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SECOND HIGH-LEVEL CONFERENCE ON AVIATION SECURITY (HLCAS/2)

Montréal, 29 to 30 November 2018

Agenda Item 2: Future approaches to managing aviation security risks

VISION FOR AVIATION SECURITY AT AIRPORTS

(Presented by Airports Council International and the International Air Transport Association)

SUMMARY
This paper announces plans to develop a longer-term vision for airport security. It describes a number of themes identified through initial consultations with a range of stakeholders, and their potential implications for Annex 17. States are encouraged to engage in similar initiatives to ensure a sustainable aviation security framework, in line with GASeP. Action by the High-level Conference on Aviation Security is in paragraph 4.

1.   **BACKGROUND**

1.1   Airport operators face challenges related to ever growing traffic and congestion, as well as addressing evolving security threats. The world is changing rapidly through innovations in information technology, remote piloted air systems (RPAS), robotics and artificial intelligence. In this environment, airports need to be flexible and innovative to withstand rapid change.

1.2   As part of its new Security Strategy, the ACI World Security Standing Committee has asked ACI to reflect on how such disruptions might impact aviation security in the future, and to develop a vision for airport security.

1.3   In parallel, the joint ACI/IATA Smart Security initiative has been successful in piloting, monitoring and drawing lessons from various solutions implemented at the passenger checkpoints. The aim of the programme is to deliver strengthened security, increased operational efficiency and better passenger experience. Solutions in the first phase range from checkpoint design and automation (parallel divestment, lane automation, centralized image processing, checkpoint management systems) to optimization of passenger screening (security scanners) and cabin baggage screening using current technologies. Smart Security is currently in its second wave and continues to develop detailed guidance on emerging technologies and processes.

1.4   Looking further ahead, ACI and IATA have agreed on the need to revise the long-term vision for passenger screening, with more emphasis on risk-based differentiation of passengers in addition to the need for accelerated deployment of advanced detection technologies. A number of brainstorming

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[1] English, Arabic, Chinese, French, Russian, and Spanish versions provided by ACI and IATA.

sessions are being organized with various stakeholders including regulators, screening authorities, airports and airlines in order to get their preliminary views.

1.5   From discussions that have taken place so far, a number of themes are emerging that could shape how aviation security will evolve globally in the next years – and challenges related to this evolution.

2.   **FUTURE OF AIRPORT SECURITY: EMERGING THEMES**

2.1   The themes identified through recent brainstorming sessions are:

- **Off-airport handling** of passengers and bags to minimize required processes at airports for the majority of passengers. Most baggage would be picked up at a convenient location (e.g. at home), screened either on-airport at off-peak times or at remote facilities, securely transported to the airport and delivered to a convenient location at destination;

- The need to **focus on passengers**: walk-through, seamless, stand-off security from curb to gate at the airport. This would involve pre-travel assessment of data, biometrics, digital identities and self-service access to restricted areas. Meeting the needs of future generations and their demographics will involve creating a personalized and customized experience for passengers at airports. Passengers will be ready to accept invisible processes and decisions happening in the background (e.g. based on their personal data), with little to no impact on their perception of security;

- **Whole-of-airport security**, with a goal to secure the overall airport infrastructure from a range of threats, including threats to aircraft as well as threats in the landside areas while ensuring critical system protection and efficient response and recovery efforts;

- **Human factors**: interactions with staff at airports will be fewer but more qualitative – with officers deployed to useful and customer friendly tasks (assisting passengers, analysing behaviour) while machines perform most screening decisions (artificial intelligence);

- Applying a **risk assessment to passengers** and their belongings, tailoring screening to the risk and building security on-the-go throughout the airport infrastructure;

- Accelerated development and deployment of **advanced screening technologies** that allow for effective and efficient detection of a greater range of threats in an ever-evolving threat environment (explosives, CBRN, etc.);

- **Adaptive screening**: multiple modes of operation, reduction of alarms, more open architecture of systems and sharing of baggage images between different entities; and

- **Mutual recognition** between States' regulatory frameworks.

2.2   These themes are generally in line with the themes identified by IATA and ACI as part of its joint NEXTT initiative – New Experience Travel Technologies. NEXTT examines some of the most probable elements that will transform the complete end to end journey over the next 20 years. Some progressive airlines, airports, service providers and cargo handlers are already trialling these new concepts, some of which will be fully operational from as early as 2020, developing from ideas to fully advanced solutions.

2.3   NEXTT has identified the following emerging concepts, which are applicable to the future of airport security:

- **Off-airport activities**: flexibility in what can happen before and beyond the airport;

- **Advanced processing**: increasing use of digital identity management, automation and robotics; and

- **Interactive decision-making**: linking everything together with trusted, real-time data throughout the journey.

3.   CHALLENGES AND IMPLICATIONS FOR ICAO AND REGULATORS

3.1   According to Annex 17, screening is defined as *"the application of technical or other means which are intended to identify and/or detect weapons, explosives or other dangerous devices, articles or substances which may be used to commit an act of unlawful interference."* In the future, we might expect that data, risk information and behaviour will play a stronger role in aviation security than they do today. This may require amendments to Annex 17, including perhaps to the definition of screening. The prohibited items list could be considerably shortened to be in line with key threats and with global risk.

3.2   In the current environment, screening is often centralized at physical checkpoints separating landside and security restricted areas. In the future, screening could involve numerous processes and measures taking place at various parts of the airport, or even outside of the airport. Hold baggage that has been dropped and/or screened in a remote location will need to be protected from unauthorized interference.

3.3   Data is expected to form an important part of screening decisions in the future, by associating passengers with their assessed risk and re-evaluating it throughout the journey. States are already required to collect Advance Passenger Information (API) under Standard 9.5 of Annex 9 - *Facilitation*.

3.4   Regulations still place an excessive focus on avoiding a repeat of past incidents and outdated threat scenarios. In the long term, it may be appropriate to re-examine current measures and determine where efforts should be focused.

3.5   As with any forward-looking concept, the challenge will be to ensure that no country is left behind and that different approaches can co-exist, from simpler ones to more sophisticated ones. This will require a shift from a prescriptive interpretation of Annex 17 to an outcomes-based one, allowing different States to adopt different techniques to ensure aviation security. Baseline standards should be identified that meet the basic requirements of Annex 17 and which all States should have in place.

4.   **ACTIONS BY THE HIGH LEVEL CONFERENCE**

4.1   The High-level Conference on Aviation Security is invited to:

   a) Recognize the importance of industry efforts to identify themes, innovations and developments that will impact aviation security in the long term;

   b) Encourage States to take part in these efforts and engage in similar discussions at national level; and

   c) Identify options to modernize regulatory frameworks, including the ICAO Annex 17 framework, to support the future vision of aviation security.

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