



International Civil Aviation Organization
Latin American Civil Aviation Commission
ICAO/LACAC NAM/CAR/SAM Aviation Security and
Facilitation Regional Group (AVSEC/FAL/RG)

WORKING PAPER

AVSEC/FAL/RG/7 — WP/09
05/09/17

**Seventh Meeting of the ICAO/LACAC NAM/CAR and SAM Aviation Security and
Facilitation Regional Group (AVSEC/FAL/RG/7)**
Lima, Peru, 4 - 6 October 2017

Agenda Item 4: Programmes and Projects - Aviation Security (AVSEC)
4.4 Civil aviation cybersecurity

PROGRESS ON THE CYBER SECURITY AWARENESS PROJECT

(Presented by Jamaica)

EXECUTIVE SUMMARY

In 2014, ICAO Secretary General called for member States to be more proactive and to promote a robust cybersecurity culture. This was further re-emphasised in 2017 ICAO Global Aviation Security Plan which identified as one of three complex emerging risk issues facing international civil aviation. The Cyber Security Awareness Working Group (WP) has developed a Cyber Security Awareness Course to be delivered to the Region with the aid of the Organization of American States (OAS). This Working Paper provides an update of the progress of the project and to inform States of the international cooperation between international and regional organizations to promote the delivery of the Regional Cyber Security Awareness Workshop.

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|------------------------------|---|
| Action: | Suggested actions are presented in Section 4. |
| Strategic Objectives: | <ul style="list-style-type: none">• Security & Facilitation |
| References: | <ul style="list-style-type: none">• 2017: ICAO Global Aviation Security Plan• A39-WP/17, Addressing Cyber-security in Civil Aviation• 2016: ICAO /AVSEC/FAL/RG/6 Final Report• Government of Jamaica, "National Cyber Security Strategy", 2015• <i>Latin American + Caribbean Cyber Security Trends</i>, Organization of American States Report, June 2014• ICAO News Release, "Uniting Aviation", 2014• Doc 9941 <i>TRAINAIR Plus Training Development Guide</i>, 2011 |

1. Introduction

1.1 The ever changing nature of the threat to civil aviation has become increasingly evident as the world moves deeper into the technological era. The increased sophistication with which calculated attacks are carried out on our industry warrants a new paradigm in the way we address these new challenges. It also requires that as States we need to work in a collective manner to implement cohesive plans to address the emerging risks. A growing Global Concern is the threat of Cyber Terrorism and other cyber-related crimes, and our ability to adequately respond to critical incidents of the nature.

1.2 Assembly Resolution A39-19 “*Addressing Cybersecurity in Civil Aviation*” reaffirms and expands the initial agreement in December 2014, that was signed by ICAO and four international organizations to align their respective action on cyber threats. The common goal of the agreement signed by the five major international aviation organisations, as posited by ICAO Secretary General, was to “*work more effectively together to establish and promote a robust cybersecurity culture and strategy for the benefit of all actions in our industry.*” The ICAO Global Aviation Security Plan (GASeP) disseminated in May 2017, now echoes that initial agreement reiterates and supports the growing concern for the North American Caribbean Central and South American Region (NARCAR/SAM) had identified at the 5th Meeting of the AVSEC/FAL Regional Group held in Lima Peru, June 2015.

2. Overview of Activities

2.1 As part of the AVSEC/FAL/RG Strategic Plan 2016/2017, Member States agreed to include the Development of a Cyber Security Awareness Workshop. The objective of the WG is to report on the progress of the project and to inform the States of the cooperation between international and regional organizations to promote the delivery of the Regional Cyber Security Workshop.

2.2 The WP identified three main tasks: review of existing documentation, consultation with cybersecurity experts within the region and within other Regional Agencies and identify and use Standardized Training Package (STP) Course Developers.

2.3 The review of the existing documentation by CANSO, AIAA, European Union, OAS and other agencies and an electronic database of current literature was developed in August 2015 and maintained with the addition of current literature during the period 2016 – 2017. Participation at regional and international Cyber Security Conferences provided a platform to present the work being done by the Working Group, notably at the OAS Regional Cyber Security Conference in Bogota September 2016 and ICAO Inaugural Cyber Security Summit and Exhibition held in Dubai in April 2017.

2.4 Technical guidance was sought and received through Jamaica Civil Aviation Training Institute, an ICAO Trainair Plus Member, on how to approach the development of the Cyber Security Awareness Workshop for Industry. The member of the develop team included Cybercrimes and Security Consultant and Head of Jamaica Cyber Security Response Team.

2.5 The first Draft of the Workshop was completed in January 2017 and initial consultations were held with OAS to provide sponsorship and translation for the Regional Cyber Security Workshop 2017/2018. In June 2017 the Executive Secretary of the Inter-American Committee against Terrorism (CICTE) of the OAS formally indicated that they would support the delivery of a series of workshops on cybersecurity for the Region, starting in the first quarter of 2018.

3. Discussion

3.1 It is agreed that States within the Region should continue to adopt actions in keeping with the March 2017 ICAO Global Security Plan, and Assembly Resolution A39-19, in order to adequately address the challenges posed by cyber threats to the aviation system. It is anticipated that the delivery and implementation of the Cyber Awareness Workshop will be part of the framework to improve regional capability to identify the risk and apply the appropriate measures to mitigate them.

4. Suggested Actions

4.1 The Meeting is invited to:

- a) Promote a cybersecurity culture within Civil Aviation Authorities personnel, and their national civil aviation community;
- b) Take provisions to include within their budget for participating in the future Cyber Security Workshop for 2018/2019;
- c) Share cyber security information throughout the Secretariat of the AVSEC/FAL/RG, and the ICAO PoC network; and
- d) Include cybersecurity concerns in the conduct of aviation security risk assessments, and adopt provisions accordingly.

APPENDIX
INSTRUCTOR'S TIMETABLE

| Instructor's Guide | | | | Workshop Code: Cyber Security in Aviation | |
|---|----------------|-------------------|---|--|--------------------|
| Timetable | | | | Duration: 3 working Days | |
| Course Title: Cyber Security in Aviation | | | | Issued: April, 2017 | |
| | | | | Issued By: Jamaica Civil Aviation Authority | |
| Day | Session | Module No. | Module Title | Trainee Material | Visual Aids |
| 1 | 1-3 | 1 | Introduction to the Course | H1.1 – 1.3 | Slides 1.1 – 1.10 |
| 1 | 3-8 | 2 | Fundamentals in Cyber Security for Aviation Systems | H2.1 – 2.5 | Slides 2.1 – 2.37 |
| 1-2 | 9 - 14 | 3 | Identifying Critical Infrastructures and the motives/method for cyber-attacks | H3.1 – 3.2 Appendix 3.1 – 3.3 | Slides 3.1 – 2.28 |
| 2 -3 | 15-17 | 4 | Protection of Critical Aviation Information and Communication Technology Systems | H 4.1 – 4.24 | Slides 4.1 – 2.37 |
| 3 | 17-24 | 5 | Planning enhancement strategies for Critical Infrastructure and Aviation Information and Communication Technology Systems | H 5.1 Appendix 5.1 – 5.2b | Slides 5.1 – 5.58 |
| 3 | 24-26 | 6 | C-SIRT Responding to cyber security incidents | H 6.1 | Slides 6.1 - |
| 3 | 27 | 7 | Closing Activities | H 7.1 | Slides 7.1 – 7.5 |