INTERNATIONAL CIVIL AVIATION ORGANIZATION

AFI PLANNING AND IMPLEMENTATION REGIONAL GROUP (APIRG) PROJECT COORDINATION COMMITTEE FIRST MEETING (APCC/1)

PROJECT: SURVEILLANCE PROJECT

Coordinator:
DOMAIN: IIM
(Infrastructure & Information Management)

AFI REGION	**PROJECT DESCRIPTION**	**REFERENCE IIMSG / Area of Routing # All**	
Sub-domain	**Title of the Project**	**Start**	**End**
Aeronautical Communication (COM) (ICAO Facilitator: *WACAF/ESAF ROs/CNS*	**GROUND/GROUND COMMUNICATION :** Implementation of Surveillance systems aimed at improving air traffic situational awareness **Project-Team Coordinator***: Cote d'Ivoire* **Project Team Experts (11): S***outh Africa, Ghana, Cameroon, Ghana, Senegal, Nigeria, Mauritania, Seychelles, IATA, ASECNA, Uganda*	Month/ Year	Month/ Year
Objectives	In the framework of the technologies Roadmap for Surveillance defined in the GANP and the AFI strategy, assist States in the implementation of : a) Secondary Surveillance Radar Mode S (**SSR**) in accordance with the operational requirements of Annex 11, Air Traffic Service, Doc 4444 Procedures for air Navigation services and the provision of Annex 10 Volume IV and its supporting Documents b) Automatic Dependent Surveillance Contract (**ADS-C**) c) Automatic Dependent Surveillance Broadcast (**ADS-B**) ground and space based d) Multilateration (**Mlat**)		
Scope	The provision of air traffic surveillance will cover all areas of routing and homogeneous traffic flow in the AFI Region and will adress all Centers involved in the provision of air avigation service for international civil aviation. The implementation scheme will be in accordance with the requirements of the provision of Aeronautical surveillance as defined by the AFI Air Navigation Plan		

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	(AFI/RAN Abuja 1997).		
Metrics	**a) SSR:** Number of SSR stations installed: **X** - *Average availability of SSR stations : **X%*** **b) ADS-C:** ▪ Number of ADS-C systems installed: **X** - *% of ATS units with ADS-C: **X%*** ▪ Number of ADS-C interconnections implemented, - *% of ACCs with ADS-C systems interconnection implemented: **X*** **c) ADS-B:** ▪ Number of ADS-B stations installed: **X** - *% of ATS units with* ADS-B*: **X%*** **d) Mlat:** ▪ Number of Mlat systems installed: **X** - *% of ATS units with Mlat: **X%*** ▪ Number of Mlat interconnections implemented, - *% of ACCs with Mlat systems interconnection implemented: X*		
Outcome	Surveillance service supporting enhanced aeronautical operational safety, capacity and efficiency		
Strategy	All tasks will be carried out by SUR 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**). For the purpose of collaborative decision-making, meetings will be held with the areas involved.		

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Justification	The requirements for surveillance systems (**SSR Mode S, ADS-C, ADS-B, Mlat)** are contained in the strategy of implementation of the surveillance systems in the AFI Region a) **SSR Mode S**: In continental airspace the provision of SSR Mode S will give the Air Traffic Centers the capacity to increase the surveillance of air traffic enhancing safety, capacity and efficiency b) **ADS-C:** The introduction of ADS-C in oceanic and continental remote airspaces will improve air navigation service by enabling the improvement of the space organization, the flexibility of routing. c) **ADS-B**: The introduction of ADS-B in continental airspace will provide the same level of service as given by SSR with cost effectiveness. ADS-B Space will combine the advantage of both ADS-C and SSR. d) **Mlat**: The introduction of Mlat will in the terminal areas supplement with cost effectiveness SSR Mode S		
Related Projects	All APIRG projects specifically related to: ✓ PIA3-Increased effectiveness of ground based safety nets (**B0-ASUR, B0 – SNET, B0-ASEP**) ✓ PIA4- Efficient Flight Path – Through Trajectory-based Operations (**B0- TBO**)		

Project Deliverables	Relationship with the Regional Performance-Objectives (RPOs/PFFs) and ASBU Modules	KPI	Responsible	Status of Implementation[1]	Date of Delivery	Comments
Secondary Surveillance Radar Mode S (SSR)						
Implementation of SSR Mode S	**AFI B0-ASUR, AFI B0 -SNET, AFI B0-ASEP AFI B0-ASEP AFI B0-SNET PFF-CNS**		✓ AFI SUR Project Coordinators ✓ AFI SUR Project Team Leader		December 2017	
Restauration/Improvement of the availability of SSR Systems	**AFI B0-ASUR, AFI B0 -SNET, AFI B0-ASEP AFI B0-ASEP AFI B0-SNET PFF-CNS**		✓ AFI SUR Project Coordinators ✓ AFI SUR Project Team Leader		December 2017	
Automatic Dependant Surveillance Contract (ADS-C)						

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Implementation of ADS-C	**AFI B0-ASUR, AFI B0 -SNET, AFI B0-ASEP AFI B0-ASEP AFI B0-SNET PFF-CNS**		✓ AFI SUR Project Coordinators ✓ AFI SUR Project Team Leader			
Improvement of the availability of ADS-C Systems	**AFI B0-ASUR, AFI B0 -SNET, AFI B0-ASEP AFI B0-ASEP AFI B0-SNET PFF-CNS**		✓ AFI SUR Project Coordinators ✓ AFI SUR Project Team Leader			
Automatic Dependant Surveillance Broadcast (ADS-B)						
Implementation of ADS-B	**AFI B0-ASUR, AFI B0 -SNET, AFI B0-ASEP AFI B0-ASEP AFI B0-SNET PFF-CNS**		✓ AFI SUR Project Coordinators ✓ AFI SUR Project Team Leader			
Multilatération						
Implementation of Mlat	**AFI B0-ASUR, AFI B0 -SNET, AFI B0-ASEP AFI B0-ASEP AFI B0-SNET PFF-CNS**		✓ AFI SUR Project Coordinators ✓ AFI SUR Project Team Leader			
General SUR						
Implement Performance Based Surveillance (PBS) based on the Required Surveillance Performance (RSP)	**AFI B0-ASUR, AFI B0 -SNET, AFI B0-ASEP AFI B0-ASEP AFI B0-SNET PFF-CNS**		✓ AFI SUR Project Coordinators ✓ AFI SUR Project Team Leader			
Implementation of Surveillance Data Fusion (data sharing)	**AFI B0-ASUR, AFI B0 -SNET, AFI B0-ASEP AFI B0-ASEP AFI B0-SNET PFF-CNS**		✓ AFI SUR Project Coordinators ✓ AFI SUR Project Team Leader			

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Teleconferences, Workshops/Seminars, meetings (French and English) on surveillance systems operation and their implementation scheme	**AFI B0-ASUR, AFI B0 -SNET, AFI B0-ASEP AFI B0-ASEP AFI B0-SNET PFF-CNS**		✓ AFI SUR Project Coordinators ✓ AFI SUR Project Team Leader		TBD	
Assessment/Reporting on the operation of Surveillance systems and operation	**AFI B0-ASUR, AFI B0 -SNET, AFI B0-ASEP AFI B0-ASEP AFI B0-SNET PFF-CNS**		✓ AFI COM Project Coordinators ✓ AFI SUR Project Team Leader		TBD	
Detailed guidance provided to States not complying with the AFI SUR Strategy	**AFI B0-ASUR, AFI B0 -SNET, AFI B0-ASEP AFI B0-ASEP AFI B0-SNET PFF-CNS**		✓ AFI SUR Project Coordinators ✓ AFI SUR Project Team Leader		TBD	
List of States with Surveillance systems implemented	**AFI B0-ASUR, AFI B0 -SNET, AFI B0-ASEP AFI B0-ASEP AFI B0-SNET PFF-CNS**		✓ AFI SUR Project Coordinators ✓ AFI SUR Project Team Leader		TBD	
Resources needed	✓ Adequate human ressouces to be appointed by States ✓ 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 in order to assess the results and propose corrective actions. States could use their human resources to conduct the foreseen SUR tests and monitoring, and, if necessary, cover the financial costs, since the experience gained will result in an improvement of their own systems.					

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[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*