



*International Civil Aviation Organization*

**MIDANPIRG Communication Navigation and Surveillance  
Sub-Group (CNS SG)**

**Fourth Meeting**  
*(Cairo, Egypt, 25 – 27 September 2011)*

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**Agenda Item 6:           Review of Air Navigation Deficiencies in the CNS Field**

**REVIEW AND UPDATE THE LIST OF IDENTIFIED AIR NAVIGATION  
DEFICIENCIES IN THE CNS FIELD FOR THE MID REGION**  
*(Presented by the Secretariat)*

**SUMMARY**

This working paper presents the deficiencies in the CNS field for review, update and remedial actions.

Action by the meeting is at paragraph 3.

**REFERENCES**

- DGCA-MID/1 Report
- MIDANPIRG/12 Report

**1.       INTRODUCTION**

1.1           The identification, assessment and reporting of air navigation deficiencies represent a regular task of the ICAO Planning and Implementation Regional Groups (PIRGs).

1.2           The standard definition of deficiency adopted by the ICAO Council in November 2001 should be used as basis to avoid different interpretations of the problems raised, which could be classified as complaints/mission findings rather than deficiencies:

*“A Deficiency is a situation where a facility, service or procedure does not comply with a regional air navigation plan approved by the Council, or with related ICAO Standards and Recommended Practices, and which situation has a negative impact on the safety, regularity and /or efficiency of international civil aviation.”*

**2.       DISCUSSION**

2.1           The meeting may wish to note that the DGCA-MID/1 meeting (Abu Dhabi, UAE, 22-24 March 2011) noted the concerns expressed by the various ICAO organs including the Council, the Air Navigation Commission (ANC) and MIDANPIRG on the serious impact the long standing deficiencies have on safety.

2.2 The updated list of deficiencies in the CNS field is at **Appendix A** to this working paper.

2.3 The meeting may wish to recall that MIDANPIRG/12 (Amman, Jordan, 17-21 October 2010) noted with concern, that in many cases, two (2) or three (3) rationale for the non-elimination of deficiencies are reflected in the MID Air Navigation Deficiency Database (MANDD) (i.e.: F, H and O or F, H and S), which does not provide an accurate result, when carrying out an analysis related to the root-causes for non-elimination of deficiencies. Accordingly, the meeting agreed that, **to the extent possible, it is preferable to reflect in the MANDD only the major factor/rationale for the non-elimination of the concerned deficiency.**

2.4 It was further noted that the distribution of these deficiencies between the different fields is as follows: AOP 27%, AIS/MAP 28%, ATM/SAR 30%, CNS 13%, and MET 2%. The CNS field has 29% "U", 46% "A", 25% "B" and rationale for the non-elimination of deficiencies in the CNS field CNS:7% "F", 10% "H", 17% "S", 66% "O". The 66 % shows other could not analysed in detail. Furthermore, In the CNS field, MIDANPIRG/12 meeting noted that eight (8) deficiencies were eliminated, mainly due to the implementation of upgraded links and installation of software for calculation of loading statistics.

2.5 The DGCA-MID/1 meeting noted that MIDANPIRG/12 underlined that the lack of sufficient number of qualified technical staff is the highest contributing factor for the non-elimination of the safety deficiencies in the MID Region (both air navigation deficiencies and USOAP findings). The meeting noted that as part of the ICAO MID Regional Office Work Programme, Seminars, Workshops and Training Courses are being organized in the MID Region based on needs identified within the framework of MIDANPIRG or by ICAO (HQ and Regional Office). Nevertheless, the meeting recognized that more effort should be put in the training of technical staff and re-iterated MIDANPIRG/12 recommendations and Conclusion on the subject, including, the call for States to organize at the National Level Seminars, Workshop and Training courses, in coordination with and with the support of the ICAO MID Regional Office, in order to touch a larger number of staff from the State.

2.6 The meeting may wish to note that the DGCA-MID/1 meeting was of the view that a number of deficiencies were common to many States and accordingly encouraged States to work cooperatively towards the elimination of such deficiencies, in particular with a joint effort for the training of technical staff. It was also highlighted that the Regional Safety Oversight Organizations (RSOOs) could play an important and effective role in this respect.

2.7 The meeting may wish to recall also that MIDANPIRG/12 recognized that the identification and reporting of Air Navigation Deficiencies by User Organizations contribute significantly to the enhancement of air navigation safety in the MID Region. Accordingly, the meeting urged User Organizations (IATA and IFALPA) to use the online facility offered by MANDD to submit requests for additions, updates, and the elimination of Air Navigation Deficiencies.

2.8 The meeting may wish to recall also that MIDANPIRG/12 through Conclusion 12/47 agreed that the "*Percentage of air navigation deficiencies priority "U" eliminated*", should be used as one Metric (MID Metric 6) for performance monitoring of the air navigation systems in the MID Region; and requested the MIDANPIRG subsidiary bodies to monitor the Metrics related to their work programmes and develop associated performance targets.

2.9 The MIDANPIRG/12 Conclusion 12/75 and DGCA-MID/1 Conclusion 1/2 related to the elimination of air navigation deficiencies are as follows:

*CONCLUSION 12/75: ELIMINATION OF AIR NAVIGATION DEFICIENCIES  
IN THE MID REGION*

*That, MID States be urged to:*

- a) review their respective lists of identified deficiencies, define their root causes and forward an action plan for rectification of outstanding deficiencies to the ICAO MID Regional Office prior to **31 March 2011**;*
- b) use the online facility offered by the ICAO MID Air Navigation Deficiency Database (MANDD) for submitting online requests for addition, update, and elimination of air navigation deficiencies;*
- c) accord high priority to eliminate all air navigation deficiencies with emphasis on those with priority “U”; in particular by allocating the necessary budget to ensure that their Civil Aviation Authorities have and retain a sufficient number of qualified technical personnel, who are provided with appropriate initial, on-the-job and recurrent training; and*
- d) seek support from regional and international organizations (i.e. ACAC, GCC, etc.) for the elimination of identified air navigation deficiencies.*

*DGCA-MID/1 CONCLUSION 1/2 - ELIMINATION OF AIR NAVIGATION  
DEFICIENCIES IN THE MID REGION*

*That, States:*

- a) accord high priority to the elimination of air navigation deficiencies; in particular by allocating the necessary budget to ensure that their Civil Aviation Authorities have and retain a sufficient number of qualified technical personnel, and provide appropriate initial, on-the-job and recurrent training;*
- b) work cooperatively towards the elimination of common deficiencies; and*
- c) consider the use of the Regional Safety Oversight Organizations (RSOOs) as an efficient mechanism for, inter-alia, the provision of appropriate training to technical staff and elimination of common deficiencies.*

### **3. ACTION BY THE MEETING**

3.1 The meeting is invited to:

- a) note the information contained in this working paper;
- b) review and update the list of deficiencies in the CNS field;
- c) identify for each deficiency the major factor/rationale for non-elimination in order to be reflected in the MANDD;

- d) determine the number of priority “U” deficiencies eliminated in the CNS field and agree on an associated performance target; and
- e) urge States to take necessary follow-up actions to implement MIDANPIRG/12 Conclusion 12/75 and the DGCA-MID/1 Conclusion 1/2.

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**APPENDIX A**

**Deficiencies in the CNS Field**

**BAHRAIN**

Item No	Identification		Deficiencies				Corrective Action			
	Requirement	Facilities/ Services	Description	Date First Reported	Remarks/ Rationale for Non-elimination		Description	Executing Body	Date of Completion	Priority for Action
1	AFTN Rationalized Plan (LIM MID RAN Rec 6/6, 6/9 and MIDANPIRG/4 Conclusion 4/19)	Afghanistan-Bahrain-Kabul-Bahrain AFTN Circuit	The circuit is not yet implemented	Oct, 1998	Bahrain is ready to implement the circuit	O	Follow-up the matter with IATA concerning Afghanistan  VSAT are available and now checking compatibility	Afghanistan Bahrain	Dec, 2011	A

<sup>(1)</sup> Rationale for non-elimination: “F”= Financial

“H”= Human Resources

“S”= State (Military/political)

“O”= Other unknown causes

**Deficiencies in the CNS Field**

**EGYPT**

Item No	Identification		Deficiencies			Corrective Action			
	Requirement	Facilities/ Services	Description	Date First Reported	Remarks/ Rationale for Non-elimination	Description	Executing Body	Date of Completion	Priority for Action
No Deficiencies Reported									

<sup>(1)</sup> Rationale for non-elimination: “F”= Financial

“H”= Human Resources

“S”= State (Military/political)

“O”= Other unknown causes

**Deficiencies in the CNS Field**

**IRAN**

Item No	Identification		Deficiencies				Corrective Action			
	Requirement	Facilities/ Services	Description	Date First Reported	Remarks/ Rationale for Non-elimination		Description	Executing Body	Date of Completion	Priority for Action
1	AFTN Rationalized Plan (LIM MID RAN Rec 6/6, 6/9 and MIDANPIRG/4 Conclusion 4/19)	Afghanistan-Iran-Kabul-Tehran AFTN Circuit	The circuit is not yet implemented	Oct, 1998	VSAT network to be implemented	S	Iran advised that they are ready	Afghanistan Iran	Dec, 2011	A

<sup>(1)</sup> Rationale for non-elimination: "F"= Financial

"H"= Human Resources

"S"= State (Military/political)

"O"= Other unknown causes

## Deficiencies in the CNS Field

## IRAQ

Item No	Identification		Deficiencies				Corrective Action			
	Requirement	Facilities/ Services	Description	Date First Reported	Remarks/ Rationale for Non-elimination		Description	Executing Body	Date of Completion	Priority for Action
1	AFTN usage (LIM MID RAN Rec 6/2)	Baghdad AFTN Center	Circuit Loading Statistics	May, 1995	Monthly statistics should be sent to MID Office	S	Refers to ICAO fax ref. F.ME 165 reminding States to send data to ICAO Office	Iraq	Dec, 2011	B
2	ATS Direct Speech circuit	Iraq - Syria	ATS Direct speech circuit between adjacent centers is needed	Oct, 2008	New reported	O	Iraq Advise they can provide VSAT	Iraq and Syria	Dec, 2011	U
3	ATS Direct Speech circuit	Iraq - Jordan	ATS Direct speech circuit between adjacent centers is needed	Jan, 2009	newly reported	O	Iraq advised they can provide VSAT	Iraq and Jordan	Dec, 2011	U
4	MID FASID	Baghdad VOR	VOR not installed	Jan, 2009	Newly Reported	O	Iraq advised that all NAV AIDs will be installed according to the master plan	Iraq	Dec, 2011	U
5	MID FASID	Baghdad DME	DME not installed	Jan, 2009	Newly reported	O	Iraq advised that all NAV AIDs will be installed according to the master plan	Iraq	Dec, 2011	U

<sup>(1)</sup> Rationale for non-elimination: "F"= Financial

"H"= Human Resources

"S"= State (Military/political)

"O"= Other unknown causes

**Deficiencies in the CNS Field**

**JORDAN**

Item No	Identification		Deficiencies				Corrective Action			
	Requirement	Facilities/ Services	Description	Date First Reported	Remarks/ Rationale for Non-elimination		Description	Executing Body	Date of Completion	Priority for Action
1	AFTN Rationalized Plan (LIM MID RAN Rec 6/6, 6/9 and MIDANPIRG/4 Conclusion 4/19)	Jordan-Lebanon-Amman-Beirut AFTN Circuit	The circuit is not yet implemented	Oct, 1998	Jordan is ready to implement the circuit and already sent official letter to Lebanon in June 2010	S	Jordan is already co-ordinating with Lebanon	Jordan - Lebanon	Dec, 2011	A
2	ATS Direct Speech circuit	Iraq - Jordan	ATS Direct speech circuit between adjacent centers is needed	Jan, 2009	Newly reported	O	Iraq advise they can provide VSAT	Iraq - Jordan	Dec, 2011	U

<sup>(1)</sup> Rationale for non-elimination: "F"= Financial

"H"= Human Resources

"S"= State (Military/political)

"O"= Other unknown causes

### Deficiencies in the CNS Field

#### KUWAIT

Item No	Identification		Deficiencies				Corrective Action			
	Requirement	Facilities/ Services	Description	Date First Reported	Remarks/ Rationale for Non-elimination		Description	Executing Body	Date of Completion	Priority for Action
1	AFTN usage (LIM MID RAN Rec 6/2)	Kuwait AFTN Center	Circuit Loading Statistics	May, 1995	Monthly statistics should be sent to MID Office	O	Refer to ICAO fax ref. F.ME 165 reminding States to send data to Regional Office	Kuwait	Dec, 2011	B
2	AFTN Main Circuits (LIM MID RAN Rec10/5)	Lebanon-Kuwait-Beirut – Kuwait AFTN Circuit	The circuit is implemented on 100 bauds	Oct, 1999	The circuit is operating on 100 baud needs to be upgraded to meet new requirements	O	Kuwait is ready to upgrade to higher speed according to the readiness in Lebanon	Kuwait Beirut	Dec, 2011	B

<sup>(1)</sup> Rationale for non-elimination: “F”= Financial

“H”= Human Resources

“S”= State (Military/political)

“O”= Other unknown causes

**Deficiencies in the CNS Field**

**LEBANON**

Item No	Identification		Deficiencies				Corrective Action			
	Requirement	Facilities/ Services	Description	Date First Reported	Remarks/ Rationale for Non-elimination		Description	Executing Body	Date of Completion	Priority for Action
1	AFTN Rationalized Plan (LIM MID RAN Rec 6/6, 6/9 and MIDANPIRG/4 Conclusion 4/19)	Jordan-Lebanon Amman-Beirut AFTN Circuit	The circuit is not yet implemented	Oct, 1998	Lebanon is getting ready to implement the circuit	S	If problem persist, another alternative should be proposed in the MID AFTN Plan	Jordan Lebanon	Dec, 2011	A
2	AFTN Main Circuits (LIM MID RAN Rec10/5	Lebanon – Kuwait Beirut – Kuwait AFTN Circuit	The circuit is implemented on 100 bauds	Oct, 1999	The circuit is operating on 100 baud needs to be upgraded to meet new requirements	O	Kuwait ready for upgrade to higer speed digital circuit	Kuwait Lebanon	Dec, 2011	B

<sup>(1)</sup> Rationale for non-elimination: “F”= Financial

“H”= Human Resources

“S”= State (Military/political)

“O”= Other unknown causes

**Deficiencies in the CNS Field**

**OMAN**

Item No	Identification		Deficiencies				Corrective Action			
	Requirement	Facilities/ Services	Description	Date First Reported	Remarks/ Rationale for Non-elimination		Description	Executing Body	Date of Completion	Priority for Action
1	Direct Speech circuit (LIM MID RAN)	Oman - Yemen	Direct Speech circuit is required	Oct, 1998	under Implementation	O	Oman confirm they are ready also advised that Yemen will be ready and cdirect speech circuit will be operational in few weeks	Oman - Yemen	Dec, 2010	A

<sup>(1)</sup> Rationale for non-elimination: "F"= Financial

"H"= Human Resources

"S"= State (Military/political)

"O"= Other unknown causes

**Deficiencies in the CNS Field**

**QATAR**

Item No	Identification		Deficiencies				Corrective Action			
	Requirement	Facilities/ Services	Description	Date First Reported	Remarks/ Rationale for Non-elimination		Description	Executing Body	Date of Completion	Priority for Action
1	AFTN usage (LIM MID RAN Rec 6/2)	Doha AFTN Center	Circuit Loading Statistics	May, 1995	Refer to ICAO fax ref. F.ME 165 reminding States to send data to Regional Office	H	Data should be sent to ICAO Office	Qatar	Dec, 2011	B

<sup>(1)</sup> Rationale for non-elimination: "F"= Financial

"H"= Human Resources

"S"= State (Military/political)

"O"= Other unknown causes

## Deficiencies in the CNS Field

## SAUDI ARABIA

Item No	Identification		Deficiencies				Corrective Action			
	Requirement	Facilities/ Services	Description	Date First Reported	Remarks/ Rationale for Non-elimination		Description	Executing Body	Date of Completion	Priority for Action
1	AFTN usage (LIM MID RAN Rec 6/2)	Jeddah AFTN Center	Circuit Loading Statistics	May, 1995	Refer to ICAO fax ref. F.ME 165 reminding States to send data to Regional Office.	O	New software has been implemented.	Saudi Arabia	Dec, 2011	B

<sup>(1)</sup> Rationale for non-elimination: "F"= Financial

"H"= Human Resources

"S"= State (Military/political)

"O"= Other unknown causes

**Deficiencies in the CNS Field**

**SYRIA**

Item No	Identification		Deficiencies				Corrective Action			
	Requirement	Facilities/ Services	Description	Date First Reported	Remarks/ Rationale for Non-elimination		Description	Executing Body	Date of Completion	Priority for Action
1	ATS Direct Speech circuit	Syria - IRAQ	Direct Speech circuit required between Syria and Iraq	Oct, 2008	-	O	Iraq advise they are ready to provide VSAT for the implementation	Syria-Iraq	Dec, 2011	U

<sup>(1)</sup> Rationale for non-elimination: "F"= Financial

"H"= Human Resources

"S"= State (Military/political)

"O"= Other unknown causes

**Deficiencies in the CNS Field**

**UAE**

Item No	Identification		Deficiencies				Corrective Action			
	Requirement	Facilities/ Services	Description	Date First Reported	Remarks/ Rationale for Non-elimination		Description	Executing Body	Date of Completion	Priority for Action
±	VOR designator SHJ	VOR	Changed VOR designator from SHJ to SHR causing duplication with IRAN NDB	Dec, 2009	UAE-GCAA are looking into the matter	⊖	Change to the correct designator which is SHJ	UAE-GCAA	Jan, 2011	⊕

<sup>(1)</sup> Rationale for non-elimination: “F”= Financial

“H”= Human Resources

“S”= State (Military/political)

“O”= Other unknown causes

**Deficiencies in the CNS Field**

**YEMEN**

Item No	Identification		Deficiencies				Corrective Action			
	Requirement	Facilities/ Services	Description	Date First Reported	Remarks/ Rationale for Non-elimination		Description	Executing Body	Date of Completion	Priority for Action
1	Direct SPeech Circuit with Adjacent center Djibouti	Yemen - Djibouti	requirement for a Direct SPeech Circuit with Adjacent center Djibouti	Oct, 1998	-	O	Establishment fo direct speech circuit between Yemen and Djibouti	Yemen - Djibouti	Dec, 2011	A
2	Direct SPeech Circuit with Adjacent center India	Yemen - India	Direct SPeech Circuit with Adjacent center India	Oct, 1998	-	O	Establishments of a Direct SPeech Circuit with Adjacent center in India	Yemen - India	Dec, 2011	A
3	Direct SPeech Circuit with Adjacent center Oman	Yemen - Oman	Requirement for a Direct SPeech Circuit with Adjacent center Oman	Oct, 1998	-	F H O	Establish a direct Speech Circuit with Adjacent center Oman	Yemen - Oman	Dec, 2010	A
4	Direct SPeech Circuit with Adjacent center with Eritrea and Somalia	Yemen - Eritrea , Somalia	requirement for a direct Speech Circuit with Adjacent center in Eritrea and Somalia	Oct, 1998	-	F H S O	Establishment of direct Speech Circuit with Adjacent center in Eritrea and Somalia	Yemen - Eritrea , Somalia	Dec, 2011	A

<sup>(1)</sup> Rationale for non-elimination: “F”= Financial

“H”= Human Resources

“S”= State (Military/political)

“O”= Other unknown causes

**Note:**\* Priority for action to remedy a deficiency is based on the following safety assessments:

**'U' priority = Urgent requirements having a direct impact on safety and requiring immediate corrective actions.**

**Urgent requirement consisting of any physical, configuration, material, performance, personnel or procedures specification, the application of which is urgently required for air navigation safety.**

**'A' priority = Top priority requirements necessary for air navigation safety.**

**Top priority requirement consisting of any physical, configuration, material, performance, personnel or procedures specification, the application of which is considered necessary for air navigation safety.**

**'B' priority = Intermediate requirements necessary for air navigation regularity and efficiency.**

**Intermediate priority requirement consisting of any physical, configuration, material, performance, personnel or procedures specification, the application of which is considered necessary for air navigation regularity and efficiency.**

**Definition:**

**A deficiency is a situation where a facility, service or procedure does not comply with a regional air navigation plan approved by the Council, or with related ICAO Standards and Recommended Practices, and which situation has a negative impact on the safety, regularity and/or efficiency of international civil aviation.**

- END -

<sup>(1)</sup> Rationale for non-elimination: “F”= Financial

“H”= Human Resources

“S”= State (Military/political)

“O”= Other unknown causes