SP/06 to ICAO APAC MET-IMP Workshop

INTERNATIONAL
CIVIL AVIATION
ORGANIZATION

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Exchange Of and User Access to Meteorological Information

01 ROBEX Scheme

02 OPMET Info and Exchange

03 Composition of ROBEX

04 Communications

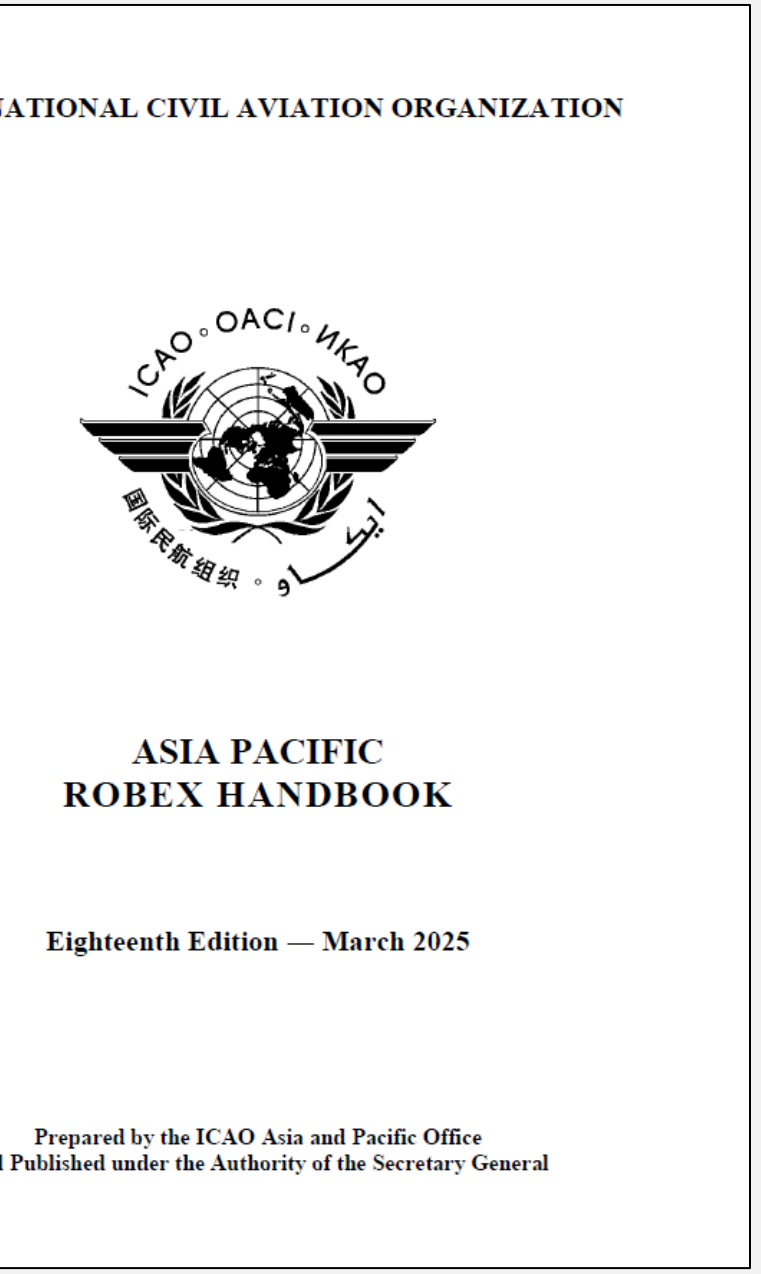
05 METAR/SPECI, TAF Exchange

APAC ROBEX Handbook

https://www.icao.int/sites/default/files/APAC/Documents/edocs/MET/2025-03-APAC-ROBEX-HB-18TH-ED.pdf

Scan here for

the APAC ROBEX Handbook



INTERNATIONAL CIVIL AVIATION ORGANIZATION

ASIA PACIFIC
ROBEX HANDBOOK

Eighteenth Edition — March 2025

Prepared by the ICAO Asia and Pacific Office
and Published under the Authority of the Secretary General

01

ROBEX Scheme

Objective

a) Most efficient exchange of OPMET information with APAC and other ICAO regions to meet the requirements of users of OPMET information

b) Implementation of OPMET-related SARPs in *Annex 3* and *Annex 10*, and the relevant provisions of APAC ANP in a highly efficient and standardized way

Structure

Implementing a few Regional OPMET Centres (ROC), Regional OPMET Data Banks (RODB), and Inter-regional OPMET Gateways (IROG)

Purpose

Produces and delivers to the aviation users the required OPMET information in the form of predefined bulletins. Handles all types of OPMET information in the Traditional Alphanumeric Code (TAC) and the new ICAO Meteorological Exchange (IWXXM) form

02

OPMET Information and Exchange

OPMET Data Types

Data type	Abbreviated name	WMO data type designator	
		TAC	IWXXM
Aerodrome reports	METAR SPECI	SA SP	LA LP
Aerodrome forecasts	TAF: 12 to 30 hour	FT	LT
SIGMET information	SIGMET SIGMET for TC SIGMET for VA	WS WC WV	LS LY LV
AIRMET information	AIRMET	WA	LW
Volcanic Ash and Tropical Cyclone Advisories	Volcanic Ash Advisory Tropical Cyclone Advisory	FV FK	LU LK
Air-reports	AIREP SPECIAL (ARS)	UA	N/A
Space Weather Advisory	SWX ADVISORY	FN	LN
Volcano observatory notice to aviation	VONA	WM	LM
Administrative	METNO	NO	N/A

Note: IATA TAF requirements in the ASIA/PAC region are for TAF validity of either 24 or 30 hours. Some States issue 12- and 18-hour TAF, which don't meet IATA requirements, but are nevertheless classified as FT for the WMO data type designator.

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02

OPMET Information and Exchange

OPMET Bulletins

Through bulletins containing one or more meteorological messages of the same type.

Types of OPMET Exchange

Regional exchange – ROBEX scheme

- Regular exchange: Collection of messages from the originating stations, compiling of bulletins and their dissemination according to predetermined distribution schemes at fixed times
- Non-regular exchange: Request from RODBs

Inter-regional OPMET exchange

Between APAC and other ICAO regions via designated centres (IROGs)

Other OPMET exchanges

Direct addressing by originating centres or NOCs

03

Composition of ROBEX

Originating Station
An aeronautical meteorological station, aerodrome meteorological office, forecasting office, MWO, TCAC or a VAAC

National OPMET Centre (NOC)
Collects all OPMET messages generated by the originating stations in the State and send them to the responsible ROC

Regional OPMET Centre (ROC)
Responsible for the collection of OPMET messages from the originating stations or NOCs in their area of responsibility and for compiling these messages into ROBEX bulletins

Also responsible for dissemination of bulletins compiled by them to:

- Other ROCs, according to predefined distribution lists, specific for each bulletin
- APAC RODBs
- NOCs or other COM or MET offices in the States in their area of responsibilities, as agreed between the ROC and the States' authorities concerned

03

Composition of ROBEX

Regional OPMET Data Bank (RODB)

Five designated centres – Bangkok, Brisbane, Nadi, Singapore and Tokyo

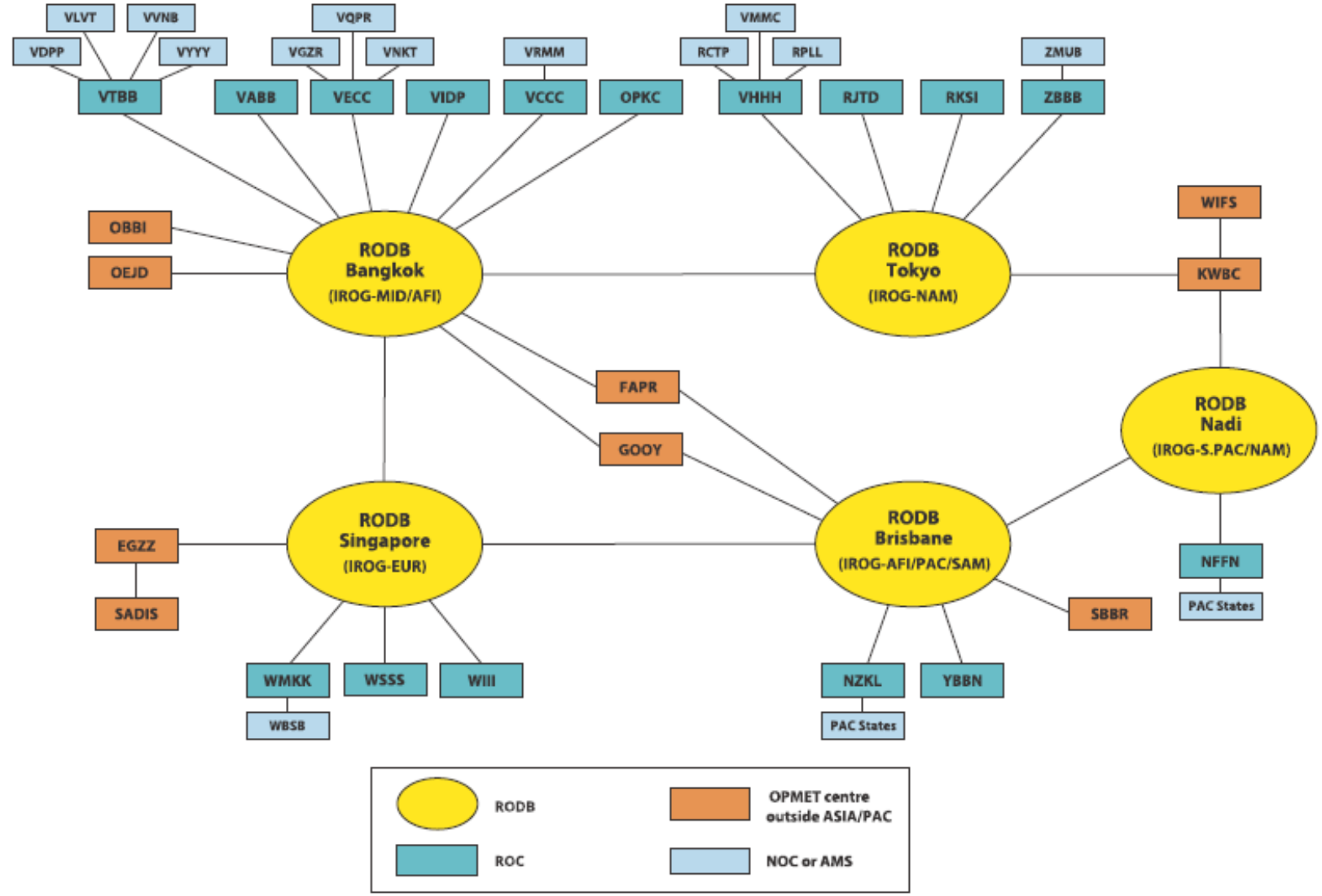
Main responsibilities include:

- To support the ROBEX Scheme and to facilitate a regular exchange of OPMET information based on predetermined distribution within the APAC Region
- To provide facilities for request/response type of access to the stored OPMET data for users to obtain non-regular or occasional information

Inter-regional OPMET exchange

Exchange of OPMET information with other assigned ICAO Region

ROBEX SCHEME



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04 Communications

Exchange of OPMET

- Aeronautical fixed service (AFS)
- For the exchange of non-time critical OPMET, the public internet, subject to availability, satisfactory operation and bilateral/multilateral and/or regional air navigation agreement

Use of AFTN/AMHS

TAC form - Aeronautical Fixed Telecommunication Network (AFTN)

IWXXM form - ATS Message Handling System (AMHS)

OPMET bulletins (TAC) transmitted via AFTN shall use the following priority indicators:

- FF – for SIGMET, AIREP SPECIAL, VAA, TCA, SWXA, VONA and TAF AMD
- GG – for TAF, METAR and SPECI

05

METAR/SPECI TAF Exchange

METAR/SPECI Exchange

General

METAR for all international aerodromes (AOP aerodromes) listed in the *ANP, Volume I, Table AOP I-1, and in Volume II, Table MET II-2* should be included for regular ROBEX exchange

Responsibilities of Originating Stations and NOCs

Originating stations (aeronautical meteorological stations) and/or NOCs should prepare METAR messages for the observation times and send them to their responsible ROC before the cut-off time specified by the ROC

Responsibilities of ROCs

- Collect METAR messages from the aerodromes in their area of responsibility
- Compile the METAR bulletins at cut-off time
- Transmit the compiled METAR bulletins to other ROCs and RODBs

Table A : Collection and Dissemination of METAR (SA) Bulletins

1		2			3	4	5	
ROC		METAR Bulletin			Bul. Time	Available	DISSEMINATION TO	
Name	CCCC	BUL No.	CCCC	Aerodrome			RODB/ROC	AFTN Address
Nadi	**NFFN**	**SAPS31**	NCRG	RAROTONGA Intl.	HH+00		BANGKOK	VTBBYPYX
			NFFN	NADI/Intl	HH+00		BRISBANE	YBBBYPYX
			NFNA	NAUSORI/Intl	HH+00		NADI	NFFNYPYX
			NFTF	FUA'AMOTU INTL.	HH+00		SINGAPORE	WSZZYPYM
			NFTV	VAVA'U	HH+00		TOKYO	RJTDYPYX
			NGFU	FUNAFUTI/Intl	HH+00		Wellington	NZZZYPYX
			NGTA	TARAWA/Bonriki Intl	HH+00			
			NIUE	NIUE Intl	HH+00			
			NSFA	FALEOLO/Intl	HH+00			
			NVSS	SANTO/Pekoa	HH+00			
			NVVV	PORT VILA/Bauerfield	HH+00			
			PLCH	CHRISTMAS ISLAND	HH+00			
			NFTL	HA'APAI	HH+00			
		SAPS32	NLWW	WALLIS HIHIFO	HH+00			
			NWWW	NOUMEA LA TANTOUTA	HH+00			
		SAPS33	NTAA	TAHITI FAAA	HH+00			

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05

METAR/SPECI TAF Exchange

TAF Exchange

General

Aerodrome forecast (TAF) for all international aerodromes (AOP aerodromes) listed in the *ANP, Volume I, Table AOP I-1, and in Volume II, Table MET II-2* should be included for regular ROBEX exchange

Responsibilities of Aerodrome meteorological offices (AMO) and NOCs

Originating AMOs (or other designated forecasting offices) should prepare TAF messages for the period of validity and to be sent the AMOs or NOCs to their responsible ROC before the cut-off time specified by the ROC

Responsibilities of ROCs

- Collect TAFs from the AMOs and/or NOCs in their area of responsibility
- Compile the TAF bulletins at cut-off time
- Transmit the compiled TAF bulletins to other ROCs and RODBs

Table B : Collection and Dissemination of TAF (FT) Bulletins									
1 ROC		2 TAF Bulletin						3 Dissemination	
Name	**CCCC**	**BUL No.**	**CCCC**	**Aerodrome**	**Filing time**	**Start of validity**	**TAF validity**	**RODB/ROC**	**AFTN address**
Nadi	**NFFN**	**FTPS31**	NCRG	RAROTONGA INTL.	0535	0600	24	BANGKOK	VTBBYPYX
			NFFN	NADI/Intl	1135	1200	24	BRISBANE	YBBBYPYX
			NFTF	FUA'AMOTU INTL.	1735	1800	24	NADI	NFFNYPYX
			NFTV	VAVA'U	2335	0000	24	SINGAPORE	WSZZYPYX
			NGFU	FUNAFUTI/Intl			24	TOKYO	RJTDYPYX
			NGTA	TARAWA/Bonriki Intl			24	Hong Kong	VHZZYPYX
			NIUE	NIUE Intl			24	Wellington	NZZZYPYX
			NVSS	SANTO/Pekoa			24		
			NVVV	PORT VILA/Bauerfield			24		
			PLCH	CHRISTMAS ISLAND			24		
			NFNA	NAUSOR/Intl			24		
			NSFA	FALEOLO/Intl			24		
		FTPS32	NLWW	WALLIS HIHIFO			24		
			NWWW	NOUMEA LA TANTOUTA			24		
		FTPS33	NTAA	TAHITI FAAA			24		

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Thank You

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