Introductory Remarks
CONCORDIASI Workshop

D. Parsons
Chief, World Weather Research Division
(WWRP including THORPEX)

THORPEX

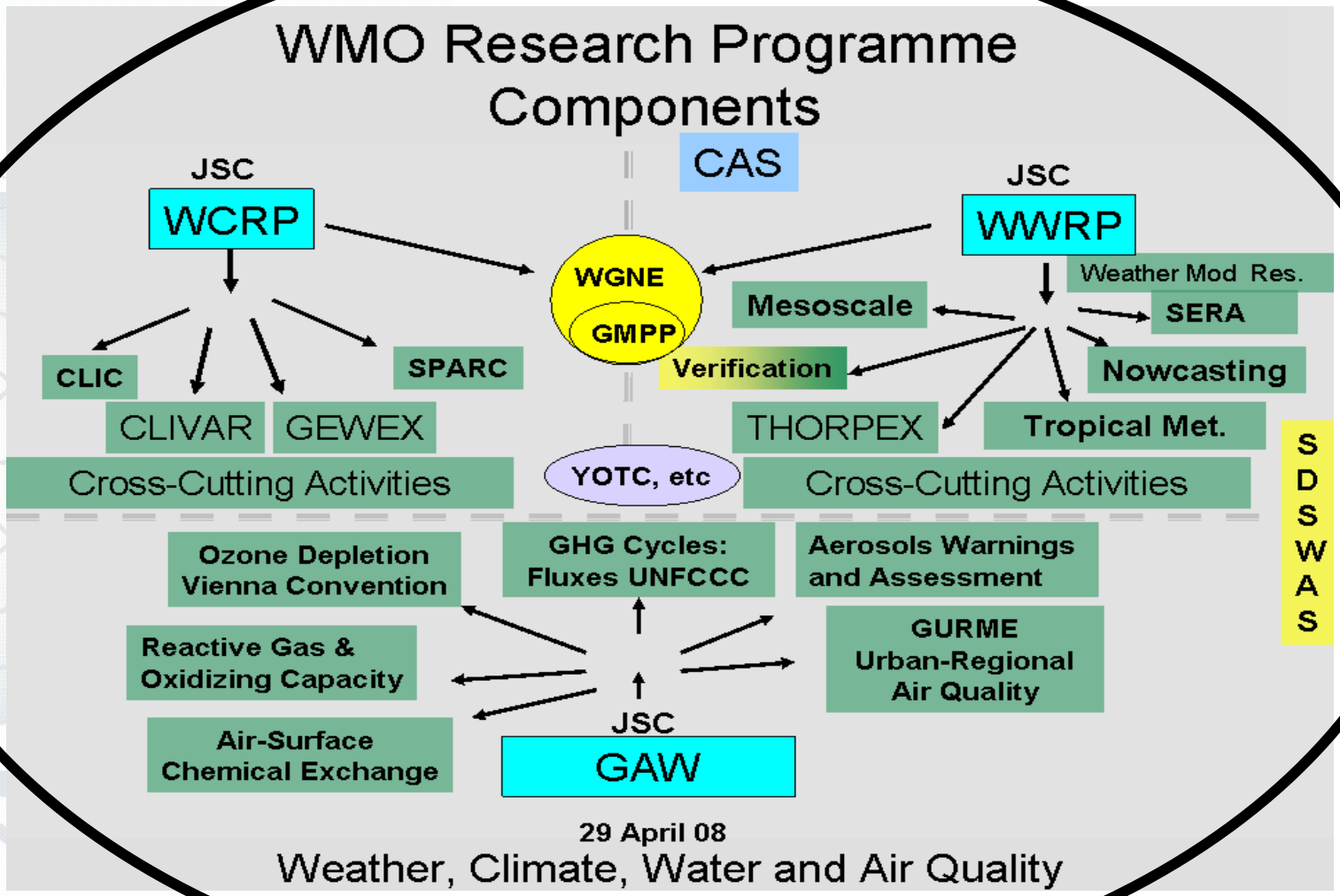
WWRP

WMO
OMM

Assessments

Prediction

Observations



Service Delivery

Capacity Building

World Weather Research Program

- WWRP research focuses on the intersection of challenging science and the need to serve society through advancing predictive skill and the utilization of weather information.
- WWRP research focuses on high-impact weather
- Activities span from basic research in the academic community to operational contributions
- Activities include:
  - Collaborative and coordinated research activities on priority areas
  - Specific research projects of limited duration (Forecast and Research Demonstration Projects (FDPs and RDPs), Testbeds, and field campaigns)
  - Expert reports on the current status and future direction of critical research areas
  - Sponsorship of conferences, workshops, symposia and other meetings

Overview of Core Research Areas

- **Working Group on Nowcasting** --- Local prediction from minutes to ~3 - 6 hours
- **Working Group on Mesoscale Weather Forecasting Research** -- Regional prediction from hours to days
- **THORPEX program** --- Global numerical weather prediction from 1 day to 14 days with a growing role in subseasonal and seasonal prediction (collaboration with the climate community)
- **Working Group on Societal and Economic Research and Applications** -- Understanding and advancing society's use of weather information
- **Working Group on Tropical Meteorology** -- Research across the scales focusing on tropical cyclones and high impact weather in monsoon systems
- **Expert team on Weather Modification** -- Guidance on state of knowledge and its relationship to practices

Collaborative Activities

- **Working Group on Numerical Experimentation** -- Forum for encouraging testing and improving of data assimilation systems and numerical models *(Joint with WCRP)*
- **Joint Working Group on Verification Research** -- Research leading to improved assessment of predictive skill across the scales *(Joint with the Working Group on Numerical Experiments)*
- **Project on Sand and Dust Storm Warning, Assessment and Advisory Systems** -- Research leading to improved assessment of predictive skill across the scales *(Joint with Global Atmosphere Watch Project)*
- **International Polar Year** -- *Cluster of ten THORPEX projects under IPY*
- **Meningitis Environmental Risk Information Technologies** -- Goal to improve the efficacy of bacterial meningitis prevention and control strategies. *(Led by the World Health Organization)*
- **Year of Tropical Convection** -- Goal to improve the representation of tropical convection and its two-way interaction with the large scale in weather and climate models (Joint with WCRP) and seamless prediction
- **Shanghai MHEWS** -- WWRP components are tropical cyclone verification and mesoscale ensemble research
- **International Workshop on Tropical Cyclones** -- Recommendations on research directions and operational practices (Joint with Operational side of WMO)

Recent Highlights

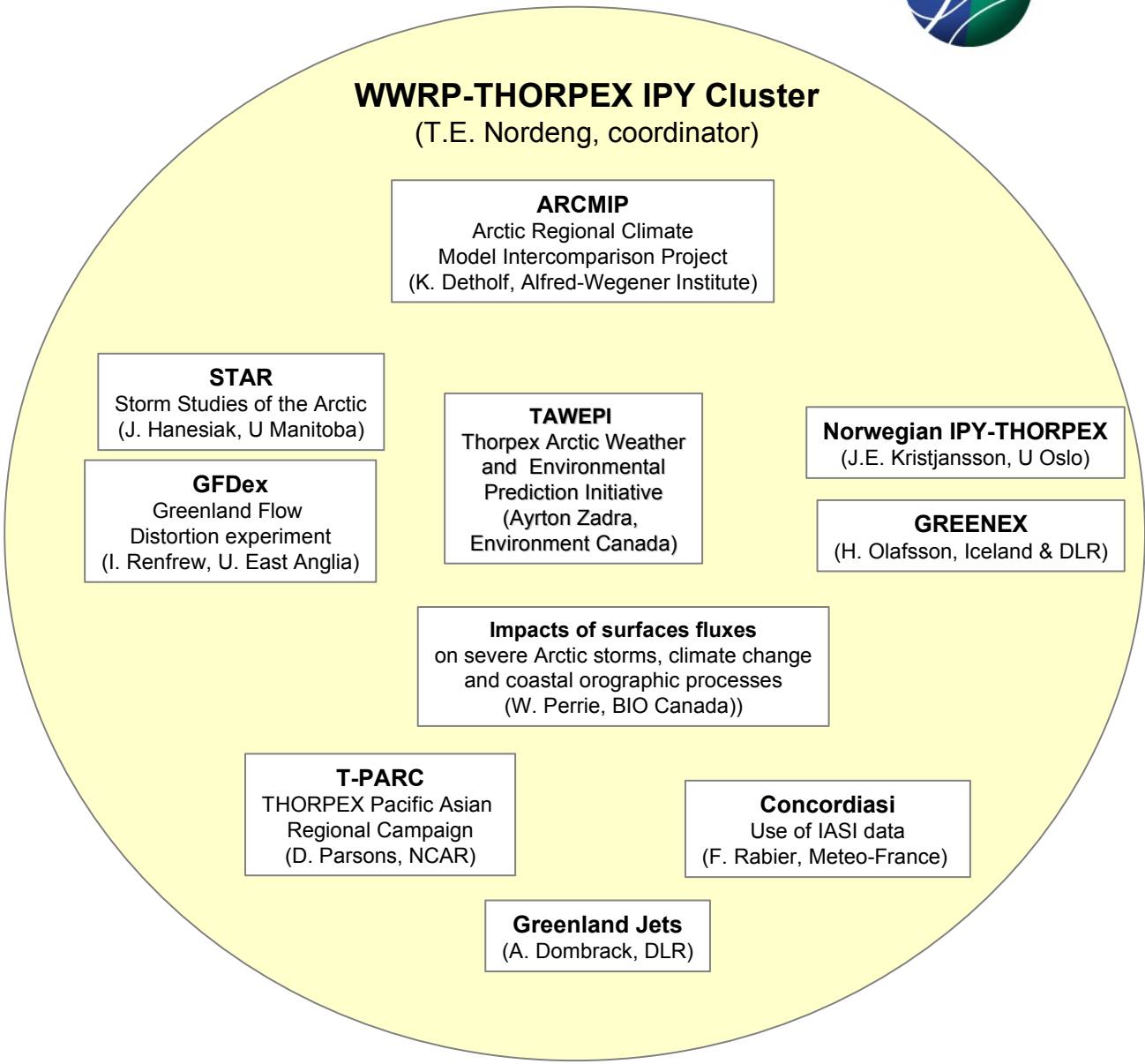
- Establishment of research priorities by the various programme components for the WWRP Strategic Plan
- THORPEX Interactive Grand Global Ensemble (TIGGE) project
- 10 THORPEX projects in the International Polar Year
- Year of Tropical Convection (YOTC) has begun
- EU Coordinated Experiments -- MAP D-PHASE as part of the coordinated European Experiment, the German COPS program, E-TREC
- Beijing 08 projects -- FDP (nowcasting) and RDP (mesoscale ensembles)
- T-PARC and TCS-08 Experiments
- The establishment of the Sand and Dust Storm Warning Advisory and Assessment Project and role in MERIT
- Support of major upcoming meetings (nowcasting, data assimilation and verification) and a long list of smaller meetings

The IPY-THORPEX Cluster
10 individual projects
(see WMO Bulletin Oct. 2007)

The objectives of the IPY-THORPEX Cluster proposal are:

- Explore use of satellite data and optimised observations to improve high impact weather forecasts (form a Polar Trec and/or provide additional observations in real time to the WMO GTS)
- 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
- Utilise of TIGGE for polar prediction

The WWRP-THORPEX IPY cluster



Please Note

- The issue of how to treat the research legacy of IPY was raised at the ICSC (e.g. a THORPEX Working Group?)
- THORPEX Publications starting to appear in the refereed literature (some examples):
  - Overview article on GFDex in Sept 2008 Bull. Amer. Meteor. Soc.
  - Special issue of QJRMS planned for GFDex with a 1 Dec 2008 deadline for submissions
  - CONCORDIASI paper being submitted to the Bull. Amer. Meteor. Soc.
- Submissions encouraged for:
  - 3rd THORPEX Science Symposium: 4-8 May 2009, Monterey, CA (see http://www.wmo.int/thorpex)
  - IAMAS/IAPSO Session on International Polar Year: Early results 20-24 July 2009