



WORKING PAPER

FOURTEENTH AIR NAVIGATION CONFERENCE

Montréal, Canada, 26 August to 6 September 2024

Agenda Item 3: Air navigation system performance improvement

3.3: Eighth Edition of the Global Air Navigation Plan (GANP)

AIR TRAFFIC OPERATIONS SPECIALISTS

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

EXECUTIVE SUMMARY

This paper presents the lack of recognition of operational workers besides air traffic controllers and air traffic safety electronics personnel and the lack of competence and training guidance and requirements for this staff here referred to as air traffic operations specialists.

Action: The Conference is invited to:

- a) recognize a third professional group called ATOS within the air traffic management (ATM) domain and update the *Global Air Navigation Plan* (GANP, Doc 9750) to cover the topic of competence of staff with a safety related duty;
- b) mandate the Air Traffic Management Operations Panel (ATMOPSP) to add ATOS to the ICAO *Procedures for Air Navigation Services — Training* (PANS-TRG, Doc 9868);
- c) mandate the ATMOPSP to create an ATOS document in line with ICAO *Manual on Air Traffic Controller Competency-based Training and Assessment* (Doc 10056) and ICAO *Manual on Air Traffic Safety Electronics Personnel Competency-based Training and Assessment* (Doc 10057);
- d) include this topic in the Next Generation of Aviation Professionals (NGAP) programme.

1. INTRODUCTION

1.1 Technological progress makes international aviation more interconnected and the need for safe international transport evolves along with this. One important pillar in regards to safe operations is training and competence of the staff of air navigation service providers (ANSPs).

1.2 Annex 1 — *Personnel Licensing* of the Chicago Convention covers the requirements for licensing of personnel regarding the separation of aircraft. In addition, ICAO Doc 9868 and its specifications Docs 10056 and 10057 set standards for training of air traffic controllers (ATCOs) and air traffic safety electronics personnel (ATSEP). The increase in air traffic, the implementation of more advanced technology and an increase in automation has led to more complex air traffic services (ATS) procedures and an increase in the demand of data management. This has not only an effect on the level of specialization of ATCOs and ATSEPs, but also on other ATS specialists who do not fall under Annex 1. Therefore, ITF along with other organizations have worked on the establishment of adequate training and competency requirements for personnel in ATS, who do not fall under the ATCO or ATSEP population but are an integral part of the ATM environment.

¹ Arabic, Chinese, English, French, Russian and Spanish versions provided by ITF.

1.3 Next to the two defined ICAO professions ATCOs and ATSEP, we propose to integrate a third group of professionals in ATM called air traffic services operations specialists (ATOS).

2. DISCUSSION

2.1 Scope: We target any personnel, who is responsible for the management of aeronautical data or services relevant for the provision of ATS affecting safety of air travel.

2.1.1 Various occupations in ATM would qualify for such a definition when not performed by ATCOs and ATSEP, such as flight data specialists in ATC, flow coordinators, airspace managers, including flight procedure designers, clearance delivery specialists, apron management officers, aeronautical information management/services officers, ATS reporting office specialists, flight information service officers and aeronautical fixed telecommunication network officers. A coordination with World Meteorological Organization (WMO) to ensure coherence of the provisions for aeronautical weather observers/forecasters will be needed.

2.1.2 We are ready to discuss the relevance and completeness of this proposed classification.

2.1.3 All those functions combine one vital aspect – their involvement in and impact on ATS and therefore a direct impact on the ATS safety chain.

2.2 Current Situation:

2.2.1 Depending on the country or service provider, some of the functions described above may be carried out by an ATCO. Nonetheless, very often, the tasks which fall under those functions are performed by locally-trained specialists. In some cases, there is no legal basis of training and competence requirements for these types of staff. Considering the worldwide ATCO shortage, the evolution of locally trained staff performing those functions will most likely increase. At the moment, ICAO defines most of the functions but insufficiently describes the skills and competences required for the person performing these tasks. Some staff in those functions are not mentioned anywhere (like flight data specialists), some are only mentioned without any more clarification (airspace managers and flow coordinators), and two are defined with training material (flight information service officers, aeronautical information service (AIS)/aeronautical information management (AIM) specialists and air traffic services reporting office (ARO)).

2.3 Purpose:

2.3.1 An implementation of a training and competency scheme of ATS personnel is a fundamental element of safety management in the provision of ATM services. Here, an alignment and extension of a competency-based training and assessment to include all involved ATS specialists shall be envisaged to increase safety standards. In the next step, by having aligned processes (like ATOS) in place, the effectiveness in task performance with new advanced systems and efficiency in resource allocation could improve significantly.

2.3.2 The mentioning and defining of the functions with the staff performing it would be an important step of recognition and could potentially improve the attractiveness of those functions. This will be helpful in the recruitment process of future specialists. With ATOS, ICAO could bring all these niche functions under one roof and bring clarity and uniformity (wherever feasible) to ATM experts but also to the public having positive effect on recruitment.

2.4 Methods:

2.4.1 To understand whether a function is considered as an elevated operational task under ATOS, a definition must be created to differentiate between “normal office”² and operational tasks. This can be done by defining the link to safety either with a generic definition of each function or by an analysis of the individual tasks of each function.

2.4.2 A job description for each function could be defined or the task falling under each function be collected. For the later, a method called task safety impact assessment technique (TSIAT) has been invented to have an objective discussion on the competence needs of ATM staff. The aim is to use safety models to define how individual tasks affect safety and therefore informing the need for competence regulation to manage the likelihood of failure of such tasks.

2.5 Goals:

2.5.1 We would like to propose the following goals:

- a) an implementation and recognition of a third professional group called ATOS within ATM;
- b) add ATOS to the ICAO Doc 9868; and
- c) create an ATOS document in line with ICAO Doc 10056 and ICAO Doc 10057.

3. CONCLUSION

3.1 Many ATS specialists are contributing to the operations of the global transport network, who do not fall under the definition of an ATCO or ATSEP; yet are an integral part of the ATM system. Therefore, several countries put a lot of efforts in licensing or managing competence of those specialists on national level. Unfortunately, there is a lot of room for improvement on international level to recognize those professionals and to implement competency standards.

3.2 Automated message transfer, more interoperability and complex system architectures; the demands on ATS specialists handling the most sensible data in ATS are growing. In this context, to fulfil certain ATS tasks in the future requires a highly skilled and knowledgeable workforce. The training and competence of ATS personnel are fundamental element of safety achievement, and moreover of safety management in the provision of ATM services.

3.3 That is why the need to establish a common baseline for the competence of staff with safety related and especially safety critical tasks in ATM but without an international licence becomes more present. Additionally, it is important to finally recognize the staff performing those functions at ICAO level and provide them with Standards and guidance material within the global ATM community. With the integration of the third professional group of ATOS, the international community has the chance to set higher safety standards by implementing training and competency requirements in ATS, bring clarity to Member States and service providers, and finally recognizes numerous ATM specialists worldwide.

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² The term “normal office” tasks refer to the extended or missing access to a decision-making system and/or tactical (time critical) level.