



ASSEMBLY — 40TH SESSION

TECHNICAL COMMISSION

Agenda Item 30: Other issues to be considered by the Technical Commission

GANP INITIATIVES IMPLEMENTATION ISSUES

(Presented by the Russian Federation)

EXECUTIVE SUMMARY	
This paper provides a summary of the <i>Global Air Navigation Plan</i> (GANP, Doc 9750) initiatives implementation issues.	
<i>Strategic Objectives:</i>	This information paper is linked to Strategic Objective <i>Air Navigation Capacity and Efficiency</i> .
<i>Financial implications:</i>	No financial impact for ICAO.
<i>References:</i>	Annex 11 — <i>Air Traffic Services</i> Annex 10 — <i>Aeronautical Telecommunications</i> Doc 4444, <i>Procedures for Air Navigation Services — Air Traffic Management (PANS-ATM)</i> Doc 9924, <i>Aeronautical Surveillance Manual</i> Doc 9830, <i>Advanced Surface Movement Guidance and Control Systems (A-SMGCS) Manual</i> Doc 9750, <i>Global Air Navigation Plan</i> Doc 9476, <i>Manual of Surface Movement Guidance and Control Systems (SMGCS)</i>

1. INTRODUCTION

1.1 At current, according to the ICAO initiative and in accordance with the GANP air navigation services providers (ANSP) and the aviation authorities of many countries have commenced the process of remote tower implementation for regional and city line aerodromes. The equipment certification and legalization of remote air traffic services (ATS) are in progress. Several equipment manufacturers have introduced their solutions to the market, based on video surveillance systems, tested them in the “shadow” mode and put them into operation. The first reviews from ANSP service providers confirm the ability of this equipment to provide adequate service from a remote from the aerodrome ATS positions. The implementation plans have been adopted.

¹ English and Russian versions provided by the Russian Federation.

1.2 At the same time, the application of implementation plans is prevented by an insufficient regulatory framework regarding the admission and application of the visual (video) surveillance system for ATS, despite the introduction of Amendment 8 to Doc 4444, *Procedures for Air Navigation Services — Air Traffic Management* (PANS-ATM).

1.3 Ensuring the accessibility of vast territories of the Russian Federation requires the development of air transport infrastructure and new technologies introduction for ATS and ensuring flight safety at remote aerodromes and sites. ICAO has proposed the concept of the “Remote Tower” technology implementation, which is reflected in the GANP, as a project - “Remote ATS - ASBU B1-RATS”. This technology envisages the provision of safe and cost-effective air traffic services for one or more aerodromes from an ATS unit located remotely.

1.4 For the Russian Federation, the introduction of remote operator control and flight information services technology for aerodromes is extremely relevant for geographically remote and inaccessible regions, where more than 80 per cent of Russian aerodromes provide less than ten take-off and landing operations per day. Therefore, the air navigation plan of the Russian Federation supports the phased implementation and transition to remote ATS from remote air traffic control (ATC) positions based on the visual (video) surveillance systems usage. By 2022, the infrastructure of these systems should be deployed at several aerodromes of high priority.

1.5 At present, Russian industry has developed visual (video) surveillance systems equipment for ATS purposes. The first system for the Vnukovo aerodrome tower is undergoing the trial operation period.

2. UNCERTAINTIES AND NEEDED SOLUTIONS

2.1 At the same time, difficulties arise in the further practical use of the visual (video) surveillance system due to the uncertain status of this system in the aviation surveillance system. The ICAO Doc 9924, *Aeronautical Surveillance Manual* does not contain provisions defining the role and place of the visual (video) surveillance system as a means of independent non-cooperative surveillance for ATS purposes.

2.2 In PANS-ATM, there is also no clear answer to the questions about what type of tools the system of visual (video) surveillance refers to, how to implement it correctly and where it can be implemented:

7.1 FUNCTIONS OF AERODROME CONTROL TOWERS

...

7.1.1.2 Aerodrome controllers shall maintain a continuous watch on all flight operations on and in the vicinity of an aerodrome as well as vehicles and personnel on the manoeuvring area. Watch shall be maintained by visual observation, augmented when available by an ATS surveillance system.

...

7.1.1.2.1 Visual observation shall be achieved through direct out-of-the-window observation, or through indirect observation utilizing a visual surveillance system which is specifically approved for the purpose by the appropriate ATS authority.

...

Note 2.— Guidance material on the implementation of the remote tower concept for single mode of operation can be found in the Annex to European Aviation Safety Agency (EASA) Executive Director Decision 2015/014/R (3 July 2015).

2.3 The visual (video) surveillance systems have not been introduced in Annex 11 — *Air Traffic Services*, Annex 10 — *Aeronautical Telecommunications* and Doc 9830, *Advanced Surface Movement Guidance and Control Systems (A-SMGCS) Manual*.

3. CONCLUSION

3.1 The Russian Federation considers that ICAO should more fully and accurately define procedures regarding the implementation and application of the instrumental visual (video) surveillance system in PANS-ATM. The necessary guidance material on the implementation of the instrumental visual (video) surveillance system should be prepared and published on behalf of ICAO.

3.2 The Assembly is invited to:

- a) recognize the need for resolving issues related to the implementation of visual observation systems;
- b) instruct the Council to:
 - i) address the issue of defining a visual (video) surveillance system as a means of independent non-cooperative surveillance for ATS purposes. Assign this system to aviation surveillance systems;
 - ii) develop and amend the relevant provisions of the following documents: Annex 11, PANS-ATM, and Doc 9924; and
 - iii) develop guidance material for the implementation of instrumental visual (video) surveillance systems.

— END —