JSC-XXV – Moscow, 1-6 March 2004

By programmes (relevant for OOPC):

CLIVAR –
Ocean reanalyses – to meet the needs of ocean climate variability studies

GEWEX –
Need for pan-WCRP interdisciplinary precipitation panel. Relevant for OOPC – precipitation over the oceans, spin-up problem in NWP precip products –data for validation needed.

JSC-XXV minutes

By programmes:

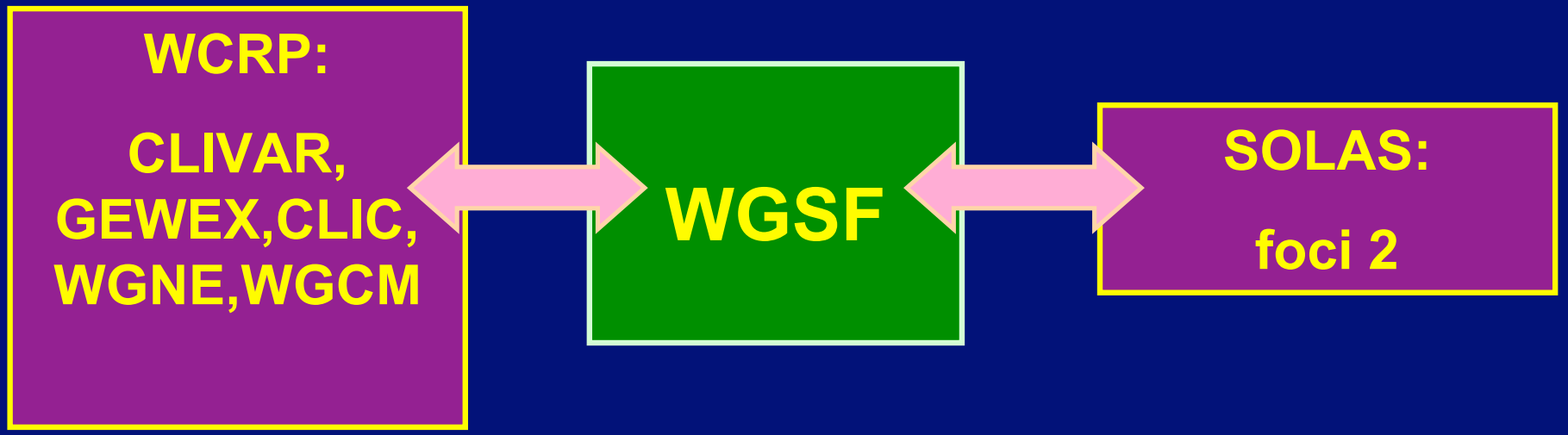
WGNE/WGCM –
Validation of convection schemes in atmospheric models, systematic errors, operational fluxes

WGSF – establishing of new WG on surface fluxes

- ***to review the requirements of the different WCRP programmes for air-sea fluxes;***
- ***to develop communication and co-ordination between the research initiatives of WCRP and IGBP on air sea-fluxes;***
- ***to encourage research and operational activities aimed at improving the knowledge of air-sea fluxes;***
- ***to keep the scientific community and the JSC informed of progress achieved through regular reports, World Wide Web, and as necessary, scientific workshops.***

Chris Fairall of ETL/NOAA (Boulder) is appointed as a chair.

Operational mode:



Future (3 years):

Consideration of fluxes over the land

How WGSF should serve within WCRP for the WCRP programmes?

CLIVAR: review of the development of flux parameterizations and existing flux products, sea-air flux variability in a wide range of scales (synoptic to interannual/decadal);

GEWEX: assessment of the global balances of energy, improvement of parameterizations, comparative assessments, including satellite products;

CLIC: fluxes over ice and in the vicinity of ice margins;

WGNE, WGCM, WGOMD: forcing functions for ocean/atmosphere modelling, assessments of the strengths and weaknesses of particular NWP flux products, flux fields/forcing formulations for ocean reanalyses;

OOPC, AOPC: strategy for merging and combining surface flux data sets, requirements for flux and flux-related observations ;

COPE – Climate System Observation and Prediction Experiment

COPS – Climate Observation and Prediction Strategy

PROBES – Prediction and Observation of the Earth System

rejected

.....

COPES – Coordinated Observation and Prediction of the Earth System

Programs --- WGs, panels	CLIVAR	ACSYS/ CLIC	GEWEX	SPARC
WGNE				
WGCM				
WGSF				
OOPC				
AOPC				

COPES

WCRP COPES (2005-2020)

Coordinated Observation and Prediction of Climate System

Problems of predictability, relevant for OOPC

- Initial state – quantitative, adequate description in terms of statistical moments
- Long-term predictability of the relatively short-term predictability skills – observing the state of the system for "good" and "bad" periods
- Predictability of PDFs - PDFs themselves should be known on a quantitative level
- Reasonable ranges for the analysis of ensemble forecasts

Task Force for Seasonal Prediction:

Interactive Atmosphere-Ocean-Land-Ice Prediction Experiment

GEWEX:

- **Provides Guidance on How to Initialize Land Surface**
- **Proposes/Implements Diagnostic Studies and Numerical experiments: Understanding Land Surface Feedbacks**

CliC:

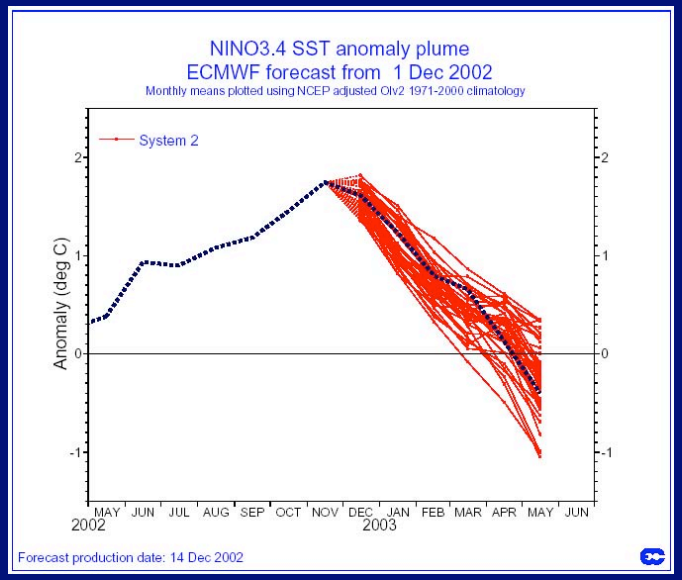
- **Provides Guidance on How to Initialize Cryosphere**
- **Proposes/Implements Diagnostic Studies and Numerical experiments**

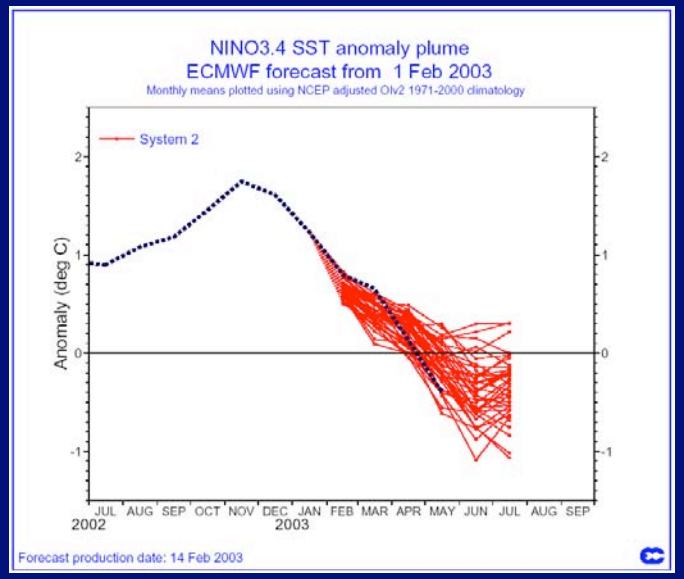
CLIVAR:

- **Provides Guidance on How to Initialize Ocean**
- **Proposes/Implements Diagnostic Studies and Numerical experiments**

SPARC:

- **Provides Guidance on How to Prescribe Atmospheric composition**
- **Provides Guidance on How to Initialize Stratosphere**
- **Proposes/Implements Diagnostic Studies and Numerical experiments**


NINO3.4 SST anomaly plume
ECMWF forecast from 1 Dec 2002
Monthly means plotted using NCEP adjusted Olv2 1971-2000 climatology
System 2
Anomaly (deg C)
2
1
0
-1
MAY JUN JUL AUG SEP OCT NOV DEC JAN FEB MAR APR MAY JUN
2002
2003
Forecast production date: 14 Dec 2002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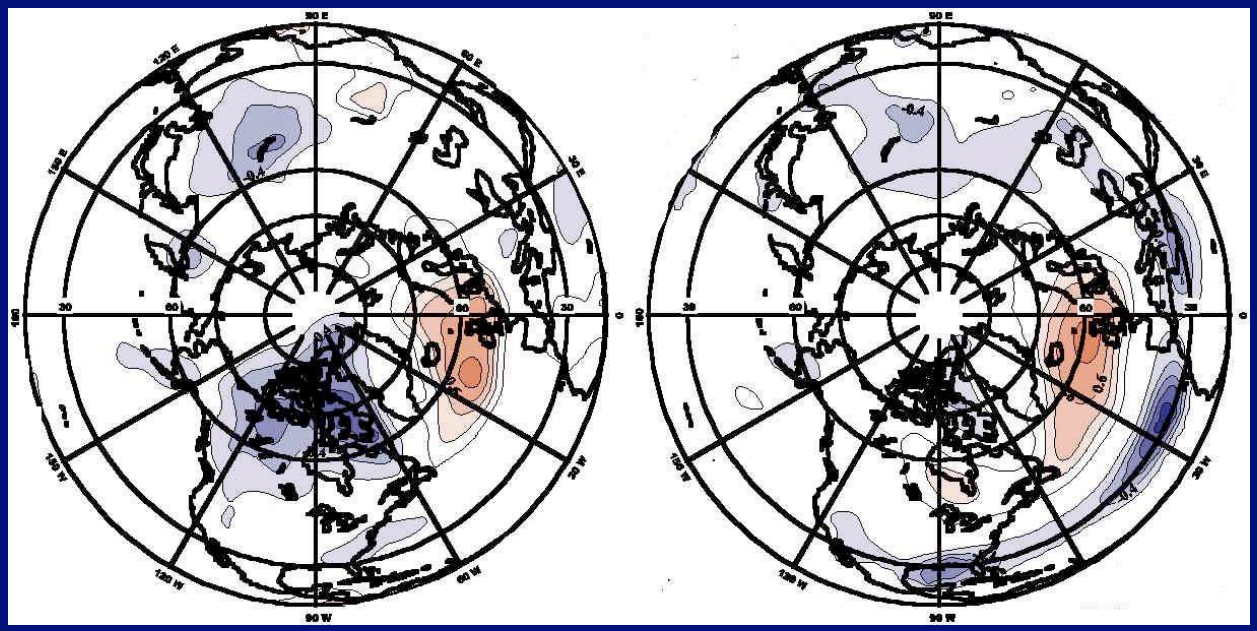
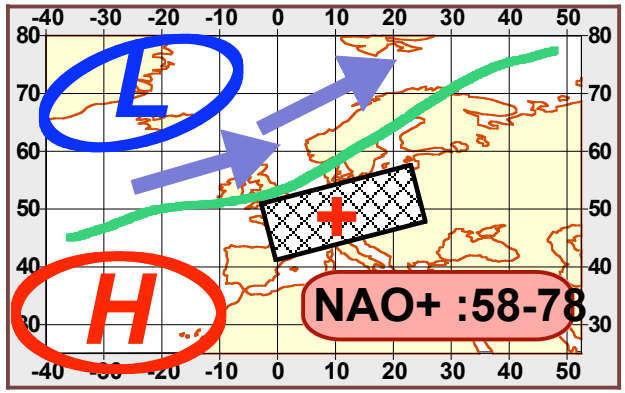
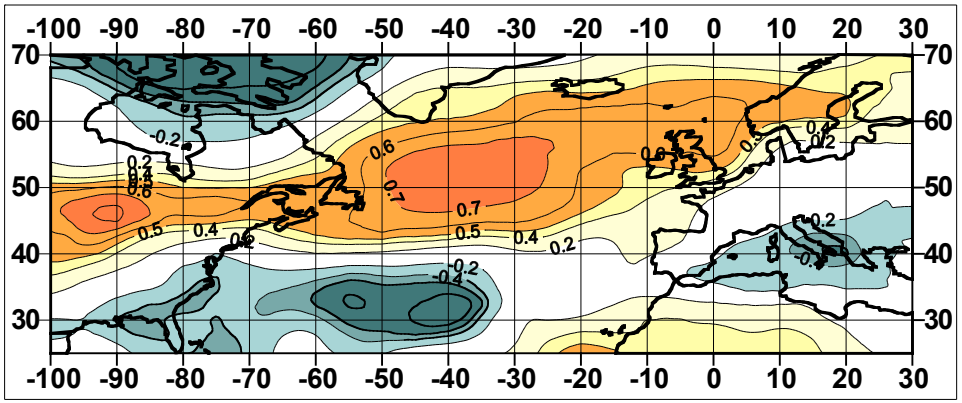
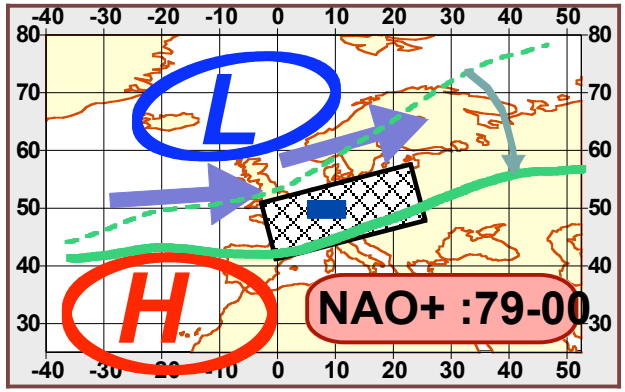

90 E
90 W
0
180

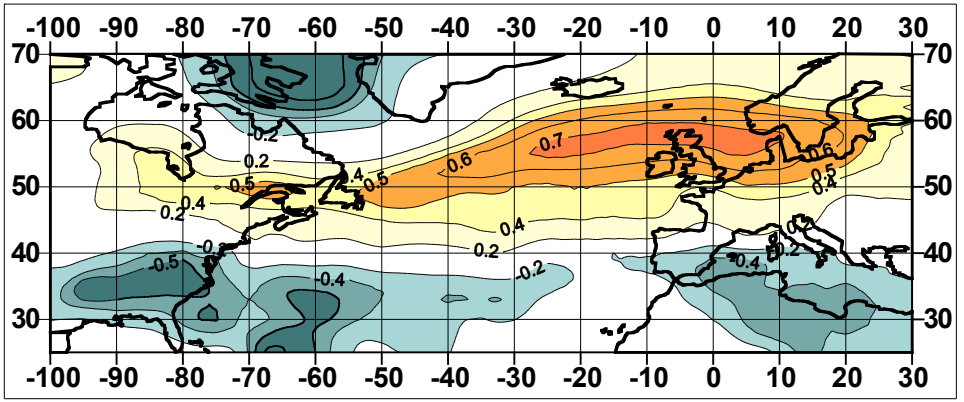


NAO-UHFV 58-77

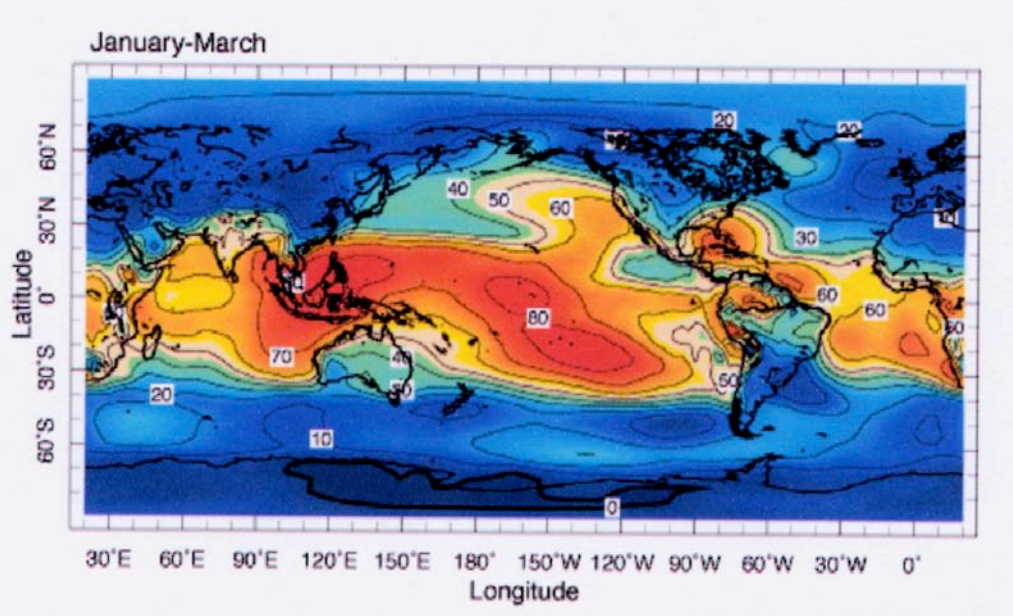




NAO-UHFV 78-98



Kushnir et al. (2002), Lisa Goddard: analysis of 10 GCM integrations forced with global SST → ratio of SST-determined SLP variance (potential predictability)



Dan Hodson and Rowan Sutton, 2002: Six simulations with the HadAM3 AGCM of the period 1871-1999 → The internal SLP variability vs the SST-forced response