ASSEMBLY — 35TH SESSION

TECHNICAL COMMISSION

Agenda Item 23: Consolidated statement of continuing ICAO policies and practices related to communications, navigation, and surveillance/air traffic management (CNS/ATM) systems

PERSONNEL REGULATION AS A TOOL TO SUPPORT SAFETY AND SECURITY IN AIR TRAFFIC SERVICES

(Presented by the International Transport Workers' Federation, ITF)

SUMMARY

The human is placed at the core of the ATM operational concept. Human factors and competence remain a central component of ATS performance today and will continue to do so in 2025. This paper recognised that personnel licensing and certification and other forms of regulation provides one tool for ensuring the quality of this key element in the ATS system. The paper reviews safety and security regulatory tools and invites the conference to conclude that additional personnel regulatory measures will need to be considered if the quality of ATS personnel is to be assured in an increasingly flexible, fragmented and deregulated environment.

Action by the Assembly is in paragraph 5.

1.   INTRODUCTION

1.1   Throughout the 1990s we have seen a continuing restructuring in the way that air traffic services are delivered. Corporatisation and privatisation as well as outsourcing and subcontracting have led to increasing fragmentation both in the provision of air traffic services and in the maintenance of navigational aids and ground-based equipment such as radar and telecommunications.

1.2   While many contributions to this Conference acknowledge the over-riding importance of safety and security objectives within air navigation services, the ITF believes that additional attention needs to be given by this conference to the regulatory tools through which these objectives might be advanced in the period of change ahead.

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[1]   English, French and Spanish versions provided by ITF

(4 pages)

1.3   The primary regulatory function of States must be the safety of the system not the promotion of shareholder value. There should be no dual mandate. Safety and security must be at the top of the hierarchy of regulatory functions, and all performance, operational or commercial considerations should be measured for the impact on safety and security.

1.4   The proposed ATM operational concept rightly places safety at the centre of ATS performance but acknowledges that commercial expectations will become increasingly important drivers for change.

1.5   Air traffic services are team efforts that involve different groups working closely together to deliver a seamless service to the aircraft. The ICAO ATM operational concept emphasises the *collaborative integration* that must be at the heart of the ATS system, and places human performance at the centre of the system. However, delivering that system is becoming increasingly complex and difficult as a consequence of an ongoing process of commercialisation, deregulation, liberalisation and subcontracting that is affecting many components of the system, and impacting often negatively on human performance.

1.6   Similar processes of change are affecting other elements of air transport, such as the airlines. In these activities safety and security regulation is far more highly developed than in the ATS domain. In a number of cases, regulation has been specifically developed to address the restructuring affecting those sectors. The ITF strongly support the proposal that ICAO should develop ATM requirements, and proposes in this paper some specific means by which this could be achieved in regard to maintaining and enhancing the human dimension of safety and security.

1.7   The ITF believes that the three safety regulatory pillars typically applied to the airline and maintenance sectors would provide a coherent and tried and tested mechanism for the proposed ATS regulation, which we strongly support. These pillars of product, provider and personnel licensing are all reflected to varying degrees within the existing SARPs developed through ICAO. The ITF believes that *multiple* licensing will be necessary and appropriate to the ATS domain as well. For instance, in aircraft operations, the carrier is licensed – through their AOC – as are the flight deck personnel and in many cases the crew, with a triple safeguard though the certification of the aircraft in which they fly. This multiple approach provides complimentarity and ensures that all safety-critical elements are regulated. This paper addresses in particular the question of operational and personnel licensing.

2.   **LICENSING PROVIDERS**

2.1   A number of countries have moved towards the licensing or certification of providers of air navigation services. However there is as yet no common harmonized approach. The ITF believes it is time to introduce a set of ICAO regulations to cover the licensing of all ANS providers including maintenance organisations and suppliers of safety-critical parts. These regulations could set minimum safety and training standards.

2.2   Such licenses could cover the following elements:

a) The licensee would be required to provide details of safety systems, testing, proven engineering, and processes that demonstrate that safety and security considerations have the highest priority in its activity.

b) The licensee must demonstrate to the regulator that it has sufficient experience, proper engineering personnel, quality manufacturing, and the capacity to safely and securely provide highly reliable in-service performance for a specific timeframe.

c) In the case of maintenance organisations the licensee should demonstrate that they have sufficient personnel with the right qualifications and training to be able to maintain all equipment.

d) The licensee should demonstrate to the regulator that they provide their employees with appropriate training to enable them to carry out their functions effectively.

2.3 There are numerous advantages to such an approach. It would ensure that every organisation is operating to the same high safety standards. In the UK rail industry the maintenance of the rail system moved from being the responsibility of a single organisation to being the responsibility of 4 main contractors. Just before the Hatfield crash it is estimated that there were over 4000 sub contractors working on safety critical equipment. The official accident reports into the Columbia loss provide a contemporary critique of the impact of subcontracting and outsourcing in the space shuttle programme. We cannot allow the same to happen in Air Navigation Services.

2.4 By demonstrating to the regulator that they have sufficient experience and proper personnel, they will also be able to build and maintain the confidence of users. The regulation would also ensure a harmonised approach to safety thus ensuring that all areas of the world are safe to fly through. This approach would also facilitate the interoperability and flexibility set out in the ATM operating concept and bring the regulation of the ANS field into line with the rest of aviation.

3. **LICENSING PERSONNEL**

3.1 The second element of the regulatory framework that we believe needs strengthening is in relation to personnel. Air Traffic Controllers are licensed, but none of the other safety or security sensitive personnel within the ATS system operate with licenses.

3.2 "*ATM is critically dependent on the employees that form the core of the system, including controllers, engineers and aircrew*". This quote comes from a presentation by Boose Allen Hamilton for the European commission in 2001. They argued that a harmonised European training scheme and portable personnel licence should be established. This is intended to create a level playing field for all providers.

3.3 In our paper WP/128 presented to the 33rd session of the ICAO Assembly we argued that the "*cost benefit culture of corporatised ANS... risks losing the communication and control chain between employees that is the main element of a coherent centrally managed safety culture*". If anything the position is weaker today.

3.4 Given that the human being is at the centre of the ATS system, it seems to us to be entirely appropriate that safety regulators have a tool at their disposal that will confirm that employees in all safety or security sensitive functions within the system have the necessary competence and current knowledge required to fulfil their functions in a safe and secure manner. This means, in particular, the extension of licensing and certification to ATSEPs.

3.5 The well-established means used by states to confirming personnel competence this is through the issuing of licenses that are vested in the individual. Licensing of providers and/or training organisations can complement but cannot substitute for a means of assurance of individual competence. This is the reason, for example, why there is a dual process of licensing of aircraft maintenance training organisations alongside individual personnel licensing for maintenance engineers.

3.6   The development through ICAO of minimum requirements for ATSEP certification and licensing will make a significant contribution to the promotion of a global harmonised safety framework for the ATS system as a whole. It could also provide a ready means of confirming competence of employees while allowing the licensed employees freedom to move between States. We also know that such licensing or certification standards would permit training to be carried out in a more standard and potentially cost efficient manner.

4.   REGULATION OF PERSONNEL WORKING TIME

4.1   The authors of the ATM operating concept are correct in stating that "*Due consideration of human factors must be given in all aspects of the system*". It is the view of the ITF that a central constraint on human performance, which must not be allowed to occur amongst safety or security sensitive functions, is fatigue.

4.2   The ITF notes that the ANS community lags behind the rest of the aviation community in regulating this dimension as well. The concept of regulation of working time is established for pilots, for cabin crew, and for licensed maintenance personnel.

4.3   We believe the time is now right for ICAO to introduce a requirement for work time limitations for ATCO and ATSEP functions. The same commercial pressures that are driving change, are also leading to an increased exploitation of all human resources within the ATS system. As personnel costs account for above 60% of the cost of ATS provision in most jurisdictions, the profit engine is often steered at increasing employee productivity, increasingly with the risk of fatigue. Poor historic manpower planning and investment means that in many States there are personnel shortages in critical safety sensitive operational functions further adding pressure on front-line operational personnel and backroom technical and support functions.

5.   ACTION BY THE ASSEMBLY

5.1   The Assembly is invited to endorse the idea of licences for providers and to request that ICAO develop draft regulations in the context of the proposed development of ATM requirements.

5.2   The Assembly is invited to request the secretariat to launch a study into the experience of restructuring and increasing fragmentation of air traffic services maintenance and operations and to assess the impact on safety and security.

5.3   Based upon the study results from 5.3, the Assembly is invited to review with a view to strengthening the current licensing requirements for ATCOs.

5.4   Based upon the study results from 5.3, the Assembly is invited to develop requirements for the certification or licensing of ATSEPs and other safety or security sensitive or critical functions.

5.5   The Assembly is invited to request the Secretariat to develop proposals for the regulation of working time for ATSEPS and ATCOs.

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