"Absolute safety does not exist: "
"Air Navigation systems, like any other system, can fail "

This simple fact of life triggered the air traffic safety electronics personnel (ATSEP) of seven countries in 1972 to create IFATSEA, The International Federation of Air Traffic Safety Electronics Associations.

Today, in the year 2000, about 20000 IFATSEA ATSEP's around the world are facing the challenge of maintaining very complex CNS/ATM systems which continue to become more sophisticated and greater in number as air traffic expands.

 ATSEP working in Air Traffic Management perform many safety critical tasks which can lead directly or indirectly to air traffic delays , incidents and accidents.

The flying public and other aircraft users should expect and receive systems which are installed and maintained to the highest possible standards irrespective of which country they are flying over, or entering.

International standards are a necessity when dealing with more than one's own country and this is no more obvious than in areas of aviation.

About ATSEP Licensing:

Since 1972 IFATSEA established a good relationship with ILO and ICAO .

Our ILO Liaison Officer in Switzerland reports that, next to pilots and air traffic controllers, the profession of "Air traffic safety technician" is defined in the list of professional occupations under the number 3145 (ISCO 88 Minor Group).

Although IFATSEA uses the more generic term "ATSEP" incorporating Air Traffic Safety engineers, technicians and technologists .

ATSEP today perform technical tasks concerning the design, installation, operation, maintenance and repair of air traffic control and air navigation systems.

The ATSEP Tasks as described by the ILO include :

(a) carrying out technical duties related to development work concerning electronic and electromechanical equipment of air navigation systems, and testing prototypes;

(b) providing technical help in the design and layout of specific interface circuitry of air navigation and aircraft detection tracking systems;

(c) contributing to the preparation of cost estimates and technical and training specifications for air traffic control and safety equipment;

(d) assisting with the technical supervision of construction, installation and operation of ground-based air navigation equipment and its maintenance and repair to ensure that standards and recommendations are met;

e)applying Knowledge of air traffic safety engineering principles and practices in order to identify and solve problems arising in the course of their work;

(f)modifying existing ground-based air navigation equipment to adapt it to new air traffic control procedures;

(g)controlling and calibrating the ground-based air navigation instruments to ensure maximum accuracy and safety of flight, take-off and landing operations;

(e) performing related tasks;

(f) supervising other workers.

Looking now from the ILO Headquarters in Geneva towards the ICAO Headquarters in Montreal, we may state that IFATSEA shares with ICAO the goals of promoting safety and efficiency in the international air navigation system.
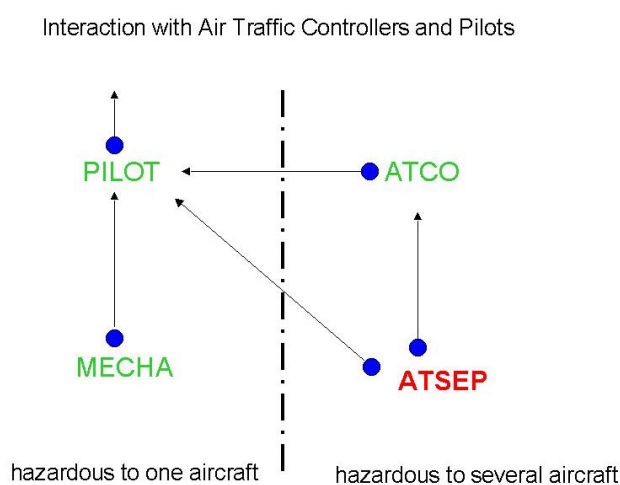
The ICAO Council adopted first Standards and Recommended Practices for Personnel Licensing on 14 April 1948. Subsequent amendments made the ICAO Annex 1 , Personnel Licensing , a very important document indicating the 185 contracting ICAO States how to ensure a maintenance of competency.

The explosion of new technology and the almost exponential increase of air traffic is confronting us with a new threats to aviation safety. The artificial acceleration of a "de-skilling" process. As soon as , or sometimes even before, a new system is in use , industry already develops newer and better systems. This leads to the so called technology driven implementation of new systems.

Exactly in this area IFATSEA feels we are missing something rather fundamental in the ICAO Annex 1.

Competency of Pilots and Aircraft maintenance (technician, engineer, mechanic) is confirmed by ICAO contracting States with a licence .

Competency of Air Traffic Controllers is confirmed by ICAO contracting States with a licence.

Interaction with Air Traffic Controllers and Pilots

PILOT   ATCO

MECHA   ATSEP

hazardous to one aircraft   hazardous to several aircraft

The ATSEP, specifically the ATM technical staff, do not yet have the privilege of being covered by a world wide approved licensing system.

Therefore, at the 1997 General Assembly in Australia, the IFATSEA Eurogroup was tasked with the collection, analysis of ATSEP licensing relevant data and a proposal towards the IFATSEA General Assembly.

As a following step with regard to ATSEP licensing, the Recommendation nr 5 of the General Assembly 1998 (Ireland) established a task force that had to draft appropriate amendment proposals to the ICAO Annex 1.

At our previous General Assembly in 1999, in Marrakech, our ICAO Liaison officer, Yvan Ouellette, as team leader of the Annex 1 amendment drafting group of the IFATSEA Professional Committee, scheduled the document to be ready with a final draft on 15 April 2000.

This document is now ready to be endorsed by the Executive Board and will serve as one of IFATSEA's new cornerstones to uphold a high standard of knowledge and professional efficiency among ATSEP.

During the course of our next General Assembly 30th Assembly (23 to 27 October 2000), we are planning to have some joint IFATSEA/ICAO activities. One of these will certainly be an exchange of ideas about this important licensing subject.

About Certification of ATS ground and satellite equipment and CNS/ATM systems:

Serious efforts by a lot of stakeholders in aviation safety matters have been , and is still be undertaken. However, synchronizing all these efforts seems to be very difficult.

Today, there is not yet an internationally agreed procedure, to be followed by States to design ATS or ATM ground and satellite systems, to commission new systems, or decommission old systems.

Today, there is no independent certification authority, declaring ATS systems or sub systems approved for operational use. A new ATS system becomes operational, without the obligation to demonstrate, to such an international authority, that the system works according to its specification.

The process of commissioning new and decommissioning old ATS systems, or subsystems, is under the responsibility of the individual ATS service providers.

This means that at National level, the ATS authorities take responsibility of the system they operate.

A consequence of this situation is that the major safety indicator still remains the incident/accident reporting. Unfortunately this means that we learn from the worst of the safety indicators, the one where Air Traffic Safety has been jeopardized.

IFATSEA feels that other important safety indicators, such as the rate of technical system failures, the mean time between failures, the number of urgent computer algorithm corrections or program patches, technical personnel measurable stress indicators, are important safety indicators as well.

This kind of proactive safety indicators, however, call for a professional, objective, and most probably institutional, home base.

Without the reference frame, i.e. a licensing scheme for personnel and certification scheme for equipment, the values of this pro-active, technical, safety key indicators remain silent and unused behind the radar screens.

<u>Europe</u>

IFATSEA is proud to be accepted by the European Commission, Eurocontrol, the European Transport Federation as observer or member in a wide range of working groups and teams .

Taking a look at the General Safety Regulation Requirements for ATM Services Personnel, we learn from the Eurocontrol Safety Regulation Commission that a designated authority shall ensure, through the application of appropriate regulatory principles and processes, the organisations and personnel responsible for tasks in the provision of air traffic services or supporting the provisions of air traffic services, which are considered to be related to the safety of air traffic, are competent to carry out those tasks.

An air traffic services provider at an ATS unit shall ensure that all personnel responsible for tasks in the provision of air traffic services or supporting the provision of air traffic services, which are considered to be related to the safety of air traffic, are competent to carry out those tasks and satisfy applicable fitness requirements.

The EATMP Safety Policy , including the competency element , and the ECAC common core content training objectives, for ATSEP are considered to be acceptable means of compliance with this requirement.

The Eurocontrol IANS Institute Luxembourg produced in 1996 for ATSEP, a very useful document called "Guidelines for a common Basic Level of Technical Training for ATM Technical Staff" and has now tackled the difficult task of establishing qualification training guidelines for ATM technical staff. IFATSEA is convinced that these guidelines will streamline the specialist training for all ATSEP in Europe.

The Safety Regulation Commission now has taken over the topic of ATSEP licensing from the EATMP Human Resources Team and will certainly, in the near future, still have a lot of important brain-work to be done on this subject.

IFATSEA has also been informed that the European Commission is closely examining the external constraint imposed on ATM by liberalisation, environmental protection, defence, security requirements and economics. One of the important topics in Europe being that the European ministers will tackle airspace congestion.

The high-level working group, chaired by the EU transport commissioner Loyola de Palacio, has indeed 6 important topics on the agenda:

- European airspace structure.
- Civil/Military airspace allocation.
- Scope of the regulatory framework.
- Structure for service provision.
- Implementation measures.
- Human factors.

We are therefore grateful to the European Commission that IFATSEA has been accepted in the "shadow" industry group created, allowing participation of various international stakeholders.

The Regulatory Framework for Air Traffic Management has in its scope the Safety regulation, Economic Regulation and Airspace Management. IFATSEA thinks this would be a perfect carrier for subjects such as ATSEP licensing.

As mentioned in this document, the objective for ATC is to prevent aircraft from colliding with each other or with any obstacles on the ground. This is clearly a safety function and as is the case in all activities where the public interest in a socially acceptably safety level needs to be guaranteed, safety of ATC must be regulated.

IFATSEA thinks that in line with our Annex 1 amendment philosophy, adopting an ATSEP licensing system in Europe would guarantee the safest way of running and fine tuning the new and future CNS/ATM systems.

A world-wide approved ATSEP licensing system might even become a contribution from the " ATSEP world" to the realisation of a European single sky.

Without any doubt the realisation of such a system requires, besides a good political arbitrage, a perfect synergy between Eurocontrol and the European Commission, as well as between both ATS providers and Civil Aviation Authorities.

Taking the opportunity of this press conference in Europe, IFATSEA will be glad to continue sharing its experiences and information, received from the world wide ATSEP working floor, with the Eurocontrol Agency, the European Commission, the European Industry , aviation stakeholders and all our European colleagues caring about Aviation Safety.
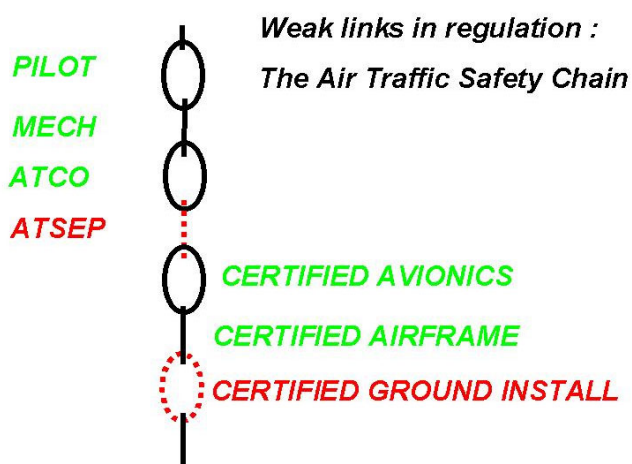
Abbreviations used in this press release:

ATC	*Air Traffic Control*
ATM	*Air Traffic Management*
ATS	*Air Traffic Services*
ATSEP	*Air Traffic Safety Electronics Personnel*
CNS/ATM	*Communication, Navigation, Surveillance/Air Traffic Management*
EATMP	*European Air Traffic Management Program*
ECAC	*European Civil Aviation Conference*
ETF	*European Transport Federation*
ICAO	*International Civil Aviation Organisation*
ILO	*International Labor Office*
IFATSEA	*International Federation of Air Traffic Safety Electronics Associations*

Conclusion:

Problem:

IFATSEA considers absence of a world wide system of licensing of ATSEP and the absence of an ATS systems certification scheme as a weak link in the aviation safety chain.

PILOT

MECH

ATCO

ATSEP

Weak links in regulation :

The Air Traffic Safety Chain

CERTIFIED AVIONICS

CERTIFIED AIRFRAME

CERTIFIED GROUND INSTALL

Solution:

-        Amendment of ICAO Annex 1 with ATSEP licence in Chapter 4

-        Introduction of institutional equipment certification schemes for CNS/ATM ground and satellite installations.