Project Proposal Summary

1. **Group of States**: Eastern and Southern African (ESAF) and Western and Central African (WACAF) states

2. **Project No.:**   ESAF/WACAF/2021/XXX

3. **Project Title:**   Establishment and Implementation of A-CDM in the AFI region.

4. **Project Duration:**   24 months

5. **Implementation Agency:**   ICAO

6. **Source of Funding:**   AFI Plan

7. **Estimated budget:**   US$ XXXX

A. INTRODUCTION

1.	The International Civil Aviation Organization (ICAO) advocates several areas of performance improvement in its Global Air Navigation Plan (GANP) to be implemented in the signatory countries in the coming decades. The ASBU Block 0 Modules, B0-80/ACDM; Improved Airport Operations through Airport-CDM is significant in the Air Traffic Flow Management (ATFM).

2.	The A-CDM concept began more than a decade ago in Europe and its counterpart, and Surface-CDM in the U.S. established a new way to optimize airport operations through more efficient collaboration between all stakeholders. Aviation being a global business there is need for similar strategies across the networks.

3.	For smaller airports where there is no justification for a full A-CDM implementation the possibility to integrate with the ATFCM Network is offered by the Advanced ATC Tower concept, sharing a very small sub-set of A-CDM information with the network. This option will also be available to those airports that want to take a step towards full A-CDM. A-CDM is designed to improve overall airport and network efficiency through improved turnaround processes, harmonizing sequencing, and surface and departure management.

B. Project justification

1.	The Eleventh Air Navigation Conference (AN-Conf/11) was held in Montreal from 22 September to 3 October, 2003. At this meeting Recommendation 1/1 was agreed for the "Endorsement of the global ATM operational concept". This concept was subsequently published as the *Global Air Traffic Management Operational Concept* (ICAO Doc 9854), First Edition, 2005. Central to this concept is the need to evolve towards a more collaborative environment, as noted in the AN-Conf/11 Report (paragraph 1.2.1.3 in the AN-Conf/11 Report on Agenda item 1): *The goal, therefore, was an evolution to a holistic, cooperative and collaborative decision-making environment, where the expectations of the members of the ATM community would be balanced to achieve the best outcome based on equity and access.*

2.	At the eleventh meeting of the Aerodrome Operational Planning Subgroup (AOPSG / 11) held in Dakar (Senegal) from August 3 to 7, 2015, States were asked to identify a number of international airports in the AFI area for the implementation of A-CDM provided for in the global air navigation plan.

3.	The APIRG Airspace and Aerodrome Operations (AA SG/2) which took place in Nairobi, Kenya on 21-25 May 2018 established the A-CDM project. This project is to be part of the APIRG Aerodrome Operations Work Group. The objectives of this project are to implement APIRG decisions by developing a plan of implementing ACDM in the AFI region. The Project Team comprising of CANSO, IATA, Aerodromes operators and ANSP is tasked to coordinate the development of project documents and implementation strategies in collaboration with the Secretariat before end of 2018. CANSO was identified as the convener of the CDM and A-CDM sub-group which is within the Aerodrome operations project.

4.	In 2018, during the CANSO Africa Conference, held in Kenya, Mombasa, seven emerging issues were identified, which must be addressed to ensure Regional seamless operations, invisible borders and to better prepare Africa to cope with traffic

growth. The CANSO Mombasa Air Traffic Flow Management (ATFM) Roadmap was adopted to address one of the emerging issues identified i.e. Implementation Roadmap of CDM, A-CDM and ATFM. The APIRG/22 endorsed the CANSO Mombasa ATFM Roadmap as one of the pillars for seamless operations concept. The project is tracked under the AAO/SG as an Aerodrome and Airspace program and is led by CANSO as part of the collaborations. The CANSO Mombasa ATFM Roadmap has been published and is available under the CANSO website.

5.   ACDM implementation criteria:

Airports with passenger traffic exceeding one million passengers per year will implement ACDM in all phases defined by the Doc 9971.
However, Airports, in particular state capitals, can volunteer for a partial implementation of the ACDM to optimize operations and deal with congestion situations, particularly in the context of the management of significant traffic flows during summits of head of states for example. The states concerned must express their intention of partial implementation and the airports concerned.

ACDM implementation may concern international aerodromes with challenges in Airport operations such as:

   a. Congestions during peaks
   b. Inefficiency on the airport infrastructure due to non-optimized turnaround and sequencing performance
   c. Poor punctuality and performance (such as airport start delays)
   d. Lack of transparency on overall airport plan, or lack of a 'single version of information
   e. Poor recovery of airport after disruption.
   f. Poor interface with handling agents where relevant stakeholders do not have access to real time systems on turnaround and delay status

Based on the above criteria, the following Airports/States constitute the scope of this project:

ESAF

   1. South Africa, Oliver Tambo International Airport,
   2. Ethiopia, Bole International Airport,
   3. South Africa, Cape Town International Airport
   4. Kenya, Jomo Kenyatta International Airport (JKIA)
   5. Tanzania- Julius Nyerere International Airport
   6. Zanzibar- Abeid Amani Karume International Airport
   7. Uganda- Entebbe International Airport
   8. Kenya- Mombasa- Moi International Airport
   9. Mauritius- Sir Seewoosagur Ramgoolam Int'l Airport
   10. Seychelles- Seychelles International Airport
   11. Namibia - Hosea Kutako International Airport
   12. Zimbabwe - Robert Gabriel Mugabe International Airport
   13. Angola - Luanda/Quatro De Fevereiro International Airport
   14. Mauritius - Sir Seewoosagur Ramgoolam International Airport
   15. Zambia - Dr Kenneth Kaunda International Airport -

WACAF

1. Nigeria, Murtala Mohammed International Airport,
2. Cote d'Ivoire : Félix Houphouët-Boigny International Airport ;
3. Ghana, Kotoka International Airport, Accra
4. Cameroon, Douala International Airport,
5. Gabon, Leon MBA International Airport, Libreville
6. Senegal, Blaise-Diagne International Airport, Dakar
7. Togo: Gnassingbe Eyadema International Airport, Lomé

End of Project Status/ Target / Overall Objective

1. By the end of the project, all the international airports registered in the project will have implemented ACDM.

2. Implementation Strategy

2.1. A two-day launching meeting to be attended by DG CAAs and CEOs of airports of Beneficiary States, ACI, IATA, CANSO, ASECNA, donor States, as well as Regional Organizations (CASSOA, SASO, AFCAC, ATNS, ACI, SADC, EAC, etc.) will be convened at the ICAO Regional Office in Nairobi, Kenya. Meeting can be virtual. The purpose of this meeting will be to sensitize States on the objectives of the project, adopt the project document and get the commitment of top management. This meeting will make it possible to set up a project team for ACDM implementation in AFI region.

2.2. Project team composition

   a) Expert of the ICAO Regional Office,

   b) ICAO will identify other Resource-Experts (regulatory and operational) from States/Airports that have been earmarked to implement ACDM. Furthermore, RSOOs (Regional Safety Oversight Organizations), AFI-CIS and ACI will provide additional expertise to support these resource-experts under the guidance and monitoring of the Regional Office. The support can take in account systems, databases, and user interfaces for information sharing platform.

   c) Working teams from States specifically International airports identified for implementation of the project in the region (e.g. Ethiopia, Kenya' South Africa, Ghana, Togo etc.),

   d) Experts from ACI, IATA, CANSO, Etc.

2.3. The project team will be briefed and oriented on the project strategy to familiarize the resource Experts and the technical personnel of participating States involved in the A-CDM implementation process with procedures and tools developed and implemented by States that have already implemented A-CDM.

2.4. On behalf of the Project team, A-CDM implementation workshops will be conducted for the benefit of the CAA and airport personnel of the targeted States. The aim of theses workshops, which will be done in French and English, are:

- Provide briefing and orientation for the experts on the project strategy
- Develop capacity for and familiarize personnel of targeted States with the A-CDM implementation process.
- Prepare individual A-CDM Implementation programmes for the targeted States/airports.

2.5. Following the workshop, States will develop and submit their action plan. The implementation of these plans will be monitored remotely by the project team. Once the implementation of these action plans is completed, the Experts will conduct a 3-days on-site mission in each State, for a final preparedness review.

2.6. The Resource-Experts from CAAs will assist States and Airport in ACDM implementation process through 5-day missions to each beneficiary State. Finally, a 2-day wrap up mission will be conducted by RO/AGA in each State at the end the whole process.

C. Major Elements

Objective 1	**Establish and Implement A-CDM in international aerodromes identified by the end of 2023**	
Key Performance indicator (s)	• Established and operational ACDM in identified airports in WACAF and ESAF States by the end of 2023 • Working committees within Airports Identified for implementation of ACDM • Improved utilization and efficiency of air navigation infrastructure related to Airport operations in the AFI Region	
Result 1.1	**A two-day launching meeting held at the ICAO Regional Office in Nairobi/Dakar**	
Activity #	*Description*	*Actors*
1.1.1	Issue invitation letters to beneficiary States (DG CAAs, Airports Authorities) as well as States providing resource experts and Regional Organizations to the project launching meeting and follow up as required.	ICAO
1.1.2	Hold the project launching meeting	ICAO , ESAF States and Airports
Result 1.2	**Set up a project team for ACDM implementation in AFI region**	
Activity #	*Description*	*Actors*
1.2.1	ICAO will identify other Resource-Experts of States, Organisation etc.	ICAO
1.2.2	Workshop to adopt the implementation of ACDM project strategy	ICAO
Result 1.3	**Workshop on the ACDM implementation**	
Activity #	*Description*	*Actors*
1.3.1	Plan and organize one workshop in English/French	ICAO – Host States
1.3.2	Hold the resource experts briefing session	ICAO
1.3.3	Conduct a 05 days English workshop in Nairobi, Kenya./Dakar, Senegal	ICAO– Resource experts-Project Team
Result 1.4	**Monitoring and final review of the implementation of States action plans**	
Activity #	*Description*	*Actors*
1.4.1	Submit action plans for ACDM implementation to ICAO for review.	States, Airport
1.4.2	Monitor progress in the implementation of action plans	ICAO, Resource experts, RSOOs, ACI, IATA, CANSO, AFI CIS
1.4.3	Conduct a 3-day mission to each State/Airport for final review and assistance as may be required	ICAO, Resource experts, RSOOs, ACI, IATA,

		CANSO, AFI CIS
Result 1.5	**ACDM implementation of the targeted aerodromes**	
Activity #	*Description*	*Actors*
1.5.1	Assist States in the conduct of ACDM Implementation. 1 Expert per State, 5 days	Resource experts (from CAAs), AFI CIS, RSOOs/COSCAPs
1.5.2	Conduct a 2-day project wrap up visit to each beneficiary State	ICAO
Result 1.6	**Installation and operation of ACDM support equipment**	
Activity #	*Description*	*Actors*
1.6.1	Assist states with technical advice on ACDM	ICAO and ACI
1.6.2	Assist states in training of personnel on the implementation of ACDM	ICAO/ Resource Experts
Result 1.7	**Monitoring of the project**	
Activity	*Description*	*Actors*
	Gap identification	*ICAO & Resource Experts*
	Review of the strategy	*ICAO & Resource Experts*

D. Inputs:

1. *Input from States*

1.1 **Counterparts:** ACDM Implementation focal points designated by each CAA and Airport operators will provide assistance in coordination, development and implementation of the State action plan. The national stakeholders will comprise CAAs, airport operators, ANSPs, Handling companies, fuel providers, other government agencies, etc. for the development and implementation of the action plan.

1.2 **Support staff**: CAAs will provide ICAO with support staff if necessary.

1.3 **Workshops**: Nairobi/Dakar ICAO Regional Office will host the start-up meeting and workshop and will provide facilities (meeting room, catering, transportation and access to aerodrome and documentation …) free of charge to the project.

Each State will cover the costs involved with the participation of its national focal points in the start-up workshops (airfare, per diems, visas etc.)

1.4 **Office(s)**: Each State will provide suitable working tools (telephone, internet, printer, meeting room etc.) for on-site activities.

1.5 **Transport**: The CAAs and Airport will provide local transportation to ICAO staff while on site. The CAAs will also facilitate obtaining entry visas for the ICAO RO and for the Experts accredited by ICAO, and will provide any other assistance that may be necessary for the fulfilment of their missions.

1.6 **ACDM Equipment:** The purchase of basic equipment for the implementation of the ACDM is the responsibility of the airports

2. *ICAO Inputs*

2.1 Funding for the project: The project will be funded by AFI PLAN.

2.2 **Experts**: ICAO will mainly rely on its Nairobi RO/AGA, the four resource-experts and on Experts seconded by within the AFI-CIS framework as well as experts provided by ACI, IATA and CANSO;

2.3 **International missions**: a provision has been included to cover the ICAO Staff and the resources-experts mission expenses for the workshops and visits to States.

2.4 **Monitoring and reporting**: ICAO Regional Office in Nairobi and Dakar will be responsible for the supervision of the project, the production of the Project Terminal report. It will also establish and maintain coordination with all the stakeholders during the course of the project.

2.5 **Launching meeting**: ICAO will cover the costs of the meeting using project funds

2.6 **Miscellaneous expenses:** administrative overhead that may be incurred will be paid by the project funds.

E. Project Work plan

1. A preliminary work plan is attached as Appendix A. This preliminary work plan is indicative and will be refined during the implementation of the project.

F. Estimated Cost (USD): US$

Appendix A – Tentative work Plan

N°		Nom de la tâche	Durée	Début	Fin
1		Assist WACAF and ESAF States in the implementation of A-CDM process of their international aerodromes	520 jours	Lun 03/01/22	Jeu 28/12/23
2		A two-day launching meeting held at the ICAO	51 jours?	Lun 25/10/21	Lun 03/01/22
3		Issue invitation letters to beneficiary States (DG CAAs, Airports Authorities) as well as	5 jours	Lun 25/10/21	Ven 29/10/21
4		Hold the project launching meeting	4 jours	Mar 23/11/21	Ven 26/11/21
5		Set up a project team for ACDM implement	1 jour?	Lun 03/01/22	Lun 03/01/22
6		ICAO will identify other Resource-Experts of St.	1 jour?	Lun 03/01/22	Lun 03/01/22
7		Workshop to adopt the implementation of ACDI	1 jour?	Lun 03/01/22	Lun 03/01/22
8		Workshop on the ACDM implementation	43 jours?	Mar 01/02/22	Mer 30/03/22
9		Plan and organize one workshop in English/French	43 jours?	Mar 01/02/22	Mer 30/03/22
10		Hold the resource experts briefing session	3 jours	Mer 09/03/22	Sam 12/03/22
11		Conduct the XX days English workshop in Nairobi, Kenya./Dakar, Senegal	5 jours?	Mar 15/03/22	Sam 19/03/22
12		Monitoring and final review of the implementation of States action plans	455 jours	Lun 04/04/22	Ven 29/12/23
13		Submit action plans for ACDM implementation	42 jours	Lun 04/04/22	Mar 31/05/22
14		Monitor progress in the implementation of action plans	414 jours	Mar 31/05/22	Ven 29/12/23
15		Conduct a 3-day mission to each State/Airport for final review and assistance as may be required	414 jours	Mar 31/05/22	Ven 29/12/23
16		ACDM implementation of the targeted aerodromes	53 jours	Lun 05/09/22	Mer 16/11/22
17		Assist States in the conduct of ACDM Implementation. 1 Expert per State, 5 days	5 jours	Lun 05/09/22	Ven 09/09/22
18		Conduct a 2-day project wrap up visit to each beneficiary State	2 jours	Mar 15/11/22	Mer 16/11/22
19		Installation and operation of ACDM support equipment	174 jours	Lun 02/01/23	Jeu 31/08/23
20		Assist states in the purchase of basic equipment for the implementation of ACDM	130 jours	Lun 02/01/23	Ven 30/06/23
21		Assist states in training in the use of basic equipment for the implementation of ACDM	88 jours	Mar 02/05/23	Jeu 31/08/23

Appendix B– Schedule of Costs TBN

No							Travel						Meeting						
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	Nairobi -Antananarivo-Nairobi		Travel		200	4	800	152	1,500			1					2,452	
				TOTAL													18,904	

TOTAL	72,886