



International Civil Aviation Organization

**FOURTEENTH MEETING OF THE ASIA/PACIFIC
METEOROLOGICAL INFORMATION EXCHANGE WORKING
GROUP (MET/IE WG/14)**

Bangkok, Thailand, 7 – 9 March 2016

Agenda Item 3: Review and Optimization of OPMET exchange schemes

OPMET EXCHANGE BETWEEN ASIA/PAC AND MIDDLE EAST REGION

(Presented by Thailand and Singapore)

SUMMARY

This paper presents an update on the OPMET exchange between MID and APAC region and invites the meeting to consider the establishment of a backup IROG to support MID/APAC OPMET exchange.

1. INTRODUCTION

1.1. Bangkok RODB is assigned by ICAO to operate as Inter-regional OPMET Gateway (IROG) with the responsibility of exchanging OPMET information between ASIA/PAC and Middle East Region with reference to the Asia/Pac ROBEX Handbook.

1.2. According to MIDANPIRG/14 (JEDDAH, SAUDI ARABIA 15-19 December 2013, the meeting adopted the conclusion 14/30 to establish MID Regional OPMET Centre:

- a) Saudi Arabia in coordination with ICAO establish a MID Regional OPMET Centre (ROC) by the first half of 2015 to improve the regional and Inter-regional OPMET efficiency;
- b) Bahrain in coordination with ICAO establish a back-up regional OPMET centre (ROC); and
- c) MID states be encouraged to continue cooperation in the exchange of OPMET data in the MID Region

2. BACKGROUND: MID/APAC OPMET EXCHANGE SCHEME

2.1. Before the establishment of MID ROC and APAC IROG, OPMET information exchange between APAC and MID region is shown in Figure 1.

2.1.1 MID ROBEX Centres relayed MID bulletins to APAC RODBs via AFTN circuits.

2.1.2 MID ROBEX Centres received APAC bulletins through Vienna IROG.

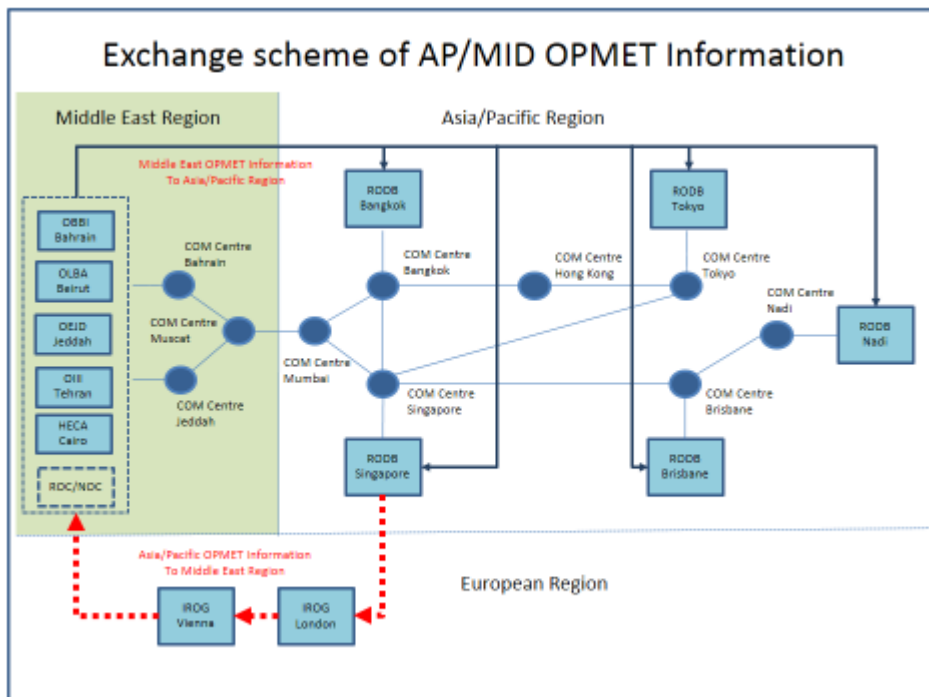


Figure 1: Exchange Scheme between MID & ASIA/PACIFIC Region

3. CURRENT OPERATION

3.1. Bangkok IROG started to relay APAC OPMET bulletins to Jeddah IROG and Bahrain (Backup-IROG) as of 15 May 2015. The message routing is shown in Figure 2. In line with this implementation, all APAC ROBEX Centers were informed to stop sending their OPMET to MID region with effect from 29 May 2015.

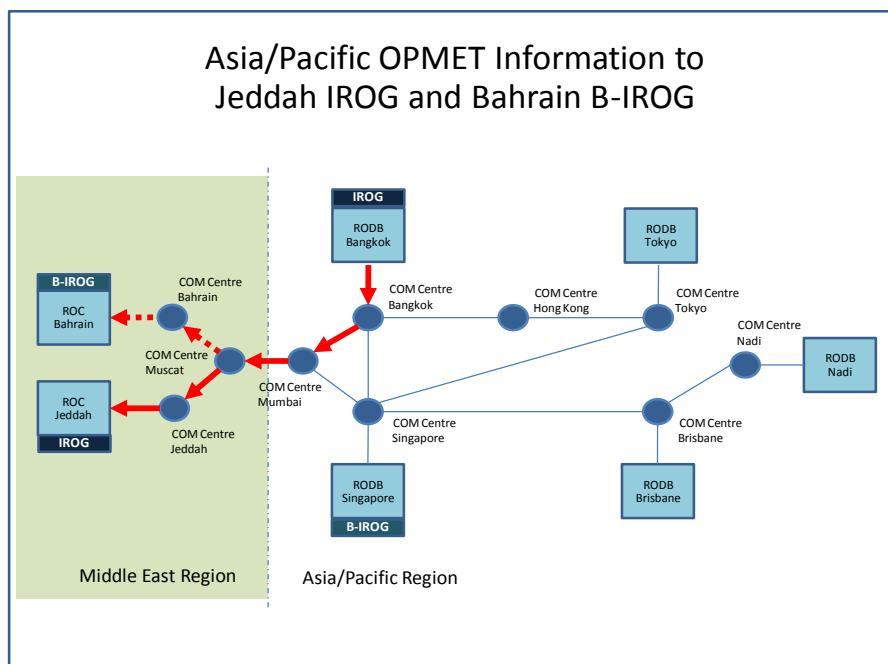


Figure 2: Message Switching between Bangkok IROG and MID IROGs

3.2 APAC OPMET bulletins distributed to MID region are listed in **Attachment A**.

4. PROPOSED ENHANCEMENTS TO THE EXISTING EXCHANGE SCHEME

4.1 IROG Bangkok and Singapore have studied potential service interruption, reviewed the current communication links and resources required at Singapore IROG.

4.2 Two IROGs agreed to improve the exchange scheme in order to ensure the continuity of OPMET exchange between MID and APAC region. Proposed enhancements to the exchange scheme are summarized as follows:

- 1) Bangkok IROG to relay MID OPMET to APAC RODBs for the purpose of all MID OPMET is only addressed to Bangkok IROG for further dissemination. This will help AP RODBs eliminate duplicate data sent from other addresses in the region.

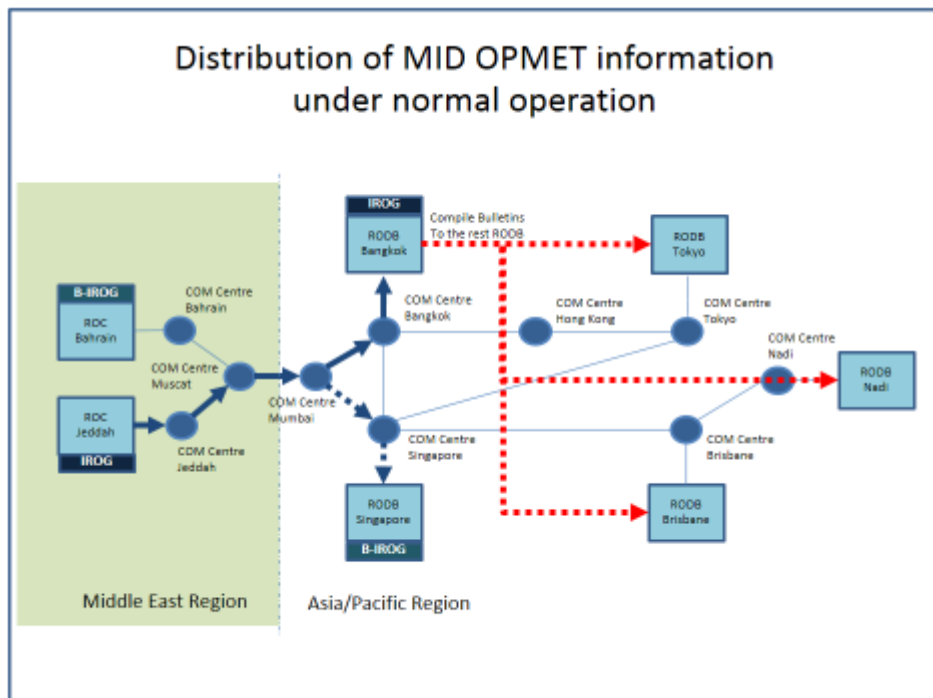


Figure 3: Distributing MID OPMET to APAC RODBs by Bangkok IROG

- 2) Jeddah ROC to relay MID OPMET to both Bangkok and Singapore IROG

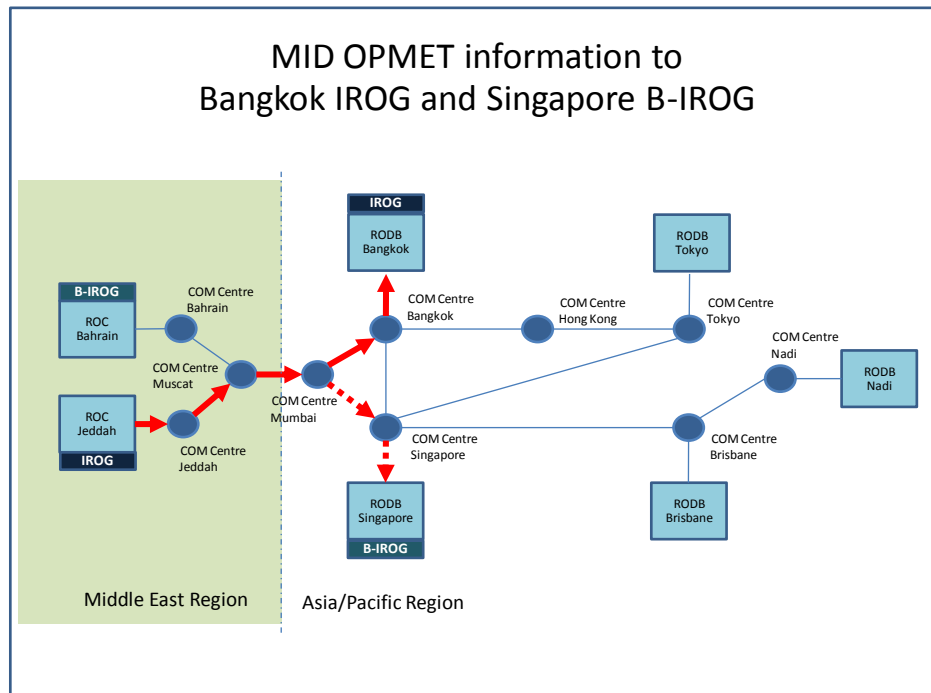


Figure 4: Distributing MID OPMET to AP IROGs

- 3) With the similar back-up procedures established at the APAC IROGs, Singapore IROG will relay AP OPMET to Jeddah and Bahrain ROC and MID OPMET to AP RODBs in the event of Bangkok IROG failed. The message flow is illustrated in Figure 5 and 6:

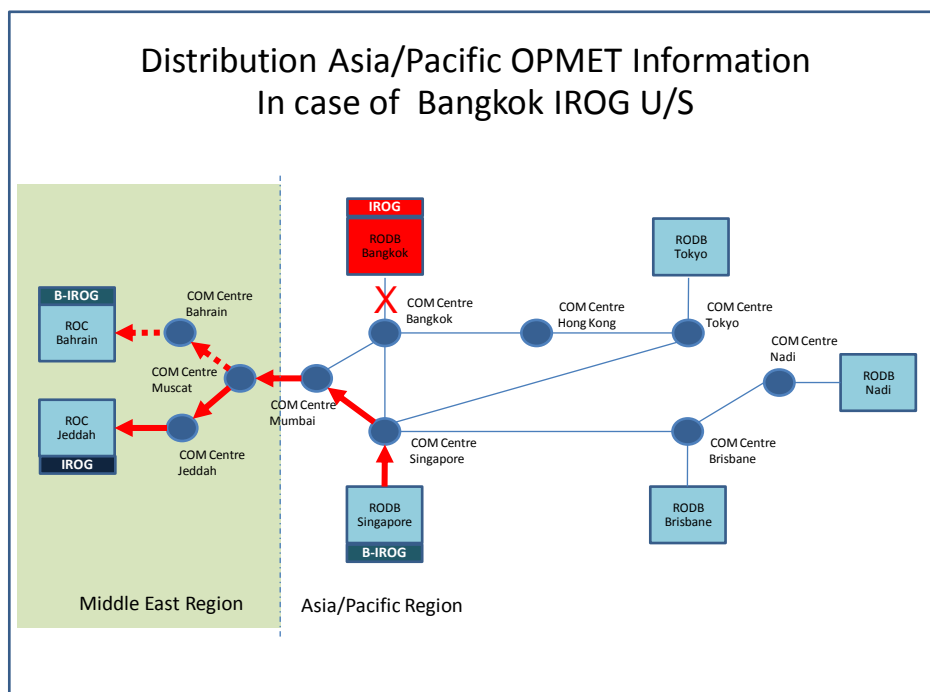


Figure 5: Distributing AP OPMET to MID ROCs by Singapore IROG

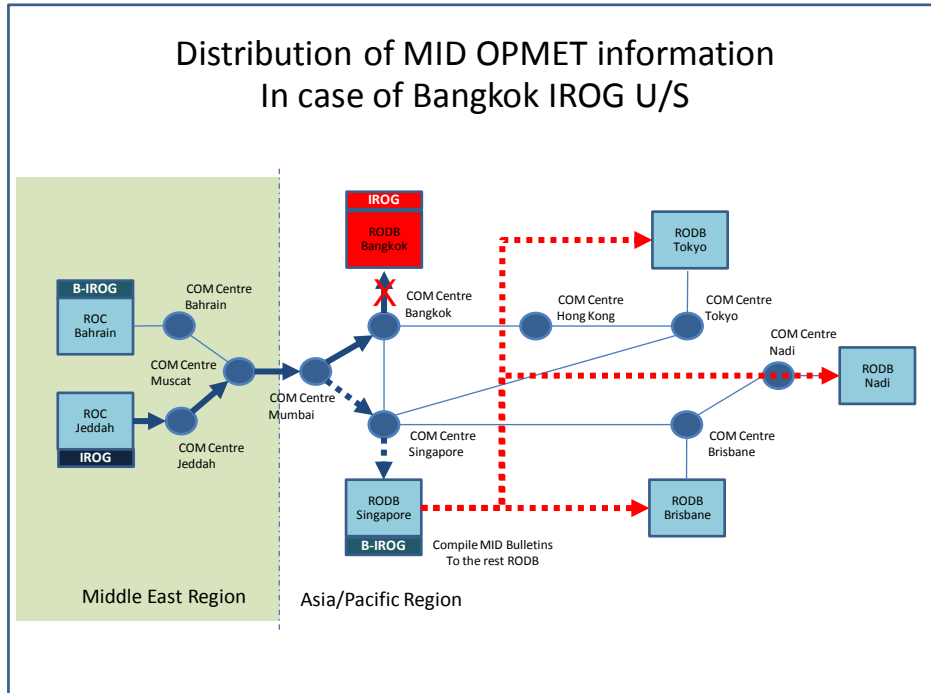


Figure 6: Distributing of MID OPMET to AP RODBs by Singapore IROG

5. ACTION REQUIRED BY THE MEETING

5.1 The meeting is invited to:

- 1) note the information contained in the paper;
- 2) discuss on the
 - (i) proposed enhancements to MID OPMET Exchange Scheme and
 - (ii) Singapore IROG to act as a backup IROG for ASIA/PAC and MID region

Attachment A

The List of APAC OPMET bulletins to Jeddah ROC and Bahrain ROC

ROBEX Center	METAR/TAF Bul.	Distribution Addressee to MID by Bangkok IROG (effective since 15MAY2015)	
		JEDDAH ROC	BAHRAIN ROC (BACKUP)
Bangkok	SA. Bul. SAAE31 VTBB	OEJDYMYX, OEJDM MID	OBZZMMID
	SA. Bul. SAAE32 VTBB	OEJDYMYX, OEJDM MID	OBZZMMID
	SA. Bul. SAAE33 VTBB	OEJDYMYX, OEJDM MID	OBZZMMID
	SA. Bul. SAAE34 VTBB	OEJDYMYX, OEJDM MID	OBZZMMID
	SA. Bul. SATH31 VTBB	OEJDYMYX, OEJDM MID	OBZZMMID
	SA. Bul. SATH32 VTBB	OEJDYMYX, OEJDM MID	OBZZMMID
	SA. Bul. SATH33 VTBB	OEJDYMYX, OEJDM MID	OBZZMMID
	FT. Bul. FTAE31 VTBB	OEJDYMYX, OEJDM MID	OBZZMMID
	FT. Bul. FTAE32 VTBB	OEJDYMYX, OEJDM MID	OBZZMMID
	FT. Bul. FTAE33 VTBB	OEJDYMYX, OEJDM MID	OBZZMMID
	FT. Bul. FTAE34 VTBB	OEJDYMYX, OEJDM MID	OBZZMMID
	FT. Bul. FTTH31 VTBB	OEJDYMYX, OEJDM MID	OBZZMMID
	FT. Bul. FTTH32 VTBB	OEJDYMYX, OEJDM MID	OBZZMMID
	FT. Bul. FTTH33 VTBB	OEJDYMYX, OEJDM MID	OBZZMMID
Beijing	SA. Bul. SACI31 ZBBB	OEJDYMYX, OEJDM MID	OBZZMMID
	SA. Bul. SACI32 ZBBB	OEJDYMYX, OEJDM MID	OBZZMMID
	SA. Bul. SACI41 ZBBB	OEJDYMYX, OEJDM MID	OBZZMMID
	FT. Bul. FTCI31 ZBBB	OEJDYMYX, OEJDM MID	OBZZMMID
	FT. Bul. FTCI32 ZBBB	OEJDYMYX, OEJDM MID	OBZZMMID
	FT. Bul. FTCI41 ZBBB	OEJDYMYX, OEJDM MID	OBZZMMID
Brisbane	SA. Bul. SAAU31 YBBN	OEJDYMYX, OEJDM MID	OBZZMMID
	SA. Bul. SAAU32 YBBN	OEJDYMYX, OEJDM MID	OBZZMMID
	SA. Bul. SAAU33 YBBN	OEJDYMYX, OEJDM MID	OBZZMMID
	SA. Bul. SAAU34 YBBN	OEJDYMYX, OEJDM MID	OBZZMMID
	SA. Bul. SAAU35 YBBN	OEJDYMYX, OEJDM MID	OBZZMMID
	FT. Bul. FTAU31 YBBN	OEJDYMYX, OEJDM MID	OBZZMMID
	FT. Bul. FTAU32 YBBN	OEJDYMYX, OEJDM MID	OBZZMMID
	FT. Bul. FTAU33 YBBN	OEJDYMYX, OEJDM MID	OBZZMMID
	FT. Bul. FTAU34 YBBN	OEJDYMYX, OEJDM MID	OBZZMMID
	FT. Bul. FTAU35 YBBN	OEJDYMYX, OEJDM MID	OBZZMMID
	FT. Bul. FTTM31 YBBN	OEJDYMYX, OEJDM MID	OBZZMMID
	SA. Bul. SANG31 YBBN	OEJDYMYX, OEJDM MID	OBZZMMID
	FT. Bul. FTNG31 YBBN	OEJDYMYX, OEJDM MID	OBZZMMID
Colombo	SA. Bul. SASB31 VCCC	OEJDYMYX, OEJDM MID	OBZZMMID
	FT. Bul. -		
Delhi	SA. Bul. SAIN32 VIDP	OEJDYMYX, OEJDM MID	OBZZMMID
	FT. Bul. -		
Hong Kong	SA. Bul. SAHK31 VHHH	OEJDYMYX, OEJDM MID	OBZZMMID
	FT. Bul. FTHK31 VHHH	OEJDYMYX, OEJDM MID	OBZZMMID
Inch eon	SA. Bul. SAKO31 RKSI	OEJDYMYX, OEJDM MID	OBZZMMID
	FT. Bul. FTKO31 RKSI	OEJDYMYX, OEJDM MID	OBZZMMID

ROBEX Center	METAR/TAF Bul.	Distribution Addressee to MID by Bangkok IROG (effective since 15MAY2015)	
		JEDDAH ROC	BAHRAIN ROC (BACKUP)
Jakarta	SA. Bul. SAIN31 WIII	OEJDYMYX, OEJDMMID	OBZZMMID
	SA. Bul. SAIN32 WIII	OEJDYMYX, OEJDMMID	OBZZMMID
	SA. Bul. SAIN33 WIII	OEJDYMYX, OEJDMMID	OBZZMMID
	FT. Bul. -		
Kolkata	SA. Bul. SAIN33 VECC	OEJDYMYX, OEJDMMID	OBZZMMID
	FT. Bul. -		
Karachi	SA. Bul. SAPK31 OPKC	OEJDYMYX, OEJDMMID	OBZZMMID
	FT. Bul. FTPK31 OPKC	OEJDYMYX, OEJDMMID	OBZZMMID
Kualalumpur	SAMS31 WMKK	OEJDYMYX, OEJDMMID	OBZZMMID
	SAMS38 WMKK	OEJDYMYX, OEJDMMID	OBZZMMID
	FT. Bul. -		
Mumbai	SA. Bul. SAIN31 VABB	OEJDYMYX, OEJDMMID	OBZZMMID
	FT. Bul. FTIN31 VABB	OEJDYMYX, OEJDMMID	OBZZMMID
	FT. Bul. FTIN32 VABB	OEJDYMYX, OEJDMMID	OBZZMMID
Nadi	SA. Bul. SAPS31 NFFN	OEJDYMYX, OEJDMMID	OBZZMMID
	SA. Bul. SAPS32 NFFN	OEJDYMYX, OEJDMMID	OBZZMMID
	FT. Bul. FTSP31 NFFN	OEJDYMYX, OEJDMMID	OBZZMMID
Singapore	SA. Bul. -		
	FT. Bul. FTSR31 WSSS	OEJDYMYX, OEJDMMID	OBZZMMID
	FT. Bul. FTSR32 WSSS	OEJDYMYX, OEJDMMID	OBZZMMID
	FT. Bul. FTSR33 WSSS	OEJDYMYX, OEJDMMID	OBZZMMID
Tokyo	SA. Bul. SAJP31 RJTD	OEJDYMYX, OEJDMMID	OBZZMMID
	SA. Bul. SAJP32 RJTD	OEJDYMYX, OEJDMMID	OBZZMMID
	SA. Bul. SAJP38 RJTD	OEJDYMYX, OEJDMMID	OBZZMMID
	FT. Bul. FTJP31 RJTD	OEJDYMYX, OEJDMMID	OBZZMMID
	FT. Bul. FTJP32 RJTD	OEJDYMYX, OEJDMMID	OBZZMMID
	FT. Bul. FTJP38 RJTD	OEJDYMYX, OEJDMMID	OBZZMMID
Wellington	SA. Bul. SANZ31 NZKL	OEJDYMYX, OEJDMMID	OBZZMMID
	FT. Bul. FTNZ31 NZKL	OEJDYMYX, OEJDMMID	OBZZMMID
