International Civil Aviation Organization

WORKING PAPER

HIGH-LEVEL CONFERENCE ON AVIATION SECURITY (HLCAS)

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Agenda Item 6: Ensuring the sustainability of aviation security measures – equivalence

**AN OUTCOMES-BASED APPROACH TO
SUSTAINABLE AVIATION SECURITY MEASURES**

(Presented by New Zealand and Singapore)

SUMMARY

This paper presents an outcomes-based approach as a guiding principle for the development of sustainable aviation security measures. Common outcomes and standards are easily identifiable and understood between States while acknowledging that local differences exist. This approach also gives States the strategic and operational flexibility to remain proactive and meet constantly evolving threats.

Action: The High-level Conference on Aviation Security is invited to endorse the actions proposed in paragraph 5.

1.   **INTRODUCTION**

1.1   Threats to global aviation are constantly evolving. Aviation security programmes need to be proactive and flexible to meet these threats and maintain the initiative, while allowing for continued growth of the civil aviation sector. In this context, an outcomes-based approach should be the overarching principle to guide the development of sustainable aviation security measures. Desired outcomes outline what standards need to be met but give States the flexibility to determine how best to achieve the standard given local circumstances and risk. This approach is consistent with ICAO's other aviation initiatives.

2.   **THE CONSTANTLY EVOLVING THREAT AND RESPONSE ENVIRONMENT**

2.1   **The evolving threat**.

a)   Security threats to aviation are a global issue with little regard for State borders. However, the threat will manifest differently in different States, and even differ by local factors within each State. Access to resources such as finance, training and equipment, and the local security situation will shape the way in which an attack will be planned and conducted.

b) Prominent incidents since 2009 illustrate the varying methods of terrorist attacks. In 2009, Al-Qaeda in the Arabian Peninsula (AQAP) attempted to detonate a person-borne improvised explosive device (IED) on Northwest Airlines Flight 253. In 2010, two AQAP IEDs were uncovered in consignments on separate international cargo flights. In 2011, a separatist group detonated a person-borne IED inside Moscow's international airport, but outside of the traditional airport security cordon. Even these few examples illustrate the diversification of methods as groups evolve their tactics and techniques to their environment.

c) Diversification and adaptability are key strengths of terrorist groups. This is recognised in the work of the Aviation Security Panel Working Group on Threat and Risk who encourage all States to establish and maintain a Risk Context Statement unique to the circumstances of the Member State. Their work on emerging threats, such as man portable air defence systems (MANPADS), illustrate that the threat and risk differs depending on the local environment.

2.2   **The response**.

a) All States have unique factors themselves that influence the conduct and sustainability of their security operations. Legislation will differ, particularly around the powers and responsibilities of security services in the airport environment. Some States employ private operators and others have established government aviation security agencies. Culture and history will also shape the structure and focus of best practice security procedures. These unique differences are recognised under the label of sovereignty in the original Convention on International Civil Aviation of 1944.

b) The global financial crisis has also highlighted to all Member States the need to carefully prioritise government services against limited resources. A risk based approach must be used to sustain an acceptable level of security coverage, while taking into consideration the level of threat and other government priorities. Standard 3.1.3 of Annex 17 — *Security* outlines that each "State shall keep under constant review the level of threat to civil aviation within its territory, and establish and implement policies and procedures to adjust relevant elements of its national civil aviation security programme accordingly, based upon a security risk assessment carried out by the relevant national authorities." This standard recognises that States will have different requirements to meet the evolving threats and risks posed by terrorist groups in their area. States need to have the flexibility to adapt and evolve quicker than terrorist groups, and to shift resources to sustain a proactive security programme.

3.   **AN OUTCOMES-BASED APPROACH TO SUSTAINABLE SECURITY MEASURES AND MUTUAL VALIDATION BETWEEN STATES**

3.1   An outcomes-based approach should be the overarching principle to guide a sustainable aviation security regime. Outcomes-based aviation security measures are sustainable because they are effective, resilient and resource efficient. The Aviation Security Panel has outlined that this approach allows States to exercise flexibility and determine for themselves the security measures that are the best possible and practicable to achieve the outcome. It acknowledges that threats constantly evolve and no two incidents will be identical.

3.2   This approach has the benefit of:

a) **Flexibility**. It allows States to shift resources quickly to higher risk areas. Recent attacks and attempted attacks show that terrorist groups will seek to exploit perceived gaps in a State's security architecture and can rapidly adapt to changes. States need the flexibility to move resources to fill those gaps – particularly in the present environment of financial constraint. They also need the ability to do it quickly to pre-empt emerging threats. Industry will also need the flexibility to tailor security measures to their operating circumstances. A prescriptive, or 'one size fits all,' approach does not provide the strategic or operational flexibility needed to meet contemporary threats.

b) **Sustainability**. An outcomes-based approach provides long-term sustainability to standards promulgated in Annex 17 — *Security*. This will allow for security threats to be effectively addressed in a way that does not hamper the continued growth of civil aviation operations. Prescriptive standards and recommended practices will not keep pace with innovative terrorist groups and evolving security threats. Prescriptive measures will need to be re-written and promulgated each time a new threat emerges, and will also need to be lengthy to cover all operational models and circumstances; even then, it is unlikely that they will be able to cover all such possibilities. In the worst case, it may indirectly encourage a reactive culture to emerging threats as States wait for incidents to happen before new practices can be developed to counter them.

c) **Efficiency**. Using risk assessments to determine how a security outcome is best achieved will also identify the most efficient use of resources. States should not be prescribed a quantity of human capital or other resource as the determining factor to achieve security. A risk assessment allows for the most appropriate balance of resources to meet the threat. It also helps to create a proactive culture which encourages innovation and flexibility to develop best practices in both the public and private sectors.

d) **Mutual validation and equivalence**. Common outcomes and standards are easily identifiable and understood between States. In practice, outcomes are tied to system performance measures which can be easily tracked and compared between States. This will allow States with clearly sophisticated security regimes to recognise the effectiveness of different approaches to the same outcome. It will avoid one State relying on a 'mirror image' of its own practices to assess another State's system. Before one State requests another to implement additional security measures to meet an imminent threat, the requesting State should take into consideration the State's existing security measures to mitigate the risk. A State should recognise existing measures as equivalent if they reach the same security objectives. An additional benefit is the ready identification for targeted capacity assistance when it is clear that a State does not meet a security outcome.

e) **Co-operation**. An indirect benefit of mutual validation of security outcomes is that it will build understanding between States. States will need to gain an understanding of the unique influences within another State when assessing whether to recognise their measures. States will be forced to be investigative and accommodating rather than introspective when conducting bilateral assessments.

4.   **CONSISTENCY WITH ICAO'S OVERALL APPROACH TO AVIATION**

4.1   An outcomes-based approach is being implemented as an underlying ICAO principle across all areas of aviation. For example, the Annex 17 Standards relating to secure carriage of air cargo and mail are generally outcomes focused. Beyond the aviation security area, ICAO is undertaking a significant philosophical shift in aviation safety with the implementation of Safety Management Systems based on safety outcomes. This encourages State regulators to evaluate a commercial aviation organisation's safety performance against agreed outcomes and appropriate management of risk, with less emphasis on prescriptive measures. An outcomes-based approach to security will see greater consistency for States and industry across all major sectors of aviation.

5.   **CONCLUSION**

5.1   Security measures should be commensurate with the threat. The threat will adapt and evolve and so must a State's response to gain the initiative. Effective security outcomes provide a State with flexibility while maintaining consistent and sustainable standards across the global system. An outcomes-based approach is the logical conclusion to a security programme that begins with a Risk Context Statement. It is also the most effective way to establish a common level of security between States while recognising that local differences exist. This approach is consistent with ICAO Standards across all areas of aviation.

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

   a) consider the constantly evolving nature of the threat and the internal factors that will drive a State's security programme; and

   b) recommend to the ICAO Secretariat that an outcomes-based approach be one of the overarching principles to guide the development of sustainable aviation security measures.

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