

GCOS and WCRP

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Chair, Steering Committee for GCOS**

GCOS encompasses the climate-relevant components of the:

- WMO observing systems and programmes (WIGOS: GOS, GAW, WHYCOS, ...)
- IOC-led co-sponsored Global Ocean Observing System (GOOS)
- FAO-led co-sponsored Global Terrestrial Observing System (GTOS)
- observational elements of research programmes (WCRP, IGBP, ...)
- other systems contributing observations, data management or products

**which together form our global observing system for climate,
and covers**

- the observations
- transmission of current data and preservation of past data
- formation of fundamental climate data records and derivation of products

The GCOS programme:

- designates Essential Climate Variables (ECVs) that are:
 - feasible to measure
 - whose measurement has high impact on meeting (UNFCCC) requirements
- assesses adequacy of contributing observing systems
- identifies required implementation actions (cross-cutting and ECV-by-ECV)
- reviews and promotes progress

and functions through contributions of:

- national met services, other national institutions and regional agencies, who provide observations, operate monitoring/lead/data centres, ...
- GCOS bodies (Programme Director and staff within WMO, Steering Committee, co-sponsored panels, working groups)
- secretariats of contributing observing systems and programmes, related technical commissions, space-agency coordinating bodies, expert groups, ...

WCRP is a contributor

- to the global observing system for climate
 - through the component observing systems instigated under its auspices (and those of its predecessor GARP)
 - through the datasets, products, assessments, ... that it provides

WCRP is a user

- of the observations that the system provides
 - for model development, validation, initial and boundary conditions
 - for process studies
 - for ...
- and thus a key potential contributor to future assessments of adequacy and identifications of requirements to be undertaken by the GCOS programme

WCRP Data Advisory Council includes:

- representation of three co-sponsored (GCOS/WCRP/...) observation panels

Atmospheric Observation Panel for Climate (AOPC)

- sponsored by GCOS and WCRP, with WCRP participation through SPARC and JPS representation at panel sessions
- works in close liaison with WMO programmes and commissions, with some emphasis on reference and baseline subsets of comprehensive networks

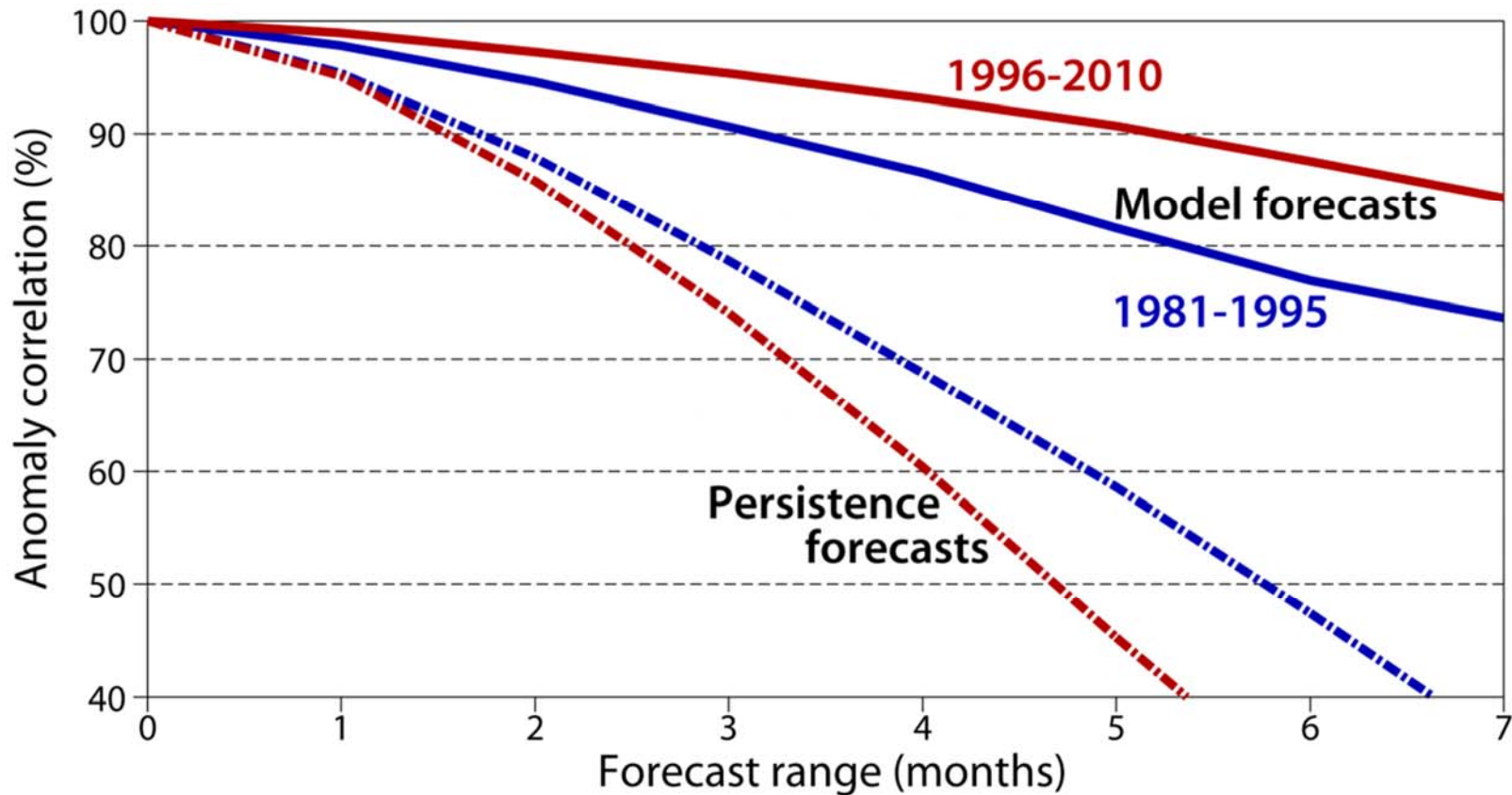
Terrestrial Observation Panel for Climate (TOPC)

- sponsored by GCOS, WCRP and GTOS, with WCRP link through panel membership of Koni Steffen plus JPS representation at panel sessions
- meets annually, considering general issues and variable-by-variable status
- GTOS is currently disengaged (with more than TOPC); prospect is unclear

Ocean Observations Panel for Climate (OOPC)

- sponsored by GCOS and WCRP, with WCRP participation through ex-officio CLIVAR membership
- GOOS is a former sponsor, and should return following re-organisation
- new GOOS Steering Committee foresees three panels, each covering both open ocean and coastal waters
- panels will work within the new Framework for Ocean Observing
- OOPC is seen as the panel for physical oceanography, with the other panels covering biogeochemistry and ecosystems
- OOPC is expected to continue to
 - fulfil monitoring, liaison, review, dissemination and advocacy roles
 - contribute to development of a Deep Ocean Observing Strategy
- Eric Lindstrom is co-chair of new GOOS SC and will vacate OOPC chair

Better seasonal forecasts of sea-surface temperature for the “Nino 3.4” region of the tropical Pacific Ocean for recent years, from a new processing of 1981-2010 using the latest version of the ECMWF System



Recent activities of SC and programme office at WMO include:

- publishing Satellite Supplement to 2010 Update of Implementation Plan
- liaising with CEOS, coordinator of the space-agency response to the Plan and Supplement
- contributing to the observation and monitoring component of the plan for the Global Framework for Climate Services (GFCS)
- participating in WIGOS Pilot Project Meeting on observing practices and governance of GCOS Reference Upper Air Network
- convening with partners an Implementation Strategy Meeting for S America
- continuing donor-supported revitalization of key stations in networks
- supporting UNFCCC SBSTA's consideration of research and systematic observation, contributing on behalf of WCRP to the research dialogue
- preparing to host a new ocean programme officer in Geneva

Have mapped out proposal for next assessment cycle

- reviewing data needs for adaptation and service provision, linking with GFCS, UNEP and other initiatives (2012-2013)
- reporting on general progress and adequacy, taking account of IPCC AR5 among other inputs (2013-2015)
- formulating a new Implementation Plan (2015-2016)
- in support of the UNFCCC as previously
- but likely to address more explicitly the needs of sectors other than policy

Future activities will be subject to

- the outcome of a Sponsors' review to be held over the coming 12 months
- during which one would expect the review panel to seek the views of WCRP