

SERA: Plans, Accomplishments and Future

John Gaynor

USTEC

October 7, 2009

Original International THORPEX Plans –

From the THORPEX International Science and Research Implementation Plans

- Identify high-impact weather forecasts and economic and human consequences
- Assess the impact of improved forecast systems
- Develop user-relevant advanced forecast verification measures
- Evaluate the costs and benefits of improved forecast systems
- Develop new user-specific weather products for developed and developing nations
- Equitable use of Global Interactive Forecasting System (GIFS)

(Time scales and goals were established for each of these projects.)

What is Happening Internationally?

(Not Much)

- WWRP Forecast and Research Demonstration Projects (FDPs, RDPs) and each EU regional experiment is required to include a SERA component
- EU initiated experiments (e.g., MAP, PANDOWAE, HyMeX, T-NAWDEX) require a SERA component as part of its planning.
- As an example, MAP D-Phase has engaged water resource managers and emergency managers from the planning phase through informational and forecast information phases.
- China has done an assessment of its forecast system for the Beijing 2008 Olympic Games.
- THORPEX/GIFS is developing a South African RDP.
- WMO/WWRP-WCRP with WHO are working with African HMSs to predict viral outbreaks, particularly meningitis, using extended weather and seasonal forecasts.
- The last three activities are only weakly linked to THORPEX at best.

What is NOAA Doing?

(Most of these activities are not part of THORPEX, but link to THORPEX SERA Goals.)

- Funding the Societal Impacts Program (SIP) at NCAR (about \$500K/yr from USWRP funds)
 - Looking at value and communication of weather information, particularly probabilistic information
 - Held NA THORPEX SERA workshop in 2006 and resulting plan published in BAMS
- Funding studies of communication of hurricane forecast information (5 awards with NSF on an approximate 50%/50% funding arrangement) and value of improved hurricane forecasts at SIP (about \$200K/yr of NOAA Hurricane Forecast Improvement Project funds and about \$100K of NOAA/OAR Office of Weather and Air Quality funds)

What are the Other US THORPEX Agencies Doing? (For discussion)

- NASA ROSES (decision support)?
- NSF in the Engineering and SBE Directorates?
- The Navy (user applications)?
- How to contribute to international SERA?

Where do we go from here to energize US SERA? (For discussion)

- Ensure social science representation on the USTSSC.
- Convene a meeting of US THORPEX agency resource managers (including operational units) to discuss mechanisms to fund SERA activities within THORPEX?
- Other ideas?