Progress Report

February 2006

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Manager IPO
➢ Science Plan peer-reviewed;
➢ Implementation Plan 2004-2015 approved;
➢ Approved annual expenditure $1.2M through a trust fund;
➢ First Symposium (Montreal, 2004)
➢ Regional Committees - RAII, IV, VI
➢ Southern Hemisphere alliance
International Programme Office
IPO

- The IPO supports
  - the activities of the International Core Steering Committee (ICSC)
  - The Executive Board (EB)
  - Advisory Boards and Working Groups

- The IPO coordinates and monitors activities between various management elements

- The IPO is in the WMO AREP Department and the Executive Director of the EB manages the day to day activities of the IPO
IPO- staffing

TIP proposal
- Manager of the IPO (and Executive Director of EB)
- Four senior scientists (responsible for basic research)
- One secretary

Because of financial constraints the IPO staffing is
- Manager of IPO (80%)
- Senior Scientist (~40%)
- Administrative assistant (seconded from CMA)
Boards and working groups

The following groups have been established:

- Science Advisory Board (SAB)
- Technical Advisory Board (TAB)
- Predictability and Dynamical Processes working group (PDP WG)
- Observing System working group (OS WG)
- Data assimilation Observing Strategies working group (DAOS WG)
- Societal and Economic Applications working group (SEA WG)
- Data Policy and Management Working Group (DPM WG)
- GIFS-THORPEX Interactive Grand Global Ensemble working group (GIFS-TIGGE WG)
- Executive Board (ex-officio membership with invited observers from the SAB & TAB)
Boards, working groups and key meetings (continued)

- The EB met in Geneva in September 2005
- The GIFS-TIGGE WG met in Boulder on 15 & 16 November 2005
  - A technical plan for the first phase of the TIGGE data bases is quite advanced
- Southern Hemisphere Planning Meeting in Melbourne (late November 2005)
- ICSC 5 meeting in Melbourne (November/December 2005)
- SEA WG 1 – January 2006
- There will a “kick off” workshop for all working groups, regional committees which will be held in the University of Reading (20-22 March 2006; this will be followed by meetings of the SAB and the TAB (23-24 March 2006)
- Second International Symposium (4-8 December 2006)
THORPEX Interactive Grand Global Ensemble (TIGGE)

- Well advanced state of development (see report)
- Framework for international collaboration in development and testing of ensemble prediction systems
- Resource for THORPEX research projects
- Component of THORPEX Forecast Demonstration Projects (FDPs)
- A prototype future Global Interactive Forecast System
- Initially develop database of available ensembles, collected in near-real time
- Co-ordinate research using this multi-model ensemble data, including interactive aspects
SEA WG 1
Sectors and Interest Groups

- Health
- Agriculture
- Energy
- Transport
- Tourism and recreation (e.g., Olympics)
- Public safety
- Households
- Communication / Risk communication
- Valuation / economic impacts
- Verification
- NMHS / PWS bench forecasters
- Media
- Financial Services (incl. insurance)
- Water resources / Management
- “stakeholders”
MEDEX

- Will become an integral part of the THORPEX programme
- Close collaboration with the SEA WG
- Proceed in concert with European activities
THORPEX (Regional) Campaigns

- ATReC (2003) - many groups are actively working with the data – a summary of current views will be available for the ICSC meeting in Melbourne
- European ETReC – D-Phase (MAP), COPS supported by the European regional committee
- Pacific Asian Regional Campaign (PARC 2008) – on tropical cyclone tracks, extra-tropical transitions, tropical warm-pool physics and down-stream propagation (link to, Beijing Olympics & IPY)
- IPY cluster proposal
- Winter Olympics in Canada (2010)
- Tropical convection (2012)
THORPEX and the IPY

- Explore use of satellite data and optimised observations to improve high impact weather forecasts
- Better understand physical/dynamical processes in polar regions
- Achieve a better understanding of small scale weather phenomena
- Utilise improved forecasts to the benefit of society, the economy and the environment
THORPEX & AMMA

- Improve linkage with the informal AMMA-THORPEX group and EB
- Role for THORPEX Working Groups in the scientific aspects of AMMA
- Involvement of operational centres in the AMMA filed campaign
- As a results stronger links are being developed with AMMA for observing system experiments, modelling & predictability and societal and economic applications
- Links with TWP – ICE
THORPEX and WCRP

- Together THORPEX and COPES bridge weather and climate forecasting
- Consideration of developing a coherent prediction system from day to decade
- Synergies in realm of
  - Predictability studies and dynamical processes on time scales between 1 day and 1 year
  - Design and use of unified global ensemble prediction systems
  - Applications to real-world users (decision making)
- ...
THORPEX and WCRP

- JSC/WCRP member of ICSC and science groups
- THORPEX in WCRP/COPES
  - Joint project initiated to develop a unified ultra-high-resolution global weather and climate prediction system
  - Collaboration in TIGGE
- TIGGE and Task Force on Seasonal Prediction (TFSP)
  - Similar technical issues (data, archiving, policy)
  - Potential for “seamless” days-seasons prediction systems
  - Links established between THORPEX and TFSP
THORPEX and WCRP

- Cooperation with WGNE – links to GIFS-TIGGE
  WG, OS WG, DAOS WG & PDP WG
- March 2006 “kick-off workshop”
- Cooperation with GMPP
- Cooperation with TFSP
- Views on ATReC and relevant OSEs – scientific basis for future TReCs
THORPEX/WCRP Workshop on the Madden Julian Oscillation: 
Its nature, prediction and regional-to-global influences

Hosted by the International Centre for Theoretical Physics (ICTP),
Trieste, Italy, 13-17 March 2006

Objectives:
To review the state of knowledge and future directions in observing, simulating, modelling and predicting the MJO and its socio-economic implications

To prepare a Workshop report that includes priorities for THORPEX/WCRP research and forecast demonstration projects
THORPEX and GEOSS

Contribute to GEOSS societal benefit areas, for example,

- **HEALTH** - use advanced weather forecasting methods to improve predictability of major health hazards in W. Africa

- **WEATHER** - further develop TIGGE and societal applications

- **AGRICULTURE** - help improve the predictability of food supplies in Africa
2nd THORPEX International Science Symposium
4-8 December 2006, Landshut, Bavaria, Germany

THORPEX: A World Weather Research Programme

"Accelerating improvements in the accuracy of one day to two week high-impact weather forecasts for the benefit of society, the economy and the environment"

Deadline for submission of abstracts:
15 June 2006
Further information to appear at
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