



INTERNATIONAL CIVIL AVIATION ORGANIZATION  
WESTERN AND CENTRAL AFRICAN OFFICE

Second Meeting of APIRG Infrastructure and Information Management Sub Group (IIM/SG/2)  
(Dakar, Senegal, 09-11 July 2018)

**Agenda Item 4:**

*Progress report of IIM SG COM 5 project “Assessment of AFI Aeronautical Networks Cyber Security”  
(Presented by ASECNA)*

<b>SUMMARY</b>
<p>This paper presents the status of IIM SG COM 5 project “Assessment of AFI Aeronautical Networks Cyber Security”. It also highlights the challenges encountered by the team including possible recommendations.</p> <p><b>Action by the meeting is at paragraph 3:</b></p>
<p><b>REFERENCE(S):</b></p> <ul style="list-style-type: none"> <li>▪ Doc 9750, <i>Global Air Navigation Plan for CNS/ATM System</i></li> <li>▪ Doc 7474, AFI AIR NAVIGATION PLAN</li> <li>▪ Report on, the first meeting of IIM SG (APIRG IIM SG/1)</li> </ul>
<p><b>Related ICAO Strategic Objective(s):</b> <i>A – Safety, B – Air Navigation Capacity and Efficiency, D – Economic Development of Air Transport, and E – Environmental Protection.</i></p> <p><b>Related ASBU KPIs &amp; B0 Modules:</b> all KPIs applicable to CNS and Spectrum domains</p>

**1. INTRODUCTION**

- 1.1 The first meeting of the APIRG Sub-Group on Infrastructure and Information Management (IIM / SG / 1) held in Nairobi, Kenya from 27 to 30 June 2017 approved and included the IIMSG COM Project.5 as a new regional project in the CNS area, namely AFI Aviation Cybersecurity Assessment Project.
- 1.2 The objectives of the project are :
  - the assessment of the cyber threats on all systems and aeronautical networks;
  - the development and implementation of a cyber-security policy over the AFI region. This cyber policy would assess all issues including the definition of common cyber threats scenarios, training, performances, security studies, systematic process of cyber risk evaluation on all new systems, audits and controls.
- 1.3 The project team is composed of experts from:

Côte d’Ivoire (Coordinator)	Benin	Gambia	Ghana	Kenya	Nigeria	South Africa	ASECNA	IATA
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**2. DISCUSSION**

**2.1 Project progress**

2.1.1 The project was officially launched on 22<sup>nd</sup> of December 2017 (two kick-off meetings were held on 22/12/2017 and 28/02/2018, due to the connection difficulties encountered by most of the project team members).

2.1.2 In accordance with the working methodology defined by the Chair / Vice-Chair and the Secretariat, the following documents have been developed and submitted by the project team:

- The description of the IIM SG COM 5 project;
- The description of the project organization detailing the meeting program, project schedule, the means of communication, the project deliverables (09);
- The questionnaire;
- The identification of the links between the IIM SG COM 5 project and the other projects;
- The terms of reference of the project.

2.1.3 Since the kick off of the project, out of the four progress meetings organized (Skype meetings), only one (01) was fully conducted with at least four (04) participants (due to significant connection difficulties and sometimes availability of the experts).

2.1.4 The following project deliverables have been identified :

Project Deliverables	Planned Date of Delivery	Objectives	Status <sup>1</sup>
[D01] Project Description	31/12/2017	To provide a description of the project	Has been sent to IIM Sub-Group Chair, Vice and Secretariat
[D02] Organization of project team	31/12/2017	To set the basis for the project organization and coordination	Has been sent to IIM Sub-Group Chair, Vice and Secretariat
[D03] Terms of reference	June 2018		
[D04] « Cybersecurity in Civil Aviation Operational concept description »	October 2018	To share a common understanding of cyber, common definitions of cyber (cyber threats, cyber risks, cyber resilience, cyberattacks, cyber culture)	A first draft had been distributed to the project team for review . There is a need to agree on a task allocation in order to be more efficient
[D05] List of AFI Aeronautical Networks	September 2018	To have a full list of aeronautical networks in AFI Region	Under development

<sup>1</sup> Achieved In progress Challenges Not started



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Project Deliverables	Planned Date of Delivery	Objectives	Status <sup>1</sup>	
[D06] Assessment of the current aeronautical networks cyber security and diagnostic of the potential threats to the safe provision of the air navigation service in the AFI region	November 2018	To assess the current aeronautical networks security and diagnostic the potential threats to the safe provision of the air navigation service in the AFI region	Not started	
[D07] Global cyber security policy for a secured operation of the AFI systems and networks	February 2019	To define the global cybersecurity policy for aeronautical network in AFI region	Not started	
[D08] Teleconferences, Workshops/Seminars, working sessions (French and English) on global cyber security policy	TBD	To Discuss with main African Stakeholders about key essential aspects of Cybersecurity in Aviation To network people and contribute to build capacity in Cybersecurity in aviation To gather best practices from other regional initiatives on Cyberspace issues for Aviation	Not started	
[D09] Feasibility study of setting up an AFI Regional Operational Centre for Cybersecurity in Aviation on a long term basis	October 2019	To assess the feasibility of setting up of an AFI regional Centre for Cybersecurity in Aviation	Not started	

2.1.5 The "technical" deliverables are currently under development by the project team, including:

- The concept of cybersecurity for aeronautical telecommunication networks description (definition of cyber terms / concepts ...) and
- The identification of local and remote aeronautical telecommunication networks and systems, and terminal equipment concerned for the AFI region

**2.2 Challenges and difficulties**

2.2.1 The challenges faced by the project are mainly related to the participation of the experts their availability and the communication means:

- *Participation of experts:* Because of the delay in finalizing project team appointments, there was a lack of participation of the project team, at the beginning of the project.



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There is an urgent need to confirm the participation of the experts that had been appointed to the project (and to encourage their participation).

The participation and the availability of the experts remain an important issue as the success of the project will rely on all the experts 'contributions and participation ( by emails, to the meetings).

- *Means of communication:* The project team experienced a lot of technical network challenges (Teleconference, GoToMeeting, Skype). Most of the meetings had been cancelled because the project members were not able to connect to the online meeting (Skype).  
This is undoubtedly a technical problem independent of the IIM or AAO sub-group, but it is a permanent obstacle to the good conduct of the project.  
More reliable solutions should be considered / discussed at the level of the IIM Subgroup (for example, the use of WebEx system, ...)
- *Confidentiality:* confidentiality requirements should be defined by the IIM subgroup (especially for cybersecurity related information).

### **3 ACTION BY THE MEETING**

3.1 The meeting is invited to:

- a) Note the information provided in this working paper, highlighting the work done by the IIM SG COM 5 project team, so far
- b) Note the difficulties encountered by the project and identify any possible solutions with other IIM projects.
- c) Make relevant recommendations to create the best possible conditions for achieving the objectives assigned to the subgroup;

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