

ELEVENTH AIR NAVIGATION CONFERENCE

Montreal, 22 September to 3 October 2003

Agenda Item 4: Capacity-enhancement measures
4.2: Regional measures

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

(Presented by Italy on behalf of the European Community and its Member States¹)

SUMMARY

Pressure is growing on airports' systems to provide the appropriate capacity safely, in all weather conditions, to allocate all aircraft and to allow an efficient use of the existing infrastructures. Recently the Advanced Surface Movement Guidance and Control Systems (A-SMGCS) Manual has been edited by ICAO and has been distributed for consideration by the Member States (AN-Conf/11-IP/4). The European Community and its Member States request the Conference to support the implementation of the surveillance and control parts of the A-SMGCS Manual for the European Region in order to provide the common baseline for the harmonised implementation of surveillance and control systems at airports.

Action by the conference is in paragraph 5.

¹ The European Community comprises the following States: Austria, Belgium, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Luxembourg, Netherlands, Portugal, Spain, Sweden and the United Kingdom

* French and Spanish versions provided by Italy.

1. INTRODUCTION

1.1 The civil aviation transport system is growing in accordance with the development of the society and, although it is recently experiencing a reduction in the overall volume, it is expected shortly to start a new growth as it has shown steadily during the last decade.

1.2 To cope with this forecasted demand of more aircraft movements, the European Community has launched the Single European Sky programme for the harmonisation of the sky and a more efficient use of the airspace resources. This initiative will ensure a better distribution of the traffic, which, on the other hand, will require an appropriate airport's system to receive the growth of aircraft's movements in a safe manner.

1.3 A better throughput at airports, particularly at large and medium size ones where expansion is quite critical, will require the capability of operating in all weather conditions and to ensure a safe way of using existing infrastructures while enhancing the throughput. This entails that the necessary and timely information are provided to the controller on the traffic and the local environmental conditions.

2. THE PRESENT SITUATION

2.1 As a consequence of this increased demand for an efficient airport and in the absence of a common regulation, most of the large and medium size European airports have implemented tools and systems based on locally defined operational and functional requirements.

2.2 The result is that there is a different level of support in the performance of surveillance and control functions. This situation not only has an impact on the controllers' work but may also lead to possible misunderstanding with pilots who may experience different procedures at different airports which, in turn, may end up into safety critical operations.

2.3 A harmonised European-wide solution to these discrepancies can be found in the adoption of the new Advanced-Surface Movement Guidance and Control Systems (SMGCS) Manual prepared by ICAO as the baseline for the implementation of surveillance and control systems to support the action of controllers.

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

3.1 The concept of A-SMGCS has been under development for many years, taking its origin from the recent technological developments that allow a revisit of the existing ICAO *Manual of Surface Movement Guidance and Control Systems (SMGCS)* (Doc 9476) which is no longer capable of supporting all the necessary operations for the required level of safety in all weather operations.

3.2 The new A-SMGCS Manual includes operational requirements irrespective of the technology to be used and provides guidelines for the development of local requirements. This allows a harmonised and optimal use of existing systems and infrastructures without requiring investments where not needed, building on an open architecture that can be upgraded according to the real needs.

3.3 The expected result is that, in all weather conditions, operations will be safely conducted while harmonising operations throughout European airports. The surveillance and control functions of an A-SMGCS, as described in the manual, are designed in order to provide the controller with all the information he needs without looking out of the window or without depending on weather and visibility conditions.

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

4.1 The European Community and its Member States will jointly aim at the implementation of the ICAO A-SMGCS Manual in its parts of surveillance and control. Legislative and technical aspects will be carried out in due time, following the normal European Community procedures and in close cooperation with the ICAO Paris Office, the States and Eurocontrol.

4.2 Progress of the work will be presented and discussed within the appropriate ICAO EUR Region coordination and planning groups, especially the Programme Coordinating Group (COG) and the European Air Navigation Planning Group (EANPG).

5. ACTION BY THE CONFERENCE

- 5.1 The European Community and its Member States call upon the conference to:
- a) note the intention of the Member States of the European Union to recommend the use of the ICAO A-SMGCS Manual;
 - b) request the ICAO Council to prepare the necessary administrative steps to encourage the use of the A-SMGCS Manual for the implementation of surveillance and control functions specifications; and
 - c) support the adoption of the A-SMGCS Manual in other ICAO Regions for worldwide implementation of surveillance and control functions specifications.

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