



**APPENDIX B**

**SAT/FIT/8-WP/03**

**INTERNATIONAL CIVIL AVIATION ORGANIZATION  
WESTERN AND CENTRAL AFRICAN OFFICE**

**Draft Plan of Action for Luanda FIR  
ADS-C/CPDLC Implementation Project,  
Angola**

## **I-Scope of the Project**

### **I-1 Objectives of the Project**

The Angola Air Navigation Provider ENANA is engaged in the development and the implementation of ADS-C/CPDLC with the view to enhance the safety of air navigation service within the Luanda FIR.

### **I-2 Consistency of the project**

The project consists on the implementation of Automated ADS-C/CPDLC facilities that will enable ATCs operate through Aircom Datalink (ACCARS-SITA) with equipped aircraft.

### **I-3 Expected benefit**

- Availability of Surveillance coverage through ADS-C beyond SSR coverage to remote continental and oceanic airspace
- Improved safety reduced incidents/accidents risks, increased access, equity and capacity
- Improved Communication Service through CPDLC in remote continental and oceanic airspace
- Improved situational awareness with ability to ensure the predictability of aircraft profile and to recall history of flight, flexibility, efficiency,
- Improved ATC ability to manage air traffic in remote iflex and AORRA airspace
- Reduced cases of unidentified aircraft
- Opportunity for revenue increase and cost-effectiveness through optimized trajectories and decreased fuel consumption
- Enhanced environment protection with the reduction of CO<sub>2</sub> emission
- Compliance with Global and AFI Regional requirements and SAT conclusions/decisions
- Global interoperability, participation to the ATM community
- Luanda FIR removal from the IATA IFBP applicable area
- Security
- Decreased workload for ATCOs

## **II- Status of Implementation of ADS-C/CPDLC in Luanda FIR**

### **II-1 Current status**

The contract between ENANA and SITA is at the finalization stage:

- Draft Proposal received from SITA on August 2012 and analyzed
- Site survey done on October 2012 in order to finalize the Offer;
- Final Technical and financial proposal from SITA received on December 2012;
- Discussion on the project of contract since then based on national financial and legal regulations.
- Contract expected to be signed by the end of May

### **II-2 Short and Medium term planned Actions.**

**The activities during this period will be based on periodic consultation between the project management Team and the other stake holders including and not limited to ATCOs, AIS/AIM and Maintenance Personnel.**

1. Signature of the contract: **T<sub>0</sub>**
2. Purchase order to be sent to SITA in **June**;

3. Inception (Kick off) meeting by **end of June**;
4. Ensure the compatibility of the ADS-C system with ICAO new Flight Plans Format and with the new AMHS system.
5. Ensure the compatibility of the future FDPS and RDPS (SSR) with the ADS-C , the new AMHS systems
6. Ensure the availability of the local telephone line between the ACC and the host of the aircom provider to ensure an **end to end** service availability in accordance with the required Service Performance Level agreed in the framework of the contract
7. Factory training for operational and technical personnel in accordance with the schedule agreed during the inception meeting
8. Factory Acceptance in accordance with the schedule agreed during the inception meeting
9. Shipping and transport in accordance with the schedule agreed during the inception meeting
10. Taxes exemption and Custom clearance
11. Site preparation
12. Installation with participation of technical team;
13. On-site training;
14. On site acceptance by **end of February 2014**

### **II-3 Long term planned Actions**

- The actions during this period should be formally and regularly notified to the ICAO (ESAF and WACAF Offices) IATA and SAT Chairman through the Regulator (CAA).
- Publication of an AIC for Operational trials with airlines and IATA during a period to be agreed;
- Operational assessment
- Publication of an AIC for starting full operation
- Established/Updated LoAs
- Sustainable maintenance policy Plan and Programme to be developed

### **II-4 Timeframe of the project**

**Appendix to be developed by the Project Manager ENANA before end of May 2013**

## **III- Operational prerequisites**

### **III-1 Operational Manual**

Development of the Operational Manual including the contingency plan

Development of a maintenance appropriated measures subsequent to the contingency plan

### **III-2 GOLD Document**

Utilization of GOLD Document

### **III-3 Safety Risk Studies**

Safety assessment and Development of the Safety Risks Document

### **III-4 Training of Operational personnel (ATCOs, AIS/AIM & COM Operators...)**

- Training policy
- Training Plan
- Training programme

- Training schedule

### **III-5 Training of Technical Personnel**

- Training policy
- Training Plan
- Training programme
- Training schedule
- Eventual maintenance contract

### **IV-Interoperability**

IV-1 Neighboring concerned centres

IV-2 Implementation of AIDC/OLDI

### **V-Other suggested actions**

- Familiarization visit to understand basic technical and operational principles prior to the inception meeting in a Portuguese speaking centres
- Effective participation of ENANA at the SAT meeting (ICAOWACAF, Dakar, 15-19 July, 2013) with a working Paper on the status of implementation of the project.

**Summary of the draft Plan of Actions for the Project of Implementation of ADS-C/CPDLC in Luanda FIR, Angola**

<b>Short and medium Term : 20 May 2013 -28 February 2014</b>					
<b>Order</b>	<b>Action</b>	<b>Responsible</b>	<b>Priority</b>	<b>Deadline</b>	<b>Status</b>
1	Signature of the contract	CEO/Board	High	03 May 2013	Implemented
2	Purchase order to be sent to SITA	CEO	High	June 2013	On going
3	Development of a working/information Paper to report to SAT/FIT/8 and SAT/18 Meetings	Team Manager	High	15 June 2013	
4	Inception (Kick off) meeting	Project Team/SITA	High	30 June 2013	
5	Ensure the compatibility of the ADS-C system with ICAO new Flight Plans Format and with the new AMHS system.	Technical Director	High	30 June 2013	
6	Ensure the compatibility of the future FDPS and RDPS (SSR) with the ADS-C , the new AMHS systems	Technical Director	High	30 June 2013	
7	Ensure the availability of the local telephone line between the ACC and the host of the aircom provider to ensure an end to end service availability in accordance with the required Service Performance Level agreed in the framework of the contract	Project Team/SITA	Medium	November 2013	
8	Factory training for operational and technical personnel in accordance with the schedule agreed during the inception meeting	SITA/Technical & Operational Directors	High	TBD	
9	Factory Acceptance in accordance with the schedule agreed during the inception meeting	SITA/Project Team		TBD	
10	Shipping and transport in accordance with the schedule agreed during the inception meeting	SITA	Medium	TBD	
11	Taxes exemption and Custom clearance	Logistic Division	High	TBD	
12	Site preparation	Team Manager/SITA	High	TBD	
13	Installation with participation of technical team	SITA		TBD	
14	On-site training	SITA	High	TBD	
15	On site acceptance	SITA/Project Team	High	28 February 2014	
<b>Long Term: 1<sup>st</sup> March 2014 and beyond</b>					
<b>Order</b>	<b>Action</b>	<b>Responsible</b>	<b>Priority</b>	<b>Deadline</b>	<b>Status</b>
16	Publication of an AIC for Operational trials with airlines and IATA during a period to be agreed	Operational Director	Medium	1 <sup>st</sup> March 2014	
17	Operational assessment	Operational Director	High	1 <sup>st</sup> March 2014	
18	Publication of an AIC for starting full operation	Operational Director	High	1 <sup>st</sup> May 2014	
19	Established/Updated LoAs	Operational Director	Medium	ASAP	
20	Sustainable maintenance policy Plan and Programme to be developed	Technical Director	High	1 <sup>st</sup> March 2014	

**TBD: To Be Determined based on the project schedule**

**ASAP: As Soon As Possible with the neighbors.**