

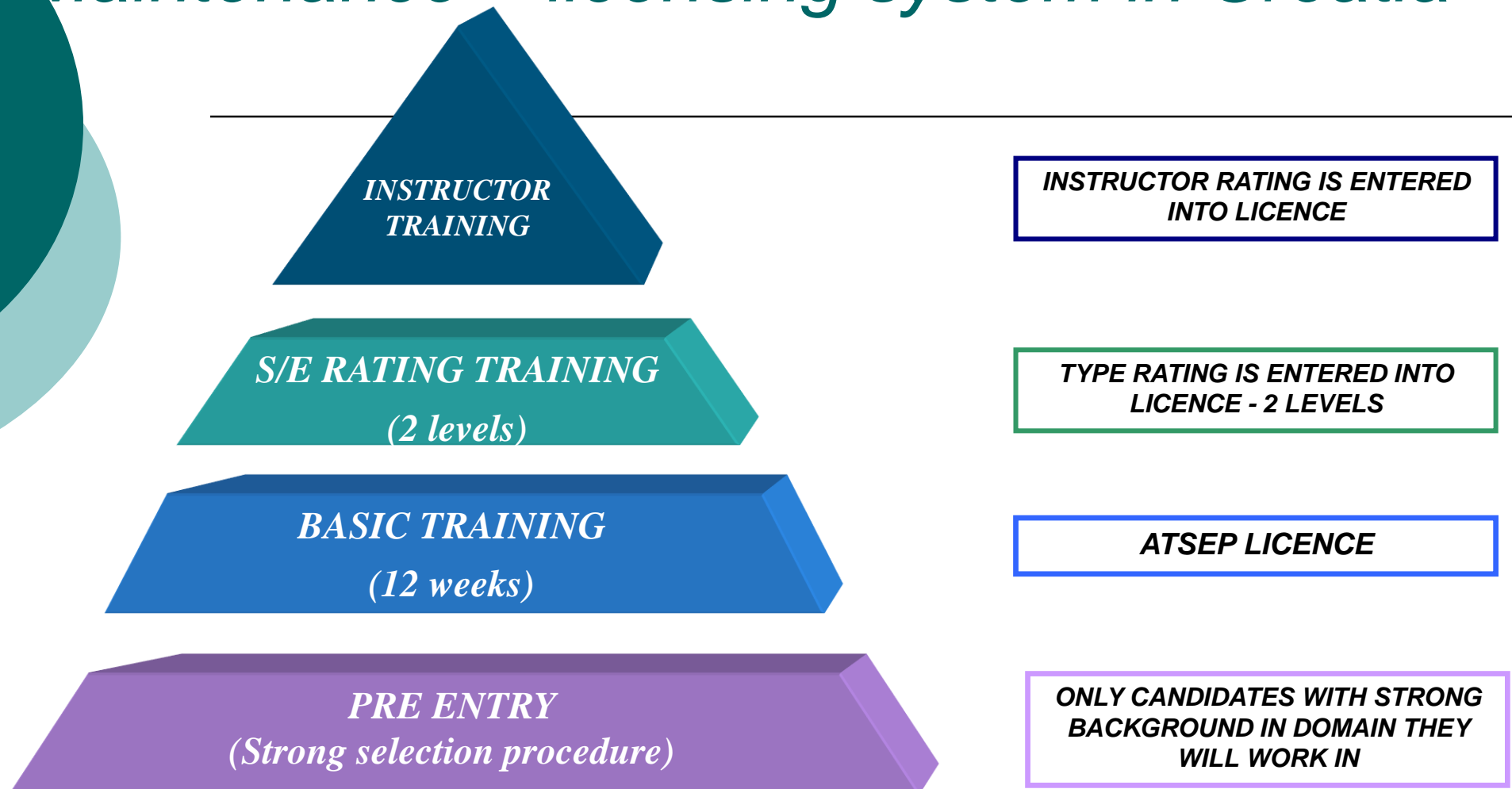


ATSEP & ENG TRAINING & LICENCES in Crocontrol ltd

Presented on 23th October 2008

by Dario Šimunović, ATSEP Training Manager

Maintenance – licensing system in Croatia



Note: Management of licenses delegated by CAA to ANSP, but continuously supervised (oversight programme)

PRE – ENTRY SELECTION

- **Before the basic training, very strong selection procedure is applied.**
- **Depending on functional position, we select engineers of electronics as well as technicians with the background of electronics, electrical engineering, telecommunications, networking, etc.**
- **Psychological, including IQ, then English, PC familiarization and other testing are applied during selection.**
- **English is prerequisite (“blocking factor”).**

BASIC TRAINING

13 principles, MET principles, English refresh course, Legal aspects, organisation of Crocontrol, Documentation, Safety, infrastructural aspects, then each domain (SUR, COM, DPS, NAV).

- **Duration 12 working weeks.**
- **Exam after each module and final exam at the end of the training package.**
- **Successful exam : the basic license modules including:**
- **Medical ability prerequisite**
- **Independent task accomplishment not allowed yet.**

TYPE RATING

- **License is per system.**
- **Normally, technicians are trained to obtain 1st degree rating, and engineers to get 2nd degree.**
- **However, there are exemptions sometimes.**
- **Theoretical part of training (classroom), practical part of the training (on-site).**
- **Duration depends on complexity. Normally for 1st degree – between 30 and 100 effective hours of training per technical system (for Eurocat 220 eff. hours including certain CBT modules)**
- **for 2nd degree – between 60 and 200 effective hours of training per technical system (for Eurocat = 400 eff. hours)**
- **Sometimes, additional prerequisites are needed, e.g. Unix, Linux, C, CISCO, however it is mostly taken into account during selection procedure.**

TYPE RATING

- ***The exam after the training per system must take place, in front of commission.***
- ***Exam: written + verbal + on-the-job-training demonstration***
- ***Successful exam: only if all 3 elements fulfilled***
- ***Duration of license: 2 years***
- ***The head of technical org. unit is responsible to give enough work to the ATSEP in order to be continuously competent for the maintenance***

INSTRUCTORS TRAINING

- **Special courses for instructor skills.**
- **Normally: engineers**
- **The contract with external services (well recognized organizations):**
 - **2 weeks duration**
- **Instructors: licensed to give most of the training in Crocontrol**

Competence/Licensing Scheme

- ***We have the structured list of all the systems with the numbering scheme and all the licenses are related to specific technical system or the group of very similar technical systems.***
- ***In internal document (Maintenance Programme and The System Training Program) we specify what is minimum number of personnel to maintain and supervise the system in the safe way.***
- ***We maintain the competence scheme: for each system we know how many people are available or planned to be available to maintain that system. That means, for each engineer/technician we know which system he has a valid licence for.***

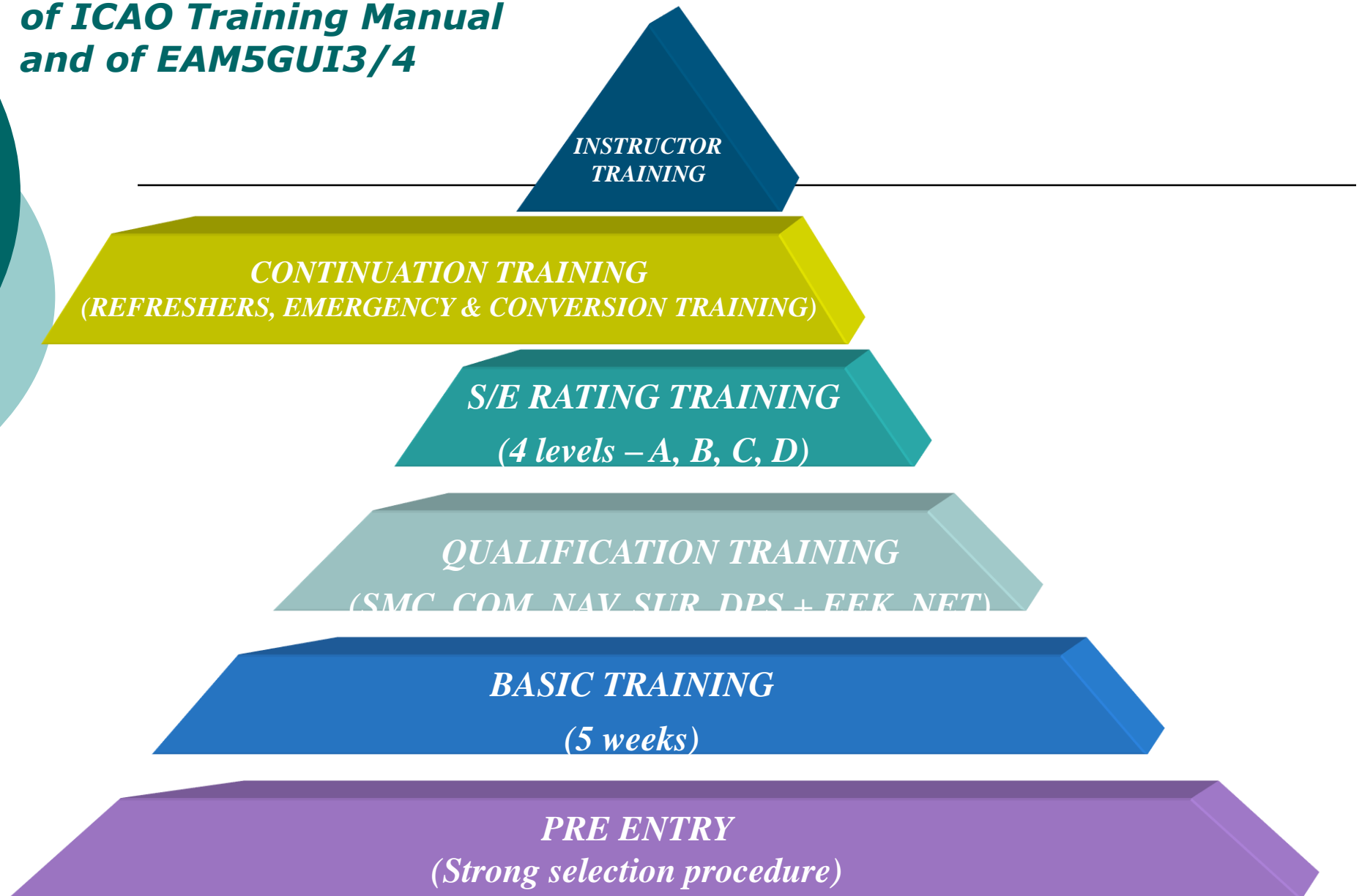
PROBLEMS WITH EXISTING SYSTEM

- ***whole training system relies mostly on pre-selection proces.***
- ***New ATSEP are facing big gap between Basic training and System / equipment training – deeper theoretical and practical knowledge of his working domain is not covered anywhere (It is expected that the person brings this element from his previous expirience (Pre-entry selection). If that is not a case than we have a problem (self learning on the job is expected).***
- ***Very hard to change working domain – no conversion model***
- ***2 levels of System / equipment training are not enough for all ATSEP roles in our organization***

PROBLEMS WITH EXISTING SYSTEM

- ***It demands huge number of instructor man-hours because most of the training is "one on one" – very often the only way forward for student is self-learning because instructor is not available.***

***NEW CONCEPT: full application
of ICAO Training Manual
and of EAM5GUI3/4***



NEW CONCEPT:

- ***Initial training:***
- ***We plan to split the "12-week-basic-training" into***
- ***shorter "Basic training" and***
- ***Qualification training per domain***
(7: SMC, NAV/MET, COM, SUR, DPS/ATM + Electrical power supply & Networking)
- ***Type training:***
- ***4 levels of type training rating (A, B, C & D) in accordance with skill groups (VENDOR OR IN-HOUSE MENTORED TRAINING WITH DIFFERENT EXAM FOR EACH LEVEL)***
- ***Developmental training (with special ratings)***
 - ***ENGINEERING RATING TRAINING (Project development & management)***
 - ***SMC***
 - ***INSTRUCTOR RATING TRAINING***

Skill groups and tasks (A – D) - scheme of maintenace tasks distribution

	<i>Life cycle</i>	<i>SUR</i>	<i>NAV / MET</i>	<i>COM</i>	<i>NETWORKING</i>	<i>DPS (ATM)</i>	<i>POWER SUPPLY</i>
Project	<i>Inicialization</i>	D	D	D	D	D	D
	<i>Concept</i>	D	D	D	D	D	D
	<i>Realization</i>	D	D	D	D	D	D
	<i>Training</i>	B, C,D INSTR.	B, C,D INSTR.	B, C,D INSTR.	B, C,D INSTR.	B, C,D INSTR.	B, C,D INSTR.
Commissioning	<i>Testing</i>	B, C,D	B, C,D	B, C,D	B, C,D	B, C,D	B, C,D
	<i>Certification</i>	C,D	C,D	C,D	C,D	C,D	C,D
operation	<i>Preventive maintenance</i>	A,B	A,B	A,B	A,B	A,B	A,B
	<i>SMC</i>	A	A	A	A	A	A
	<i>Modifications</i>	C,D	C,D	C,D	C,D	C,D	C,D
	<i>Corrective maintenance</i>	B,C	B,C	B,C	B,C	B,C	B,C
Decommissioning		B, C,D	B, C,D	B, C,D	B, C,D	B, C,D	B, C,D