59th CONFERENCE OF DIRECTORS GENERAL OF CIVIL AVIATION ASIA AND PACIFIC REGIONS

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AGENDA ITEM 5: AVIATION SECURITY AND FACILITATION

STRENGTHENING MANAGEMENT OF AIRPORT SECURITY FACILITIES

(Presented by the People's Republic of China)

SUMMARY

Airport physical protection and supporting technical precautions guarantee the implementation of national aviation security programme. Accordingly, the design, construction and operation of airport security facilities are directly related to and affect the safety of airport operation. China has achieved remarkable results in the implementation of requirements of 3.2.4 of Annex 17 by building a management system for security facilities at transport airport in civil aviation and continuously improving it in practice. Since its implementation from 2017 across the industry, the system has been applied to the construction and operation of more than 200 airports nationwide and has identified more than 3 000 hidden risks in security facilities, with an investment of 2.89 billion yuan. Globally, the number of airports under construction and the scope of airport operating area are increasing day by day, and the construction, operational management and technology application at airports become more complex, comprehensive and extensive, which bring forth a series of unpredictable risks, making it more difficult for risks prevention and resolution in aviation security. Airport security facilities represented by security screening equipment, physical perimeter and intrusion alarm systems constitute an integrated system that ensures the safety of airport operation, which is not only important for ensuing airport security, but also has a significant impact on operational efficiency of airports and users' experience. There is an urgent need for Member States to improve the management of airport security facilities in a systematic manner, with a focus on the implementation of security facility requirements in the process of planning and design.

STRENGTHENING MANAGEMENT OF AIRPORT SECURITY FACILITIES

1. INTRODUCTION

1.1 According to relevant requirements of Annex 17 (*3.2.4 Each Contracting State shall ensure that airport design requirements, including architectural and infrastructure related requirements necessary for the implementation of the security measures in the national civil aviation security programme, are integrated into the design and construction of new facilities and alterations to existing facilities at airports.*), a management system for airport security facility at national-level should be built based on the concept of "policy and standard-industry regulation-implementation practice" to unify requirements and regulation across the industry, regulate the planning and construction of security facilities and enhance the application of new technologies, so as to further make the system more sustainable, open, expansive and moderately forward-looking.

1.2 The policies and technical standards of security facility management applicable to actual conditions of the contracting state should be developed to provide a set of comprehensive technical guidelines to such stakeholders as transport airports, construction units and industry regulatory entities, comprehensively covering technical and physical prevention requirements for functional areas of airport.

1.3 A construction management system which focuses on preparing a chapter related to airport security requirements and relies on a review mechanism should be developed to promote the construction of security facilities and achieve simultaneous planning, design, construction, as well as the operation and use of airport security facilities. The needs for the construction of airport security facilities in such process as the planning, design, and construction of the airport should be taken seriously: from the pre-feasibility study stage, the opinions of security-related agencies and personnel should be solicited; and from feasibility study stage, the requirements for preparing a chapter related to airport security requirements should be introduced, which include key aspects of airport engineering construction, such as overall planning, preliminary design, project construction, project budget, completion acceptance and industry acceptance. By introducing a security chapter and a system of security review by experts, the needs of security facilities construction can be extended forward to the planning and design processes to ensure the full implementation of relevant requirements of Annex 17.

1.4 A testing and evaluation system should be established to verify construction compliance of airport security facilities before their operation. The system should specify that acceptance testing of security facilities is a prerequisite for completion acceptance. Regarding the completion acceptance and industry acceptance of security facilities applied in newly-built, renovated and expanded airport, as well as of the security facilities supported by special funds, a special acceptance and testing mechanism for security facilities should be established in the completion acceptance process before their operation to ensure safe, reliable and compliant operation of the facilities.

1.5 A regular testing system should be established during the operation of airport security facilities to make their operations continuously be compliant with relevant requirements. Given the wide deployment and long operating hours of airport security facilities, the performance indicators of technical prevention systems, such as video monitoring, airport perimeter and intrusion alarm, and access control, may deteriorate or change due to environmental impact. By establishing a science-based, unified and quantitative testing and evaluation method, Member States could guide and regulate the continuous dynamic evaluation of airport security facilities, proactively identify hidden dangers and deal with them in a timely manner, therefore to effectively mitigate risks caused by in-service security facilities which are operated in poor condition.

2. DISCUSSION

2.1 The number of airports under construction and the scope of airport operating area are increasing day by day, and the construction, operational management and technology application at airports become more complex, comprehensive and extensive, which bring forth a series of

unpredictable risks, making it more difficult for risks prevention and resolution in aviation security. It is suggested that Member States should introduce the concept of "airport security facilities" from an overall perspective to integrate electronic prevention (prevention through technical means) and physical prevention (prevention through physical means) to cover security restricted areas at different levels, including terminals, aircraft movement areas, air cargo and aircraft maintenance areas, catering and onboard supplies, and landside roads, and to unify requirements and regulation across the industry.

2.2 The lack of scientific and reasonable guidance for regulating the planning and construction of security facilities and the application of new technologies make it difficult to ensure the effectiveness of security facilities in operation, thus bringing loopholes in safety risk prevention at airports. It is suggested that Member States should, based on their actual conditions, build a system for the management of airport security facilities to ensure its sustainable development, and by establishing the policies and technical standards of security facility management, develop a set of comprehensive technical guidelines for stakeholders such as transport airports, construction units and industry regulatory entities to comprehensively cover technical and physical prevention requirements for functional areas of airport and support effective risk prevention. Also, attention should be actively gien to the guidance for applying new technologies such as facial recognition and AI in aviation security to continuously enrich the management system for airport security facility.

2.3 Regarding common problems, for example, if the security facilities used at newly-built, renovated and expanded airport fail to meet relevant requirements and result in large-scale rectification which costs a lot of manpower, materials and financial resources, it is suggested that Member States should consider promoting the integration of security facility planning and design into airport engineering based on the actual situation of their own airport management, implementing a special security chapter and a security review system by experts, to incorporate the needs of security facilities construction into the planning and design process to ensure the full implementation of relevant requirement of airport security.

2.4 Due to the lack of necessary testing and evaluation mechanisms during the operation of airport security facilities, many in-use security facilities have been operated with problems or cannot be used in a sustainable way for a long time, causing a lot of security hazards. It is suggested that Member States should consider researching and developing testing methods and tools, establishing testing specifications, and standardizing testing requirements to ensure the effectiveness and reliability of acceptance testing of airport security facilities before operation and of the following daily management.

3. ACTION BY THE CONFERENCE

3.1 The Conference is invited to encourage Member States to;

a) share experiences and practices in the planning and design of airport security facilities,

b) strengthen training for management personnel in the security planning, design, operation and management, and

c) organize relevant parties to further discuss and establish the frameworks and standards related to the management of airport security facilities, so as to enhance the industry regulation and management of airport security facilities.

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