



***World Meteorological  
Organization***

# Brief Historical Overview

## Origin and First Years of WMO

- *August 1853 (Brussels) :*  
**First International Meteorological Conference**
- *September 1873 (Vienna) :*  
**International Meteorological Organization (IMO)**  
created as a non-governmental body
- *February 1946 (London) :*  
**Extraordinary Conference of Directors of National Meteorological Services (NMSs)**
- *September 1947 (Washington) :*  
**Conference of Directors, WMO Convention** voted unanimously
- *23 March 1950 :*  
Entry into force of **WMO Convention**
- *December 1951 :*  
Specialized agency of **UN**



# Evolution of WMO - A brief review

## IN THE FIFTIES

- Agreement on common procedures and technical regulations
- Arrangement of prompt exchange of data between nations
- Organizing technical assistance
- Refinement of services provided, especially to shipping and aviation

## IN THE SIXTIES

- Advent of new technologies especially meteorological satellites and fast computers
  - Improved real data coverage
  - Greater understanding of physical processes
  - Operational Numerical Weather Prediction (NWP)
- Establishment of
  - World Weather Watch Programme ([WWW](#))
  - Operational Hydrology Programme
  - Voluntary Assistance Programme (now [VCP](#))



# Evolution of WMO - A brief review

## IN THE SEVENTIES

- Increase in concern for the environmental and possible change in world climate
- First GARP Global Experiment (**WMO** and ICSU)
- First World Climate Conference (1979)

## IN THE EIGHTIES

- Consolidation of National Services to take up new challenges
- Global initiatives on a broader spectrum of activities  
(climate change, ozone convention and environmental issues)
- Establishment of the Intergovernmental Panel on Climate Change (IPCC)



# Evolution of WMO - A brief review

## IN THE NINETIES AND EARLY 21<sup>st</sup> CENTURY

- Second World Climate Conference
- Establishment of the Global Climate Observing System (GCOS)
- Climate Agenda
- Establishment of
  - Natural Disaster Prevention and Mitigation Programme
  - WMO Space Programme



# World Meteorological Organization (WMO)

- Set up on 23 March 1950
- Successor to International Meteorological Organization (IMO, created in 1873)
- Specialized agency of the United Nations for meteorology (weather and climate), operational hydrology and related geophysical sciences.
- UN system's authoritative voice on the state and behaviour of the Earth's atmosphere, its interaction with the oceans, the climate it produces and the resulting distribution of water resources.



# Purposes of WMO

***Promote and foster meteorology and hydrology and related geophysical sciences and to facilitate world-wide co-operation for the benefit of humankind :***

- Networks for meteorological / hydrological and other geophysical observations
- Standardization of observations and publications
- Development of operational hydrology
- Systems for processing and rapid exchange of data
- Applications for socio-economic development (transportation, water issues, agriculture, oceans, pollution control, etc), environment protection and policy formulation
- Disaster prevention and mitigation
- Research and training



# WMO VISION

To provide world leadership in expertise and international cooperation in weather, climate, hydrology and water resources, and related environmental issues, and thereby to contribute to the safety and well being of people throughout the world and to the economic benefit of all nations



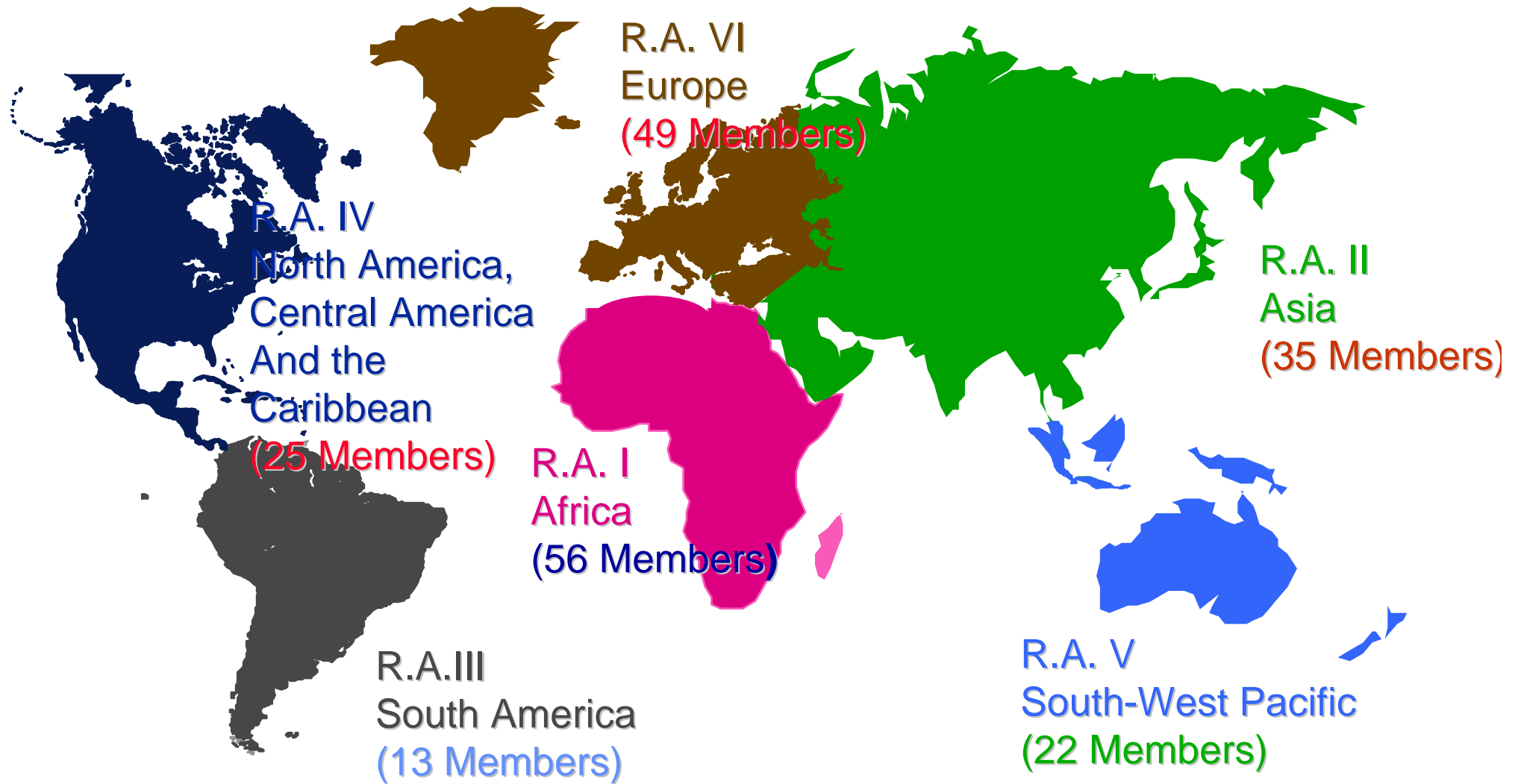


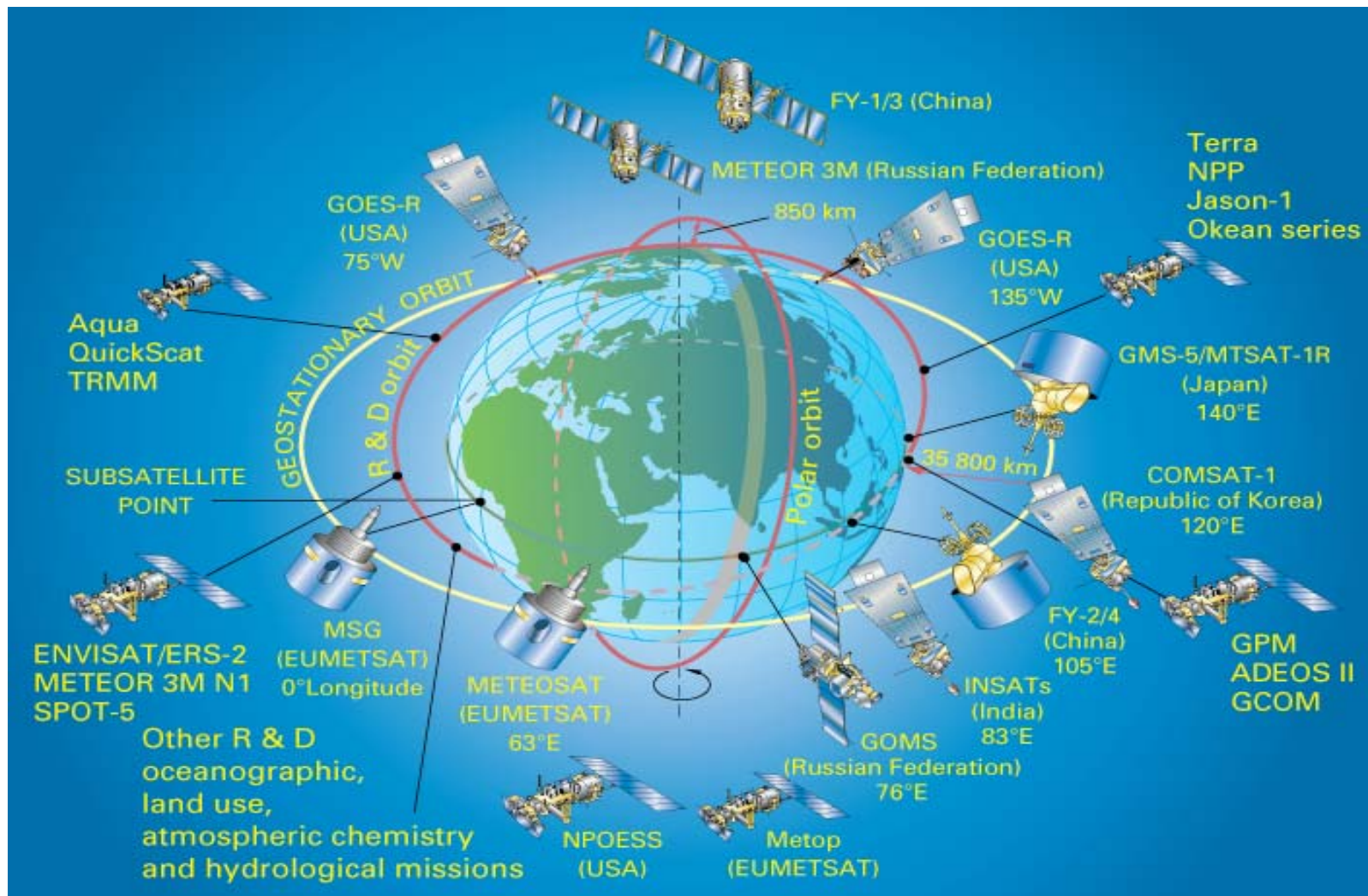
# Some Major Achievements

- Improvement in the range and accuracy of weather forecasts, early warnings and seasonal prediction (*El Niño*)
- Mitigation of natural disasters (collaboration with ISDR)
- Climate issues and climate prediction  
(*Climate Agenda, UNFCCC, UNCCD, etc.*)
- Protection of environment such as Ozone monitoring and assessment (*Vienna Convention*)
- Assessment and management of water resources
- Support to World Summits (*UNCED, WSSD*)



# Regional Associations





“You, who are Meteorologists, will be called upon to play a far more important role than you have ever played before in human affairs”

British Minister Strachey, addressing the  
Extraordinary Conference of Directors of  
National Meteorological Services  
London, 1946



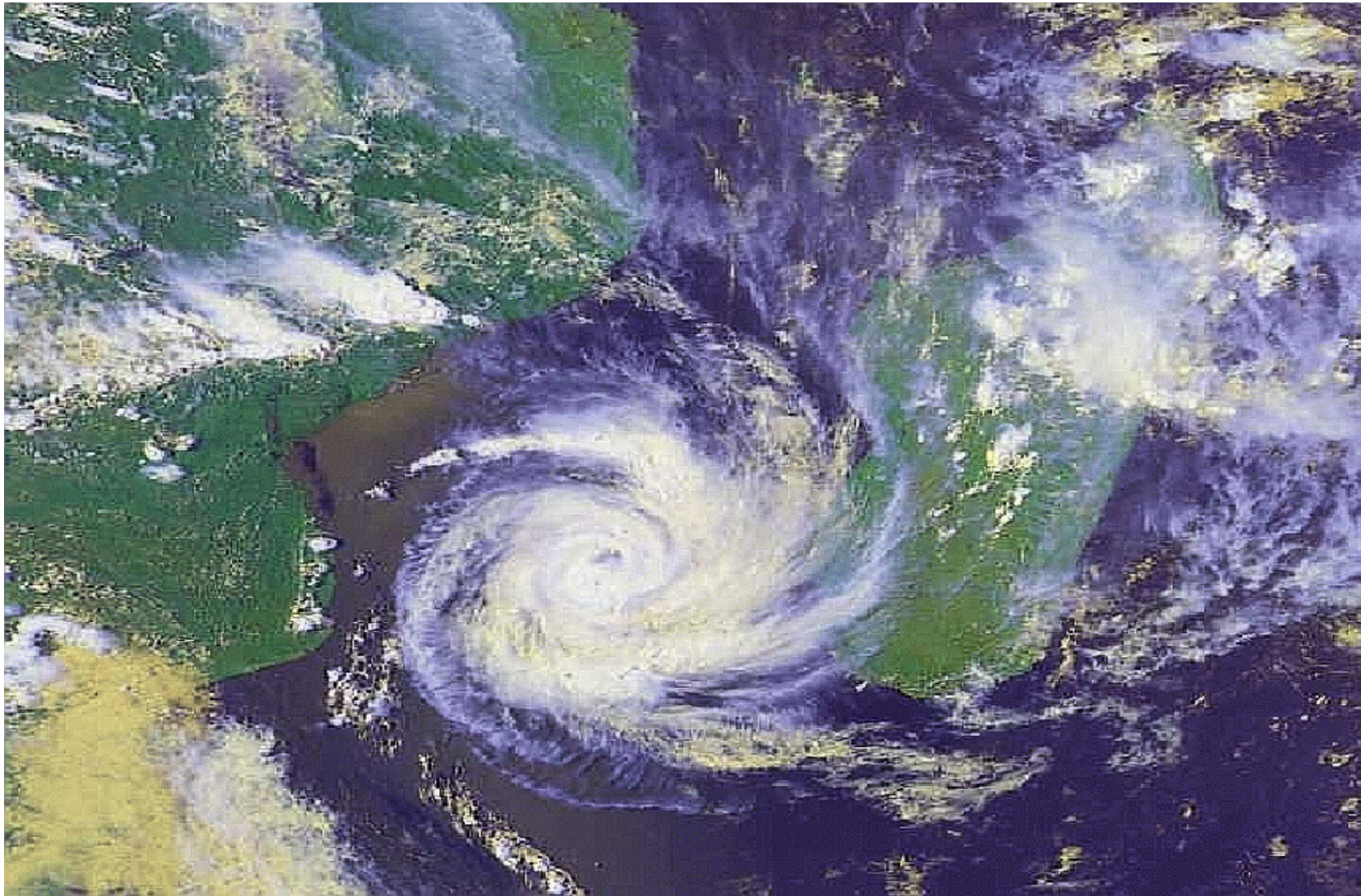
# Collaboration with other Organizations

- Foster **close co-operation** between WMO and other Organizations so as to facilitate the effective attainment of the objectives set forth in their respective conventions
- **Consult** each other regularly on matters of common interest
- **Keep each other informed** on programmes of work, projected activities and publications in which there may be mutual interest
- Permit the **participation** of each organization in those sessions and meetings of the other organization which relates to items of common interest

Agreements / Working Arrangements with over **40** Organizations (regional and global)

Memorandum of Understanding with a number of other Organizations





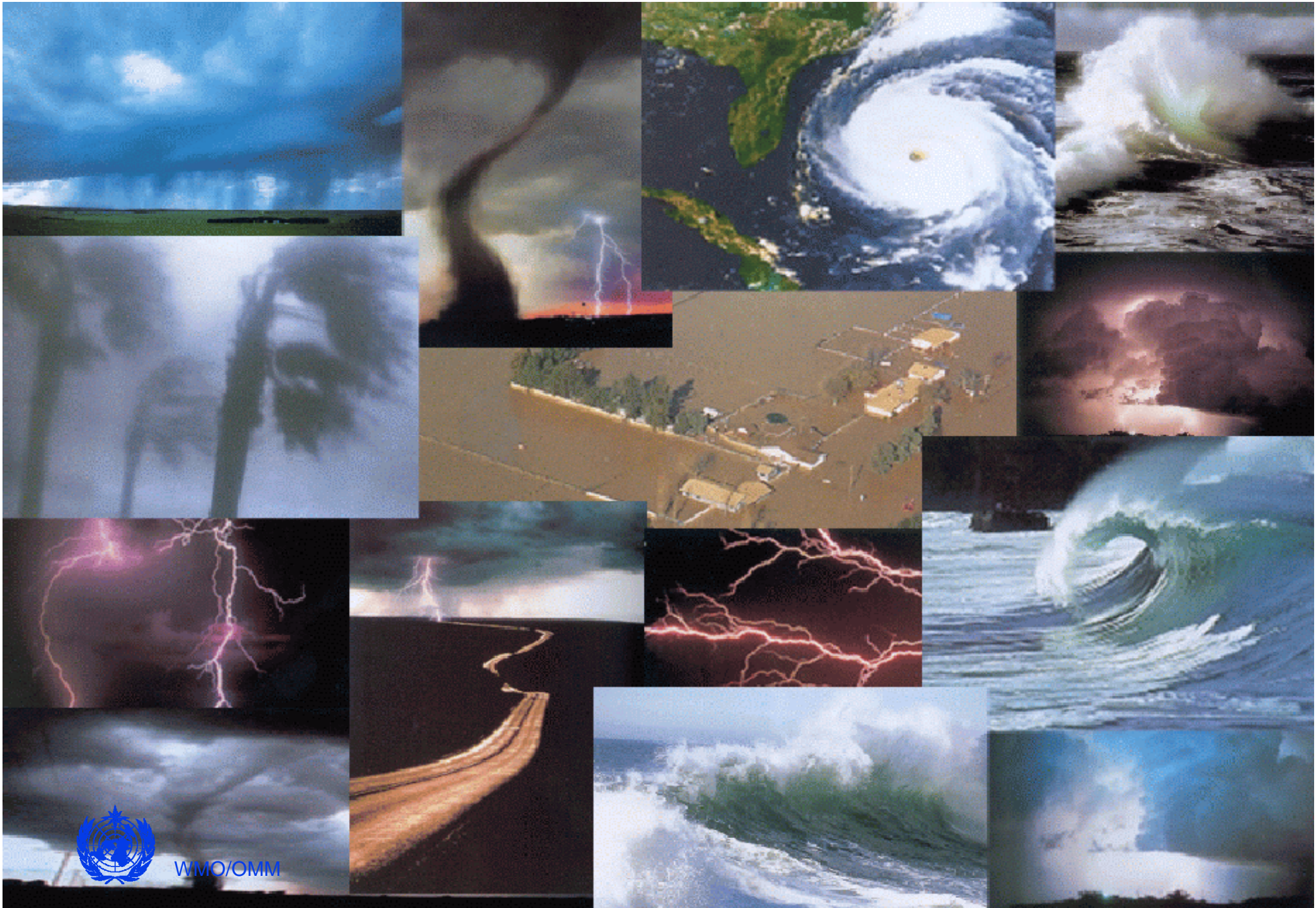
WMO/OMM



WMO/OMM

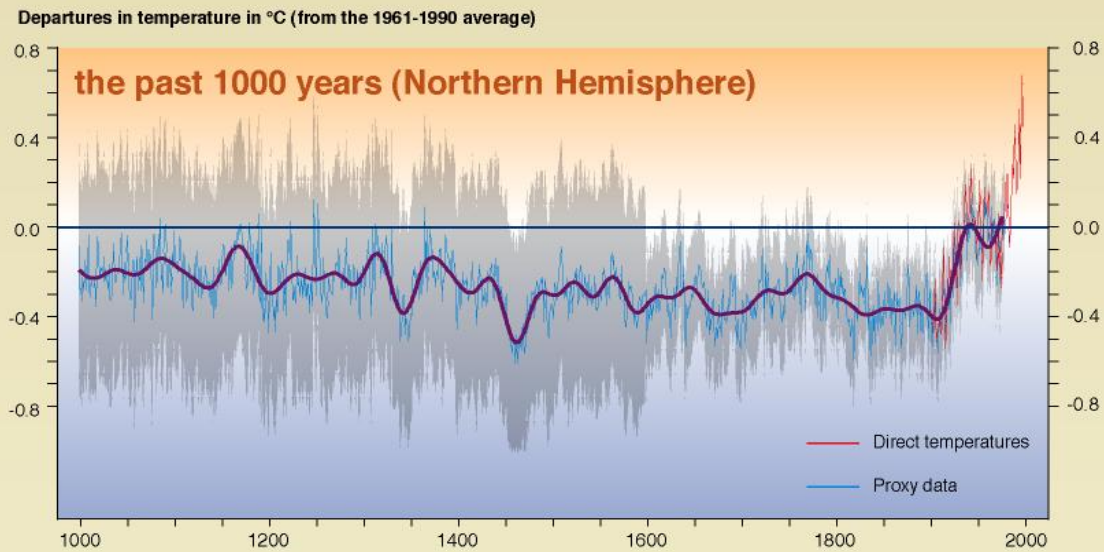
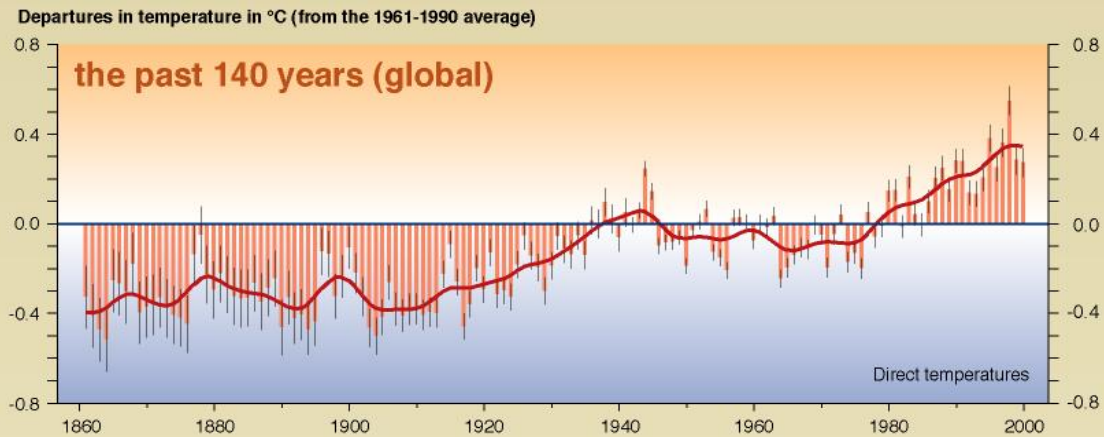




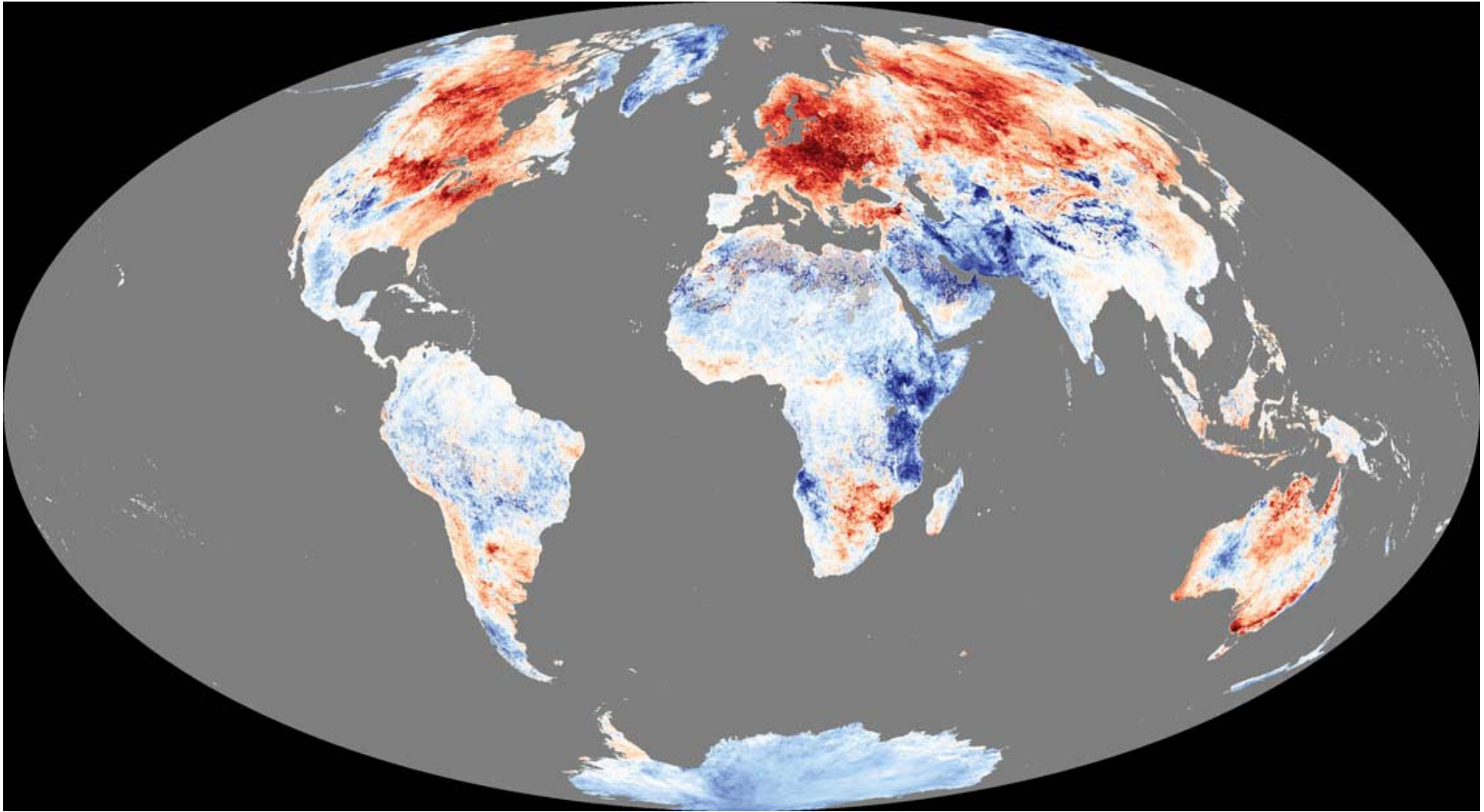


WMO/OMM

## Variations of the Earth's surface temperature for...



SYR - FIGURE 2-3



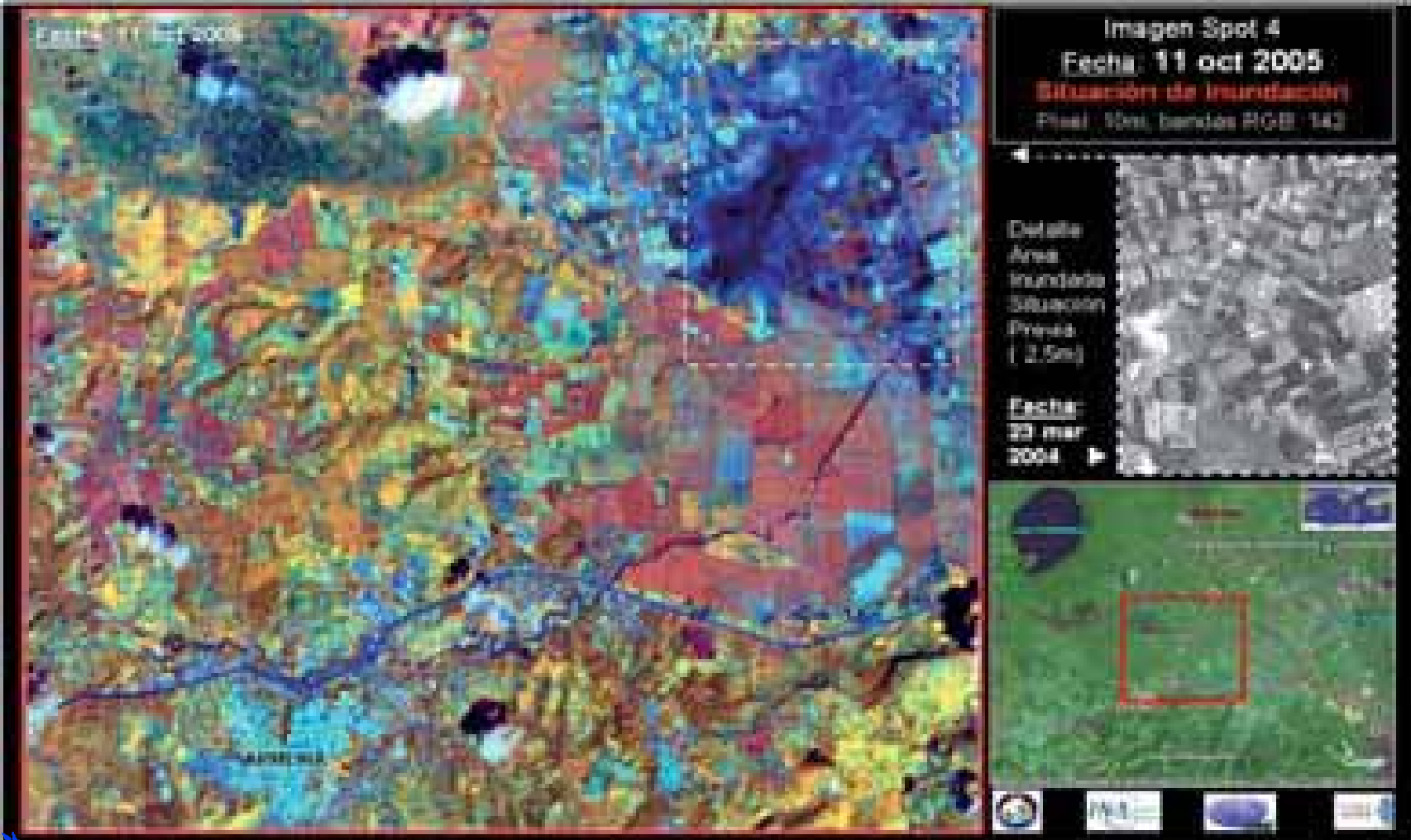
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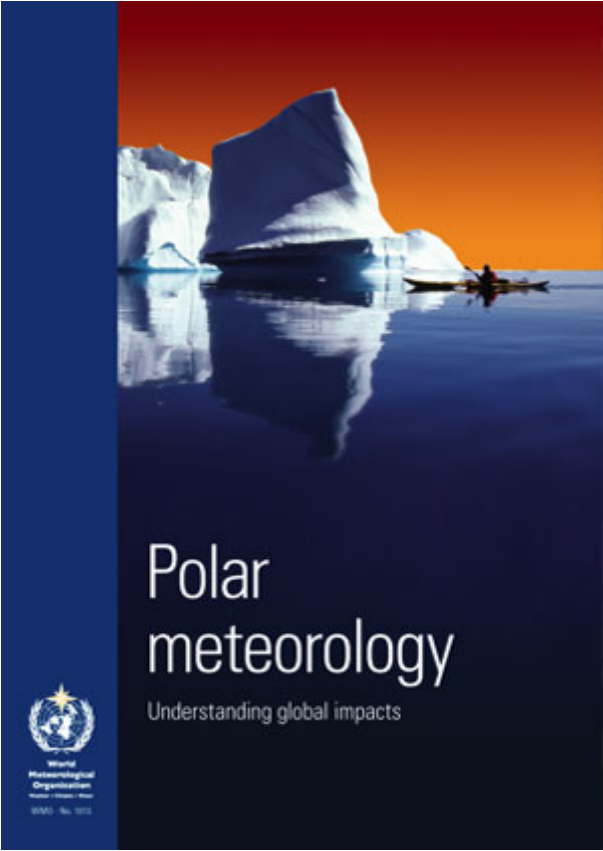


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WMO/OMM

Char call id 106: Hurricane Stan over El Salvador  
Departamento La Libertad – Localidad ARMENIA





# Polar meteorology

Understanding global impacts



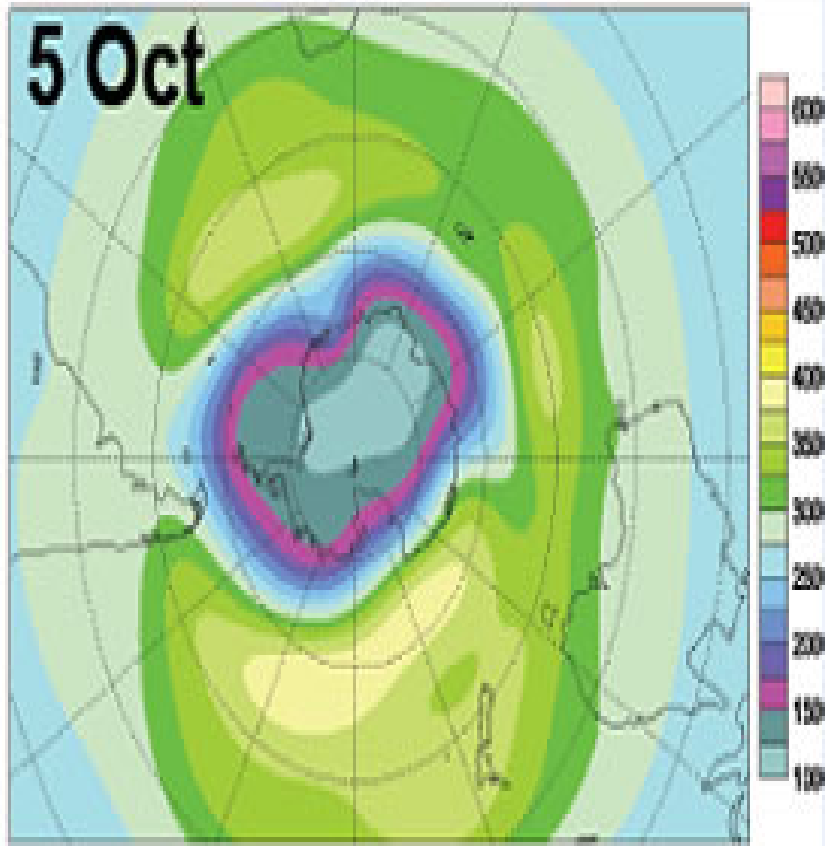
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Organization  
WMO No. 1073



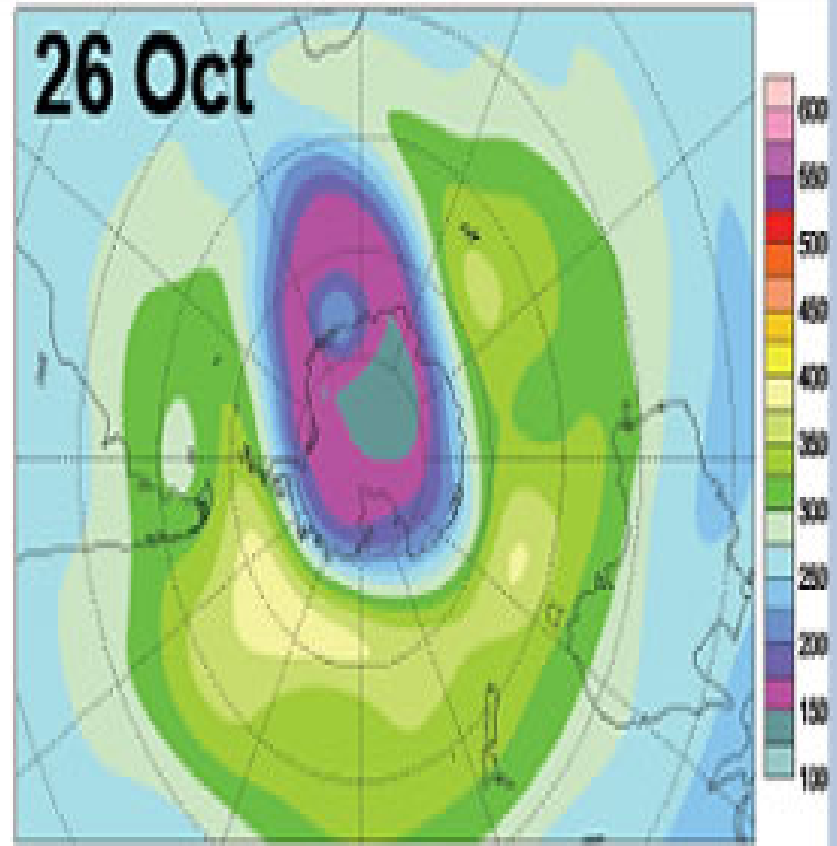
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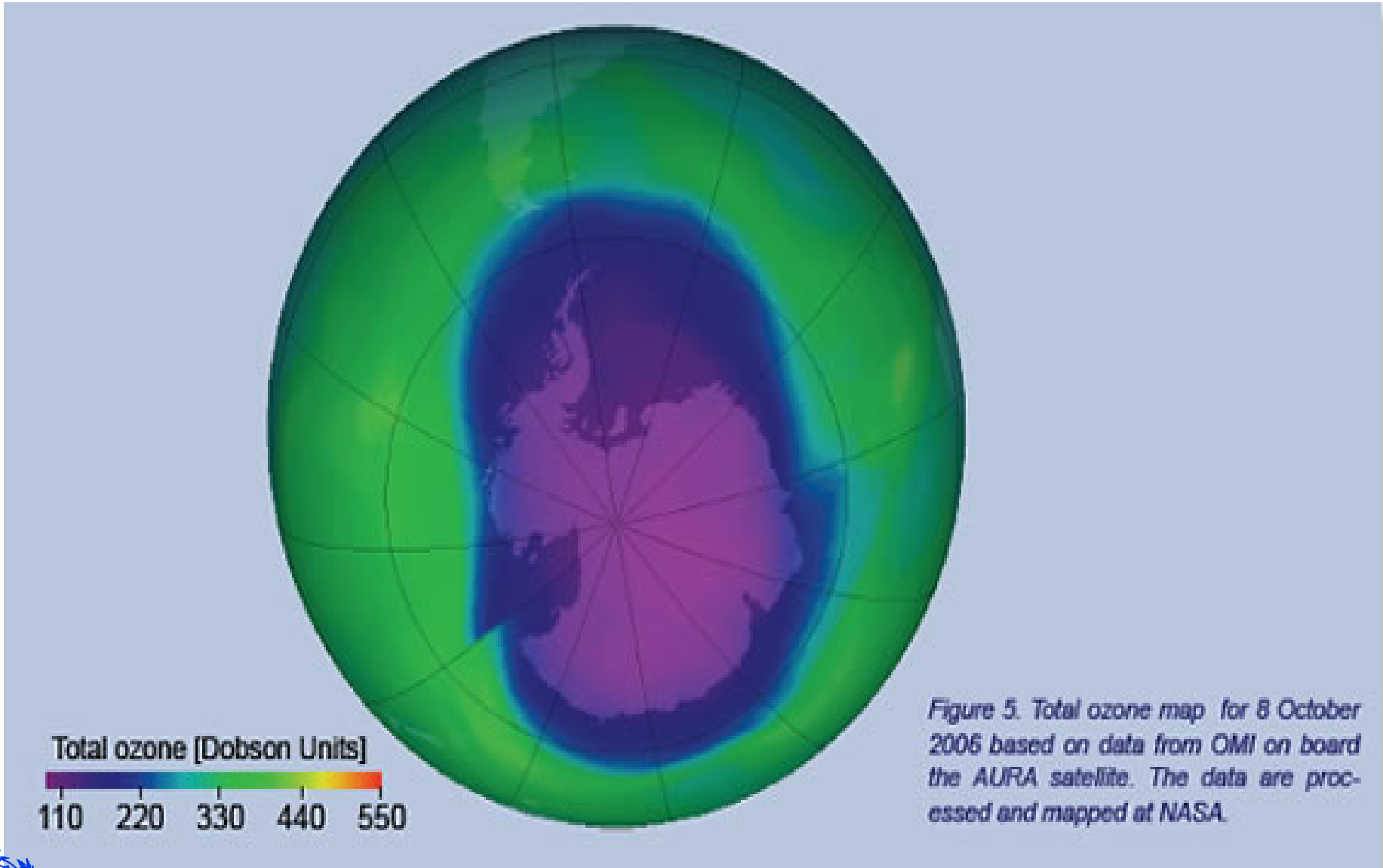
**5 Oct**



**26 Oct**







# WMO Programmes

**World Weather Watch Programme**

**WMO Space Programme**

**Natural Disaster Prevention and Mitigation Programme**

*World  
Climate  
Programme*

*Atmospheric  
Research  
and  
Environment  
Programme*

*Applications  
of  
Meteorology  
Programme*

*Hydrology  
and  
Water  
Resources  
Programme*

**Education and Training Programme**  
**Technical Cooperation Programme**  
**Regional Programme**



## Role of NMHSs (Basic)

- Observing and understanding weather, climate and water resources as well as in providing meteorological, hydrological and related services in support of national needs such as:
  - Protection of life and property
  - Safeguarding the environment
  - Contributing to national security and sustainable development
  - Promotion of endogenous capacity building
- Meeting international and regional commitments including support to WMO's Programmes and activities



Contributing to international and regional cooperation

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WMO/OMM

# Future Activities

- March 2007 Launch of IPY 2007/2008
- IPCC Synthesis Report November 2007
- World Climate Conference 3 (WCC-3) 2009
- IPCC 5th Assessment - 2011



# Some Recent News Headlines

- **Slow burn**  
**Toledoblade**-Wednesday, February 14, 2007
- **Warming heats up hurricane debate**  
**Are rising temperatures creating more-intense Atlantic storm seasons? Orlando Sentinel**-February 14, 2007
- **Climate change and the Muslim world**  
**ISN**-Thursday, 15 February 2007
- **Norway to Cut Greenhouse Gases, Meet Kyoto Goal - PM**  
**Planet Ark**-NORWAY: February 15, 2007
- **Easyjet Calls for Cuts in Greenhouse Emissions**
- **Planet Ark**-UK: February 15, 2007
- **Snowstorm Closes Schools,**  
**AP**-Feb 14,
- **Weather freezes US hearing on global warming**  
**India Times**-15 Feb, 2007





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**END**



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# Structure of WMO

*187 Members (November 2003)*

It functions through its **constituent bodies**

- **CONGRESS**
- **EXECUTIVE COUNCIL**
- **REGIONAL ASSOCIATIONS**
- **TECHNICAL COMMISSIONS**

*Secretariat Headquarters: Geneva*

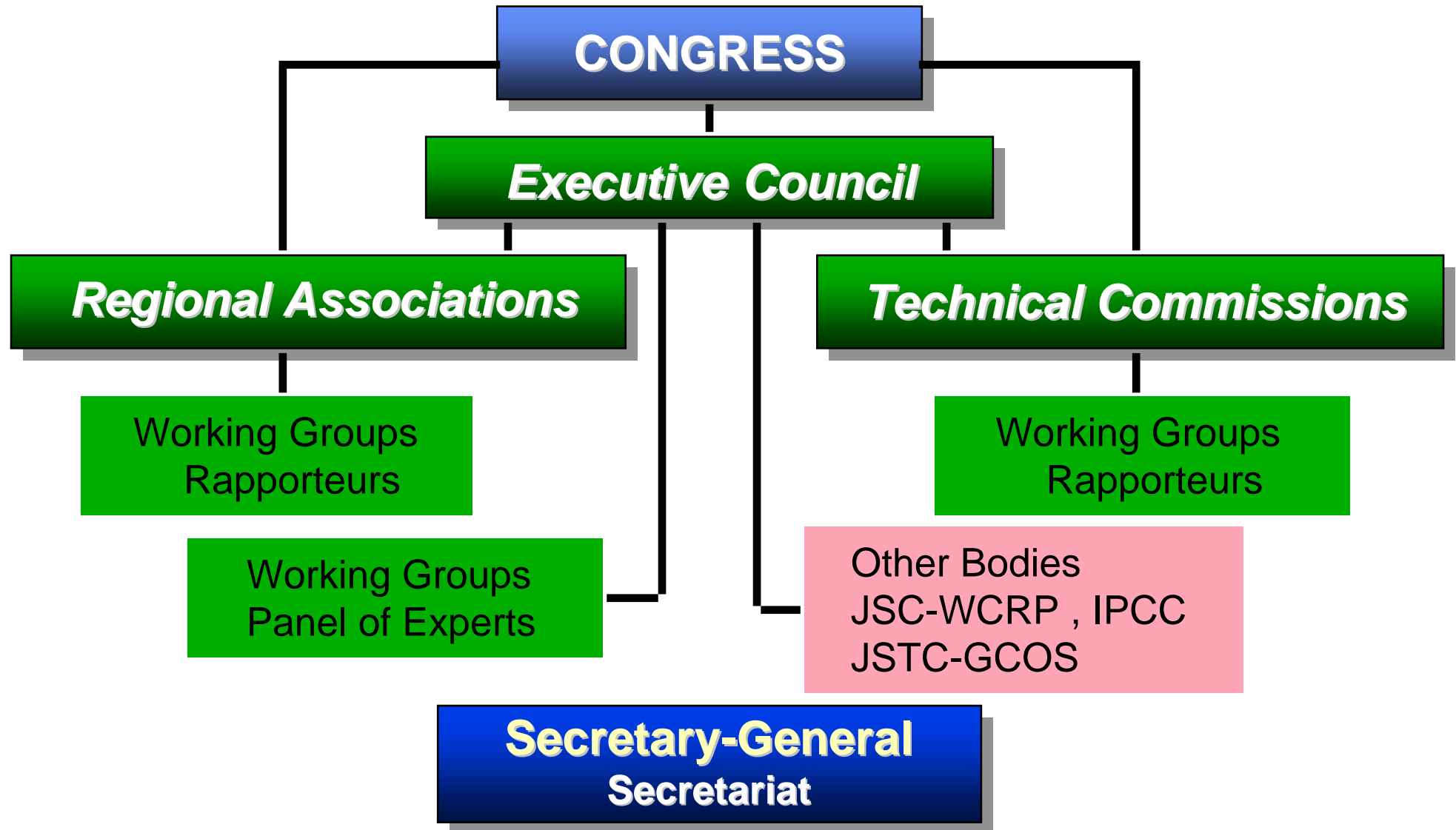
*Regional Offices: Asia and South-West Pacific (Geneva),  
Africa (Burundi), The Americas (Paraguay)*

*Sub-regional Offices: Kenya/Nigeria (RA I), Costa Rica (RA IV),  
Samoa (RA V), Geneva (RA VI)*





# Organizational Structure of WMO



# Regional Associations

*Regional Associations are established by Congress, and are composed of the Members of the Organization, the networks of which lie in or extend into specific geographical areas named “Regions” to:*

- Promote co-operation between Members on matters affecting the work of NMHSs
- Encourage the development of meteorological, hydrological and related disciplines
- Promote the decisions of Congress and the Executive Council in their respective regions
- Meet normally once every four years



# Technical Commissions

*Technical Commissions are established by Congress and are composed of **technical experts** designated by Members of the Organization to:*

- Study and review advances in science and technology
- Develop technical regulations, guides and manuals
- Carry out matters relating to the planning, implementation and evaluation of the scientific and technical activities of the Organization
- Provide a forum for resolution of relevant scientific and technical issues
- Promote training and transfer of technology
- Keep Members informed and constituent bodies advised
- Meet once every four years



# Technical Commissions

## *Basic Commissions*

- Commission for Basic Systems (**CBS**)
- Commission for Instruments and Methods of Observations (**CIMO**)
- Commission for Hydrology (**CHy**)
- Commission for Atmospheric Sciences (**CAS**)

## *Applications Commissions*

- Commission for Aeronautical Meteorology (**CAeM**)
- Commission for Agricultural Meteorology (**CAgM**)
- Joint WMO/IOC technical Commission for Oceanography and Marine Meteorology (**JCOMM**)
- Commission for Climatology (**CCI**)



## *WMO's High Priority Actions*

- Improved protection of life and property including safety on land, at sea and in the air
- Enhanced quality of life
- Sustainable economic growth
- Assessment and management of water resources
- Protection of the environment
- Enhanced WMO's effectiveness
- Contribution to sustainable development

