

(https://www.wmo.int/pages/prog/arep/wwrp/rescrosscut/resdept_wgne.html)

WGNE is supporting **numerical experimentation research activities** of the

- WMO/ICSU/IOC-UNESCO World Climate Research Programme (**WCRP**)
- WMO World Weather Research Programme (**WWRP**)
- WMO Global Atmosphere Watch Programme (**GAW**)
- research links to operational weather and climate prediction

The Working Group on Numerical Experimentation (WGNE), jointly established by the WCRP Joint Scientific Committee (JSC) and the WMO Commission for Atmospheric Sciences (CAS), which is responsible for WWRP and GAW.

WGNE

"...responsibility of

- fostering the development of atmospheric circulation models

- for use in weather, climate, water and environmental prediction on all time scales and

- diagnosing and resolving shortcomings

WGNE promotes co-ordinated numerical experimentation for

- validating model results
- exploring the natural and forced variability and predictability of the atmosphere
- refining numerical techniques
- and the formulation of atmospheric physics processes

WGNE also

- monitor the advances in data assimilation and analysis methods - is the focal point in the WCRP for encouraging and reviewing the reanalysis projects... and homogenous data set for a range of atmospheric and climate diagnostic studies"



In sum, main mission is to help

improve numerical models

through

- advice
- liaison
- co-ordinatian of experiments
- promotion of workshops, publications, meetings

WGNE

Ongoing activities

- WGNE Exercise: Evaluating Aerosols Impacts
 on Numerical Weather Prediction
- The Drag Project
- The MJO Task Force

and publications

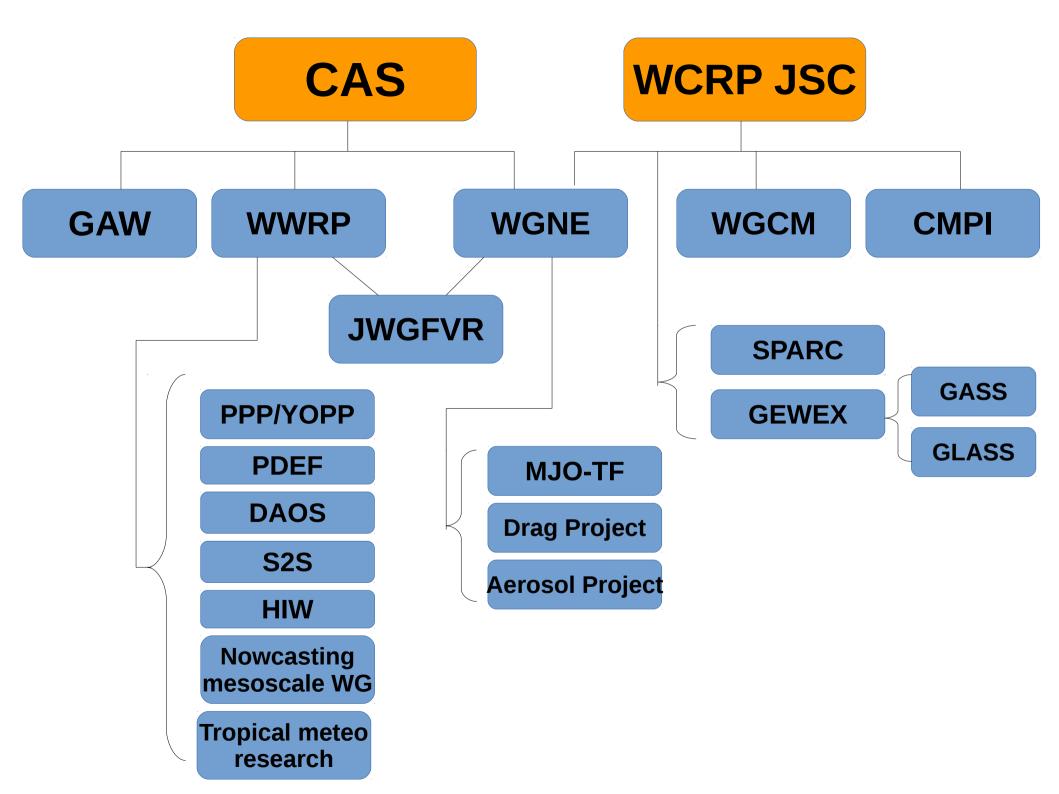
• WGNE Blue Book: Research Activities in Atmospheric and Ocean Modelling

WGNE

Objectives achieved thanks to participation / contribution / help from all members:

- leading projects
- acting as liaison
- coordinating activities
- representing WGNE
- reporting back to WGNE

(Please note: WGNE needs help from all members)



Acronyms

CAS = Commision of Atmospheric Sciences WCRP = World Climate Research Programme

WCRP JSC = Joint Scientific Committee WCRP Grand Science Challenges

- Clouds, Circulation and Climate Sensitivity
- Melting Ice and Global Consequences
- Climate Extremes
- Regional Sea-Ice Change and Coastal Impacts
- Water Availability

WWRP = World Weather Research Programme

- SPARC = Stratospheric Processes and their Role in Climate
- WGCM = Working Group on Coupled Modelling
- GEWEX = Global Energy and Water Cycle Experiment
- YOPP = Year of Polar Prediction
- PPP = Ploar Prediction Project
- GOV = Global Ocean Data Assimilation Experiment (GODAE) Ocean View
- MJO-TF = Madden-Julian Oscillation Task Force
- CMIP = Coupled Model Intercomparison
- JWGFVR = Joint Working Group on Forecast Verification Research
- CMDP = Climate Metrics and Diagnostic Panel
- GASS = Global Atmospheric System Studies panel
- GLASS = Global Land-Atmosphere System Studies panel
- PDEF = Working Group on Predictability, Dynamics and Ensemble Forecasting
- DAOS = Working Group on Data Assimilation and Observing Systems
- S2S = Subseasonal to Seasonal Prediction Project