



# Overview of ICAO provisions for MET supporting ATM

Presented by the Secretariat  
International Civil Aviation Organization

## Focus on Safety



accurate



timely



tailored



relevant



accessible



interoperability, collaborative decision making, system-wide information

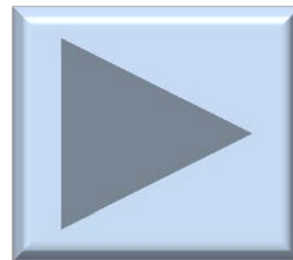
# Contents

- Core SARPs (MET) and regional operational requirements
  - ICAO's Annex 3
  - Regional Air Navigation Plan
- Global ATM operational concept

# ICAO Annex 3



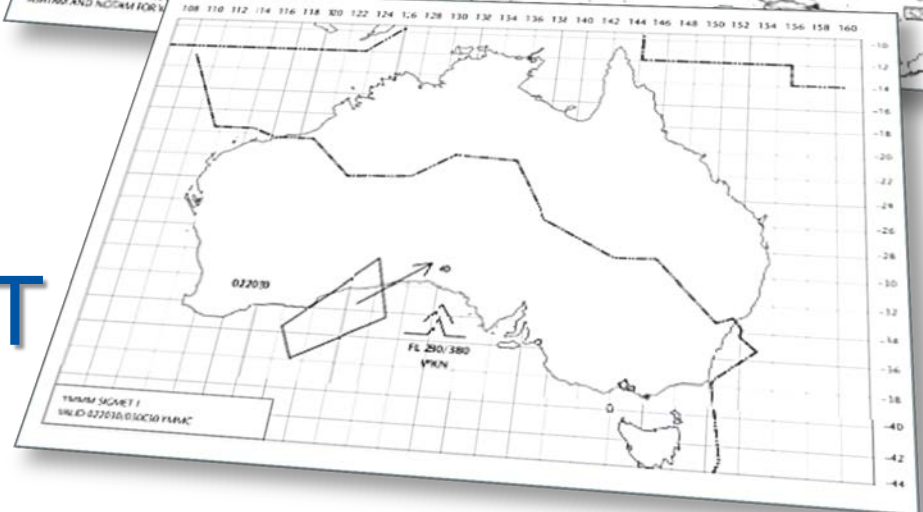
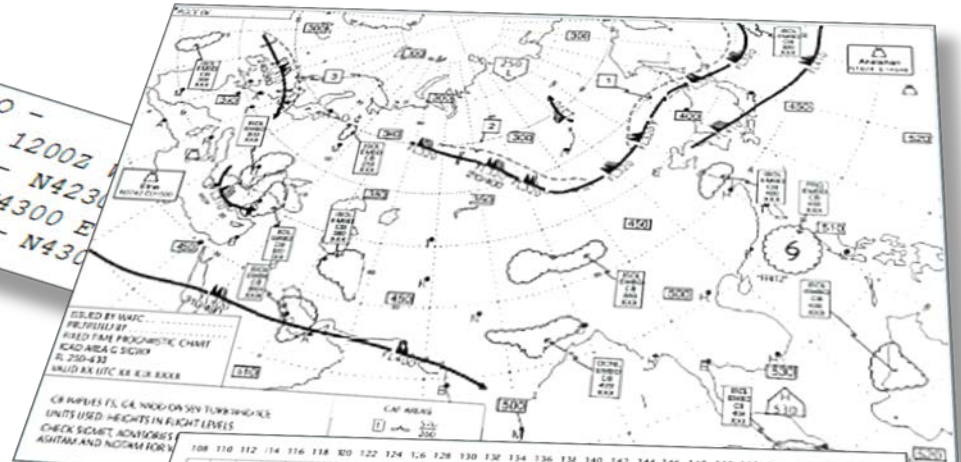
# ICAO Annex 3



# ICAO Annex 3

- WAFS
- Volcanic ash
- Tropical cyclone
- MWOs
- SIGMET, AIRMET

YUDD SIGMET 2 VALID 101200/101600 YUSO -  
YUDD SHANLON FIR/UIR SEV TURB FCST AT 1200Z  
E02245 - N4330 E02445 - N4200 E02455 - N4230  
FL250/370 MOV SE 20KT WKN FCST 1600Z WI N4300 E  
N4322 E02452 - N4155 E02445 - N4215 E02330- N4300



# ICAO Annex 3

- Observations/reports
- METAR/SPECI
- Aerodrome forecasts
- Aerodrome warnings
- Wind shear

Element as specified in Chapter 4	Detailed content	Template(s)	Examples
Identification of the type of report (M)	Type of report (M)	METAR, METAR COR, SPECI or SPECI COR	METAR METAR COR SPECI
ICAO location indicator (M)	ICAO location indicator (M)	nnnn	YUDO <sup>1</sup>
Time of observation (M)	Time of observation (M)	nnnnnZ	221630Z
Identification of an automated or missing report (C) <sup>2</sup>	Identification of an automated or missing report (C) <sup>2</sup>	AUTO or NIL	AUTO NIL
END OF METAR IF THE REPORT IS MISSING.			
Surface wind (M)	Wind direction (M)	nnn	24004MP5 (24008KT)
	Wind speed (M)	[P]nn[n]	VRB01MP5 (RB02KT)
Significant cloud (M)	Significant cloud (M)	nnn	1200300 (12006G18KT)
	Significant cloud (M)	nnn	24008G14MP5 (24016G28KT)
Prevaling or minimum visibility (M) <sup>3</sup>	Prevaling or minimum visibility (M) <sup>3</sup>	nnn	02005MP5 350V070 (02010KT 350V070)
	Minimum visibility and direction of the minimum visibility (C) <sup>3</sup>	nnnn[N] or nnnn[NE] or nnnn[E] or nnnn[SE] or nnnn[S] or nnnn[SW] or nnnn[W] or nnnn[NW]	C A V O K 2000 1200NW 6000 2800E 6000 2800
Runway visual range (C) <sup>3</sup>	Name of the element (M)	R	R32/040 R12R/1700 R10M0050 R14LP2000
	Runway (M)	nn[L] or nn[C] or nn[R]Y	

MET REPORT YUDO 221630Z WIND 2404MP5 VTS 600M RVR RWY 12 TDZ 1000M MOD DZ FG CLD SCT 300M OVC 600M T17 DP16 QNH 1018HPA TREND BECMG TL1700 VTS 800M FG BECMG AT1800 VTS 10KCM NSW

TAF EKGK 240600Z 2406/2415 20015KT 9999 SCT015 TEMPO 4000 BR BKN008=



# ICAO Annex 3

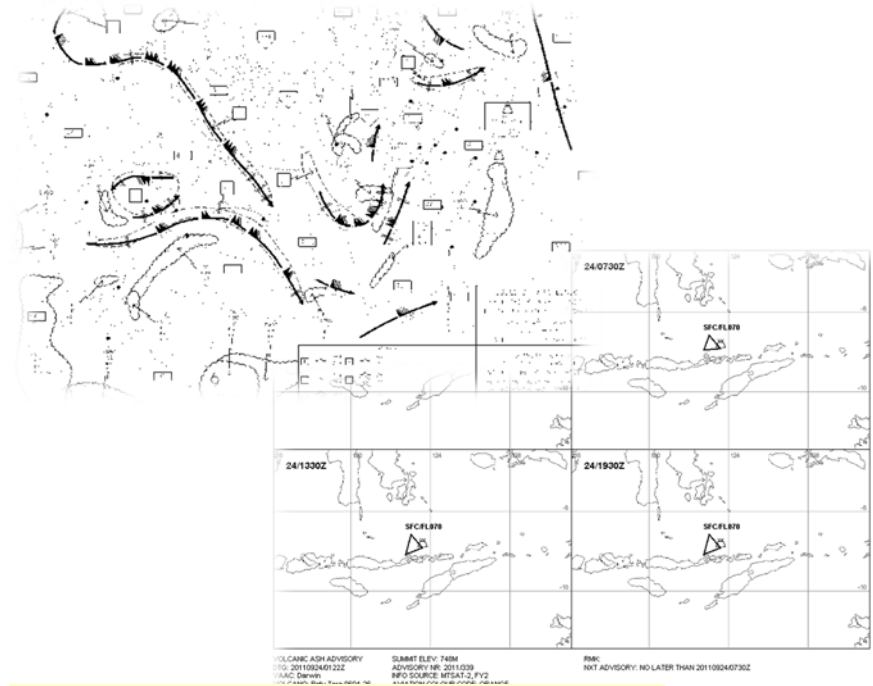
- Climatological
- Operators and flight crew
- ATS, SAR and AIS
- Communications
- Quality management, etc.



# ICAO Annex 3

## MET provision today

- Highly 'product-centric'
- Primarily AFTN and AFS delivery to users
- ATS/Pilot oriented
- Limited ATM orientation



WSUK31 EGRR 231759  
 EGGT SIGMET 02 VALID 231830/232230 EGRR-  
 EGGT LONDON FIR SEV MTW FCST N OF N5330  
 FL050/150 STNR NC=

TAF EGGF 240600Z 2406/2415 20015KT  
 9999 SCT015 TEMPO 2406/2415  
 4000 BR BKN008=

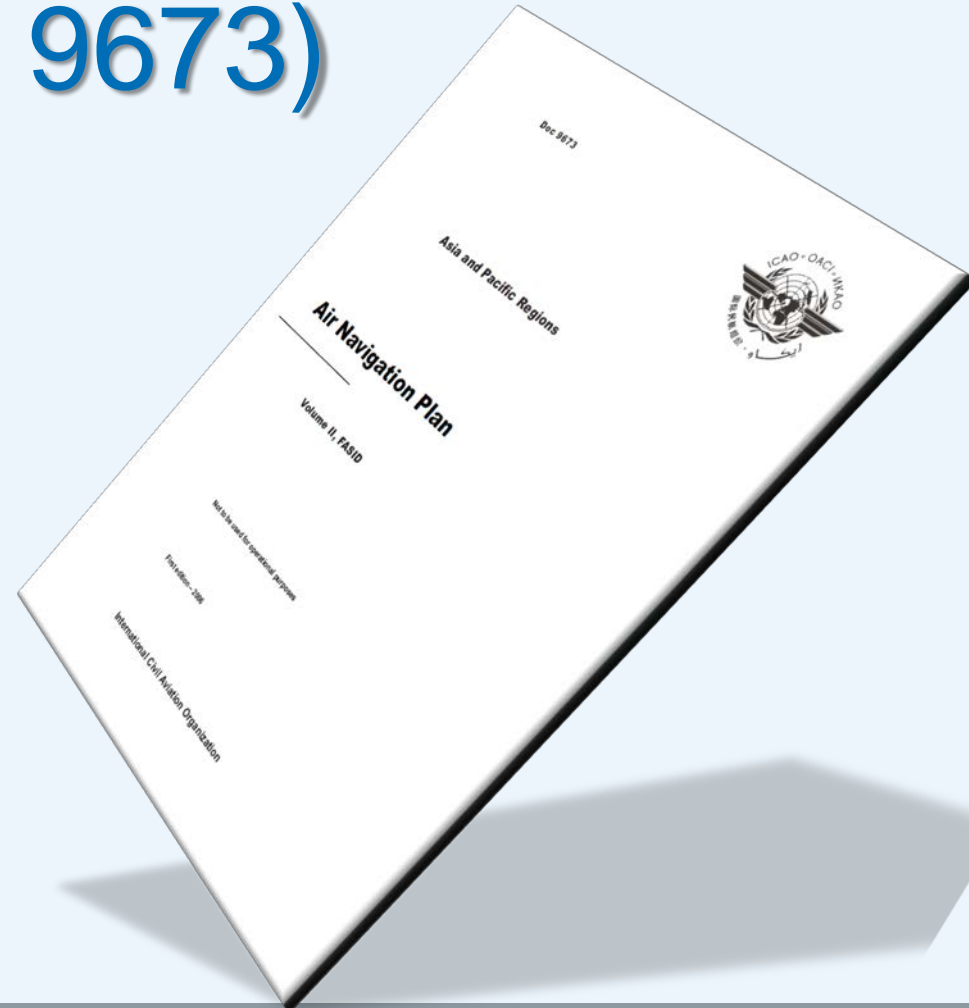
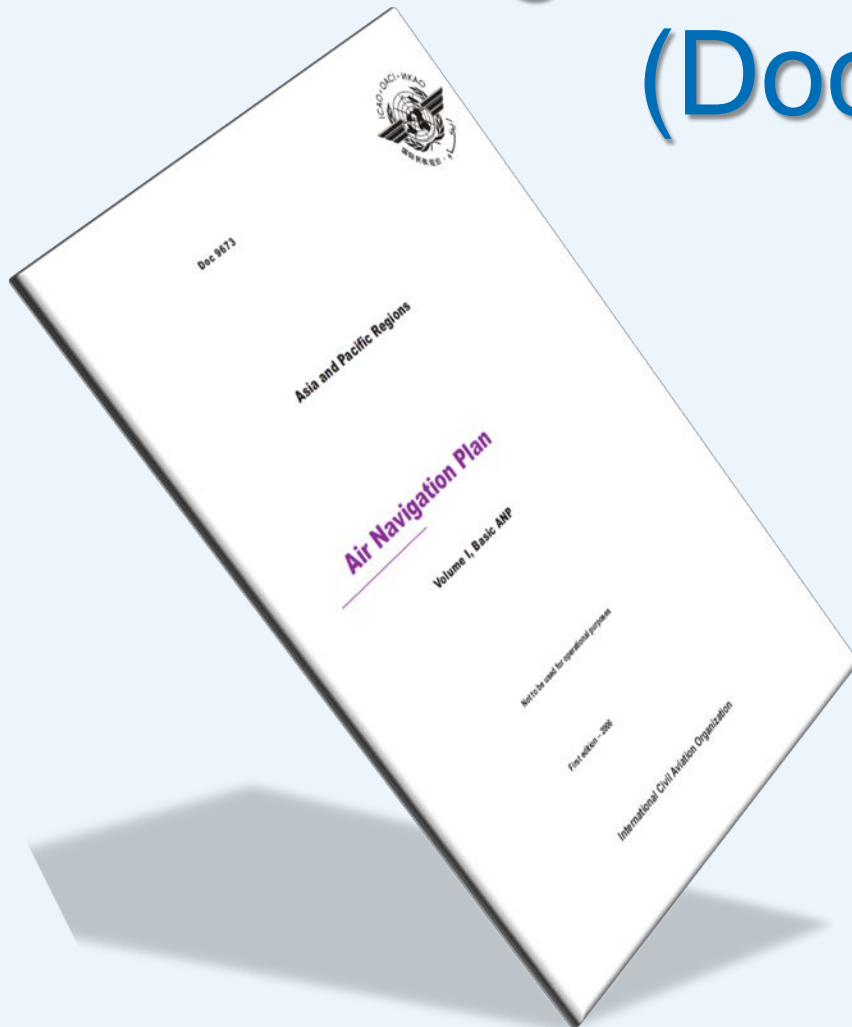
# ICAO Annex 3

## CHAPTER 2. GENERAL PROVISIONS

2.1.2 ... objective shall be achieved by supplying ... users ... with the meteorological information necessary ...

2.2.1 Close liaison shall be maintained ... those concerned ... supply and ... use of meteorological information ...

# APAC regional air navigation plan (Doc 9673)



# APAC regional air navigation plan (Doc 9673)

- TCACs, VAACs, State volcano observatories, MWOs
- METAR/SPECI
- TAF, TREND
- Communications

# Amendments

## Annex 3 and Doc 9673

- **Annex 3** – proposals formulated by dedicated ICAO global expert groups
- **Doc 9673** – initiated by States, international organizations, APANPIRG

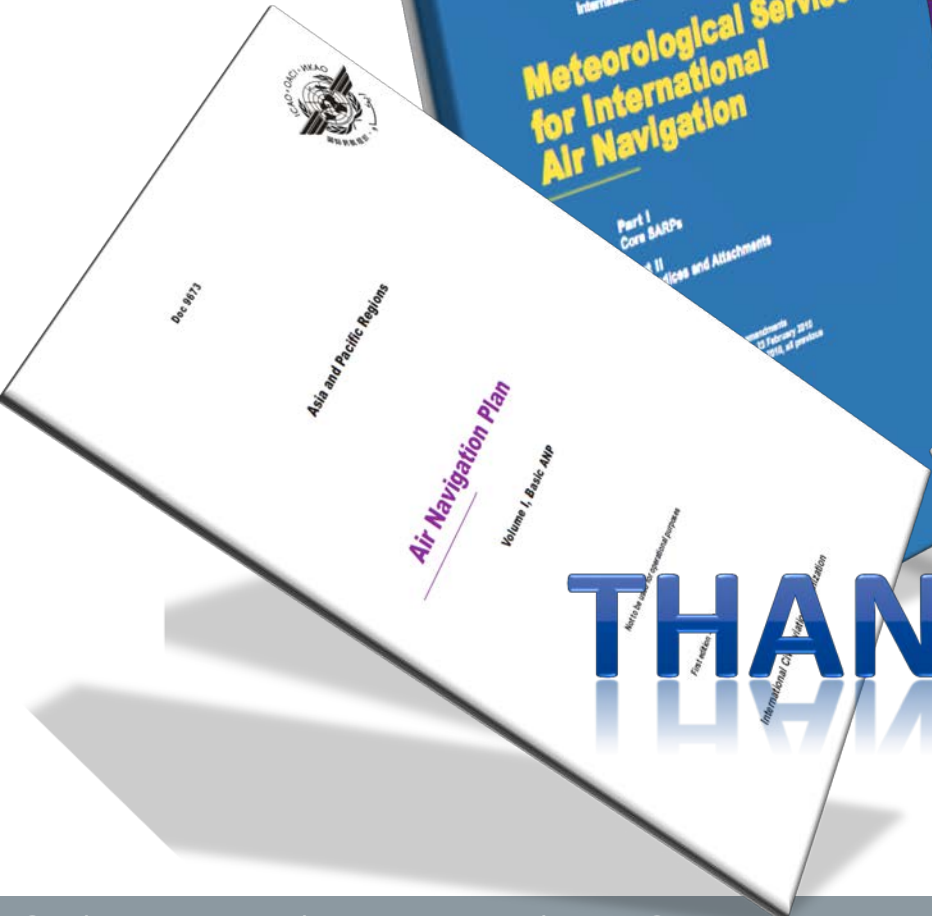
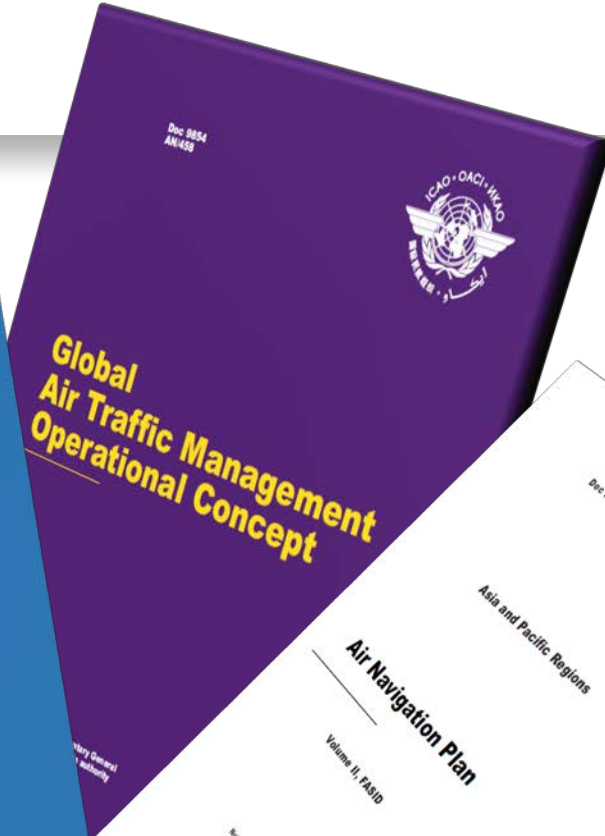
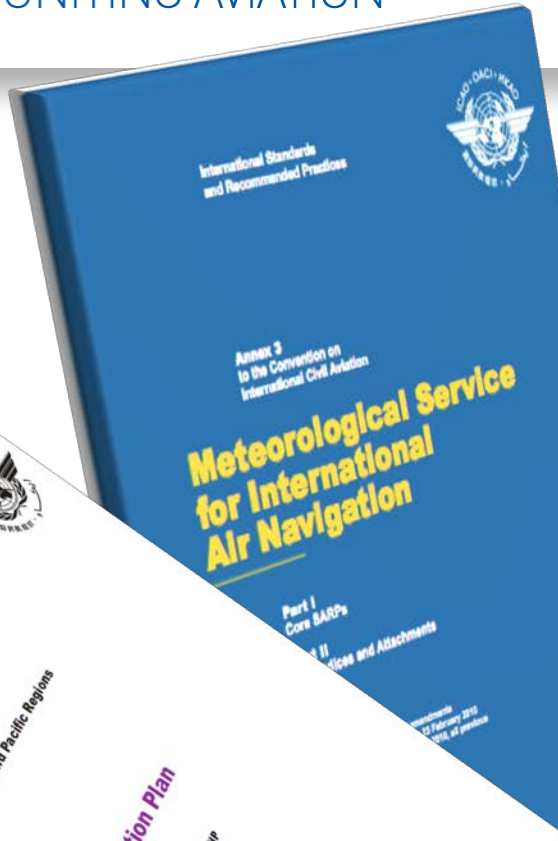
# Global Air Traffic Management Operational Concept (Doc 9854)

2.9.17 – MET integrated  
with ATM

2.9.18 – Benefits

2.9.19 – Quality assurance  
of MET





THANK YOU