

Training Program for Search and Rescue Inspectorate Staff

EURSARTE
SUBGROUP A

Table of Contents

Foreword.....	2
Document Structure.....	2
Reference Documents.....	2
Definitions.....	3
Abbreviations.....	4
Chapter 1.....	5
1.1 Training program structure.....	5
1.2 Initial Training.....	5
1.3 Continuation training.....	5
1.4 Modes of Training.....	5
1.5 Qualification requirements.....	6
1.6 Mentor.....	6
CHAPTER 2.....	7
2.1 Initial Training.....	7
2.1.1 Induction Training.....	7
2.1.2 Basic Training.....	9
2.1.3 Specialized training.....	10
2.1.4 OJT.....	11
2.2 Continuation Training:.....	12
CHAPTER 3.....	13
3.1 Assessment.....	13
3.2 Methods of assessment.....	13
3.3 Competency Achievement.....	13

Foreword

The training of SAR inspectorate personnel aims to acquire theoretical and practical knowledge sufficient to master the constituent elements of quality control in the Search and Rescue, in accordance with the required standards as well as the methodology necessary to conduct SAR inspections.

The objective of this training program is to deliver uniform approach for appropriate competent authorities (CA) to train the trainee who is intended to become Search and Rescue inspector, achieving competency via measurement of trainee's ability to demonstrate aptitude, skills and knowledge of each subject after training.

It is important to highlight that the State oversight function must be performed by the SAR inspector in accordance with the State regulatory framework.

Document Structure

The document consists of 3 chapters as described below:

Chapter 1 – Provides introductory information about the training program, sequence of training stages, mentor's roles and responsibilities throughout this complex process;

Chapter 2 – Training program, describes each subject and topics of training program;

Chapter 3 – Competency achievement, describes competency achievement concepts.

Reference Documents

This training programme is based on the following documents:

- ICAO Annex 12 (Search and Rescue).
- ICAO Doc 9731 (International Aeronautical and Maritime Search and Rescue Manual- VOL 1, 2, and 3);
- ICAO Doc 10070 (Manual on the Competencies of Civil Aviation Safety Inspectors);
- ICAO Doc 9734, PART A (The Establishment and Management of a State Safety Oversight System).

Definitions

Competency. A dimension of human performance that is used to reliably predict successful performance on the job. A competency is manifested and observed through behaviors that mobilize the relevant knowledge, skills and attitudes to carry out activities or tasks under specified conditions.

Note. - ICAO describes knowledge, skills and attitude as:

- *Knowledge is specific information required to enable a learner to develop and apply the skills and attitudes to recall facts, identify concepts, apply rules or principles, solve problems, and think creatively in the context of work.*
- *A skill is an ability to perform an activity or action. It is often divided into three types: motor, cognitive and metacognitive skills.*
- *Attitude is a persistent internal mental state or disposition that influences an individual's choice of personal action toward some object, person or event and that can be learned. Attitudes have affective components, cognitive aspects and behavioral consequences. To demonstrate the "right" attitude, a learner needs to "know how to be" in a given context.*

Rescue Coordination Center (RCC). A unit responsible for promoting efficient organization of search and rescue services and for coordinating the conduct of search and rescue operations within a search and rescue region.

Note. - The term RCC will be used within this training program to apply to either aeronautical, maritime or joint centres;

Rescue. An operation to retrieve persons in distress, provide for their initial medical or other needs, and deliver them to a place of safety.

Search. An operation normally coordinated by a rescue coordination centre or rescue subcentre using available personnel and facilities to locate persons in distress.

Safety oversight. A function performed by a State to ensure that individuals and organizations performing an aviation activity comply with safety-related national laws and regulations

Competent Authority (CA). The government entity or entities, that have a function to perform Safety oversight over the SAR system in order to ensure that individuals and organizations performing SAR activity comply with safety-related national laws and regulations.

Abbreviations

ATM – Air Traffic Management;

CA - Competent Authority;

CAP - Corrective action plan;

CNS - Communication, Navigation and Surveillance;

COSPAS-SARSAT - ([International Satellite System for Search and Rescue Services](#));

DOC – Document;

ICAO - International Civil Aviation Organization;

SAR – Search and Rescue;

SAREX - Search and Rescue exercise;

SARP - Standards and Recommended Practices;

SOLAS - The International Convention for the Safety of Life at Sea;

SSP – State Safety program;

SMS – Safety Management System;

QMS - Quality Management System;

OJT - On-The-Job training.

Chapter 1

1.1 Training program structure

The SAR inspector training program ensures that trainee will be adequately trained, by demonstrating required knowledge and skills that allows CA to issue SAR inspector qualification. Additionally, the SAR inspector training program also caters continuation training requirements, to ensure the proficiency of qualified SAR inspectors. For that purpose, the training program is designed in the following manner: Initial training (Phase 1) and Continuation training (Phase 2). Timeframe and duration for each phase of training shall be defined by CA.

1.2 Initial Training

Initial (pre-qualification) training consists of the stages that SAR inspector candidate undergoes before obtaining his qualification and it includes four steps:

- Induction;
- Basic;
- Specialized; and
- OJT.

Each step has different subjects and topics. Each subject can be delivered as internal, external or self-study. The purpose of the Initial training is to set foundation for the further development of the inspector in general. This phase provides theoretical and practical knowledge of the basic subjects.

1.3 Continuation training

Continuation (post-qualification) training is designed for the inspectors to continuously maintain and enhance their qualification and competencies. Continuation training includes:

- Advanced;
- Recurrent; and
- Refresher trainings.

Continuation training curriculum should be derived from the competency framework. This stage is designed for the enhancement of the inspector's skills, abilities and competencies further and to keep his/her knowledge always up to date.

1.4 Modes of Training

Training could be delivered by means of different modes. These modes are:

I – Internal training;

E – External training;

S - Self Learning.

Internal Training: usually conducted within the CA, and for the purpose of training SAR inspectors will be overseen by the mentor, who is assigned to the trainee in order to provide training aids, assist in difficult tasks and assess trainee's achieved competencies.

External provider - establishment or training organization, recognized by the CA, which delivers external training outside of organization.

Self-Learning: self-study by trainee, under the supervision of the mentor.

1.5 Qualification requirements

In order to attend the SAR inspector training candidates, need to meet the minimum qualification requirement stated below.

The minimum qualification requirements are at least 3 years' experience with:

- a) SAR; or
- b) ATM; or
- c) CNS; or
- d) ANS/NSA.

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1.6 Mentor

The CA shall assign a mentor for each inspector candidate in training. The mentor should be a SAR inspector that meets the qualification criteria established by that CA. These criteria should at least require that the appointee has been a qualified inspector for certain period of time (as established) prior to his/her appointment.

If for some reason SAR inspector is not available, the mentor should be a person who meets the qualification criteria established by the CA.

Additional factors to be considered when nominating a person to provide training and assess trainee inspectors include: knowledge of training techniques, professionalism, maturity, judgment, integrity, safety awareness, communication skills, and personal standards of performance.

The mentor shall be involved in the process, assure that the training process is fully compliant with the established training program and plan. Mentor's role and responsibilities are providing training and assessing trainee inspectors, as well as overseeing trainee's progress during their study, typical tasks within this role could be:

1. Guide the trainee during training;
2. Provide consistent and up-to-date training materials;
3. Assign practical tasks for the materials concerned;
4. Assess the outcome of training;
5. Decide the need for additional training;
6. Assess Practical work under supervision (OJT);

7. Supervise and assess specialized training;
8. Measure competency achievement.

CHAPTER 2

As mentioned above, training program consists of two modules: Initial and Continuation training. The syllabus and learning objectives of each phase are described below.

2.1 Initial Training

2.1.1 Induction Training

Induction training subjects are addressed for the general understanding of CA functions and roles within the state. It includes structure of the CA, internal processes and procedures, methods of cooperation with Service providers and stakeholders, national and international requirements, etc. Detailed description of induction training content is given below.

Induction Training				
Modes	Subject	Topic	Description	Objective
I/S	General structure of Government/National organisations and Role of public Services	<ul style="list-style-type: none"> • Government structure; • Ministries; • Functions of Ministries; • Interaction with CA. 	As some rules concerning SAR requirement is approved by the government and not only by director of CA, it's important to know about the Interaction between Government and CA	Be able to explain CA role within the state
I/S	CAs' General structure and Functions	<ul style="list-style-type: none"> • CAs' role; • CAs' structure; • Function of Departments; • Administrative procedures (Lines of interaction); • Action Plan; • Technical Facilities. 	General understanding of role and function of CA within the state	Be able to explain CA functions and competences within the state

I/S	Relevant Department's roles and functions within the CA	<ul style="list-style-type: none"> • Roles and responsibilities; • Stakeholders under each department; • Detailed functions of staff; • Internal procedures; 	Includes detailed understanding of roles, functions and processes of department, where trainee will continue his/her work after training.	Be able to explain Relevant department's functions
I	Ethics, discipline and security policy of CA	<ul style="list-style-type: none"> • Internal policy; • Correspondence; • Working hours; 	Includes internal policy of CA, correspondence and working schedule	To be able to explain CA Policy
I	National law and Regulations	<ul style="list-style-type: none"> • Hierarchy of rules; • Aviation law; • Government decrees; • Ministerial orders; • Director CAs' order; • International agreements; • SSP. 	Topic of this subject is general understanding of existing national aviation regulation within the state. This subject includes also State Safety Program (SSP).	To be able to explain legal hierarchy within the state and indicate applicable national regulations
I/E/S	Roles, rules and Regulations of International Organisations	<ul style="list-style-type: none"> • General functions of International organisations; • Cooperation with International Organisations. 	Includes applicable international rules and regulations.	Be able to explain international organizations roles and indicate applicable international requirements. Get a basic knowledge about international legislation concerning SAR services (e.g. Convention on International Civil Aviation-DOC 7300;

				International Convention on Maritime Search and Rescue; International Convention for the Safety of Life at Sea; ANNEX12; IAMSAR Manuals; EUR SAR PLAN).
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2.1.2 Basic Training

At the end of this part of initial training, trainees should be able understand and demonstrate use of a common set of principles, methodologies and service standards, exercised within the CA. Basic training addresses given subjects:

Basic Training				
Modes	Subject	Topic	Description	Objective
I/E	Rulemaking <i>If applicable</i>	<ul style="list-style-type: none"> Applicable rules; Process and procedures 	Detailed knowledge of rulemaking policy and procedure.	Be able to explain rulemaking process and implementation steps.
I/E	Oversight	<ul style="list-style-type: none"> Applicable rules and standards; Audit technique procedures. <p>➤ AUDIT technique; external training</p>	Detailed knowledge of state oversight policy and procedure.	Be able to explain oversight process.
I/E	Safety Management System	<ul style="list-style-type: none"> Applicable rules. 	Safety Management - ICAO Annex 19; ICAO Safety Management	Be able to explain SMS requirements.

			Manual - Doc 9859 concepts.	
I/E	Quality Management System	<ul style="list-style-type: none"> Basic principles of QMS. 	QUALITY MANAGEMENT- ISO 9001	Be able to explain QMS processes and requirements.
I/E	Human factors	<ul style="list-style-type: none"> Human factor in Aviation. 	The training should cover ICAO Doc 9806 - Human Factors Guidelines for Safety Audits Manual	Be able to explain human factor principles in Aviation.
I/E	Basic Principles of SAR	<ul style="list-style-type: none"> Applicable rules and procedures 	The training should cover ICAO Annex 12, IAMSAR Manual, SOLAS, Cospas-Sarsat Programme.	Be able to explain basic principles of SAR, understand the Cospas-Sarsat tasks and role as well as importance of distress alert messages

2.1.3 Specialized training

The main goal of specialized training is to achieve detailed understanding of processes, procedures and requirements of specific domain. At this point, the material covered becomes very specific to the area of specialization. For example, in case of SAR inspector, specific training is provided to cover detailed understanding of RCC internal processes and procedures.

Additionally, the specialized training is also detailed understanding of applicable national requirements, regulations and procedures concerning SAR.

Specialized training is usually conducted internally, since the syllabi typically cover national standards, regulations and internal procedures of the CA, which cannot be taught by external organization.

Specialized Training				
Modes	Subject	Topic	Description	Objective

I	Oversight of State SAR System	<ul style="list-style-type: none"> • Applicable rules and procedures; • National SAR Plan; • National SAR Agreements and cross border coordination; • RCC Plans of Operation and SOPs • SAREX. 	Trainee tasks will include several type of SAR oversights in order to cover various procedures and requirements	Be able to explain Internal processes, procedures and requirement in specified area
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2.1.4 OJT

The OJT is a practical assignment for each subject. It should be delivered under supervision of the mentor. It aims to acquire ability to conduct SAR audit, assess the compliance of the activities of SAR service providers with standards and recommended practices (SARPs)

OJT				
Modes	Subject	Topic	Description	Objective
I	Rulemaking <i>If applicable</i>	<ul style="list-style-type: none"> • Analysing the need of amendment and/or development of new rules • Initiation • Drafting • Communication with stakeholders • Implementation • Analysing need for amendment and/or development of internal procedure • Analysing requirement of the rule 	Applicable only if trainee's tasks will include rulemaking tasks.	<p>Be able to draft the rule and/or make an amendment.</p> <p>Be able to develop implementation plan and/or internal procedure.</p>

I	Oversight	<ul style="list-style-type: none"> Audit <ol style="list-style-type: none"> Preparation Audit Plan Checklist Audit Report CAP approval Follow up 	<p>Practical assignments on the topic carried out under supervision of the mentor.</p> <p>State shall decide number of inspections to be conducted under supervision and independently, before obtaining inspector's credential</p>	Be able to conduct audit
I	Administrative functions	<ul style="list-style-type: none"> Communication formats 	Practical assignments on the topic carried out under supervision of the mentor.	

2.2 Continuation Training:

Continuation training has 3 stages with different targets:

1. **Refresh Training** - The purpose of refresher training is to strengthen skills and knowledge that have weakened through disuse and the passage of time. The refresher training curriculum should be derived from the competency framework;
2. **Advanced Training** – The purpose of advanced training is to augment the skills and knowledge of active SAR inspectors in dealing with more complex tasks. The curriculum of advanced training should be derived from the competency framework.
3. **Recurrent Training** - The purpose of recurrent training is to address changes in the available criteria and regulations. It is essential that the SAR inspectors update his or her knowledge and skills in accordance with the latest regulation requirements. Regular recurrent training should therefore be planned accordingly.

CHAPTER 3

3.1 Assessment

The goal of training assessment is to measure competency of the trainee achieved throughout the training phases. Each subject of training shall be assessed by the mentor after its completion.

3.2 Methods of assessment

Training subjects can be assessed by:

1. External Training - Certificate of achievement or attendance;
2. Internal Training or Self Study - Certificate of attendance in case of internal training (Questions, answers or exams).

The assessments can also be done by writing summary or brief description about the subject with the key elements of the topic.

3.3 Competency Achievement

Competency Achievement can be measured by the competency framework observable behaviours.

Competency Framework	
Inspector	Be able to
Observable Behaviours	<ul style="list-style-type: none">• Analyse requirement;• Apply applicable requirement;• Prepare Audit plan;• Prepare checklist;• Participate in audit;• Prepare audit report;• Approve/disapprove Corrective action plan;• Understand other people's concerns;

	<ul style="list-style-type: none"> • Accurately determine on a timely basis trends, problem areas or hazards that may negatively impact safety; • Promote positive working relationships; • Willingly adopt suggestion for improvement from others; • Evaluate information with accuracy and objectivity; • If necessary, prepare a proposal for changes in the rule.
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