

## FINAL REPORT



### **The Second Meeting of the ACAC FANS 1/A Implementation Group**

**(AFIG/2)**

**7<sup>th</sup> – 8<sup>th</sup> April 2008**

**CAIRO, EGYPT**

The Second Meeting of the ACAC FANS 1/A Implementation Group  
(AFIG/2)  
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The Second Meeting of the ACAC FANS 1/A Implementation Group  
(AFIG/2)  
History of the Meeting

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## 1.1 Introduction

1.1.1 The second meeting of the ACAC FANS 1/A Implementation Group (AFIG/2) was convened by the Arab Civil Aviation Commission (ACAC), IATA and SITA at the NANSC conference facility in Cairo, Egypt from 7<sup>th</sup> to 8<sup>th</sup> April 2008.

1.1.2 AFIG/2 was conducted as a meeting of ANSPs, airspace users, regulatory authorities and other stakeholders to support and expedite the goals and objectives of ACAC and ICAO, especially in regard to CNS/ATM initiatives within the ACAC region.

1.1.3 The purpose of the meeting was to build on the work undertaken during AFIG/1 (19<sup>th</sup> – 20<sup>th</sup> September 2006), to progress the development of near-term implementation of FANS 1/A technology. AFIG activities are coordinated with the Arabian Sea/Indian Ocean ATS Coordination Group (ASIOACG). The MID-ICAO office is also kept informed about AFIG activities.

## 1.2 Attendance

1.2.1 The meeting was attended by 26 participants from the Kingdom of Bahrain, the Arab Republic of Egypt, the Great Socialist People's Libyan Arab Jamahiriya, the Sultanate of Oman (*attended as observers on the 7<sup>th</sup> April and full participants on the 8<sup>th</sup> April*), Royal Jordanian Airlines, the Kingdom of Saudi Arabia, the Republic of Sudan, the United Arab Emirates, the Republic of Yemen (*attended as observers*), IATA and SITA (*group secretariat*). A list of participants is shown at **Attachment A** to this report.

## 1.3 Opening of the Meeting

1.3.1 The AFIG/2 Chairman, Mr Abdenabi Manar, opened the meeting by welcoming all participants to Cairo, Egypt and thanked NANSC for their efforts in hosting this event.

1.3.2 Mr Abdenabi Manar then invited all participants to introduce themselves.

## 1.4 Documentation

1.4.1 Five (5) working papers and six (6) information papers were considered by the meeting. A list of the papers is shown at **Attachment B**.

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**Agenda Item 1: Adoption of Agenda**

1.1 The meeting was presented with a revised provisional agenda dated 7<sup>th</sup> April 2008 and agreed to adopt the following agenda:

- Agenda Item 1: Adoption of Agenda
  - Agenda Item 2: Update from ANS Providers
  - Agenda Item 3: Update from Airspace users, Industry Affairs and User Requirements
  - Agenda Item 4: Review and Update of Action Items from AFIG/1
  - Agenda Item 5: Review and Update of Timeline
  - Agenda Item 6: Review and Update of Users Preferred Routes
  - Agenda Item 7: Implementation Matters
    - FANS 1/A Operational Manual (FOM)
    - End-to-End Data Link Monitoring and the CRA
  - Agenda Item 8: Coordination Matters
    - Civil/Military Coordination
    - Administration and proposed Letters of Agreement
  - Agenda Item 9: Updates
    - ASIOACG/2
    - MIDANPIRG/10
    - ACAC
  - Agenda Item 10: Any other business
  - Agenda Item 11: Next meeting and election of AFIG/3 Chairman
- Closing of the Meeting

**Agenda Item 2: Update from ANS Providers**

The Great Socialist People's Libyan Arab Jamahiriya

2.1 The Libyan representative informed the meeting that the FANS 1/A questionnaire was filled and was handed back to ACAC. He further reported that Libya has plans to upgrade the entire ATC infrastructure by year 2009.

The Kingdom of Saudi Arabia

2.2 The GACA Representative informed the meeting that Saudi Arabia will be introducing an upper ACC in Riyadh by June 2008. A new ACC in Jeddah is also planned to open in the 1<sup>st</sup> quarter of 2009. Both new ACC's will use Eurocat-X systems provided by Thales ATM and will have FANS 1/A capability. The new Riyadh ACC will control FL290 and above while the Jeddah ACC will take control below FL290 and the plans do include the training of new controllers for both ACC's.

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2.3 Dr. Mohammed El-amin informed the meeting that other upgrade plans for Saudi Arabia included a VHF Ground Stations (VGS) Partnership Agreement with SITA for the introduction of new datalink applications such as FANS 1/A and d-ATIS in addition to serving airlines with AOC. The plans also included the introduction of a Kingdom-wide National Air Navigation Ground Network infrastructure, the replacement of all VCSS's, the introduction of Frquentis and Schmitt radios, the introduction of FDP systems at remote towers, the introduction of wide-area multilateration and the introduction of new digital likes via NAFISAT.

The Arab Republic of Egypt

2.4 The Egyptian representative informed the meeting that FANS 1/A service was introduced in 2002 following a system upgrade and trials were conducted. The service was later disconnected due to lack of interest by pilots.

The Republic of Sudan

2.5 The meeting was informed that Sudan has the system capability to provide FANS 1/A services. The system was reported as being undergoing tests at the time of the meeting and further information will be provided as they become available.

The United Arab Emirates (UAE)

2.6 UAE representative informed the meeting that there are plans to introduce AMHS, ADS/B and a new ACC is also being introduced in Abu Dhabi (testing is within the next two months from now).

The Sultanate of Oman

2.7 Oman Representative reported that Oman has plans for upgrading airports, terminals and ACC and has plans to introduce CPDLC, ADS-B and Multilateration radar. A total of 6 new airports will be open by 2010. The implementation will be a phased implementation ending in year 2015, with FANS 1/A expected to be introduced by year 2011.

The Kingdom of Bahrain

2.8 Bahrain Representative reported the existence of advance IP ground infrastructure. Bahrain upgraded to all digital links for Radar, AFTN and ground voice. Plans for implementing AMHS and AIS upgrade and RNAV 6 will be introduced in July 2007. Bahrain has d-ATIS service and has plans for phased-implementation of ADS-C and CPDLC

**Agenda Item 3: Update from Airspace users, Industry Affairs and User Requirements**

3.1 The representative of Royal Jordanian airlines reported that RJ upgraded its ACARS-equipped aircraft to include PDC/DCL, d-ATIS and automatic load sheet reception. RJ decided to enhance its use of datalink and installed FANS-B capabilities on A-320 family and joined the Link2000+ program. RJ is carefully studying the equipage of its A-340 fleet with FANS A. Furthermore, RJ has 12 Boeing 787 on order, all with FANS 1 and 2 capabilities.

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3.2 The SITA representative informed the meeting of the current status of SITA datalink users in the ACAC region. The list included:

- KSA: FANS 1/A in Riyadh & Jeddah (planned) and d-ATIS (planned for 14 airports),
- Algeria: FANS 1/A,
- Lebanon: FANS 1/A and d-ATIS,
- Sudan: (FANS 1/A currently suspended).
- Egypt: d-ATIS, (FANS 1/A currently suspended),
- Kuwait: d-ATIS,
- Bahrain: d-ATIS,
- Dubai: d-ATIS, and
- Tunisia: d-ATIS and DCL.

3.3 The meeting was also informed about the VHF Ground Stations (VGS) Partnership agreement between SITA and the Saudi Arabian GACA, whereby GACA owns and operates the VGS equipment and relies on the SITA global network infrastructure to deliver ACARS, VDLM2 and AOC traffic to all users.

**Agenda Item 4: Review and Update of Action Items from AFIG/1**

4.1 The Secretariat presented the status of Action Items for review by the meeting. This list had been prepared at the conclusion of AFIG/1. The updated status of the list of Action Items is included in **Attachment C**.

4.2 The meeting reviewed all Action Items and agreed to have June 2008 as a “generic deadline” for most action items which need to be closed before AFIG/3. Some recommendations at the end of this report are related to the reviewed list of action items.

**Agenda Item 5: Review and Update of Timeline**

5.1 Dr. Mohammed El-Amin (AFIG/2 Coordinator) presented a Working Paper (WP3) that proposed inter-state FANS 1/A trials as an alternative to the timeline proposed in AFIG/1. The idea is to encourage states equipped with the necessary FANS 1/A ground equipment and related requirements to conduct inter-state(s) trials with proper coordination with AFIG management. The role of the latter becomes to steer these inter-state(s) efforts towards the ultimate goal of the regional trial. A copy of WP3 is included in **Attachment D**.

5.2 The meeting adopted this approach and recommended to start inter-state trials based on state readiness.

**Agenda Item 6: Review and Update List of Users Preferred Routes**

6.1 Mr Ahmad Qinawi, the IATA representative, presented a Working Paper (WP6) informing the meeting of the outcome of UPR meeting that took place in Amman on March 2007. The meeting was presented with various charts explaining the user’s preferred routes using FANS 1/A.

6.2 The meeting discussed some of these proposed routes and coordination was encouraged between states and users to adopt these proposed routes for trials. A copy of WP6, including charts, is included in **Attachment E**.

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**Agenda Item 7: Implementation Matters**

FANS 1/A Operations Manual (FOM)

7.1 The Secretariat informed the meeting of the publication of the *FANS 1/A Operations Manual* (FOM), Version 4 effective 28<sup>th</sup> September 2006. Copies of this document can be downloaded from the following sites:

<http://www.crasa.cra-japan.org/pr/gdoc/doctop.html> (the CRASA Japan web page)

[http://www.faa.gov/ats/ato/data\\_link.htm](http://www.faa.gov/ats/ato/data_link.htm) (the FAA Oceanic Operations Standard Group web page)

<http://www.faa.gov/ats/ato/ipacg.htm> (the IPACG web page)

<http://www.faa.gov/ats/ato/ispacg.htm> (the ISPACG web page)

It was noted that FANS Operational Manual (FOM) has been developed and is already used in some ICAO regions (APAC, NAT, etc), accordingly for global harmonization purpose, the meeting should of view that states which will be involved in FANS 1/A trials/implementation in the MID region should take advantage of the available FOM

7.2 The meeting also noted that on page 1-1 of the FOM, ACAC is included among the parties that “own and manage” this manual. The meeting was informed that the manual was not approved by ACAC. It was recommended to take necessary steps to remove the name of ACAC until the document is passed through the necessary procedures within ACAC for adoption.

End-to-End Datalink Monitoring

7.3 The Secretariat informed the meeting on the availability of the Asia/Pacific “*Guidance Material for End-to-End Safety and Performance Monitoring of Air traffic Service (ATS) Data Link Systems in the Asia/Pacific Region*”.

7.4 The guidance material is intended to provide a set of working principles for ATS data link system performance monitoring that would be applied by all States implementing these systems, as well as providing detailed guidance on the requirements for establishing and operating a FANS-1/A Interoperability/Implementation Team (FIT) and Centre Reporting Agency (CRA). Copies of the document are available on the ICAO Asia/Pacific Regional Office website at: <http://www.bangkok.icao.int/> under the “APAC e-Documents” menu.

7.5 The meeting was reminded of the safety management provisions of Annex 11 in regard to the introduction of ADS/CPDLC systems to support reduced separation standards and the requirement to establish a FIT/CRA to enable States to meet the Annex 11 safety monitoring provisions.

7.6 The meeting was also informed of the proposal made during ASIOACG/2 to hold ASIOACG/3 with both FIT-BOB and AFIG, provisionally planned in the period 7<sup>th</sup>-11<sup>th</sup> July in India. The meeting welcomed this proposal and requested follow-up on this proposal.

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7.7 Furthermore, the meeting was informed about the possibility of requesting the FANS Implementation Team-Bay of Bengal (FIT-BOB) Central Reporting Agency (CRA) to provide FIT/CRA services for AFIG members on interim basis.

**Agenda Item 8: Coordination Matters**

Civil/Military Coordination

8.1 The importance and necessity of Civil/Military coordination was highlighted by both Oman and Egypt representatives. Oman attended the ICAO Special Civil/Military Coordination Meeting (SCMSM) that was held in Yemen June 2006 and reported on the progress that was made during that meeting. A copy of the meeting report was circulated to all participants. A copy can be found in **Attachment F**.

8.2 The meeting agreed that it is necessary to appropriately involve the military in future plans for AFIG activities.

8.3 Egypt drew attention to the upcoming ICAO Civil/Military Coordination Seminar that will take place in Egypt in May 2008.

Administration and Proposed Letters of Agreement

8.4 The AFIG/2 Coordinator, Dr. M. El-amin, presented a Working Paper (WP5) that discussed proposed coordination agreements for AFIG trials. The meeting was informed of similar arrangements taken by other similar groups signing similar agreements. Two draft agreements were presented. The first was a draft LoU proposed to be reviewed and signed between ACAC and participating ANSP's. The second was a draft MoU proposed to be reviewed and signed between ACAC and airlines. A copy of WP5 can be found in **Attachment G**.

8.5 The meeting agreed to internally review the draft agreements internally with the concerned departments.

**Agenda Item 9: Updates**

ASIOACG/2

9.1 The AFIG/2 Coordinator, Dr. M. El-amin presented an information paper (IP4) that informed the meeting with the recent progress and coordination with ASIOACG/2. A copy of IP4 can be found in **Attachment H**.

9.2 The meeting was given a high-level overview of the AFIG ad-hoc meeting that took place in parallel with ASIOACG/2.

9.3 The meeting was also informed of the proposal made during ASIOACG/2 to hold ASIOACG/3 with both FIT-BOB and AFIG, provisionally planned in the period 7<sup>th</sup>-11<sup>th</sup> July in India. The meeting welcomed this proposal and requested follow-up on this proposal.

9.4 The meeting encouraged continued coordination with ASIOACG.

MIDANPIRG/10

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9.5 The meeting was informed that the 10<sup>th</sup> meeting of the Middle East Air Navigation Planning and Implementation Regional Group (MIDANPIRG/10, Doha, Qatar, April 2007) adopted the following conclusion:

**Conclusion 10/ 16 – FANS 1/A Activities in the MID Region**

*That, MID States, in coordination with users, are encouraged to implement FANS 1/A (ADS-C/CPDLC) as an interim solution, until a fully ATN compliant ADS/CPDLC system is made available.*

ACAC

9.6 Mr. Abdenabi Manar informed the meeting that ACAC is currently working on air navigation strategy, NAVISAT progress, the 2-years Study on CNS/ATM, Study of ICAO's GPI's. AFIG progress, and ANSP's certification.

**Agenda Item 10: Any Other Business**

10.1 The RJ representative briefed the meeting about RJ implementation of FANS-B in A320 family and their participation in the Link2000+ trials.

10.2 A EUROCONTROL video film addressing datalink implementation was shown.

10.3 It was agreed that AFIG activities will only address FANS 1/A implementation in the region and Capt. Kalbouneh requested that future AFIG meetings can, in the meantime, monitor the progress and the need of FANS-B implementation.

**Agenda Item 11: Next meeting and Election of AFIG/3 Chairman**

11.1 In view of the work program outlined during AFIG/2, it was agreed that AFIG/3 should be held sometime during July 2008, so as to build on the momentum.

11.2 The meeting was briefed about the need to nominate and elect an AFIG/3 Chairman from the member-states.

11.3 Mr. Waleed Madani, from the General Authority of Civil Aviation, Saudi Arabia, was nominated and unanimously elected by all participants as the AFIG Chairman.

**List of Draft Recommendations of AFIG/2**

**Draft Recommendation 1:**

1/1 To encourage the concept of conducting inter-state FANS 1/A trials based on state readiness, whereby states can mutually coordinate trials under the coordination of AFIG.

**Draft Recommendation 2:**

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2/1 To encourage AFIG state member to review proposed trials routes provided by IATA in this meeting, or any other User's Preferred Routes (UPR), in coordination with ACAC and AFIG Chairman.

**Draft Recommendation 3:**

3/1 To take necessary action to remove the name of ACAC until the document passes through the necessary procedures within ACAC for adoption.

**Draft Recommendation 4:**

- 4/1 To explore available possibilities for performing the CRA function:
- i. The Regional Monitoring Agency (RMA), under MID-ICAO umbrella, and
  - ii. The FIT-BOB CRA.

**Draft Recommendation 5:**

- 5/1 To continue close coordination with other similar groups (e.g. ASIOACG)  
5/2 To continue close coordination with MID-ICAO

**Draft Recommendation 6:**

- 6/1 To review proposed draft LoU and MoU for trials coordination.

**Draft Recommendation 7:**

- 7/1 To ensure that the Military authorities are:
- i. fully involved in the airspace planning and management process;
  - ii. aware of the new developments in civil aviation; and
  - iii. involved in future meetings, as appropriate.

**Draft Recommendation 8:**

8/1 For AFIG members who have not done so, to fill-in the FANS questionnaire and return back to AFIG Chairman.

**Closing of the meeting**

The AFIG/2 Chairman, Mr Abdenabi Manar thanked the participants and their Administrations for their excellent support and contributions to AFIG/2 and expressed his appreciation to NANSC, GACA, IATA and SITA for its support in sponsoring the meeting.

The participants thanked the Chairman, ACAC, NANSC, GACA, IATA and SITA for their valued contributions and continuing support of AFIG/2.

There being no further business, the Chairman again thanked all participants and secretariat support staff for their efforts and declared the meeting closed.

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