aviation) are analysed to the extent applicable within the Civil Aviation and Maritime Department.

The content of each occurrence or investigation report is coded in accordance with an international classification system, and this information is entered into the database ECCAIRS in accordance with the current routine description (TSG 2014-1675). From this database, statistical information is collected which is used to put together information about the state of aviation safety. The information is also used as a base for analytical procedures. The database is used at a national as well as a European level. We receive around 8000 reports every year. According to Regulation No 376/2014, the national aviation agency in each member state has an obligation to store information on aviation safety in a central European repository, which is available to all member states. Information from occurrence reports is subject to a high level of confidentiality in accordance with article 14 in Regulation (EU) No 996/2010.

## 5 Training and communication

### 5.1 Internal training, communication and spreading of safety information

#### *Internal training*

At the Civil Aviation and Maritime Department, there are competence profiles for every function and role. These profiles state which competence is required to fulfil the requirements in the rules and regulations, and to perform the tasks described in the department's processes. Every employee has an annual individual development discussion with their immediate manager. This discussion shall lead to a documented individual development plan, which states which activities are to be carried out during the next year in order to fulfil the competence requirements and to increase the competence.

The safety targets for aviation set by the Swedish Parliament and the Government are high. These targets, combined with a moving and increasingly complex market, require a high level of professionalism and efficiency in the oversight process. One of the fundamental conditions to achieve this is an efficient and suitable training process for inspectors and other technical personnel. This is described in the Civil Aviation and Maritime Department's competence process and associated routine descriptions and guidance.

The requirements also state that all personnel, especially those working with oversight of aviation safety, shall have good knowledge of the aviation safety targets and the agency's promotion of active aviation safety work within the aviation industry's business and organisations. If the Civil Aviation and Maritime Department's personnel can generate a positive attitude towards our role at meetings with operators, it will make it easier to spread a good aviation safety culture.

#### *Safety management systems and safety culture*

The SMS requirements on certificate holders mean that the inspector role is partly changed, as the oversight to a larger extent is risk based and directed towards system oversight and assessment of safety culture. Since many of the oversight areas are covered by the requirements for SMS, there are big advantages in cooperating within this training area. The training of aviation safety inspectors therefore includes examination and assessment of SMS and safety culture (HF questions). This allows the Swedish Transport Agency (STA) to provide better conditions for SMS to become a successful

tool for the certificate holders, in order to continuously improve aviation safety through further development of the oversight objects' safety culture.

#### *Internal communication*

Internal communication on safety issues mainly takes place within the scope of work referring to *Analysforum* ("forum for analysis") at department, unit and section level. The result from the work in the department's *Analysforum* is communicated by publishing the internal aviation safety report and the annual safety oversight at Transporten, the STA's internal website. Protocols from meetings are also distributed to concerned managers and employees.

The result from the analytical process can also be presented in connection with internal information meetings and training of inspectors.

## **5.2 External training, communication and spreading of safety information**

The following tools are used within this area:

### **5.2.1 Seminars for the aviation industry**

The Civil Aviation and Maritime Department carries out seminars, meetings etc within all organisation areas at a regular basis. For example:

- Seminars for nominated post holders (AM, QM, CMM and SM) of organisations with permits for flight operations, flight training, maintenance and surveillance of airworthiness
- Special days for operators within aviation security (cargo agents, air carriers, validators, instructors etc.)
- Seminars for flight operations managers.
- Examiner meetings
- Conferences on aviation medicine (normally not arranged by the STA, but we inform medical examiners about the conferences)
- Seminars and meetings for airports
- Seminars for the management function of airports and heliports
- Meetings with users regarding airspace
- Seminars and meetings for air navigation service providers
- National group for aviation safety analysis
- General aviation safety council

At these meetings, the STA informs about new rules, how performance indicators have developed etc.

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### 5.2.2 Information distribution

General information is mainly distributed via our external website and MFL (*meddelande från Transportstyrelsen om luftfart* – ”information from the Swedish Transport Agency about aviation”). MFL only contains information, and is published whenever there is a need to deliver information to aviation professionals active within the aviation area. This process is described in the routine description for MFL (TSG 2013-1521).

The STA can quickly and efficiently reach out with its information through the e-subscription service on its website. The subscription service means that anyone can sign up free of charge and subscribe to MFL, circulations for consideration, information about new rules, fees and seminars etc. for the entire aviation area or for a specific area.

The magazine *Flygtendenser* (“aviation trends”) is published twice a year and distributed to all certificate holders. Each issue of *Flygtendenser* has a specific theme, and it also contains a publication of the aviation safety performance indicators.

The annual publication *Transportstyrelsens säkerhetsöversikt för luftfart och sjöfart* (“The Swedish Transport Agency’s safety review for aviation and shipping”) shows the safety development per transport mode.

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The decision in this matter has been made by Ingrid Cherfils, Civil Aviation and Maritime Director. Magnus Molitor and Mathias Elofsson took part in the final handling of the matter, and the latter submitted the report.

Ingrid Cherfils  
Civil Aviation and Maritime Director