



International civil aviation organization

COM CO-ORDINATION MEETING
(Afghanistan, Islamic Republic of Iran and Pakistan)

Abu Dhabi, United Arab Emirates, 25 – 26 February 2015

Agenda Item 4: Review the action plans of COM Coordination meeting held in December 2014 in particular for the recovery of VSAT communication between States

REVIEW FOLLOW-UP ACTIONS TO THE ACTION PLAN

(Presented by the Secretariat)

SUMMARY

This paper reviews the action plan adopted in December 2014 at a COM Coordination meeting held in New Delhi, India. Administrations concerned are urged to provide updated status and information on their follow-up taken.

1. INTRODUCTION

1.1 A COM Coordination meeting, hosted by the Airport Authority India in December 2014. The whole report is attached here with for review by the meeting. The main outcome of the meeting is highlighted in Section 2 of this paper.

1.2 Another relevant COM coordination meeting was held in Karachi, Pakistan which was hosted by Pakistan Civil Aviation Authority (PCAA) Pakistan from 20 to 22 June 2012. The 13 representatives from Afghanistan and Pakistan participated in the meeting. The meeting developed three action items as duplicated in Section 3 of this paper. Administrations are urged to provide an update on their follow-up actions taken.

2. OUTOCOME OF COM.COORDINATION MEETING IN DECEMBER 2014

The Action Item agreed previously regarding leased landline solution

2.1 Regarding the landline solution agreed at previous COM coordination meeting, Pakistan updated the meeting that they had consulted with their national telecommunication service provider PTCL who had indicated that there would be no problem for leasing a dedicated 2 Mbytes data circuit at Pakistan side from Karachi to the border between Pakistan and Afghanistan.

2.2 Afghanistan informed the meeting that they had also consulted with the correspondent telecommunication service provider – the Afghanistan Telecom. The result of consultation revealed that the landline from Kabul to the Afghanistan/Pakistan border would not be available, for which either microwave or VSAT link has to be used. In addition, the last mile issue also exists between downtown Kabul and Kabul International Airport. Therefore, this solution won't be applicable for the AFS data communication between the two States in the near future.

Restoration of the VSAT Operation between Afghanistan and Pakistan

2.3 The incompatibility of the VSAT terminal and operation still remains. Afghanistan informed the meeting that ND SATCOM IDU5000 and ND SATCOM IDU7000 had been working compatible within Afghanistan. In addition, IDU 5000 terminal had been kept available for communications with neighboring States including Pakistan.

2.4 Pakistan informed that as result of last trial for the VSAT link, CRC frame error remained a problem thus blocking the restoration of the VSAT links.

2.5 Afghanistan further informed the meeting that initial discussion with a new service provider – SPACE COM, Canada had been initiated. It was anticipated that in the next few weeks, contract with the new service provider would be signed. The service would cover continued the satellite spectrum service with the existing spectrum service provider – ASIASAT 5. The contract would also include maintenance service and recover those VSAT ground stations which have been out of service. Some parts of the VSAT terminals may need to be upgraded and most of parts of existing terminals can be extended for use. This would also apply to those terminals located in the Pakistan.

2.6 Afghanistan was requested to keep Pakistan informed about the changes required through emails once the contract with the new service provider is signed. Necessary site survey at VSAT sites in Pakistan by the new service provider was identified.

2.7 Afghanistan was reminded of the responsibly given to the new service provider for the end to end testing between VSAT terminals of Pakistan and Afghanistan.

2.8 The meeting appreciated the imitative action being taken and efforts made by Afghanistan which was considered critically vital for the continuity of the Air Navigation Service over the Kabul FIR during and after the transition from the current service provider to new service provider to be over sighted by the ACAA. The meeting reminded that a lot of work behinds towards this connection needs to done.

2.9 Afghanistan confirmed that the VSAT links being considered through the new service provider would be continued to serve the relay links for VHF RCAG for the air/ground communication over Afghanistan airspace.

2.10 In addition, HF capability will be made available for air/ground communication for Kabul FIR subject to the further discussions with the concerned. It was clarified that transmitter and receivers would be available and no need to purchase new ones. The installation work would be started within a few weeks. This will be further confirmed at the COM coordination meeting in February 2015.

2.11 The potential use of VSAT link to collect data from remote ADS-B and Multi-lateration sites for ATS surveillance purpose was very challenging and would be discussed at next meeting. The system had not been used as it was subject to safety assessment.

Status of AFS Communications issues between Afghanistan and Pakistan

2.12 The following was recorded in the COM coordination meeting in 2012:

- Data channel for AFS AFTN/AMHS connection between Karachi and Kabul has been suspended since 31 August 2011;
- Channel for ATS Direct Speech circuit between Kabul and Lahore was suspended from 23 June 2011; (ODU & SIC/Demod cannibalized for use in Karachi VSAT); and
- ATS Direct Speech circuit between Kabul and Karachi suspended since 31 August 2011.

2.13 The VSAT equipment from ND SATCOM at Lahore and Karachi was upgraded from Module IDU3000 to IDU5000 in 2007 and RF ODU for the VSAT was also upgraded from 10 watts to 20 watts in 2009.

2.14 The required DSCs currently were arranged through ISD hot-line to the dedicated number at Kabul ACC (terminated at ATC assistant position) with a mobile number at supervisor position as an alternate.

Current AFTN Traffic

2.15 It was recalled from the previous COM coordination meeting report that the out-going AFTN messages from Pakistan are forwarded to UK ARTEMIS via VPN as requested by Afghanistan. However it works as one-way traffic only with no confirmation received for the messages sent. Afghanistan confirmed at previous meeting that a VPN circuit with UK ARTEMIS became operational since January 2012. The circuit was established based on a letter of request from Ministry of Transportation and Civil Aviation of Afghanistan to PCAA and Ministry of Foreign Affairs dated 22 October 2011 after the AFTN circuit over VSAT link became unserviceable.

2.16 It was recalled that currently the KAIA RMS VSAT MX team was part of contract arrangement of ISAF which was providing Network Management Service for the whole VSAT network.

2.17 It was noted that that Afghanistan had arrangements for a number of years with the AsiaSat through PASCOM (based in Singapore and PCCW in Hong Kong) for the satellite spectrum bands used. The contract was expected to renew by 28 February 2015.

2.18 There was an issue of FPL and ATS movement messages distribution for those flights departure from Afghanistan (WP/05). The meeting considered that it is a procedure issue in Kabul between ATS units and AFTN centre. Necessary terminal and training for such service would be required. It was recommended to assess such requirement and examine current practice and develop a recommended solution. This action is required to be initiated by the ACAA.

Updated remedial action plan by the COM Coordination meeting in Dec. 2014

2.19 The meeting tentatively agreed to the following remedial action plans which are subject to further confirmation and deliberation at the next fact to face meeting scheduled for 24-25 February 2015 in either Dubai or Abu Dhabi:

ACTION ITEM 1: Flight Plan and ATS message processing

That, Afghanistan make an arrangement for an expert to examine the procedure of Flight Plan and other movement ATS messages. So transmission and distribution of the ATS message to the neighboring FIR including Iran and Pakistan could be made in a timely manner.

ACTION ITEM 2: Restoration of VSAT Communications – Afghanistan and Pakistan

That, Afghanistan and Pakistan work with relevant service providers to harmonize VSAT terminal equipment to be used and select common network service provider for the Satellite Radio Spectrum with target date of circuits restoration by May 2015 (to be confirmed at the next meeting in Feb.2015)

ACTION ITEM 3: TCM and MOU for the AMHS and AIDC connection between India and Pakistan

That, Pakistan was requested to the return the signed TCM for AMHS between Karachi and Mumbai by 23 January 2015 and MOU on AIDC (confined to Karachi/Ahmedabad as the first step between two States) by end of January2015.

ACTION ITEM 4: Hosting next COM Coordination Meeting

That, Representative from IATA coordinate with their Office in Abu Dhabi to make arrangement for hosting next COM coordination meeting from 24 to 25 February 2015 in either Dubai or Abu Dhabi. Early confirm on the exact venue and necessary information for the participants is expected by 22 December 2014 to ICAO APAC Regional Office.

ACTION ITEM 5: Letter of Invitation for next COM Coordination Meeting

That, Recognizing the importance of AFS and AMS for Air Navigation Service to serve Afghanistan airspace and the urgency for another face to face COM coordination to confirm initial outcome of COM coordination held in December 2014, ICAO APAC Office was requested to issue a letter of invitation as soon as possible preferably by 22 December 2014 for the next COM Coordination meeting in the MID region hosted by IATA from 25 to 26 February 2015.

3. OUTCOME OF COM.COORDINATION MEETING IN JUNE 2012

3.1 The following action plan was adopted by the COM Coordination for implementation within the established time frame as follows:

Near-Term: Immediate – from 25 June to 24 September 2012
Mid-Term: from 25 June 2012 to 24 March 2013
Long-term: from 25 June 2012 to 24 June 2014

3.2 The meeting discussed following options initially proposed at the special ATS coordination meeting held on 19-20 March 2012.

- a) Near-Term: VPN circuits may be established directly between Pakistan and Afghanistan including virtual circuit via UK ARTEMIS and option of CADAS UA connection via either dial-up connection or Public Internet;
Note: using VPN circuits via public internet with special arrangements for security concerns.
- b) Mid-Term: Recover VSAT links established in July 2000 by replacing parts and selection of common Network Service Provider; and
- c) Long-Term: Establishment of landline cable circuit between communications centers and ACCs of Afghanistan and Pakistan.

3.3 Accordingly, the meeting agreed to the following action items to be taken by Afghanistan and Pakistan:

ACTION ITEM 1: Near-Term: VPN Solution - Afghanistan and Pakistan

That, Afghanistan and Pakistan fully utilize the VPN circuit put into operation since January 2012 for exchange of FPL and operational ATS Messages. The basic procedure of message acknowledgement and channel checks should be followed. Necessary training to the operators at Kabul side is required. In order to monitor the daily operation of the circuit and/or to develop alternate VPN solutions, a list of contact points at different level was developed during the meeting and provided in **Appendix D** to this report.

ACTION ITEM 2: Mid-Term: Restoration of VSAT Communications – Afghanistan and Pakistan

That, Afghanistan and Pakistan work with relevant service providers to harmonize VSAT terminal equipment to be used and identify common network service provider for the Satellite Radio Spectrum with target date of circuits restoration by March 2013.

ACTION ITEM 3: Long-Term: Dedicated landline cable connection between COM Centres and ACCs - Afghanistan and Pakistan

That, Afghanistan and Pakistan establish dedicated 2 MB landline cable circuit between two States to support both data communication and speech circuits' requirements with multiplexers with target date of implementation by June 2014. The VSAT circuits will be used as backup once the landline circuits are established.

3.4 There was a concern regarding the different IDU of ND SATCOM VSAT terminal used by both States (The paragraph 2.22 of the meeting report refers). It was said that the VSAT terminal equipment at Kabul side was upgraded from IDU 5000 to IDU 7000 in 2011. This change was not coordinated with Pakistan. Pakistan was requested to verify with equipment provider whether VSAT terminal IDU 5000 is compatible with IDU 7000 VSAT terminal. Later was found out by ICAO Mission in 2013 that the upgraded IDU 7000 was used for domestic communication only. The one supposed to be used for communication with Pakistan still remains IDU 5000.

3.5 The resource of space sector used was ASIASAT through PCCW Global as contact point. Access technology used could be DAMA and size of Antenna was only 2.4 diameters at Pakistan side. It was initially suspended from 31 August 2011. There was a recovery trial on 26 May 2012.

4. ACTION BY THE MEETING

4.1 The meeting is expected to review the status of actions taken for the action plan adopted in December 2014 and in June 2012 and the meeting is also invited to develop an update action plan during this meeting.



INTERNATIONAL CIVIL AVIATION ORGANIZATION

COM COORDINATION MEETING

New Delhi, India
16 -17 December 2014

MEETING REPORT

(SUMMARY OF DISCUSSIONS)

1. Introduction

1.1 A COM Coordination Meeting hosted by the Airports Authority of India (AAI) was held in at Headquarters of AAI, New Delhi, India from 16 to 17 December 2014. The objective of the meeting was to develop remedial action plan for the identified air navigation deficiency in the COM field from technical and operational perspective and briefing on the current status of air/ground communication capability in Afghanistan and ground to ground communications with neighboring States.

1.2 The meeting was opened by the Mr. V. Somasundaram, Member, Air Navigation Service AAI who extended welcome to the participants and expressed the wiliness of AAI to supports to the efforts made by ICAO regional office in resolving the COM deficiency between States in the Sub-region. He also mentioned that AAI would be able to further assist Afghanistan regarding training for en-route air traffic controllers in additional to the training having done for the terminal air traffic controllers. On behalf ICAO Regional Director, Mr. Li Peng expressed appreciation to AAI for hosting the meeting and highlighted objective of the meeting.

Attendance

1.3 The meeting was attended by 2X participants from Afghanistan, India, Iran, Pakistan and IATA. Afghanistan joined the meeting through SKYPE connection, Iran and Pakistan joined the meeting through a teleconference connection. List of participants is provided in **Appendix A** to this report.

Secretariat and Organization of the meeting

1.4 Mr. Li Peng, Regional Officer CNS, ICAO Asia and Pacific Regional Office, acted as moderator and secretary of the meeting.

1.5 The meeting was conducted in English including all papers, presentation and this report. The meeting considered 5 Working Papers, 2 Information Paper and 1 presentation.

1.6 The Agenda Items for the meeting was provided in WP/01

Agenda Item 1: Review of outcome of relevant meetings (WP/05)

2.1 The meeting reviewed outcome of APANPIRG/25 meeting held in September 2014 on the air navigation deficiencies in which the poor ground/ground communication between Afghanistan and Pakistan was listed.

2.2 The meeting also noted the outcome of the second Meeting of the Ad Hoc Afghanistan Contingency Group (AHACG/2) which was held in Istanbul, Turkey from 17 to 19 November 2014 and the AHACG/1 meeting held from 11 to 12 September 2014 immediately after APANPIRG/25 meeting. At the AHACG/2 meeting, Flight plan and communications issues between Iran and Afghanistan was also discussed by the AMHACG/2.

2.3 The High-level Meeting on Afghanistan Airspace Contingency Planning was held in Hong Kong SAR, China on 28 November 2014. The HLAAC meeting reviewed the vital steps ahead for Afghanistan airspace operation that could act as milestones:

- 17 December 2014 – start of the ‘bridging contract (extension of the current Air Navigation Service Provider);
- 01 January 2015 – Afghanistan CAA budget approval (USD 25 million, note: the Airspace Control Authority may not pass to the Afghanistan government at this time);
- 28 February 2015 – Very Small Aperture Terminal (VSAT) contract (renewal or new provider – IATA agreed to discuss the situation with VSAT vendors and Afghanistan, and report back to ICAO);
- 01 April 2015 – Deadline date for the new Air Navigation Service (ANS) contract to be signed; and
- 30 June 2015 – earliest end date for the ANS extension (dependent on service cost).

Agenda Item 2: Review of AFS communication requirements between Afghanistan/Pakistan, Afghanistan/Islamic Republic of Iran and India/Pakistan

2.1 The AFS communications requirements between the States concerned as specified in the Regional Air Navigation Plan (ICAO Doc.9673 Vol. II) FASID Tables were reviewed by the meeting through WP/02. The meeting noted that the ground/ground communication plays vital role for provision of Air Navigation Service to the operators and other air spaces users.

Agenda Item 3: Review the current circuit performance and operational status of AFS communications between States

3.1 Through IP/02 and a presentation, India provided the current status of AMHS/AIDC implementation with neighboring States concerned. China was requested to sign TMC as the trial was completed. Pakistan was requested to sign the TMC for AMHS connectivity between Mumbai and Karachi and sign MoU for AIDC between Karachi and Ahmedabad.

3.2 Pakistan confirmed that letter with signed TMC and MoU had been received and were being under processed for approval. It was agreed the TMC on AMHS will be done by 23 January 2015. The MoU on AIDC specifically for operation between Karachi and Ahmedabad was estimated to be signed by the end of January 2015. As it will be confined for Ahmedabad-Karachi as first step of AIDC application, further discussions on slight amendment to the MoU through exchange of emails would also be required.

Agenda Item 4: Review the action plans of COM Coordination meeting held in June 2012 in particular for the recovery of VSAT communication between States

The Action Item agreed previously regarding leased landline solution

4.1 Regarding the landline solution agreed at previous COM coordination meeting, Pakistan updated the meeting that they had consulted with their national telecommunication service provider PTCL who had indicated that there would be no problem for leasing a dedicated 2 Mbytes data circuit at Pakistan side from Karachi to the border between Pakistan and Afghanistan.

4.2 Afghanistan informed the meeting that they had also consulted with the correspondent telecommunication service provider – the Afghanistan Telecom. The result of consultation revealed that the landline from Kabul to the Afghanistan/Pakistan border would not be available, for which either microwave or VSAT link has to be used. In addition, the last mile issue also exists between downtown Kabul and Kabul International Airport. Therefore, this solution won't be applicable for the AFS data communication between the two States in the near future.

Restoration of the VSAT Operation between Afghanistan and Pakistan

4.3 The incompatibility of the VSAT terminal and operation still remains. Afghanistan informed the meeting that ND SATCOM IDU5000 and ND SATCOM IDU7000 had been working compatible within Afghanistan. In addition, IDU 5000 terminal had been kept available for communications with neighboring States including Pakistan.

4.4 Pakistan informed that as result of last trial for the VSAT link, CRC frame error remained a problem thus blocking the restoration of the VSAT links.

4.5 Afghanistan further informed the meeting that initial discussion with a new service provider – SPACE COM, Canada had been initiated. It was anticipated that in the next few weeks, contract with the new service provider would be signed. The service would cover continued the satellite spectrum service with the existing spectrum service provider – ASIASAT 5. The contract would also include maintenance service and recover those VSAT ground stations which have been out of service. Some parts of the VSAT terminals may need to be upgraded and most of parts of existing terminals can be extended for use. This would also apply to those terminals located in the Pakistan.

4.6 Afghanistan was requested to keep Pakistan informed about the changes required through emails once the contract with the new service provider is signed. Necessary site survey at VSAT sites in Pakistan by the new service provider was identified.

4/7 Afghanistan was reminded of the responsibly given to the new service provider for the end to end testing between VSAT terminals of Pakistan and Afghanistan.

4.8 The meeting appreciated the imitative action being taken and efforts made by Afghanistan which was considered critically vital for the continuity of the Air Navigation Service over the Kabul FIR during and after the transition from the current service provider to new service provider to be over sighted by the ACAA. The meeting reminded that a lot of work behinds towards this connection needs to done.

Agenda Item 5: To be briefed the current surveillance and air/ground communication capability in Afghanistan airspace.

5.1 IATA provided WP/04 recalled history of VSAT network which was initially established in the Afghanistan in 1999 in order to enhance CNS/ATM facilities and related Air Traffic Management services for both national and international flights within the Kabul FIR. The Project also included RNAV/GNSS procedures for the 5 main airports as an urgent safety requirement. The paper also proposed a number of recommended solutions including restoration of VSAT communications between Afghanistan and its neighbouring ACCs. and urgent renew contract with VSAT service providers.

5.2 Afghanistan confirmed that the VSAT links being considered through the new service provider would be continued to serve the relay links for VHF RCAG for the air/ground communication over Afghanistan airspace.

5.3 In addition, HF capability will be made available for air/ground communication for Kabul FIR subject to the further discussions with the concerned. It was clarified that transmitter and receivers would be available and no need to purchase new ones. The installation work would be started within a few weeks. This will be further confirmed at the COM coordination meeting in February 2015.

5.4 The potential use of VSAT link to collect data from remote ADS-B and Multi-lateration sites for ATS surveillance purpose was very challenging and would be discussed at next meeting. The system had not been used as it was subject to safety assessment.

Agenda Item 6: Develop and update remedial action plan

Status of AFS Communications issues between Afghanistan and Pakistan

6.1 The following was recorded in the COM coordination meeting in 2012:

- Data channel for AFS AFTN/AMHS connection between Karachi and Kabul has been suspended since 31 August 2011;
- Channel for ATS Direct Speech circuit between Kabul and Lahore was suspended from 23 June 2011; (ODU & SIC/Demod cannibalized for use in Karachi VSAT); and
- ATS Direct Speech circuit between Kabul and Karachi suspended since 31 August 2011.

6.2 The VSAT equipment from ND SATCOM at Lahore and Karachi was upgraded from Module IDU3000 to IDU5000 in 2007 and RF ODU for the VSAT was also upgraded from 10 watts to 20 watts in 2009.

6.3 The required DSCs currently were arranged through ISD hot-line to the dedicated number at Kabul ACC (terminated at ATC assistant position) with a mobile number at supervisor position as an alternate.

Current AFTN Traffic

6.4 It was recalled from the previous COM coordination meeting report that the outgoing AFTN messages from Pakistan are forwarded to UK ARTEMIS via VPN as requested by Afghanistan. However it works as one-way traffic only with no confirmation received for the messages sent. Afghanistan confirmed at previous meeting that a VPN circuit with UK ARTEMIS became operational since January 2012. The circuit was established based on a letter of request from Ministry of Transportation and Civil Aviation of Afghanistan to PCAA and Ministry of Foreign Affairs dated 22 October 2011 after the AFTN circuit over VSAT link became unserviceable.

6.5 It was recalled that currently the KAIA RMS VSAT MX team was part of contract arrangement of ISAF which was providing Network Management Service for the whole VSAT network.

6.6 It was noted that that Afghanistan had arrangements for a number of years with the AsiaSat through PASCOS (based in Singapore and PCCW in Hong Kong) for the satellite spectrum bands used. The contract was expected to renew by 28 February 2015.

6.7 There was an issue of FPL and ATS movement messages distribution for those flights departure from Afghanistan (WP/05). The meeting considered that it is a procedure issue in Kabul between ATS units and AFTN centre. Necessary terminal and training for such service would be required. It was recommended to assess such requirement and examine current practice and develop a recommended solution. This action is required to be initiated by the ACAA.

Agenda Item 4: Updated remedial action plan

4.1 The meeting tentatively agreed to the following remedial action plans which are subject to further confirmation and deliberation at the next fact to face meeting scheduled for 24-25 February 2015 in either Dubai or Abu Dhabi:

ACTION ITEM 1: Flight Plan and ATS message processing

That, Afghanistan make an arrangement for an expert to examine the procedure of Flight Plan and other movement ATS messages. So transmission and distribution of the ATS message to the neighboring FIR including Iran and Pakistan could be made in a timely manner.

ACTION ITEM 2: Restoration of VSAT Communications – Afghanistan and Pakistan

That, Afghanistan and Pakistan work with relevant service providers to harmonize VSAT terminal equipment to be used and select common network service provider for the Satellite Radio Spectrum with target date of circuits restoration by May 2015 (to be confirmed at the next meeting in Feb.2015)

ACTION ITEM 3: TCM and MOU for the AMHS and AIDC connection between India and Pakistan

That, Pakistan was requested to return the signed TCM for AMHS between Karachi and Mumbai by 23 January 2015 and MOU on AIDC (confined to Karachi/Ahmedabad as the first step between two States) by end of January 2015.

ACTION ITEM 4: Hosting next COM Coordination Meeting

That, Representative from IATA coordinate with their Office in Abu Dhabi to make arrangement for hosting next COM coordination meeting from 24 to 25 February 2015 in either Dubai or Abu Dhabi. Early confirm on the exact venue and necessary information for the participants is expected by 22 December 2014 to ICAO APAC Regional Office.

ACTION ITEM 5: Letter of Invitation for next COM Coordination Meeting

That, Recognizing the importance of AFS and AMS for Air Navigation Service to serve Afghanistan airspace and the urgency for another face to face COM coordination to confirm initial outcome of COM coordination held in December 2014, ICAO APAC Office was requested to issue a letter of invitation as soon as possible preferably by 22 December 2014 for the next COM Coordination meeting in the MID region hosted by IATA from 25 to 26 February 2015.

Agenda Item 7: Any other business

7.1 As stated in the Action Item 5 above, the meeting considered it necessary to hold a face to face meeting in February 2015 to reconfirm and finalize the updated action plan agreed in December 2014. The majority of the participants preferred to have the next meeting either in Dubai or Abu Dhabi. The meeting requested IATA to coordinate the concerned to provide the appropriate venue for the meeting. The ICAO Secretariat was requested to issue the letter of invitation to the States concerned as soon as possible so that the nominated participants could get their visa in a timely manner.

7.2 In closing the meeting, the ICAO Secretariat and IATA representative thanked Airports Authority India for their continuous support to the regional cooperation activities and good arrangement made for the meeting in particular for the special teleconference arrangements made for the participants to join in meeting from Afghanistan, Iran and Pakistan.
