INTERNATIONAL CIVIL AVIATION ORGANIZATION
AFI PLANNING AND IMPLEMENTATION REGIONAL GROUP (APIRG) PROJECT

DOMAIN : IIM (Infrastructure & Information Management)

Project Team Coordinator: **Côte d'Ivoire**

COM Project 5: Assessment of AFI Aeronautical Networks Cyber Security

AFI Region	PROJECT DESCRIPTION	DP N° C	
Programme	**Title of the Project**	**Start**	**End**
Assessment of AFI Aeronautical Networks cyber security	Assessment of AFI Aeronautical Networks cyber security **Project coordinador**: Côte d'Ivoire **Experts contributing to the project**: Côte d'Ivoire, Benin, Gambia, Ghana, Kenya, Nigeria, South Africa, ASECNA, IATA	01/08/2017	31/12/2019
Objectives	Develop and implement a global cyber-security policy over the AFI region for aeronautical information systems to prevent that internal and external threats impact the availability, the reliability, the integrity and the continuity of the AFI aeronautical networks		
Scope	The scope of the project contemplates the assessment of the cyber threats on all systems and aeronautical networks. It contemplates 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.		

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Metrics	1) Number of cyber security threats with impact on the availability, the reliability, the integrity and the continuity of the AFI aeronautical networks 2) Performance and effectiveness of cybersecurity measures for AFI aeronautical networks • M2 = Number of cyber-attacks effectively detected and stopped / Number of cyber-attacks effectively detects % • Number of AFI aeronautical networks with an effective cyber policy put in place / Number of AFI aeronautical networks% • Number of disruptions due to malicious cyber activities		
Goals	Ensure that the Aeronautical services are provided in compliance with ICAO SARPs		
Strategy	All tasks will be carried out by COM/ IT experts nominated by AFI States participating in the project, led by the Project-Team Coordinator and under the supervision of the Project Facilitators (ROs/CNS, Dakar and Nairobi) through the IIM SG working methodology. Upon completion of the tasks, the results will be sent to the Project Facilitators as a final document for submission to, and if necessary approval by the APIRG Projects Coordination Committee (APCC). The project will rely on the following main tasks: • Common definitions of cyber issues (cyber security, cyber resilience, cyber threats) → • Assessment of current aeronautical networks cyber security → • Diagnostic of the potential cyber threats to the safe provision of the air navigation service in the AFI region → • Development of a global cyber security policy for a secured operation of the AFI systems and networks → • Implementation of global cyber security policy (guides for States / ANSPs)		

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Justification	The air transport infrastructure is an attractive target for cyber-attacks due to its importance and prominence. The networks and systems, interconnecting the various ANSP are IP-based and are exposed at several levels to cyber-attacks. The cyber threats are real and can take several forms depending on the means of the hackers. Therefore, organizations must identify their critical information systems and implement appropriate cyber security measures in complement to existing cyber security objectives. There is a need for a cyber-policy over the AFI region, which would assess all cyber issues.		
Related projects	1. All APIRG specifically projects related to: • **B0-FICE** Increased interoperability, efficiency and capacity through ground-ground integration • **B0-DATM**: Service improvement through digital aeronautical information management 2. Projects related to aeronautical information 3. Sub-regional projects and other bilateral initiatives • Project of surveillance data exchange between ASECNA, GHANA and NIGERIA 4. Links with other CNS projects: - COM Project.4: Integrated Aeronautical Telecommunication Infrastructure - COM Project 3: Implementation of Air/Ground communication (HF/VHF voice data, CPDLC) - COM Project.1: Implementation of Ground/Ground communication (ATS/DS, AIDC, VoIP) - SPEC Project: PROTECTION OF AERONAUTICAL SPECTRUM: Development of policies, systems to provide and protect Aeronautical spectrum - AIM Project.1: Assessment and development of QMS applied to AIM in AFI States - AIM Project 2: Implementation of Aeronautical Information Exchange Systems (AIXM)		

Project Deliverables	Relationship with the regional performance-Objectives (RPO) and ASBU B0 modules	Responsible Party	Status of Implementation[1]	Date of Delivery	Comments
[D01] Project Description	B0-FICE B0-DATM	IIM SG/COM/Project 5 project coordinator		31/12/2017	
[ID02] Organization of project team	B0-FICE B0-DATM	IIM SG/COM/Project 5 project coordinator		31/12/2017	
[D03] Terms of reference	B0-FICE B0-DATM	IIM SG/COM/Project 5 project team		31/12/2017	
[D04] « Cybersecurity in Civil Aviation Operational concept description »	B0-FICE B0-DATM	IIM SG/COM/Project 5 project team		28/09/2018	**Objective:** To share a common understanding of cyber, common definitions of cyber (cyber threats, cyber risks cyber resilience, cyberattacks, cyber culture)
[D05] List of AFI Aeronautical Networks	B0-FICE B0-DATM	IIM SG/COM/Project 5 project team		28/09/2018	**Objective:** To have a full list of aeronautical networks in AFI Region
[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	B0-FICE B0-DATM	IIM SG/COM/Project 5 project team		30/12/2018	**Objective**: 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
[D07] Global cyber security policy for a secured operation of the AFI systems and networks	B0-FICE B0-DATM	IIM SG/COM/Project 5 project team		30/03/2019	**Objective:** To define the global cybersecurity policy for aeronautical network in AFI region

[1] *Grey   Task not started yet*
 Green   Activity being implemented as scheduled
 Yellow   Activity started with some delay, but will be implemented on time
 Red   Activity not implemented on time; mitigation measures are required

Project Deliverables	Relationship with the regional performance-Objectives (RPO) and ASBU B0 modules	Responsible Party	Status of Implementation[1]	Date of Delivery	Comments
[D08] Teleconferences, Workshops/Seminars, working sessions (French and English) on global cyber security policy	B0-FICE B0-DATM	IIM SG/COM/Project 5 project team		TBD	**Objective**s: Working Sessions are an essential tool to: • Discuss with main African Stakeholders about key essential aspects of Cybersecurity in Aviation • Network people and contribute to build capacity in Cybersecurity in aviation • Deliver valuable information to decision makers about Cybersecurity • Gather best practices from other regional initiatives on Cyberspace issues for Aviation There is a need for ICAO and Designated Experts to conduct Technical workshops to support the development of the project
[D09] Feasibility study of setting up an AFI Regional Operational Centre for Cybersecurity in Aviation on a long term basis	B0-FICE B0-DATM			31/10/2019	**Objective** To assess the feasibility of setting up of an AFI regional Centre for Cybersecurity in Aviation And then setting up the AFI regional Centre for Cybersecurity in Aviation
Resources needed	• Adequate human resources to be appointed by States (experts from States) • Expertise in Aviation Cybersecurity • Funds to conduct meetings, Workshops, Seminars Missions and to translate reports, regional guides and manuals. Likewise, participants must be given facilities to participate in teleconferences and coordination meetings. • Funds for meetings with project Team Members to assess the results and propose corrective actions.				

Grey Task not started yet
Green Activity being implemented as scheduled
Yellow Activity started with some delay, but will be implemented on time
Red Activity not implemented on time; mitigation measures are required