International Civil Aviation Organization

MID Region AIS Database Study Group

First Meeting (MIDAD SG*/1)
(Cairo, Egypt, 20 – 22 February 2012)

Agenda Item 9:   **Future Work Program**

PROJECT PROCESS, TIMELINE FOR DEVELOPMENT AND IMPLEMENTATION

(Presented by MIDAD Support Team)

SUMMARY
This working paper provides some further thoughts about a possible Project Process, Timeline for Set-Up, Implementation and Operation Phase of the MIDAD and tries to give input for the further advancement of MID Region AIS Database Study Group (MIDAD SG) Lead by Jordan and Bahrain.
Action by the Meeting is at paragraph 8.

REFERENCES
- AIS/MAP TF/6 Report - ATM/SAR/AIS SG/12 Report - DGCA-MID/1 Report - ICAO Strategic objective "Safety (A2)" and "Environment …" (C31)" - ICAO Aviation Systems Block Upgrades B0-30

1   INTRODUCTION

1.1   As a follw-up to the Conclusion 1/5 of the DGCA-MID/1 meeting, the MIDAD SG was established by the AIS/MAP TF/6 meeting through Draft Decision 6/7, which was further endorsed by the ATM/SAR/AIS SG/12 meeting through Draft Decision 12/14.

1.2   The material to be developed for the MIDAD Project shall include Timelines and Schedule for setting up and implementing the MIDAD as well as Processes and Phases to establish a proper Quality Management System during the study, the whole set-up and implementation of the project. A careful planning should be undertaken because of the complex legal, organisation, technical, and political nature of the MIDAD.

1.3   The Timelines and Schedule need to be divided into phases which contain well defined and clear working packages each with clear:

- Pre-requisites (required input);

- Term of references (statement of work); and

- Requested output (result).

1.4   This is needed for a good management of the project.

1.5   The Timelines and Schedule will be influenced by existing planning and timelines of the major stakeholders. This needs to be reflected during planning.

2   STAKEHOLDERS

2.1   The main existing stakeholders and entities which will have or might have an influence on the planning are the following:

Name	Role
Arab Air Carrier Organisation (AACO)	User representation
International Air Transport Association (IATA)	User representation
African Airlines Association (AFRAA)	User representation
General and Business Aviation	AOPA
Golf Coordination Council (GCC)	Political will and acceptance
Arab Civil Aviation Commission (ACAC)	Political will and acceptance
MIDANPIRG Steering Group (MSG)	Prepare endorsement for MIDANPIRG
MID ATS/AIS/SAR Sub-Group	Identify shortcomings and problems and review, the adequacy of requirements
MID AIS/MAP Task Force	Specialist Input for MIDAD
MID Region AIS Database Study Group (MIDAD SG)	Concept development for MIDAD
MIDANPIRG	Implementation Method, System operation, Service operation
MIDAD Service Provider (?) – owned by MID member states (?)	Procurements (?), System operation, Service operation
DGCA-MID	Final Decisions on Legal, institutional and Financial issues

2.2   The activities and already planned meetings[1] of those stakeholders should be explored before finalising the Timelines and Schedule in order to ensure the common acceptance and decision process for the MIDAD.

2.3   It will be very important to promote and present the MIDAD and its advantage to those stakeholders and to gather their expertise and assistance.

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[1] Actual known are MIDANPIRG/13, 22.-26.04.12, Abu Dahbi, UAE, MID AIM Seminar 11.-13.06.12, Cairo, Egypt, CIV/MIL Coordination Seminar, 10.-13.09.12, Cairo, Egypt, AIM TF/7, 25.-27.09.12, Cairo, Egypt

3   PROGRAM METHODOLOGY, PROCESS AND MANAGEMENT

3.1   A program like the MIDAD needs integrated program management principles for the whole life-cycle of the concept/system. This means basically for the:

1. Study phase;
2. Program set-up phase;
3. Call for tender preparation phase, or other implementation methods;
4. Tender phase, or other method;
5. Contract negotiation phase, or other negotiation phase;
6. Implementation phase;
7. Operation phase; and
8. Maintenance phase.

3.2   The methodology of the V-Model ® XT which the German Government uses for all of its civil and military procurements of software products and systems could be used. The V-Model is designed as guidance for planning and executing development projects, taking into account the entire system life cycle. It defines the results to be achieved in a project (or program) and describes the actual approaches for developing these results. In addition the V-Model specifies the responsibilities of each participant. Thus, the V-Model describes in detail, "who" has to do "what" and "when" within a project.

3.3   These standardized, methodical guidelines permit a systematic execution even of complex and extensive projects. Thus, projects can be better planned, traceable and lead to high-quality results with greater reliability, which is advantageous for acquirer and supplier.

3.4   The cooperation between acquirer and supplier is an essential factor of success. Thus, it is regulated by the V-Model. The responsibilities of both sides are specified. Thus, the V-Model standards are an important basis for contracts between acquirer and supplier. In addition, the V-Model improves the comparability of Offers.

3.5   Thus, the V-Model can be used as basis for contracting, as process guidance and as basis of communication.

3.6   The big advantage of the V-Model is that it includes a process of tailoring the model for specific needs like the MIDAD study and undertaking with possible later implementation. The V-Model is fully documented in PDF and HTML in English and German language, is available free of charge and includes electronic Java based tools for tailoring, customisation, document generation. The V-Model uses free Open Source Editors (Open Office) but the documents are also compatible to commercial editors like Microsoft Word. Paragraph 9 (Annex 1) shows the complete model which needs to be tailored following the needs of MIDAD. The V-Model also contains the procurement cycle and could be a big advantage for the MIDAD as the modelled procurement rules can be considered in setting up the MIDAD program even when the procurement entity, or other leading entity, is not yet known and also if other then procurement methods have been chosen for implementation. The V-Model comes from the generic approach of the German Government for procurement of all types of IT systems.

4   PROGRAM TEAM

4.1   The initially set-up Program Team will grow over the time. It is important to set-up a team which understands the process from initial schedule and applicable documentation planning, making working plans including initial principle thinking about procurement and call for tender preparation. The team members need to be aware with the latest ICAO developments and need operational know- how and experience in the Aeronautical Information areas. The team needs founding and the right composition of representatives. The team might be composed of representatives from:

1. The two MIDAD Studyleading states (Bahrain and Jordan)
2. ICAO HQ liaison, and ICAO MID Office liaison
3. Organisations in a position to contribute

4.2   It is very important that representatives of the intended member states are taking ownership in the idea of the MIDAD at the earliest possibility. This means that those member states or groups of member shall be involved as a first provisional step very soon. Otherwise a real ownership and representation is not easy to achieve. If a program team starts working without representing the member states or groups of member states then special care needs to be taken by regular interviews and presentations to allow the member states to follow along the preparation of the concept and documents and to ensure input.

5   SET OF DOCUMENTS AND STRUCTURE

5.1   Prior to the MIDAD program a set of documents needs to be compiled:

No	Doc Group	Doc Title	Audience
1.	ICAO	MIDAD Study	States, ICAO, Users
2.	ICAO	Business and Financial Plan	States, ICAO, Users
3.	ICAO	Requirements Document	States, Users
4.	ICAO	Operational Plan	States, ICAO, Users
5.	ICAO	MID ANP/FASID Update	States
6.	ICAO	Report to AIP/MAP TF	States
7.	ICAO	Report to ATM/SAR/AIS SG	States
8.	ICAO	Report to MIDANPIRG	States

5.2   These documents are important to further establish the MIDAD undertaking in the overall ICAO planning.

5.3   The MIDAD program needs also a proper project set-up especially because of its size and complexity from the beginning. Following the principles of the various models, different documents are needed depending on the phase where the program is in. The minimum set of Project Documents could be viewed as follows:

No	Doc Group	Doc Title	Audience	Priority
1.1	Planning and Control	Program Manual	Internal	-
1.2		Program Plan	Internal	High
2.1		Program Proposal	Internal	High
2.2		Legal Framework of the operation of the MIDAD	Internal	High
2.3	Requirements and Analyses	Operational Concept	External	High
2.4		Requirements Specification Overall Project	External	High
2.5		Requirements Evaluation	External	-
2.6		Service Provision Requirements	External	High

No	Doc Group	Doc Title	Audience	Priority
3.1	Acquisition and Contracting *(in case of procurement)*	RFP Concept	Internal	High
3.2		Criteria Catalogue for Assessment of Offers	Internal	-
3.3		Request for Proposal	External	-
3.4		Offer Assessment	Internal	-
3.5		Contract	External	-
3.6		Contract Addendum	External	-
3.7		Statement of Acceptance	External	-
4.1	Configuration and Change Management	Problem Report - Change Request	External	-
4.2		Change Status List	Internal	-
4.3		Problem Change Evaluation	Internal	-
4.4		Change Decision	External	-

5.4   The documents marked in the Audience Column as "Internal" are important for setting up the internal process of the study and later implementation. The documents marked "External" need to be sent to the potential bidders or implementation body during the tender process (if any) or to be used during program execution process, as appropriate. The documents marked in the Priority Column as "High" shall be developed in parallel to the Requirements Specification.

5.5   The documents with no priority shall be developed when the process for the set-up of the MIDAD is more settled.

6   PHASES

6.1   The Timelines and Schedule can be divided into twelve main Phases:

1. Preparation/Study Phase

2. Set-Up Phase

3. ROI (in case of RfP)

4. Call for Tender Preparation Phase (in case of RfP)

5. Call for Tender Phase (in case of RfP)

6. Award (in case of RfP)

7. Contract Negotiation Phase (in case of RfP)

8. Signature (in case of RfP)

9. System/Program Implementation Phase

   a) Each member state or group of member states can follow a separate Implementation Plan; and

   b) Those Phases can move in parallel

10. Service Implementation Phase

    a) Each member states or groups of member states can follow a separate Implementation Plan in conjunction with the system implementation; and

    b) Those Phases can move in parallel.

    11. Service Migration Phase

    12. Operation Phase (System and Service)

    13. Maintenance and Enhancement Phase.

6.2   The phases will need to be executed basically in sequence where the work result of one phase is the prerequisite for beginning the next phase.

6.3   The contents of the phases can be initially described as follows:

No	Phase	Contents	Result/Deliverable
1	Preparation/Study Phase	• Program Plan • Schedule • Gather interest by State • Document Concept	• MIDAD Study Group presents work result/suggestion to MIDANPIRG/13 • After review by the AIM TF and ATM/SAR/AIS SG presents work result/suggestions to MIDANPIRG/14 in conjunction with the MIDADSG
2	Set-Up Phase	• GCC plans a MIDAD SG meeting • Discussions with ? about financing • States deciding about financing • MIDADSG finalises documentation concept • Legal establishment of MIDAD Company (Service Provider Company - SPC), if needed	• State Groupings are fixed • Legal frame are finalised • Service Provider company (SPC) are founded if needed • MIDAD SG gets part of the Service Provider company • Financing agreed with ?
3	Call for Tender Preparation Phase *(if procurement is chosen)*	• SPC prepares Call for Tender based on the MIDADSG documentation • SPC develops pre-qualification criteria • Call for pre-qualification • Assessment companies/consortia which have interest to be pre-qualified	• Call for Tender finalised • Publication of Call for Pre-Qualification • Decision on list of pre-qualified companies/consortia • International Call for Tender published (either by SPC or ?)
4	Call for Tender Phase *(if procurement is chosen)*	• Call for Tender • Public clarification meeting with interested bidders • Tender Closing • Development of the list of short listed bidders • Individual clarification with short listed bidders	• Decision about preferred bidder (company/consortia)

No	Phase	Contents	Result/Deliverable
		• Call for provisional final offer from short listed bidders • Decision about preferred final bidder • Call for definitive final offer from preferred bidder	
5	Contract Negotiation Phase *(if procurement is chosen)*	• Negotiation of system and service contract	• Signed System Contract • Signed Service Contract
6	System Implementation Phase FAT SAT	• Centre Group 1 implementation • Centre Group 2 implementation • Centre Group 3 implementation • System Training and Training Centres implementation	• Each Group separate implementation schedule acceptance, if groups exist
7	Service Implementation Phase	• Service implementation Area/Centre 1 • Service implementation Area/Centre 2 • Service implementation Area/Centre 3 • Service Training	• Each Area/Centre separate service acceptance, if areas/centres exist
8	Service Migration OPS Acceptance	• Service migration Area/Centre 1 • Service migration Area/Centre 2 • Service migration Area/Centre 3	• Operational usage (cut over) separate for each Area/Centre, if areas/centers exist
9	Operation Phase (System and Service)	Operation of the System and delivering the service	AIS Services
10	Maintenance and Enhancement Phase	• Identification of changes • Decision about changes • Implementation of changes	Acceptance of System and Service changes

6.4   The contents description of the Phases needs continuous reassessment.

7   TIMELINES

7.1   The meeting should agree on roughly Timelines for the monitoring of the MIDAD Project covering a period of 4 to 5 years. Figure 7-1 is given just as an example:
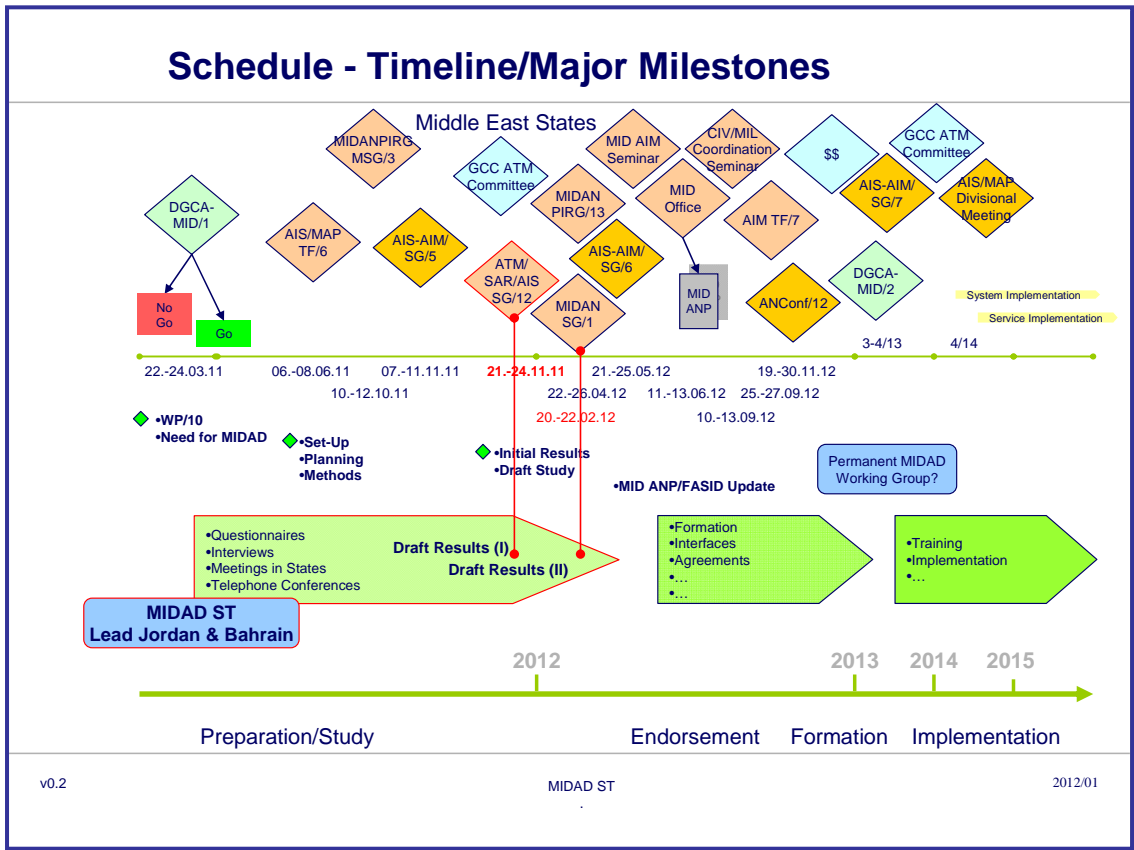
Figure 7-1: Timeline

7.2   To meet the Preparation/Study Part of the Timeline depends mostly on the planning and agreement amongst the MIDAD SG members

8   ACTION BY THE MEETING

8.1   The MIDAD SG/1 is invited to:

a)   note the content of this paper; and take it into account when moving forward in project planning for MIDAD Development and Implementation; and

b)   take appropriate action with regard to the MIDAD Planning.

9 Annex 1 – V-Model Process for Acquirer and Supplier

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