55th CONFERENCE OF DIRECTORS GENERAL OF CIVIL AVIATION ASIA AND PACIFIC REGIONS

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AGENDA ITEM 5: AVIATION SECURITY AND FACILITATION

THE ROK'S CONSIDERATIONS ON THE NCASP AMENDMENT TO SUPPORT SMART SECURITY IMPLEMENTATION AND PROPOSAL TO ESTALISH NEW ICAO PROVISIONS RELATED TO LAGS CONTROL

Presented by the Republic of Korea

INFORMATION PAPER

SUMMARY

Introducing CTX, CIP, ATRS and Security Scanner at Jeju International Airport, Republic of Korea in 2018, Ministry of Land, Infrastructure and Transport (MOLIT) is trying to provide an institutional basis which can support its operation. Adjusting the random search ratio for passengers and baggage is one of the issues. Furthermore, the ROK would like to propose to establish new provisions allowing exemption of LAGs restrictions to the screening check point where equipped with CTX C3.

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1. INTRODUCTION

1.1 A new set of smart security equipment is to be installed at Jeju International Airport this year. New screening equipment will be placed at the domestic terminal where will be expanded by December 2018. After installation, the airport operator, Korea Airports Corporation (KAC), will run the trial operation to find the most appropriate operation concept which will satisfy efficiency, security and passenger experience. When the KAC figures out the best operation concept, MOLIT will review the National Civil Aviation Security Plan, and amend the provisions to support implementing and operating the new set of smart security equipment.

1.2 In the ROK, a total of 15 airports are operated by two airport operators. Incheon International Airport, IIAC, runs the ICN which forms 43.5 percent of the entire national originating passengers in 2017. The other 14 airports are operated by the KAC, and the most of them are small regional airports that handle less than 100 thousand originating passengers per year. Top three airports run by the KAC are international airports which are Jeju, Gimpo and Gimhae. The total number of originating passengers from these three airports is less than that from ICN. The size of airports, the volume of passengers, and the type of equipment are various. The airport operator is responsible for passengers and baggage screening, and they purchase and operate the screening facilities with their own revenue.

1.3 In terms of domestic operation, Jeju is the busiest airport. Jeju Island is a volcanic island with beautiful nature attractions, and it is crowded with tourists all year around. Daily 38,844 domestic passengers depart from Jeju Airport. One screener at Jeju Airport screens 7,431 passengers per month which ranks the highest among the 15 airports. During the three times of peak hour, more than 3,000 passengers per hour go through the screening check points. This is why the KAC decided to introduce the new set of smart security equipment to Jeju Airport investing 10 times of budget comparing to the cost of the conventional screening facilities.

2. CONSIDERATION

2.1 **Screening equipment configurations are various depending on airport screening environment; how regulators can manage the throughput efficiency at the acceptable level**

2.1.1 Current regulations of MOLIT do not provide specific guidelines to airport operators on which types of combination among different levels of screening equipment are recommended depending on the varieties, such as, the airport size and the passenger volume. It only provides the bottom line that passengers shall be screened by WTMD or Security Scanner while baggage shall be

screened by X-ray machine. It adds that the suspicious baggage shall be screened by using appropriate screening method, such as physical search, ETD, and LED when needed.

2.1.2 Satisfying this minimum requirement set by the regulator, the airport operator plays the autonomy in choosing the screening equipment after considering the airport screening environment including the size of screening check point, the volume of originating passengers and the budget availability.

2.1.3 It is commonly understood within the aviation security community that airport operators (in some countries) are making considerable efforts to increase efficiency, security and customer experience. However, when the cost and effect analysis hinders the investment in security, the operator needs the institutional basis which defenses economic perspective criticism.

2.1.4 In responding to this challenge, MOLIT considers collecting data from the KAC and the IIAC about the throughput of each airport security check point and compares it to the volume of passengers. If an airport with the high passenger volume shows the low level in the passenger throughput, MOLIT would like to recommend the airport operator to take remedial action such as adding or changing screening equipment, increasing the number of staffs, or other possible actions for improvement. And if an airport shows severely low throughput comparing with other similar size airports, MOLIT would like to let the operator find the reason and take an appropriate action to improve.

2.1.5 Furthermore, if it can collect more international data, MOLIT would like to compare the 15 airports' throughput with the similar size of airports in other countries, so that the national airport operators can have the specific aims, goals or guidelines they will refer to in process of increasing their security efficiency up to the global level which will provide the passenger air travel convenience.

2.2 **Jeju Smart Security Equipment operational concept : Pros vs. Cons**

2.2.1 The smart security equipment which is going to be installed at Jeju is combination of Security Scanner, CTX (C3), CIP and ATRS which is extended than what ICN installed in 2017. It is the very first CTX, CIP and ARTS installation at the screening check point in the ROK.

2.2.2 The KAC will run the trial operation with two types of operational concept in order to find the best balance among efficiency, security and passenger experience;

(a) Type A : WTMD → Alarms → Security Scanner → Target Search; or

(b) Type B : Security Scanner → Alarms → Target Search

2.2.3 As well known through the numerous trial operations worldwide, the Type A is outstanding in throughput efficiency, and using Security Scanner as the secondary is expected to strengthen the vulnerability of HHMD and conventional handful pat-down body search. However, this type of operation has a higher possibility for the non-metallic prohibited items to go through the security check point.

2.2.4 The Type B is superior at finding the prohibited items but throughput efficiency is comparatively lower than Type A.

2.2.5 Screening of carry-on baggage is out of question. Using CTX C3, electronics and liquid can be placed within the baggage which will let the passengers be free from the troublesome divesting notebooks and 100mm/1 Liter see-through plastic bags from their baggage. It is widely known that it takes more time for CTX comparing to the conventional 2D/3D X-ray in reading out the screen. The CIP is one of the complements, and the number of screeners will be doubled. Baggage throughput is expected to be increased from160 to 340 per hour.

3. DISCUSSION

3.1 **Does the ratio of passenger random search need to be increased when Type A applied?**

3.1.1 Except ICN Terminal 2, all screening checkpoints at 15 airports are equipped with WTMD, and single or multi-dimensional X-ray without EDS functions. As a complementary security measure to detect the prohibited items including the explosives, 10% of passengers and carry-on baggage are subject to random search, physical search or ETD. The ratio of random search goes up to 50% as the national aviation security threat level increases according to the National Aviation Security Contingency Plan.

3.1.2 If the ration of random search is increased, more passengers will go through the Security Scanner which can detect the non-metallic prohibited items that would never be found through WTMD. The prohibited item concealed at sensitive body parts also will be detected by 100%, which means the overall level of security is to be higher than the current operation. However, more secondary screening will be made in less throughput efficiency.

3.2 **Does the carry-on baggage random search need to be maintained?**

3.2.1 The CTX is able to detect the prohibited items including explosives. It is expected that 10% of random open search or ETD search would be considered as redundant efforts to the screeners. However, when the aviation security threat level increases according to the National Aviation Security Contingency Plan, the random open search and/or ETD measures can make a demonstrative effect deterring possible unlawful interference.

3.3 **Is the 100ml/1 Liter LAGs restriction needed when CTX C3 is in place?**

3.3.1 Currently, the ROK is applying the 100ml/1Liter LAGs restrictions to all international flights. It is foreseen that the necessity of this LAGs restriction will be on question very soon when C3 or a higher version of CTX is installed at the ROK international airport screening check point. Since CTX C3 is able to detect explosives within baggage regardless of its quantity, this restriction may be exempted at the airport where is equipped with this smart machine.

3.3.2 The ROK is going to introduce smart security equipment, which are Security Scanner, CTX C3, CIP and ATRS, at Jeju International Airport in 2018. The airport operator, KAC, will run the trial operation from December 2018 to find the most appropriate operational concept which will satisfy efficiency, security and passenger experience. The ROK will share what we will learn from this experience with APAC AVSEC colleagues through appropriate channels and meetings.

4. ACTION BY THE CONFERENCE

4.1 This conference is invited to note the contents of this paper and:

a) encourage APAC States to share data on throughput efficiency data from airport security screening checkpoints with the RoK; and

b) consider to propose that a working paper be submitted by relevant States to the 30th meeting of the ICAO Aviation Security Panel in Montreal in March 2019 regarding the establishment of new provisions at ANNEX 17 or DOC 8973 related to exemption of the LAGs restriction to the airports where perform liquid explosives screening ability with CTX C3 or above at the screening check point.

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