

**57th CONFERENCE OF
DIRECTORS GENERAL OF CIVIL AVIATION
ASIA AND PACIFIC REGIONS**

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**AGENDA ITEM 5: AVIATION SECURITY AND
FACILITATION**

**INTERNATIONAL COOPERATION FOR THE PROMOTION
OF DEVELOPMENT AND UTILIZATION OF AVIATION
ADVANCED SECURITY EQUIPMENT**

Presented by the Republic of Korea

SUMMARY

This Working Paper establishes an information sharing cooperation system, including the scope of adoption and technical details of security equipment, which aims to ensure aviation security through consistent application of international performance standards for the establishment and implementation of GAsEP, including the application and utilization of advanced technologies in ICAO.

INTERNATIONAL COOPERATION FOR THE PROMOTION OF DEVELOPMENT AND UTILIZATION OF AVIATION ADVANCED SECURITY EQUIPMENT

1. INTRODUCTION

1.1 As international terrorism trends are increasingly sophisticated and diversified, aviation authorities are in urgent need of measures to strengthen security and facilitate passengers against these threats.

1.2 To address this, ICAO has established and implemented a Global Aviation Security Plan (GASeP), including the application and utilization of advanced technologies, and is fully sympathetic to ICAO, government, industry and stakeholders in calling for contributions to improving aviation security level worldwide.

1.3 GASeP is a prerequisite for the continuous development of the air transport industry, and the need to establish guidelines for performance certification systems to promote the introduction and utilization of advanced equipment is being raised.

1.4 Accordingly, Republic of Korea introduced a performance certification system for security screening equipment in 2018, and is working on the development of performance certification standards and test methods along with research for the development of advanced equipment. According to the 「A basic plan of aviation security」 in 2022, the security screening equipment currently deployed in airports in Republic of Korea is being made more advanced.

2. TRENDS IN DEVELOPMENT OF ADVANCED SECURITY EQUIPMENT

2.1 The elements of aviation threat are not standardized and vary widely, and with the development of the Internet, it is easy to obtain information and materials, so the threat using explosives is expected to evolve faster than the countermeasures.

2.2 Explosive detection systems have been developed and utilized mainly for military and commercial explosives, but the means of explosive terrorism in various parts of the world are found in many types and forms.

2.3 Currently, the main technologies of aviation security equipment are X-ray imaging technologies, metal detection technologies, and exclusive detection technologies, and research on development of advanced equipment reflecting new technologies is actively carried out to cope with various terrorist methods around the world.

2.4 Future advanced security equipment technology trends will contribute to improving detection rate performance and accuracy of determining terrorist threats by utilizing convergence and combined technology of sensors.

2.5 The introduction of in-line real-time search technology is expected to minimize delay time and passenger inconvenience by strengthening search through technology fusion, such as spatial matching of personal search with portable items.

3. Necessity of Cooperation in Performance Certification System

3.1 The Aviation Security Equipment Performance Certification System is led by the United States Transportation Security Administration (TSA) and the European Civil Aviation Conference (ECAC).

3.2 Civil Aviation Administration of China (CAAC) implements policies related to aviation security equipment, acts as a certification authority for aviation security equipment, operates a specialized laboratory, the Security Equipment Evaluation Office (SEEO), and is responsible for performance evaluation tests.

3.3 The Korea Institute of Aviation Safety Technology (KIAST), a government-accredited institution, has been designated as an aviation security equipment certification institution, and the Korea Testing Laboratory (KTL) has been designated and operated as a testing institution.

3.4 Certification standards for new technologies are under development in major countries through continuous research and committee consultations, and new technologies with unclear equipment classification do not receive applications for certification until the standards are developed.

3.5 Aviation security equipment certification standards and test technologies are very sensitive to changes in international terrorist methods and screening technologies, and it is necessary to establish consistent standards and methods to apply rapidly changing security technologies.

3.6 With the trend of introducing advanced security equipment that reflects the requirements of security screening technology required by each country, the need to re-establish the performance certification system is emerging.

4. DISCUSSION

4.1 Although developed countries have contributed to the development of aviation security by leading the aviation security equipment performance certification system, it is difficult to apply advanced technology immediately in line with the rapidly developing screening technology environment.

4.2 In view of the increasing trend of international terrorism threats, in order to promote the development and utilization of advanced security equipment in line with the rapid development of science and technology, ICAO has been actively promoting the creation of an environment for international cooperation so that contracting countries can introduce the performance certification system. Together with the ICAO, we request that we come up with a plan to establish a performance certification system for aviation security equipment, and for this purpose, we request that we establish technical requirements for advanced security equipment for the following items and prepare common test procedures and methodologies.

- a) Standardize screening image format for integrated security check of passenger luggage
- b) Minimum requirements for explosive detection equipment
- c) Artificial Intelligence-Based Reading Technology Requirements
- d) Cyber Security Requirements for Advanced Security Equipment

5. ACTION BY THE CONFERENCE

5.1 The Conference is invited to:

- a) Take note to the information and assessment provided in this working paper;
- b) Review the cooperation plan for establishment of advanced security equipment performance certification; and
- c) Consider applying the contents of this paper in the Global Aviation Security Plan.