

Observational Data Workshop Session 1. 22 May, 2018



International Overview, roles
and responsibilities

What is the World Meteorological Organization(WMO)

Specialized agency of the United Nations

WMO is a specialized agency of the United Nations (UN) with 191 Member States and Territories. It is the UN system's authoritative voice on the state and behavior of the Earth's atmosphere, its interaction with the land and oceans, the weather and climate it produces and the resulting distribution of water resources.

WMO Congress is the supreme body of the organization and meets every four years. It approves plans and budget, determines General, Technical, Financial and Staff Regulations and elects President, Vice-Presidents members of the Executive Council and the Secretary-General.

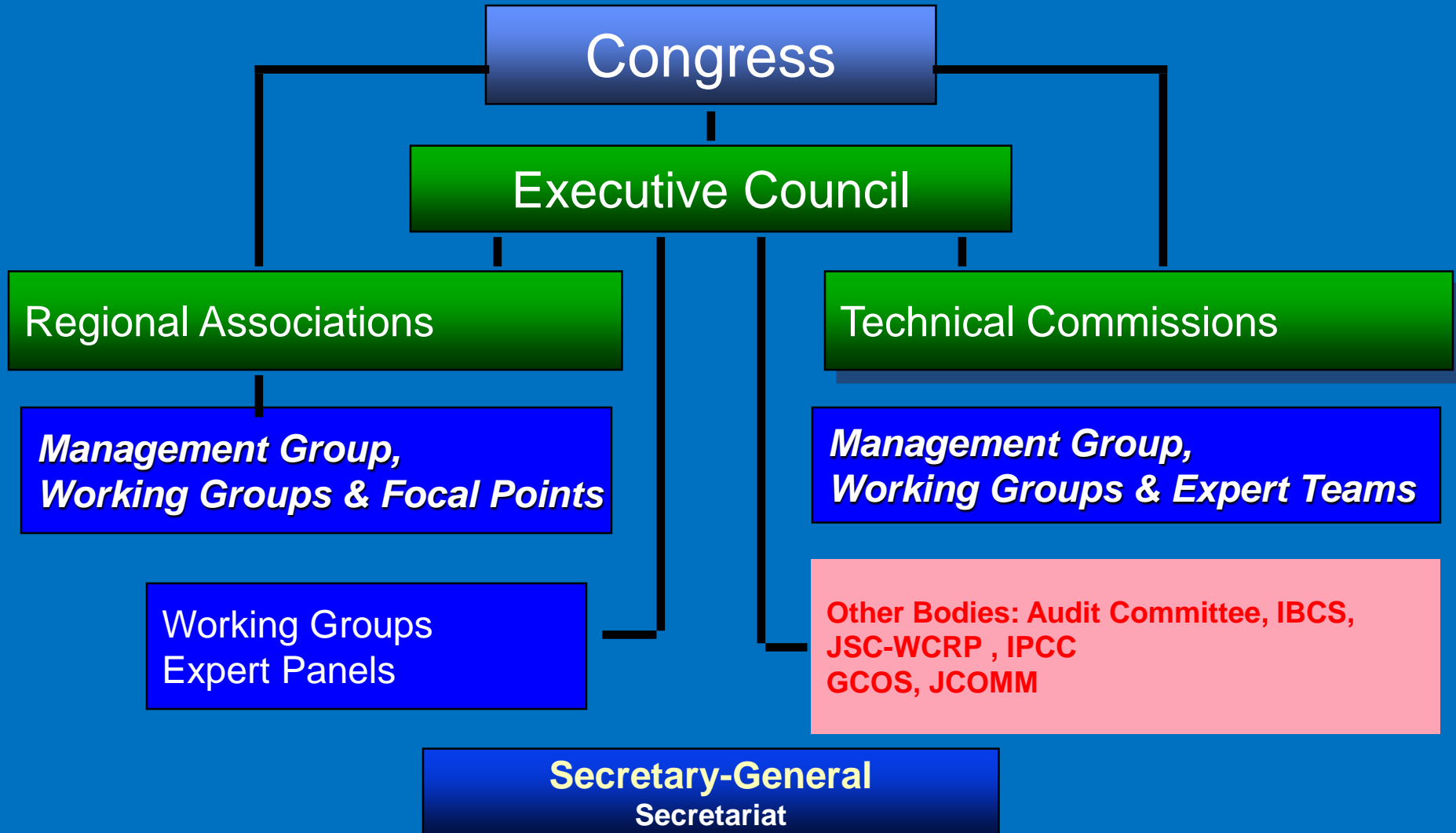
WMO Executive Council is the executive body of the organization and has 37 members who serve in an individual capacity, not country); U.S. Permanent Representative is a member. It meets annually and implements decisions of WMO Congress. It oversees the WMO budget and programs and both considers and makes recommendations of/to regional associations and technical commissions.

U.S. Perm Rep with the WMO - Louis Uccellini, NWS AA

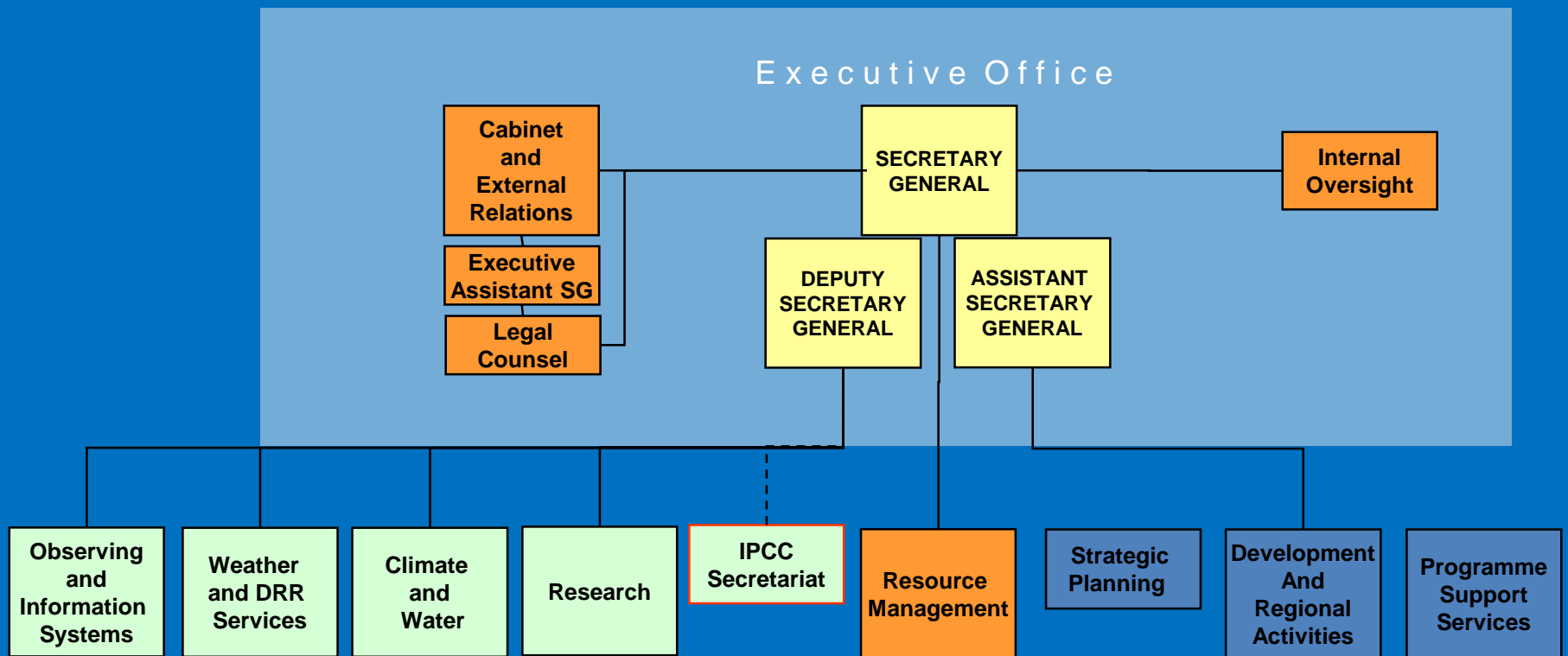
WMO Mission

- Facilitate worldwide cooperation in the establishment of networks of stations for the making of meteorological observations as well as hydrological and other geophysical observations related to meteorology, and to promote the establishment and maintenance of centers charged with the provision of meteorological and related services;
- Promote the establishment and maintenance of systems for the rapid exchange of meteorological and related information;
- Promote standardization of meteorological and related observations and to ensure the uniform publication of observations and statistics;
- Further the application of meteorology to aviation, shipping, water problems, agriculture and other human activities;
- Promote activities in operational hydrology and to further close cooperation between Meteorological and Hydrological Services;
- Encourage research and training in meteorology and, as appropriate, in related fields, and to assist in coordinating the international aspects of such research and training.

WMO Structure



Secretariat Organization



WMO Regional Associations



WMO Technical Commissions & Related Programmes

Technical commissions, ~3000 contributing experts

CBS
Basic systems

CIMO
Instruments

CHY
Hydrology

CAS
Atmospheric
sciences

CAeM
Aeronautical
meteorology

CAGM
Agro-
meteorology

JCOMM
Oceanography-
meteorology

CCL
Climatology

WMO funded, co-hosted programs

WCRP
World Climate
Research
Programme

GCOS
Global Climate
Observing
System

WMO co-hosted, secretariat WMO Staff

IPCC

Partnership, Located in WMO building

GEO
Group on Earth
Observations

Each commission is associated with one or more Programmes, Watches and Systems to include but not limited to:

- World Weather Watch
- Tropical Cyclone Programmes
- WIGOS
- WIS
- GDPFS
- World Weather Research Programme
- Disaster Risk Reduction Programme
- Global Atmosphere Watch Program
- Global Cryosphere Watch

Key Issues for the U.S.

Integrated & Interoperable Environmental Data & Product Exchange Systems

- Provide leadership to decision-making bodies agreeing on requirements, standards and solutions
- WMO Information System (WIS) – data & product exchange
- WMO Integrated Global Observing System (WIGOS) – interoperable observing systems
- Data requirements and increasing interest in regional data sets

Impact-Based Decision Support Services

- WMO Members are increasingly evolving their service paradigm to delivery IDSS
- Some Members are implementing similar initiatives where we can learn best practices (i.e. Europe's meteo-alarm, China's impacts catalogue and the UK's collaborative impact-based forecasting)
- U.S. funding several Weather-Ready Nations projects to build IDSS capacity in key developing NMHSs

Governance – an effective, accountable, transparent, and results-oriented WMO

- Reform efforts
- Strategic Planning

Public Private Engagement– promote collaboration between the public, private and academic communities within the global weather enterprise

- Useful policy framework for mutually-beneficial collaboration
- Institutionalized engagement through regular governance mechanisms
- Data arrangements

What is the International Civil Aviation Organization

Specialized agency of the United Nations

The ICAO mission is to promote the safe and orderly development of all aspects of international civil aeronautics, and provide the forum for issues affecting civil aviation to be discussed. It is headquartered in Montreal, Canada, with seven regional offices throughout the world and has 191 Contracting States.

It codifies the principles and techniques of international air navigation and fosters the planning and development of international air transport to ensure safe and orderly growth. Its headquarters are in Montreal, Quebec, Canada.

The Air Navigation Commission (ANC) is the technical body within ICAO. The Commission is composed of 19 Commissioners, nominated by the ICAO's contracting states, and appointed by the ICAO Council. Commissioners serve as independent experts, who although nominated by their states, do not serve as state or political representatives. The development of international Standards And Recommended Practices is done under the direction of the ANC through the formal process of ICAO Panels. Once approved by the Commission, standards are sent to the Council, the political body of ICAO, for consultation and coordination with the Member States before final adoption.

U.S. Representative to ICAO Council - Thomas L. Carter

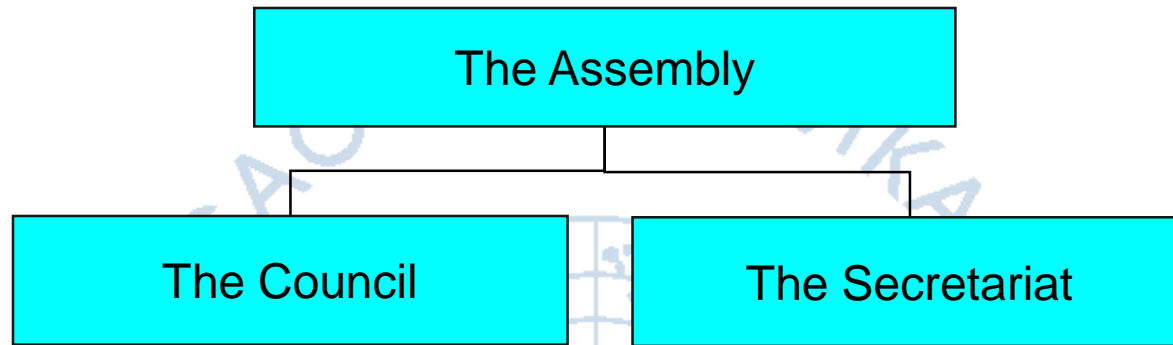
ICAO Mission

- Safety - Enhance global aviation safety
- Air Navigation Capacity - Increase capacity and improve efficiency of the global aviation system
- Security and Facilitation - Enhance global aviation security and facilitation
- Economic Development of Air Transport – Foster the development of a sound and economically viable civil aviation system
- Environmental Protection – Minimize the adverse environmental affects of civil aviation activities

Standards & Recommended Practices

- 19 Annexes provide international Standards and Recommended Practices (SARPs) on most major aviation issues
- Annex 3 – Meteorology
- Annex 15 - Aeronautical Information Services

ICAO Structure



Assembly: Highest body. Equal representation of all member states. Meets every 3 years. Elects Council, approves budget, determines work program can modify or amend the Convention, appoints Secretary General.

Council: Governing body. Meets 3 times a year. 36 members elected by assembly & are direct representatives of their governments, 11 due to importance in air transport (US), 12 due to contribution of navigational facilities, 13 to diversify Council geographically. =Headed by a President elected by the council, 3 year term.

Secretariat: Administrative body. supports Council, Air Navigation Commission & Committee.; 7 regional offices



ICAO Working Structure below Council:

- Examine technical issues
- Form specialized panels
- Develop SARPs for adoption by Council
- Develop additional guidance materials
- May form study/working groups to advise on particular issues

Committees: Air Transport, Legal, Personnel, Finance, Joint Support of Air Navigation Services, Unlawful Interference

Commissions: Air Navigation

19 “independent” technical experts nominated by States, selected by the Council. Headed by a President, appointed by the Council

Expert Groups: Members serve as independent technical experts, and not as representatives of their State



ICAO Working Structure below Council:

Air Navigation Commission:

Reviews and recommends to the Council amendments or modifications to the SARPs and Procedures for Air Navigation Services (PANS) for all Annexes to the Convention

May establish technical sub commissions to aid in their work

Advises the Council on information that may need to be collected from or communicated to States for the advancement of air navigation

Most significant interaction for the USG

Three main types of expert groups:

Panels - Intended to advise the ANC on technical and operationally feasible ICAO provisions in specific technical areas

Study Groups - Small groups of experts made available by States and industry organizations to assist the Secretariat of ICAO on selected technical tasks (i.e. guidance documents)

Task Forces - Formed under ANC to focus on a specific task with an anticipated completion date



Connecting the Dots

NWS Office of International Activities: Managing U.S. community engagement with WMO

- Handles all correspondence to/from the U.S. PR
 - Invitations to meetings and conferences
 - Changes to working body membership
 - Other requests such as surveys, trust fund requests, etc
- Coordinating U.S. positions for WMO intergovernmental body meetings and getting approval from the Department of State
- FAA coordinates for ICAO, NWS IA has an analyst that coordinates with FAA
- Establishes MOU/A and coordinates activities with key international partners

Other agency International Affairs Offices:

- Similar functionality for their agencies but works through NWS IA for official WMO correspondence
- Manages their agencies engagement in international activities

OFCM:

- Provides vital domestic inter-agency coordination mechanism.
- Vehicle for attaining consensus U.S. position.
- Helps to identify issues and develop solutions or recommendations for international bodies
- Assists in identifying SMEs for participation in international bodies

Contact Points and Representatives

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Resources

WIGOS Newsletters

<http://www.wmo.int/pages/prog/www/wigos/Newsletters.html>

WMO Aircraft Observations & AMDAR - News and Events

<https://sites.google.com/a/wmo.int/amdar-news-and-events/>

Operational Newsletter on the World Weather Watch (WWW)

http://www.wmo.int/pages/prog/www/ois/Operational_Information/Newsletters/current_news_en.html

WMO Country Profile Database – United States

<https://www.wmo.int/cpdb/united-states-of-america>

WMO Integrated Global Observing System (WIGOS) homepage

https://www.wmo.int/pages/prog/www/wigos/index_en.html

WMO Information System (WIS) homepage

<http://www.wmo.int/pages/prog/www/WIS/>

WMO Extranet for the WMO Community

http://www.wmo.int/pages/index_en.html

The WDQMS monitoring pilot

<http://128.65.196.37/wdqms/map>

WG/OD Members Representing the U.S. as Focal Points and WMO Teams

U.S. Focal Point - WIGOS

- Kevin Schrab, NWS Office of Observations

U.S. Focal Point – OSCAR/Sfc

- Walter Smith, NWS/NCEP/NCO Data Management

U.S. Focal Point – WIS/Data Access and Retrieval

- Dr. Andrea Hardy, NWS Office of Dissemination

Inter-Programme Expert Team on Codes Maintenance and Task Team on WIGOS Data Quality Management System

- Jeffrey Ator, NCEP/EMC

Task Team on Migration of Upper Air Reports to BUFR

- Dr. Patricia Pauley, NRL

Task Team on WIGOS Station Identifiers

- Dr. Justin Reeves, FNMOC

Thank you!

Questions/Comments?

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