



METEOROLOGY PANEL



MET Symposium

Wellington, New Zealand

01 October 2020

Presented by Peter Lechner, Chairman of the ICAO MET Panel





Value of MET information

- ➔ MET information is critical to aviation safety risk management and the global economy.
- ➔ The safe and efficient aircraft operation, with minimal affect on the atmosphere, will always require good MET information.

*We have only one
contiguous atmosphere.
Weather is Stateless.*



Shared challenges and changes

- Move to phenomena-based MET information
- Move from TAC to IWXXM data – BIG DATA.
- Move to a system wide information management environment - SWIM.
- Funding global MET systems
- State MET capability deficits
- Private MET sector involvement
- Global MET system development and agility

The changes in MET are gathering pace, reflecting the changing needs of aviation.



Some key matters

- Transition away from coded product to data and information basis for aeronautical MET
 - Projected timeframe after which familiar reports may no longer be available. 2026.
 - Need to increase the spatial and temporal resolution of MET information while increasing the number of related phenomena.
 - Need to develop metadata to explain the information and the basis upon which it is provided.

Air traffic management, aircraft manufacturers, and aircraft operators need to plan for the fully integrated use of big MET data.



Information stewardship - a draft approach

In general, State organisations, or their nominees, provide specialised aviation MET information to aviation users within the scope of international conventions and local arrangements.

The nature of the aviation MET information is derived from and managed through various joint user/provider efforts.

Nevertheless, it falls within the gambit of the providers to ensure good *stewardship* of aviation MET information through their development, provision, distribution, and cost recovery where appropriate.

Effective stewardship of aviation MET information should reduce the cost burden on aviation users, and assist in the further development of aviation MET information, its reliable distribution and integration in aviation operations.

The changes in MET are gathering pace, reflecting the changing needs of aviation.



METEOROLOGY PANEL



ICAO Air Navigation Commission

Meteorology Panel

(comprising individual Experts – not State representatives)

Peter Lechner
Bill Maynard

Management Group
Co-ordination work

Job Cards 1,2,5, (ATMRPP6)

WG-1 MET Requirements & Integration (WG-MRI)
Dennis Hart
Jun Ryuzaki

WS-1 MET for ATM
Kevin Johnston

WS-2 GANP Update
Stéphanie Desbios

WS-3 PANS-MET
Rosalind Lapsley

Job Cards 6,7,9,12

WG-2 MET Information & Service Development (WG-MISD)
Pat Murphy

WS-1 RRM
Harmut Walter

WS-2 HIWS
Sharon Lau

WS-3 SWX Information
Pat Murphy

WS-4 VA & SO₂
Karen Shelton-Mur

Job Cards 4, (CP8)

WG-3 MET Information Exchange (WG-MIE)
Sue O'Rourke
Bill Maynard

WS-1 IWXXM Requirements
Patrick Simon

WS-2 MET-SWIM Plan
Pat Murphy

WS-3 IWXXM Documentation
Tim Hailes

WS-4 Support & Coordination
Bill Maynard

Job Cards 3,8,10 (OPSG legacy)

WG-4 MET Operations Group (WG-MOG)
Jon Dutton

WS-1 IAVW Operations
Paula Acethorp

WS-2 WAFS Operations
Job Dutton

WS-3 SADIS/WIFS Operations
Karen Shorey

WS-X SWX Operations
TBD

Job Card 11

WG-5 MET Cost Recovery Guidance & Governance (WG-MCRGG)
Pat Murphy/Jaakko Nuottokari

WS-1 White Paper
Dennis Hart

WS-2 Development of Guidance – Jon Dutton

WS-3 Definition of MA
Greg Brock

WS-4 SWIM Management & Governance – Bill Maynard

ATM – Air Traffic Management
GANP – Global Air Navigation Plan
HIWS – Hazardous Weather Information Service
IAVW – International Airways Volcano Watch
IWXXM – ICAO Meteorological Information Exchange Model
MA – Meteorological Authority
PANS – Procedures for Air Navigation Services

RRM – Release of Radioactive Material
SADIS - Secure Aviation Data Information System
SO₂ – Sulphur Dioxide
SWIM – System-wide Information Management
SWX – Space Weather

VA – Volcanic Ash
WAFS – World Area Forecast System
WIFS – WAFS Internet File Service
WG – Working Group
WS – Work Stream

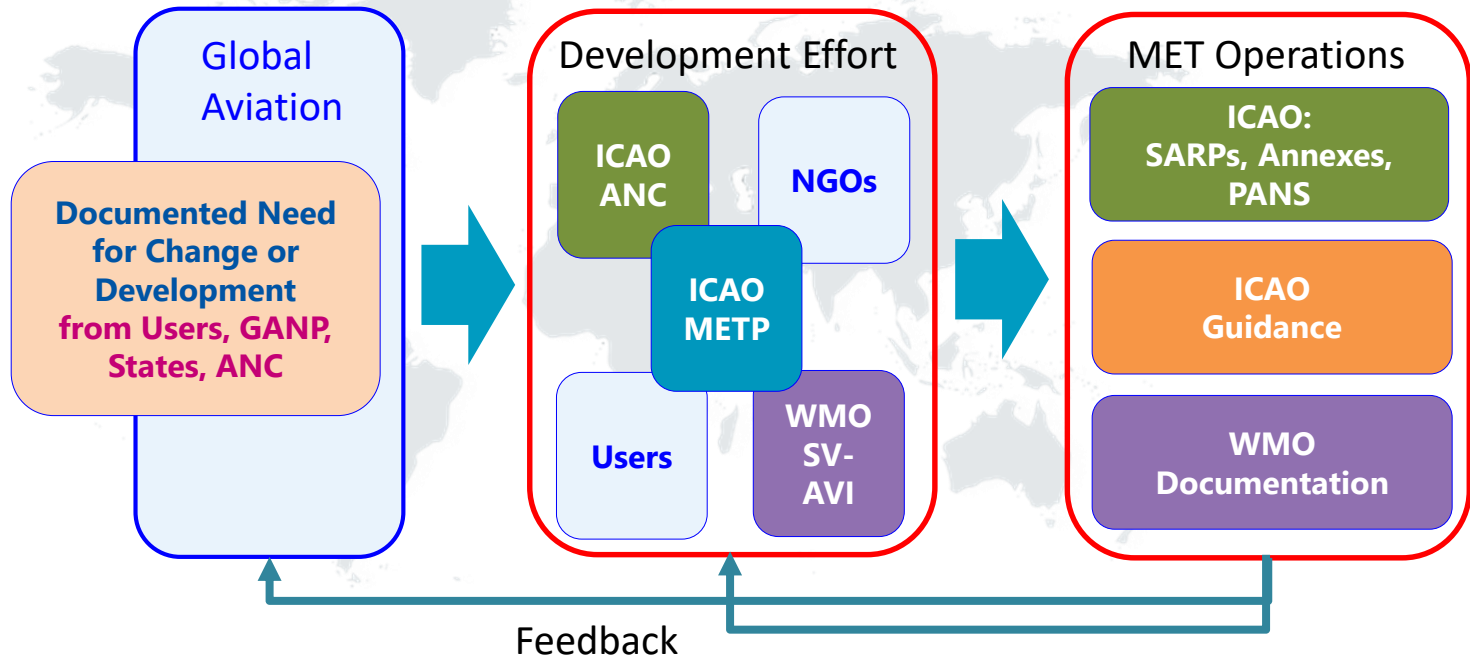
On hold



Note – The *primary* Job Card and Work Stream responsibilities are as shown. There are numerous areas where several WG and WS teams collaborate.



ICAO MET Development Process





Change and development

- ICAO staffing changes and challenges
- COVID affects on METP work modes
- ICAO – WMO joined up approach
 - Daytona Beach, Nov 2019
 - WMO Standing Committee on Aviation Services to Aviation (SC-AVI)



METEOROLOGY PANEL



First ICAO Space Weather Advisory – 28 Sept 2020, 0555z

FNXX01 YMMC 280555

SWX ADVISORY

DTG: 20200928/0555Z

SWXC: ACFJ

ADVISORY NR: 2020/26

SWX EFFECT: HF COM MOD

OBS SWX: 28/0532Z HNH MNH E000 - E060

FCST SWX +6 HR: 28/1200Z NO SWX EXP

FCST SWX +12 HR: 28/1800Z NO SWX EXP

FCST SWX +18 HR: 29/0000Z NO SWX EXP

FCST SWX +24 HR: 29/0600Z NO SWX EXP

RMK: SPACE WEATHER EVENT (MAXIMUM USABLE FREQUENCY DEPRESSION) IN PROGRESS IMPACTING HIGHER HF COM FREQUENCY BAND. LOWER FREQUENCIES MAY BE LESS IMPACTED. ISOLATED AREAS OF SEV HF COM DEGRADATION POSSIBLE.

NXT ADVISORY: WILL BE ISSUED BY 20200928/1140Z=