



ASSEMBLY – 35TH SESSION

PLENARY

Agenda Item 7: Annual Reports of the Council to the Assembly for 2001, 2002 and 2003

**ADVANCED SURFACE MOVEMENT GUIDANCE AND CONTROL SYSTEM (A-SMGCS):
IMPLEMENTATION OF SURVEILLANCE AND CONTROL REQUIREMENTS FOR
EUROPEAN AIRPORTS**

(Presented by the Netherlands on behalf of the European Community and its Member States²)

SUMMARY

The European Commission has taken the necessary steps to start implementing the Single European Sky initiative, which will lead to a more efficient and harmonised air transport system in Europe. This will make for an increase in traffic and aircraft movement that will have a heavy impact on the structure of existing airports in Europe.

Instead of aiming to extend physical airport infrastructure, another solution could be found through a more efficient way of using existing infrastructure and implementing intelligent systems and concepts.

The 11th ICAO Air Navigation Conference that was recently held approved a recommendation on “Runway Safety Programmes” for the States to “take into consideration that part of the ICAO Manual on Advanced Surface Movement Guidance and Control Systems (A-SMGCS) related to surveillance and control functions, when implementing such systems at airports.”

This paper will address the issue of how to translate the operational and performance requirements contained in the ICAO Manual into the implementation of surveillance and control functions at airports.

The 35th Assembly is invited to note the progress made in the implementation process and to take appropriate measures to support it where this is needed for transposition into ICAO documentation.

¹ English, French and Spanish versions provided by the European Community and its Member States.

² The European Community comprises the following states: Austria, Belgium, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Poland, Portugal, Spain, Slovak Republic, Slovenia, Sweden and the United Kingdom

1. INTRODUCTION

- 1.1 The package of legislation agreed between the European Parliament and the Council has opened the path to the implementation of rules and regulations that will govern the Single European Sky in Europe. This event represents a major step in the integration of the European Air Transport System and will open up the way to allocating an increase of aircraft movement in the skies.
- 1.2 Increased aircraft throughput will be required at airports to cope with the forecasted demand of more aircraft movements. However, the construction of new airports, or even the expansion of existing ones, requires a long time planning and in many areas it is not even possible due to what is already a heavy impact on the local community environment.

2. OPERATIONS AT AIRPORTS TODAY

- 2.1 This situation is particularly true of large and medium-size airports where expansion is quite critical and will require the capability of operating in all weather conditions while ensuring a safe way of using existing infrastructure.
- 2.2 In the absence of a common regulation, most large and medium-size airports have started to install systems based on locally defined requirements, which may lead to divergent types of operations and levels of safety.
- 2.3 Such a wide-open situation may have no major impact in cases of low traffic or in good weather conditions, but in adverse weather conditions or in cases of heavy traffic it may lead to an unsafe way of operating as well as to congestion, particularly at major hubs.
- 2.4 A minimum common denominator on what should be the operational level of safety in all weather conditions is needed to ensure a safe and fair way of operating, providing similar conditions to pilots at different airports while lending unequivocal support to the work performed by controllers.

3. THE ADVANCED SURFACE MOVEMENT GUIDANCE AND CONTROL SYSTEM CONCEPT (A-SMGCS)

- 3.1 A harmonised Europe-wide solution to these discrepancies can be found in adopting the new ICAO A-SMGCS Manual as the baseline for the implementation of surveillance and control systems to support the action of controllers.
- 3.2 However, translation of the Manual requirements into implementation requires the development of ad hoc procedures that will support controllers in their work.
- 3.3 After a long period of experimentation, both in Europe and in the United States, the concept of A-SMGCS has proved itself ready for implementation of the surveillance and control parts, the available technology providing valid support for its implementation.

4. REQUIRED ACTIONS FOR THE ADOPTION OF THE ICAO A-SMGCS MANUAL FOR THE EUROPEAN REGION

- 4.1 While the concept and the broad operational requirements have reached complete maturity, the operational specifications needed to exploit the advantages of the concept still have to be refined and assessed against safety cases to validate the use of these systems.

- 4.2 Using its tools of Research and Development as well as its implementing tools through the TEN-T (Trans-European Networks for Transport), the European Commission is supporting actions for the assessment of these operational specifications.
- 4.3 On completion of these tests, appropriate steps will need to be taken to start establishing the relevant regulations for its application throughout European Community airports.

5. ACTION BY THE ASSEMBLY

- 5.1 The European Community and its Member States call upon the Assembly to:
- note the intention of the Member States of the European Community to recommend the use of the ICAO A-SMGCS Manual;
 - invite the ICAO Council to encourage the use of the A-SMGCS Manual for the implementation of surveillance and control function specifications and to support the necessary steps to introduce the use of the Manual in recommended practices, supervising compliance with the existing documentation.

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