

International Civil Aviation Organization



ICAO

**Twenty Fifth Meeting of the Communications/
Navigation and Surveillance Sub-group (CNS SG/25) of
APANPIRG**

Video Tele-Conference, 18 – 22 October 2021

Agenda Item 11: Cybersecurity of CNS/ATM systems

11.1 Review outcomes of ICAO Cyber Security Webinar;

OUTCOMES OF ICAO ASIA PACIFIC REGIONAL CYBERSECURITY WEBINAR

(Presented by the Secretariat)

SUMMARY

This paper presents the outcomes of ICAO Asia Pacific Regional Cybersecurity Webinar held on *14 June 2021* via Video Tele-Conferencing (VTC).

1. INTRODUCTION

1.1 The Twenty Fourth Meeting of the Communications, Navigation and Surveillance Sub-group (CNS SG/24) of APANPIRG was held from *30 November to 4 December 2020* via video teleconference. The meeting was attended by **176** participants from **26** States/Administrations and **5** International Organizations namely CANSO, EUROCONTROL, IATA, IFATCA and IFATSEA, plus **26** participants from industry partners. CNS SG/24 meeting report, working papers, information papers, and other resources can be accessed by following link:

<https://www.icao.int/APAC/Meetings/Pages/2020-CNS-SG24.aspx>.

1.2 The CNS SG/24 recalled the regional efforts on cybersecurity issues in the past years and considering the nature of complexity and the need for inter section coordination within the ICAO APAC Regional office and ICAO HQ in relation to the Cybersecurity Action Plan and promoting similar drills in future, ICAO APAC Regional office were requested to plan a webinar on cybersecurity for the region in 2021 and it resulted into **ACTION ITEM 24-9**.

1.3 In response to **ACTION ITEM 24-9**, the ICAO Asia Pacific Regional Cybersecurity Webinar was held on *14 June 2021*. The webinar was organised via Video Tele-Conferencing (VTC) using Microsoft Teams.

1.4 The Webinar was attended by **317** participants from **26** States/Administrations (Afghanistan, Australia, Bangladesh, Bhutan, Brunei Darussalam, China, Hong Kong China, Macao China, Fiji, India, Indonesia, Japan, Lao, Malaysia, Nepal, New Zealand, Pakistan, Philippines, Republic of Korea, Singapore, Sri Lanka, Timor-Leste, Thailand, USA and Viet Nam), **6** International Organizations (AAPA, CANSO, IATA, ICANN, IFALPA, and IFATCA) and **2** Technology/Solutions

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providers (Nokia and Thales) who sponsored the event. The presentation materials can be accessed by the link: <https://www.icao.int/APAC/Meetings/Pages/2021-Cyber-Security-Webinar.aspx>

1.5 This paper summarized the key outcomes of ICAO Asia Pacific Regional Cybersecurity Webinar.

2. DISCUSSION

2.1 Total **Ten (10)** presentations were delivered by Experts from different part of the World under different Domains related to Cyber Security. During the Webinar, Questions and Answers (Q & A) sessions were held at end of each presentation through the Pigeonhole tool. Throughout the Webinar, a total of **69 questions** were asked and *more than 100 feedback* for the Webinar were provided by Participants with **100% positive response**.

2.2 The summaries of all presentations are as follows:

SP101 – ICAO Trust Framework Latest Development

2.4 Ms. Olga De Frutos Martin and Mr. Michael Goodfellow, Technical Officers from Air Navigation Capacity and Efficiency (AN), Air Navigation Bureau, ICAO, also the secretaries of the ICAO Trust Framework Study Group (TFSG), informed in the Webinar about the latest updates in the International Aviation Trust Framework which is being developed by ICAO, including the information security framework as well as digital identity management system.

SP102 – FAA’s contribution to the IATF and Importance of IATF to FAA

2.5 Mr. Robert Segers, National Airspace System (NAS) Information Systems Security Architect of Federal Aviation Administration, and Member of the ICAO TFSG, introduced the latest contributions of the FAA to the validation of the International Aviation Trust Framework as well as the importance of this Trust Framework to FAA.

SP103 – Cyber Safety in ATM

2.6 Mr. Shayne Campbell, Safety Programme Manager of CANSO, shared their recently launched Standard of Excellence in Cybersecurity, which helped ANSPs assess, develop and improve their cybersecurity to provide safe and resilient air navigation services. The presentation introduced how ANSPs prepare themselves to secure their systems and adopt all necessary measures to ensure the continuous provision of highly safe and seamless air traffic services.

SP201 – Protecting All Systems

2.7 Mr. John Moore, Assistant Director, Safety and Flight Operations – ASPAC, International Air Transport Association (IATA), established a picture of the IATA’s efforts in providing support to their members in protecting their systems and expecting the robustness and reliability of CNS/ATM systems as the important data source for operation.

SP202 – DNS Ecosystem Security

2.8 Mr. Champika Wijayatunga, Technical Engagement Manager – Asia Pacific, Internet Corporation for Assigned Names and Numbers of ICANN, joined ICAO APAC regional discussion platform for the first time. He expounded on the critical role of The Domain Name System (DNS) in the Internet infrastructure, the overview of the DNS Ecosystem, various threats and abuses in the DNS and the best practices in protecting the DNS.

SP203 – Building Mutual Trust Infrastructure Based on Block chain

2.9 Mr. Leng Bing, Principal Researcher, Southwest Communications Institute of China, introduced a proposed method to build mutual trust among States in the Asia Pacific region by using block chain technology. The use of block chain could give inspiration to find a way out under the current global governance.

SP301 – A proactive and systematic approach in protecting digitized air traffic services against cyber threats in Hong Kong from ANSP and regulatory perspective

2.10 Mr. Raymond Chan, Senior Electronics Engineer, Civil Aviation Department of Hong Kong, China, shared the cybersecurity practices in Hong Kong Civil Aviation Department to protect its highly digitized air traffic services systems from both service provider and regulatory perspective.

SP302 – Air Traffic Management Security and Updates on ICAO Cybersecurity Activities

2.11 Mr. Remington Low, Regional Officer FAL, Asia Pacific Regional Office of ICAO explained the ICAO security requirements on ANSPs and ATM, and the update of the Cybersecurity Action Plan and the Secretariat Study Group on Cybersecurity.

SP303 – A Security Solution for Information Services in SWIM

2.12 Mr. Tian Yungang, Section Chief, State Key Laboratory of Air Traffic Management System and Technology of China, introduced their research on the security architecture of SWIM information services and security measures to improve the security assurance capabilities of SWIM information sharing.

SP304 – Cybersecurity – A vendor’s perspective

2.13 Mr. Binny Sarien, Security Design Authority, Thales Australia – Airspace Mobility Solutions, introduced the view from Thales as a leading solution and service provider to ANSPs in the cybersecurity domain. This presentation summarized cybersecurity from a vendors’ perspective, highlight key situational awareness aspects and describe what makes a good cyber solution for ANSPs,

3. ACTION BY THE MEETING

3.1 The meeting is invited to:

- a) review the outcome of ICAO Asia Pacific Regional Cybersecurity Webinar and take any necessary follow-up actions;
- b) ACTION ITEM 24-9 may be considered as complete; and
- c) discuss any matters as appropriate.
