FISO Licensing Working Group

No	Subject	Requirements	Scope	Details
1.	**Language proficiency level.**	The language proficiency level should ensure the ability to provide the information and alerting service in a safe, adequate and efficient way.	The language proficiency level should cover : – ability to use radiotelephony – ability to use documents – ability to understand and express about normal and abnormal situations	**Knowledge of :** – language bases : syntax, grammar – vocabulary, phraseology **Skills :** – provide clear and understandable messages on radiotelephony – read and retransmit information from written document(NOTAM, METAR, TAF, FPL, …) **Remarks :** Currently : almost all countries which have set a level, have chosen ICAO level 4. In some countries, it is a level from CEFR (Common European Framework of Reference for languages). Looking at the descriptors of ICAO level and CEFR level, those of ICAO level 4 and of CEFR level B1 are mostly the same. Nevertheless the B1 level is a general english level

				and does not guarantee any knowledge of aeronautical topics. I suggest that to set a real equivalence, the test for the obtention of level B1 for someone intending to be AFISO, should include at least a simulation of radio-telephony (departing or arriving flight for example).
2.	**Medical certificate requirements.**	The medical certificate requirements must ensure that the applicant doesn't suffer from a pathology likely to refrain him/her from delivering the information and alerting service in a safe and efficient way.	The medical certificate requirements should be both mental and physical.	Checks : − mental : mythomania, depression, … − physical perception : sight, hearing − oral expression − pathology liable to cause a loss of consciousness **Remarks :** Currently, various situations : no medical certificate, class 3, national requirements, … What could we propose : − no certificate for AFISO ? − same as ATCO or FISO ? − chose a medical certificate already existing : class 2 PPL or LAPL, class 3 ? − create a specific certificate ?

3.	Training Requirements for FISO Licensing - Guidance	Flight Information Service training shall cover the entirety of theoretical courses, practical exercises, including simulation, and on-the-job training required in order to acquire and maintain the skills to deliver safe, efficient and adequate flight information and alerting service. **Types of flight information service officers training:** **1． Theoretical training** • **Initial training,** providing: o **Basic training**: theoretical and practical training designed to impart fundamental knowledge and practical skills related to basic operational procedures; o **Rating training**: theoretical and practical training designed to impart knowledge and practical skills related to a	**The training plan should include:** 1． The training policy and structure; 2． The description of all training process and the interrelations between different training activities; 3． Minimum and maximum duration of the initial training course(s); 4． Training methods (e.g. classroom instruction, self-study, computer-based training, on-the-job training (OJT), etc.) 5． The description of the roles, responsibilities and qualifications of the training supervisors, instructors and assessors; 6． Processes for examinations and assessments method (e.g. pre-course, on-training evaluation, post-course, etc.) and requirements; 7． List of identified abnormal and emergency situations specific for each	**Knowledge – Demonstrated knowledge of:** • Rules of the air and air traffic procedures pertinent to aerodrome operations; • Procedures and practices pertaining to flight information service and alerting service; • Terms used in the aeronautical mobile service, procedure words and phrases, the spelling alphabet; • Communication codes and abbreviations used; • Radio-telephony phraseologies and operating procedures; • The general air traffic services and airspace organization within the State; • Local aerodrome rules; • Characteristics of local traffic; • Local terrain and prominent landmarks; • Local air navigation facilities; • Procedures for coordination between the AFIS unit and the associated FIC, TWR, APP or ACC; • Pertinent data regarding meteorological reports and effect of significant local weather characteristics;

| | | Training Requirements for FISO Licensing - Guidance | specific rating and, if applicable, to rating endorsement;

2. **Pre-OJT and On-the-job unit training in a live traffic situation:** leading to the issue of an Flight Information Service certificate, the issue of a rating endorsement, the validation of rating(s) or rating endorsement(s) and/or the issue or renewal of a unit endorsement.

3. **Continuation training,** designed to maintain the validity of the endorsements of the certificate, consisting of:
• refresher training;
• conversion training, when relevant.

4. **Conversion Training,** Training designed to provide | unit endorsement;

8. Process for early termination of training;
9. Feedback and appeal process;
10. Specification of the records to be kept;
11. Process for reviewing and amending the training plan; | • Surveillance procedures if applicable;
• Procedures for alerting of emergency services;
• Safety requirements and procedures for ATM/ANS activities ;

Skill – Demonstrated competency in:
• Management of the workload and providing flight information and alerting service within a defined area of responsibility;
• The manipulation and operation of typical working position equipment;
• The visual inspection and daily operational check of the equipment in use;
• The transmission of telephony messages, including correct microphone technique, enunciation and speech quality;
• The reception of telephony messages and the ability to relay messages correctly using approved phraseology.
• Developing and maintaining situational awareness by monitoring traffic and identifying aircraft when applicable; |

Training Requirements for FISO Licensing - Guidance	knowledge and skills appropriate to a change in either job category (rating discipline, rating endorsement or unit endorsement), • **Practical instructors training**, Leading to the issue, revalidation or renewal of an OJTI or STDI endorsement; • **Assessor training,** leading to the issue, revalidation or renewal of an assessor endorsement.		• Appreciating priority of actions; • Providing traffic information; • Providing meteorological information;
	Ratings and unit Endorsements	1. **Flight information service officer ratings.** Certificates shall contain one or more of the following ratings in order to indicate the type of service which the Certificate holder is authorized to provide: • **AFIS rating** indicating that the certificate holder is competent to provide flight information and alerting service to aerodrome traffic at an aerodrome to aircraft without the use	• The unit endorsement shall authorize the certificate holder to provide flight information and alerting service for a specific aerodrome, sector, group of sectors and/or working positions under the responsibility of an air traffic services unit. • Unit endorsements shall be valid for a period defined in the unit competence scheme. This period shall not exceed three years. • Unit endorsements shall be revalidated if:

| Training Requirements for FISO Licensing – Guidance | Ratings and unit Endorsements | of surveillance equipment;

• **EFIS rating** indicating that the certificate holder is competent to provide en-route flight information and alerting service within a defined area of responsibility to traffic without the use of surveillance equipment;

• **ERIS rating** indicating that the certificate holder is competent to provide en-route flight information and alerting service within a defined area of responsibility to traffic with the use of surveillance equipment;

2. **Rating endorsements**

• The Aerodrome Radar Information Service (SUR) indicating that the certificate holder is competent to provide aerodrome information service with the help of surveillance equipment.

• Remote Aerodrome flight information | o the applicant has been exercising the privileges of the certificate for a minimum number of hours as defined in the unit competence scheme;

o the applicant has undertaken refresher training within the validity period of the unit endorsement according to the unit competence scheme;

o the applicant's competence has been assessed in accordance with the unit competence scheme not earlier than three months prior to the expiry date of the unit endorsement. |

			Ratings and unit Endorsements	service (REM) indicating that the certificate holder is competent to provide aerodrome information service from remote working position.	
			FISO Common Core Content	The IFISA Specification for the FISO Common Core Content Initial Training details the minimum training requirement for the achievement of a FISO Certificate. FISO training is divided into four phases, of which Initial Training is the first phase. The following section briefly describes all the phases of FISO training, so as to put the Initial Training phase in its correct context. Whenever an objective or its content refers to ICAO/EASA Standards and Recommended Practices, users shall take care to use the most recent version of the referenced document/s, or its parts. If an objective or its content is governed by National regulations or practices which differ	**SUBJECT 1:INTRODUCTION TO THE COURSE** • TOPIC INTR 1 COURSE MANAGEMENT o Subtopic 1.1. - Course Introduction • TOPIC INTR 2 INTRODUCTION TO THE ATS TRAINING COURSE o Subtopic 2.1 – Course Content o Subtopic 2.2 - Training Ethos o Subtopic 2.3. - The Assessment Process **SUBJECT 2:AVIATION LAW** • TOPIC LAW 1 RULES AND REGULATIONS o Subtopic LAW 1.1 — Reports o Subtopic LAW 1.2 — Airspace o Subtopic LAW 1.3 — Rules of the air o Subtopic LAW 1.4 — Flight plans o Subtopic LAW 1.5 — National legislation procedures o Subtopic LAW 1.6 — Holding o Subtopic LAW 1.7 — FIS Licensing o Subtopic LAW 1.8 — Incident/accident **SUBJECT3:AIR TRAFFIC MANAGEMENT** • TOPIC ATM 1 AIR TRAFFIC SERVICES AND AIRSPACE MANAGEMENT o Subtopic ATM 1.1 — Aerodrome Flight Information Service (AFIS) o Subtopic ATM 1.1 — Flight Information Service (FIS) o Subtopic ATM 1.2 — Alerting service (ALRS)

		FISO Common Core Content	from ICAO/EASA, the National regulations may be taught instead of ICAO and, as appropriate, applied practically to ensure pedagogical consistency with further unit training. This difference shall be notified to the learner, and when practicable, should be explained. 1. **Initial Training** Training including theory, part-task practice and simulation. The object of initial training is to prepare an ab initio for training at a Flight Information Service (FIS) unit. It includes two phases (basic and rating training) leading to a student certificate. Rating training might also be provided as training for conversion to another rating. • **Basic Training** Training designed to impart fundamental knowledge and skills to enable an ab initio to progress to specialized ATC training. • **Rating Training** Specialized FIS training to provide knowledge and skills related to a job category and	o Subtopic ATM 1.2 — Air Traffic Flow Management (ATFM) • TOPIC ATM 2 COMMUNICAITON o Subtopic ATM 2.1 — Aeronautical Phraseology and Effective communication o Subtopic ATM 2.2 — Phraseology for Unusual Events o Subtopic ATM 2.3 - Mode-S Data Transfer • TOPIC ATM 3 ATC CLEARANCES AND INSTRUCTIONS o Subtopic ATM 3.1 - ATC Clearances o Subtopic ATM 3.3 - Type and content of ATC instructions o Subtopic ATM 3.4 - ATC instructions • TOPIC ATM 4 CO-ORDINATION o Subtopic ATM 4.1 - Principles, types and content o Subtopic ATM 4.2 – Necessity o Subtopic ATM 4.3 - Tools and Methods o Subtopic ATM 4.4 - Co-ordination Procedures • TOPIC ATM 5 ALTIMETRY AND LEVEL ALLOCATION o Subtopic ATM 5.1 – Altimetry o Subtopic ATM 5.2 - Terrain clearance o Subtopic ATM 5.3 - Mode C • TOPIC ATM 6 SEPARATION STANDARDS o Subtopic ATM 6.1 - Wake turbulence separation • TOPIC ATM 7 DATA DISPLAY o Subtopic ATM 7.1 - Data extraction o Subtopic ATM 7.2 - Data management • TOPIC ATM 8 OPERATIONAL ENVIRONMENT o Subtopic ATM 8.1 - Integrity of the Operational Environment o Subtopic ATM 8.2 - Verification of the Currency of Operational Procedures • TOPIC ATM 9 PROVISION OF AERODROME/*ENROUTE* FLIGHT INFORMATION

		FISO Common Core Content	appropriate to the discipline to be pursued in the ATS environment. 2. **Unit Training** Training comprising transitional training, pre-OJT and OJT, leading a learner to obtaining an air traffic controller licence, with appropriate rating and with appropriate rating endorsements and unit endorsements. • **Pre-OJT Training** Phase of locally based training during which extensive use of simulation using site-specific facilities will enhance the development of previously acquired routines and abilities to an exceptionally high level of achievement. • **On-the-Job Training (OJT)** The integration in practice of previously acquired job-related routines and skills under the supervision of a qualified On-the-Job Training Instructor (OJTI) in a live traffic situation. 3. **Continuation Training** Training given to certificated personnel	SURVEILLANCE SERVICE o Subtopic ATM 9.2 - Functions of Aerodrome Flight Information Service o Traffic and Taxi Circuits o Aeronautical Ground Lights o Information to Aircraft by Aerodrome Flight Information Service o Conduct of Aerodrome Traffic o Flight information service procedure • TOPIC ATM 11 COLLISION AVOIDANCE • TOPIC ATM 12 WORKING POSITIONS • TOPIC ATM 14 RADAR IDENTIFICATION o Subtopic ATM 14.1 - Establishment of radar identification o Subtopic ATM 14.2 - Maintenance of radar identification o Subtopic ATM 14.3 - Loss of radar identification o Subtopic ATM 14.4 - Position information o Subtopic ATM 14.5 - Transfer of identification o Subtopic ATM 14.6 - Termination of surveillance service **SUBJECT 4:METEOROLOGY** • TOPIC MET 1 ATMOSPHERIC PROCESS o Subtopic MET 1.1 - Air pressure • TOPIC MET 2 METEOROLOGICAL PHENOMENA o Planning and co-ordination o Subtopic MET 2.2 - Clearances and instructions o Subtopic MET 2.3 - Information **SUBJECT 5:NAVIGATION** • TOPIC NAV 1 APPLIED NAVIGATION o Subtopic NAV 1.1 - Maps and charts o Subtopic NAV 1.2 - Pilot Interpreted Ground-based System o Subtopic NAV 1.3 - On-board Systems o Subtopic NAV 1.4 - Satellite-based Systems o Subtopic NAV 1.5 - Future Developments

| | | FISO Common Core Content | designed to augment existing knowledge and skills. It includes refresher, emergency and conversion training.

• **Refresher Training**

Refresher training is designed to review, reinforce or upgrade existing knowledge and skills (including team skills/TRM training).

• **Emergency Training**

Training designed to impart knowledge, skills and behavior in case of an emergency, unusual or degraded situation. Emergency training that is part of initial training shall be generic, covering the situations common for all disciplines and some specific for the appropriate rating. More details about these situations are given in the respective syllabi. More comprehensive emergency training that may include security measures shall be given to all controllers on a regular basis with the site specific content.

• **Emergency situation**

A serious, unexpected and often dangerous | ○ Subtopic NAV 1.6 - Navigational Assistance
SUBJECT 6:AIRCRAFT
• TOPIC ACFT 1 AIRCRAFT INSTRUMENTS
○ Subtopic ACFT 1.1 - Cockpit instruments
• TOPIC ACFT 2 AIRCRAFT TYPES AND CATEGORIES
○ Subtopic ACFT 2.1 - Wake Turbulence Categories
○ Subtopic ACFT 2.2 – Planning
• TOPIC ACFT 3 AIRCRAFT PERFORMANCE
○ Subtopic ACFT 3.1 - Factors effecting aircraft performance
• TOPIC ACFT 4 AIRCRAFT DATA
○ Subtopic ACFT 4.1 - Performance Data
○ Subtopic ACFT 4.2 – Aircraft recognition
○ Subtopic ACFT 4.3 – Performance data in unusual situations
SUBJECT 7:HUMAN FACTORS
• TOPIC HUM 1 PSYCHOLOGICAL FACTORS
○ Subtopic HUM 1.1 – Cognitive
• TOPIC HUM 2 MEDICCAL AND PSYOLOGICAL FACTORS
○ Subtopic HUM 2.1 – Fatigue
• TOPIC HUM 3 SOCIAL AND ORGANISATIONAL FACTORS
○ Subtopic HUM 3.1 - Human relations
○ Subtopic HUM 3.2 - Team Resource Management (TRM)
○ Subtopic HUM 3.2 - Team Resource Management (TRM)
• TOPIC HUM 4 COMMUNICATION
○ Subtopic HUM 4.1 - Written work
○ Subtopic HUM 4.2 - Verbal/non verbal communication
• TOPIC HUM 5 STRESS
○ Subtopic HUM 5.3 - Stress management
• TOPIC HUM 6 HUMAN ERROR
○ Subtopic HUM 6.1 - Human error |

			situation requiring immediate actions.	• TOPIC HUM 7 WORKING METHODS

situation requiring immediate actions.

- **Unusual situation**

A set of circumstances which are neither habitually nor commonly experienced for which a FISO has not developed an automatic know-how. The essential difference with an emergency situation is that the element of danger or serious risk is not necessarily present in an unusual situation.

FISO Common Core Content

- **Degraded situation**

A situation that is the result of a technical system failure or malfunction or a set of circumstances arising from human error or violation of rules affecting the quality of the service provided.

4. **Conversion Training**

Training designed to provide knowledge and skills appropriate to a change in either job category (rating discipline, rating endorsement or unit endorsement), procedures or system (system upgrade or change).

- TOPIC HUM 7 WORKING METHODS
- o Subtopic HUM 7.1 – Efficiency
- TOPIC HUM 8 WORKING KNOWLEDGE
- o Subtopic HUM 8.1 - AFISO knowledge

SUBJECT 8:EQUIPMENT AND SYSTEMS
- TOPIC EQPS 1 General
- o Subtopic EQPS 1.1 - ATS equipment
- TOPIC EQPS 2 RADIO
- o Subtopic EQPS 2.1 - Radio theory
- o Subtopic EQPS 2.2 - Radio communications
- o Subtopic EQPS 2.3 - Direction finding
- TOPIC EQPS 3 OTHER VOICE COMMUNICATIONS
- o Subtopic ATS – Communications
- TOPIC EQPS 4 RADAR
- o Subtopic EQPS 4.2 – Primary radar
- o Subtopic EQPS 4.3 – Secondary radar
- o Subtopic EQPSB 4.4 — Mode S
- o Subtopic EQPS 4.5 - Use of radar
- TOPIC EQPS 5 AUTOMATIC DEPENDENT SURVEILLANCE
- o Subtopic EQPS 5.1 — Principles of automatic dependent surveillance
- o Subtopic EQPS 5.2 — Use of automatic dependent surveillance
- TOPIC EQPS 6 MULTILATERATION
- o Subtopic EQPS 6.1 — Principles of multilateration
- o Subtopic EQPS 6.2 — Use of multilateration
- TOPIC EQPS 7 SURVEILLANCE DATA PROCESSING
- o Subtopic EQPS 7.1 — Surveillance data networking
- o Subtopic EQPS 7.2 — Working principles of surveillance data networking
- TOPIC EQPS 8 FUTURE EQIPMENT
- o Subtopic EQPS 8.1 - Known new developments
- TOPIC EQPS 9 AUTOMATION IN ATS
- o Subtopic EQPS 9.1 - Aeronautical Fixed

| | | FISO Common Core Content | 5. **Development Training**

Training designed to provide additional knowledge and skills demanded by a change in job profile, e.g.

• **Practical instructors training**, Leading to the issue, revalidation or renewal of an OJTI or STDI endorsement;

• **Assessor training,** leading to the issue, revalidation or renewal of an assessor endorsement. | Telecommunications Network (AFTN)
o Subtopic EQPS 9.2 - On-Line Data Interchange (OLDI)
• TOPIC EQPS 10 OPERATIONAL POSITIONS
o Subtopic 10.2 - Information systems
o Subtopic 10.3 - Flight data systems
• TOPIC EQPS 11 SYSTEM LIMITATIONS
o Subtopic EQPS 11.1 - System and Equipment Limitations
SUBJECT 9:PROFESSIONAL ENVIRONMENT
• TOPIC PEN 1 STUDY VISITS
o Subtopic PEN 1.1 - Flight familiarization
o Subtopic PEN 1.2 - Other Units
o Subtopic PEN 1.3 - Customer Relations
SUBJECT 10:ABNORMAL AND EMERGENCY SITUATIONS
• TOPIC UNES 1 ABNORMAL AND EMERGENCY SITUATIONS
o Subtopic UNES 1.1 - Aircraft problems
o Subtopic UNES 1.2 - Unknown traffic
o Subtopic UNES 1.3 - Radar Vectoring Outside Controlled Airspace
o Subtopic UNES 1.4 - Transponder Failure
o Subtopic UNES 1.5 - Radio Failure
o Subtopic UNES 1.6 – Diversions
o Subtopic UNES 1.7 – Hijack
SUBJECT 12: DEGRADED SYSTEMS CAPABILITY
• TOPIC DEGS 1 COMMUNICATION EQIPMENT
o Ground/Air Radio Equipment
o Subtopic DEGS 1.2 - Ground/Ground Equipment
o Subtopic DEGS 1.3 - Data Link Equipment
• TOPIC DEGS 2 SURVELLANCE EQUIPMENT
o Subtopic DEGS 2.1- Partial or Total Degradation
• TOPIC DEGS 3 PROCESSING SYSTEMS
o Subtopic DEGS 3.1 - ATC Processing System degradation
• TOPIC DEGS 4 NAVIGATION EQUIPMENT |

		FISO Common Core Content		o Subtopic DEGS 4.1 - Navigational Aid Degradation **SUBJECT 13: AERODROMES** • TOPIC AGA 1 GENERAL o Subtopic AGA 1.1 – Definitions o Subtopic AGA 1.2 - Co-ordination • TOPIC AGA 2 MOVEMENT AREA o Subtopic AGA 2.1 – Movement Area o Subtopic AGA 2.2 – Maneuvering Area o Subtopic AGA 2.2 – Aerodrome lights o Subtopic AGA 2.3 – Aerodrome markings o Subtopic AGA 2.4 – Aerodrome obstacles O Subtopic AGA 2.4 – Runways
4.	**Competence assessment - Guidance**	**Unit competence scheme** should include following elements:	• Validity of the unit endorsement; • Minimum working hours at position in specified time period, • Minimum duration and frequency of the refresher training; • Processes to identify the topics and subtopics, objectives and training methods for continuation training; • Competence assessment procedures, • Processes in case of failure of an examination or assessment, including	• Max. 3 years; • Min. 12 hours in three months period; • At least once per 3 years;

			the appeal processes; • Procedure to ensure that practical instructors have practiced instructional techniques	
		FIS Assessors	• Application for assessor endorsement; • Assessor privileges; • Application for assessor endorsement; • Validity of assessor endorsement; • Training procedures;	Training of assessors should consist of: • assessor training course, including an assessment; • refresher training course on assessment skills; • method(s) for assessing the competence of assessors.
5.	**OJT and Requirements - Guidance**	**FIS Instructors**	• Theoretical instructors; • Practical instructors; • On-the-job training instructor (OJTI); • Synthetic training device instructor (STDI); • Training of practical instructors;	Training of practical instructors should consist of: • practical instructional techniques course for OJTI and/or STDI, including an assessment; • refresher training course on practical instructional skills; • method(s) for assessing the competence of practical instructors.
6.	**Continuation Training**	**Refreshment training;**	Refresher training is designed to review, reinforce or upgrade existing knowledge and skills.	• standard practices and procedures training, using approved phraseology and effective

				• communication; • abnormal and emergency situations training, using approved phraseology and effective communication; • human factors training.
		Conversion training;	Training designed to provide knowledge and skills appropriate to a change in either job category (rating discipline, rating endorsement or unit endorsement), procedures or system (system upgrade or change).	• appropriate training method for and duration of the course, taking into account the nature and extent of the change; • the examination and/or assessment methods for the conversion training.
7.	**Additional refreshment training**	Other relevant subjects in FISO training process that can be planned to upgrade specific knowledge and skills.	• Metrological specific training, • Pilot Briefing, • Training resulting from ATM system change management; • Team resource management, • SMS and safety culture,	