



HIGH-LEVEL CONFERENCE ON AVIATION SECURITY (HLCAS)

Montréal, 12 to 14 September 2012

Agenda Item 3: Combating the insider threat

THE ROK'S EFFECTIVE SECURITY SYSTEM FOR COMBATING INSIDER THREATS

(Presented by the Republic of Korea)

1. INTRODUCTION

1.1 All Member States should ensure that persons other than passengers being granted access to security restricted areas in the airports are screened based on the risk assessment results in accordance with Standard 4.2.6 of Annex 17 to the Convention on International Civil Aviation. Recently, active discussion has taken place within ICAO concerning the implementation of policies for reinforcing security screening and security control of non-passengers.

1.2 The Republic of Korea enforces 100 per cent screening policies of persons other than passengers and vehicles being granted access to security restricted areas, and is endeavouring to maintain the world's best aviation security system by establishing and operating various advanced airport security system using state of the art technology.

1.3 With the support of the Korean government and due to its excellent security systems which are known for their reliability, speed and efficiency, Incheon International airport has been recognized as the best airport worldwide for seven consecutive years in the global airport service quality survey by the Airports Council International (ACI).

1.4 The purpose of this paper is to present a brief overview of Incheon International Airport's best security practices: Airport ID Online Application System (AIOAS), Image Display System (IDS), Biometric Access Control System (BACS), and Authorized Vehicle Access Control System (AVACS).

2. AIRPORT ID ONLINE APPLICATION SYSTEM (AIOASA)

2.1 Incheon International Airport has implemented the Airport ID Online Application System (AIOAS) since February 2010 to efficiently control the large volume of ID holders (approx. 40,000). [Total number of airport ID issues as of May 2012: 36,680 (personnel: 35,400, vehicles:1,280)]

2.2 The AIOASA dramatically shortens the whole processing time by adopting a new online application and management system, which was previously done manually.

2.3 The new system also enhances the convenience of employees submitting ID application from remote locations, further improves the airport ID control capabilities especially regarding accessing the SRA of new personnel, and realizes the ID issuance cap for each entity.

2.4 Also, in order to prevent any ID alteration or counterfeits, Incheon International Airport has designed airport IDs in the form of Radio Frequency cards, and each employees' access data is stored and managed in real-time in the AIOSA which can prevent any possible ID incidents that could undermine airport security such as unauthorized use of stolen airport IDs.

3. ID IMAGE DISPLAY SYSTEM (IDS)

3.1 The employee screening process at Incheon International Airport includes airport ID check, visual inspection, card-reader scan, and physical screening. Especially, in order to prevent any illegal use of airport IDs and to prevent the access of unauthorized personnel to restricted areas, the airport has implemented IDS since December 2009.

3.2 The IDS automatically displays information such as ID photos when the personnel accesses security restricted areas by touching the card reader with his/her ID. The security personnel can also crosscheck with their naked eyes in addition to checking the electronic system's confirmation notice, which greatly contributes to the reinforcement of employees' access control to restricted areas¹.

4. BIOMETRIC ACCESS CONTROL SYSTEM (BACS)

4.1 Along with the above system, the Biometric Access Control System has been additionally operated since October 2005 at certain key facilities at Incheon International Airport, in order to strengthen the access control of employees.

4.2 It is commonly acknowledged that biometric information cannot be duplicated or counterfeited. It is the only technology that can be used to identify each individual correctly. The Hand Vascular Recognition System (HVRS) and Hand Geometry System (HGS) are used to identify authorized personnel. The HVRS is used at the Terminal Security Center and Airport Operation Center, and the HGS is deployed at the Airport Control Tower and the Perimeter Security Center.

4.3 As noted above, Incheon International Airport strictly prevents any security attempts from insiders and unauthorized personnel by further reinforcing security at some vulnerable areas within the airport and setting up a double layer of the access control system.

5. AUTHORIZED VEHICLE ACCESS CONTROL SYSTEM (AVACS)

5.1 The vehicle screening process includes vehicle access control, vehicle search and a driver and occupants search, personnel check, and vehicle interior and exterior check. To complement security screening conducted by security guards, the AVACS has been utilized since January 2011.

5.2 The AVACS automatically checks the authorized vehicle upon its approach to the access control point through the camera, based on a database of the access pass information and authorized vehicle numbers. The system is deployed at eight vehicle access control points at Incheon International Airport. With this advanced system, quick identification and tracking of authorized vehicle and efficient vehicle access control including preventing any unauthorized vehicles' entry are accomplished. .

¹ As of 2012, 26 access control points are currently operated at the Airport boundary

6. CONCLUSION

6.1 The Republic of Korea will continue to implement security policies to ensure the safety and security of civil aviation and efficiently respond to the security threats posed by any insiders or unauthorized personnel, by developing and operating a wide variety of effective security systems.

6.2 The Republic of Korea will endeavour to contribute to the further advancement of global aviation security by sharing and collaborating on the related technologies and operational techniques with other Member States.

APPENDIX

■ Airport ID Online Application System (<http://pass.airport.kr>)



User Page



Admin's Page

■ Airport ID Image Display System



Card-Reader Scan



Physical Screening

■ Biometric Access Control System

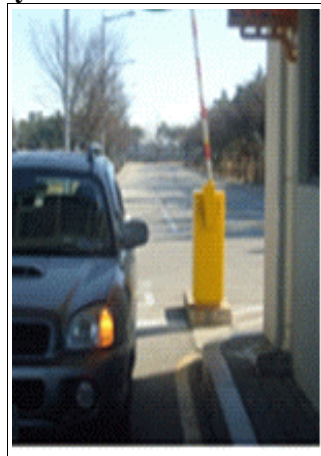


Hand Vascular Recognition System (HVRS)



Hand Geometry System (HGS)

■ Authorized Vehicle Access Control System



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