



ICAO

UNITING AVIATION



# MET and SWIM

## APAC/MID Regional SWIM Workshop

*Bangkok, Thailand, 16-18 May 2016*

Presented by Mr. Peter Dunda  
Regional Officer, Aeronautical Meteorology  
International Civil Aviation Organization

# Why is MET important?

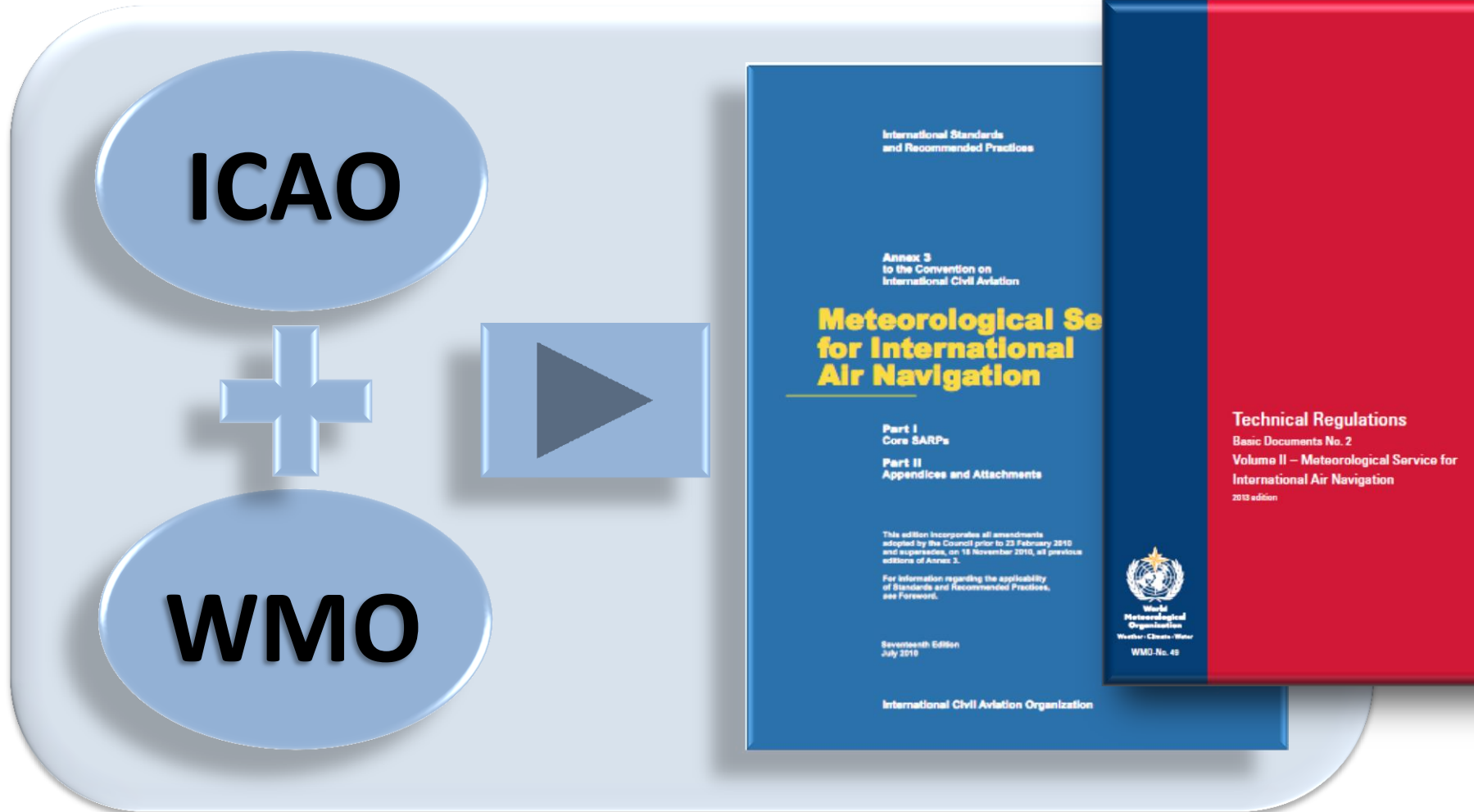




# Contents

- ICAO policies and Standards
- Meteorology Divisional Meeting
- Integration of MET in SWIM
- Issues about MET and SWIM

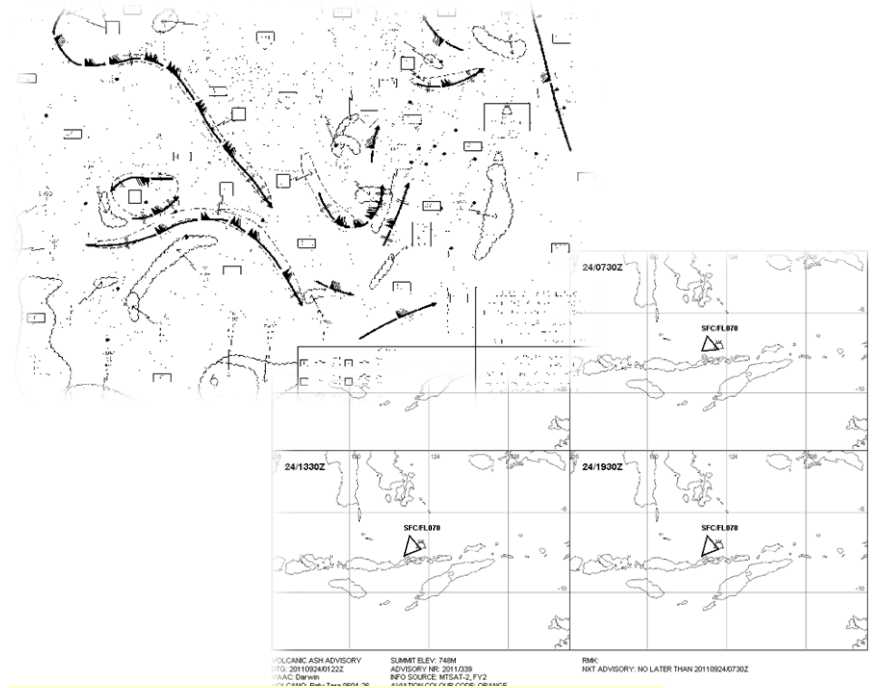
# ICAO policies and Standards



# ICAO policies and Standards

## MET provision today

- Highly 'product-centric'
- Primarily AFTN and AFS delivery to users
- Traditional MET products, services and systems



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

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

# Meteorology Divisional Meeting

(ICAO Doc 10045 – MET/14)

## Where/when?

- Montréal, Canada, 7 to 18 July 2014

## Purpose

- Recommend future enhancements to MET

## Attendance

- 293 participants
- 89 States
- 7 international organizations



# Meteorology Divisional Meeting

(ICAO Doc 10045 – MET/14)

## Agenda

1. Supporting the “One Sky” concept
2. Improving the safety/efficiency through enhanced MET
3. Integrating MET into the future SWIM environment
4. MET institutional issues
5. SARPs



# Meteorology Divisional Meeting

(ICAO Doc 10045 – MET/14)

## Outcomes

- Total of 29 Recommendations
- Agenda item 1 → 3 Rec's
- Agenda item 2 → 14 Rec's
- Agenda item 3 → 3 Rec's
- Agenda item 4 → 7 Rec's
- Agenda item 5 → 2 Rec's





# Meteorology Divisional Meeting

(ICAO Doc 10045 – MET/14)

## Outcomes

- ✓ ICAO Air Navigation Commission (ANC) approved all Recommendations
- ✓ ICAO Council supported follow-up
- ✓ ANC established a MET Panel (METP)



# Integration of MET in SWIM

## Transition to digital MET exchange

- Amendment 76 to Annex 3 (Nov 2013)
  - Enabling clauses
- Amendment 77 to Annex 3 (Nov 2016)
  - Recommended practice

# Integration of MET in SWIM

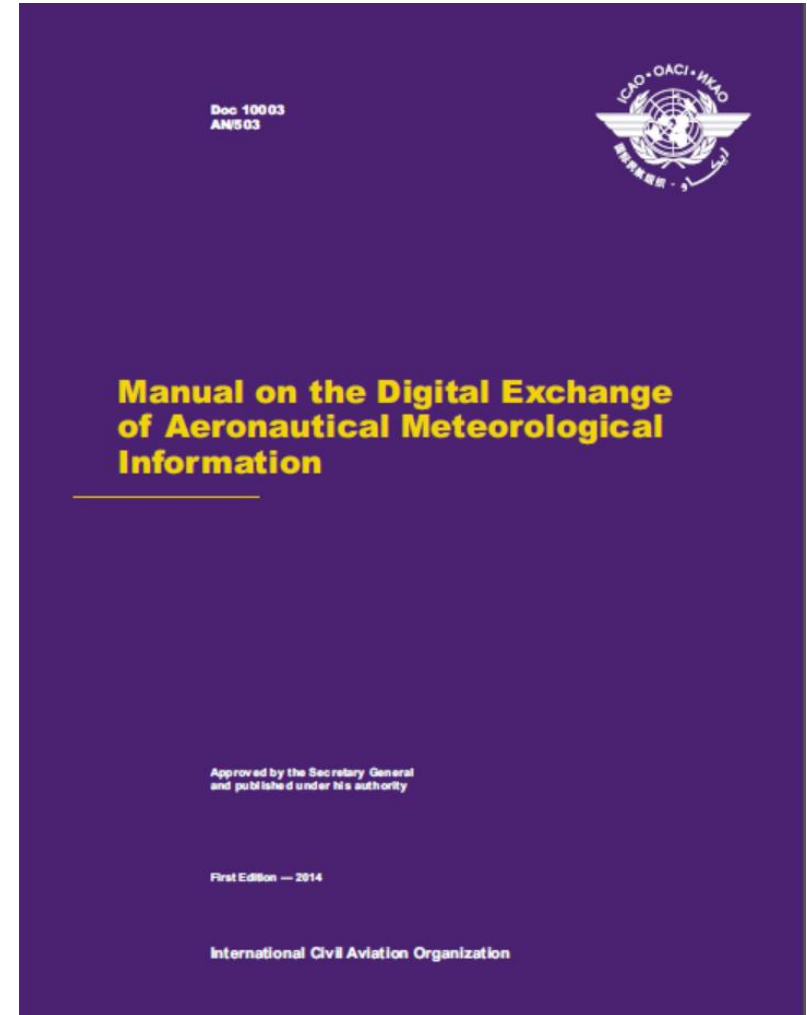
## Transition to digital MET exchange

- METAR/SPECI, TAF, SIGMET
- AIRMET, tropical cyclone/volcanic ash advisory information
- Globally interoperable information exchange model; use XML/GML
- Metadata

# Integration of MET in SWIM

## Transition to digital MET exchange

- *Manual on the Digital Exchange of Aeronautical Meteorological Information (Doc 10003)*



# Integration of MET in SWIM

METP/1 → 12 'job cards', including:

- **5** – Inclusion of MET in SWIM and development of SWIM concept relating to MET
- **1** – Testing of AMHS in relation to exchange of digital MET



# Integration of MET in SWIM

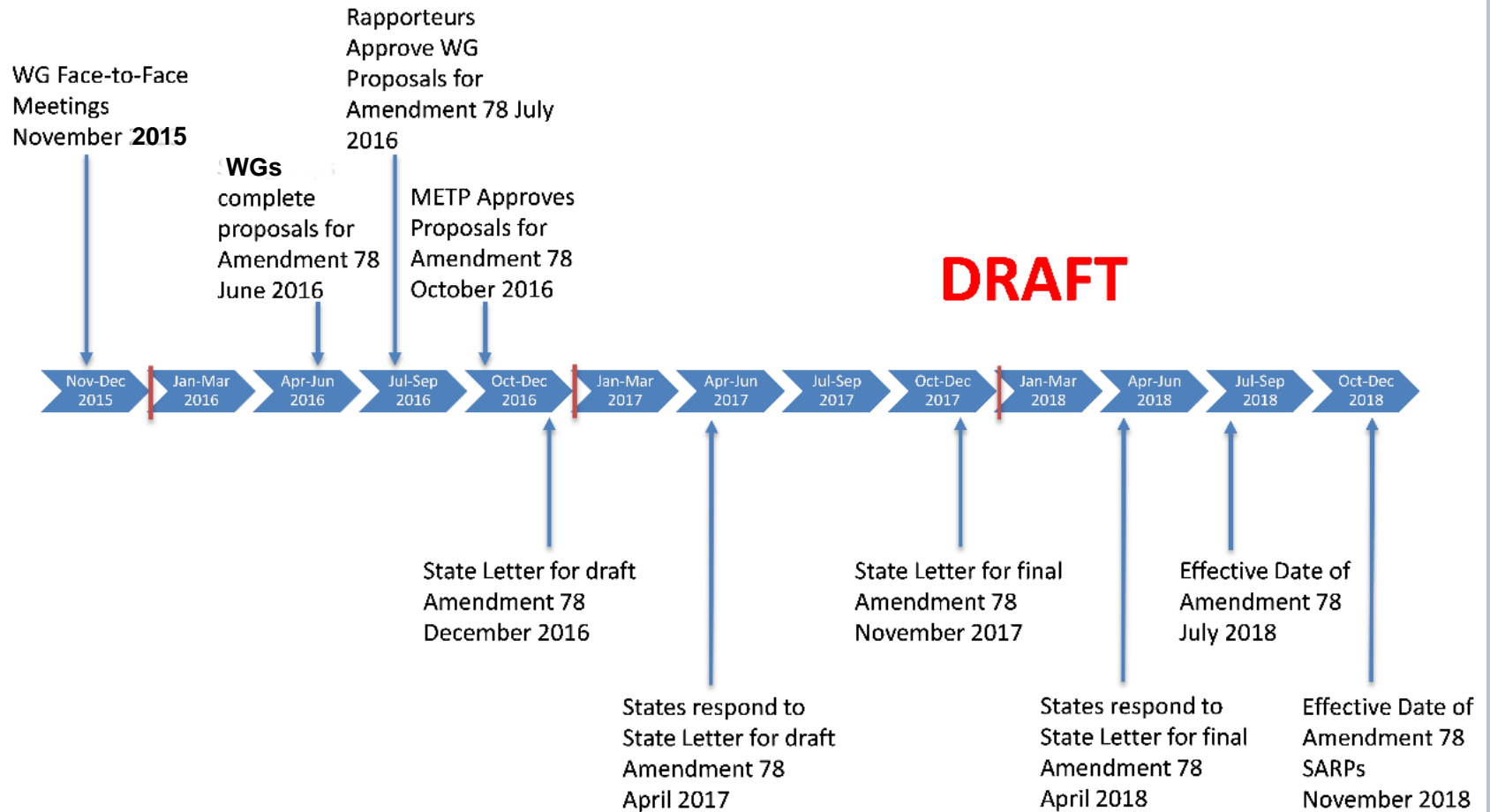
WG-MIE/2, Paris, France, 23-27 May 2016

- Proposal for inclusion of Standards for digital MET exchange in Amendment 78 to Annex 3

IWXXM workshop, Paris, 31 May-2 Jun 2016

- Guidelines for MET exchange using IWXXM;
- Address issues related to implementation of IWXXM
- Regional implementation plans for IWXXM

# METP Schedule for Amendment 78 to Annex 3



# Issues about MET and SWIM

- IWXXM cannot be transmitted via AFTN
- Extended AMHS identified to exchange IWXXM data
- ...
- ...
- ...





North American  
Central American  
and Caribbean  
(NACC) Office  
Mexico City

South American  
(SAM) Office  
Lima

ICAO  
Headquarters  
Montréal

Western and  
Central African  
(WACAF) Office  
Dakar

European and  
North Atlantic  
(EUR/NAT) Office  
Paris

Middle East  
(MID) Office  
Cairo

Eastern and  
Southern African  
(ESAF) Office  
Nairobi

Asia and Pacific  
(APAC) Sub-office  
Beijing

Asia and Pacific  
(APAC) Office  
Bangkok



THANK YOU