



A Perspective from the Research/Operations Interface

THORPEX Town Hall

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“Where America’s Climate, Weather and Ocean Services Begin”



Overview

- International Program
- Research/Operational Perspective
 - Research to Operations
 - Operations to Research
 - Climate-Weather linkages
- Summary

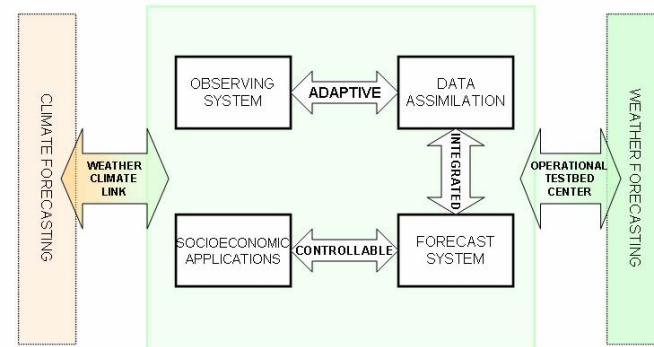


THORPEX

International Program



- Objective
 - Accelerate improvements in skill and utility of 1-14 Day high impact weather forecasts
- Components of Forecast Process (Areas of Research)
 - Observing System
 - Data Assimilation
 - Predictability / NWP
 - Socioeconomic Benefits
- Approach
 - Enhanced collaboration on International, Regional and National levels that includes Research and Operational communities





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Research/Operational Perspective

- Focus
 - Accelerate improvements in 1-14 Day high impact probabilistic weather forecasts
- Program Issues
 - Challenge: the extent to which the existing operational infrastructure can be used to transfer Research and Development to Operations
 - The ability to “accelerate” improvements depends on use of “Research to Operations” and related challenge of “Operations to Research”

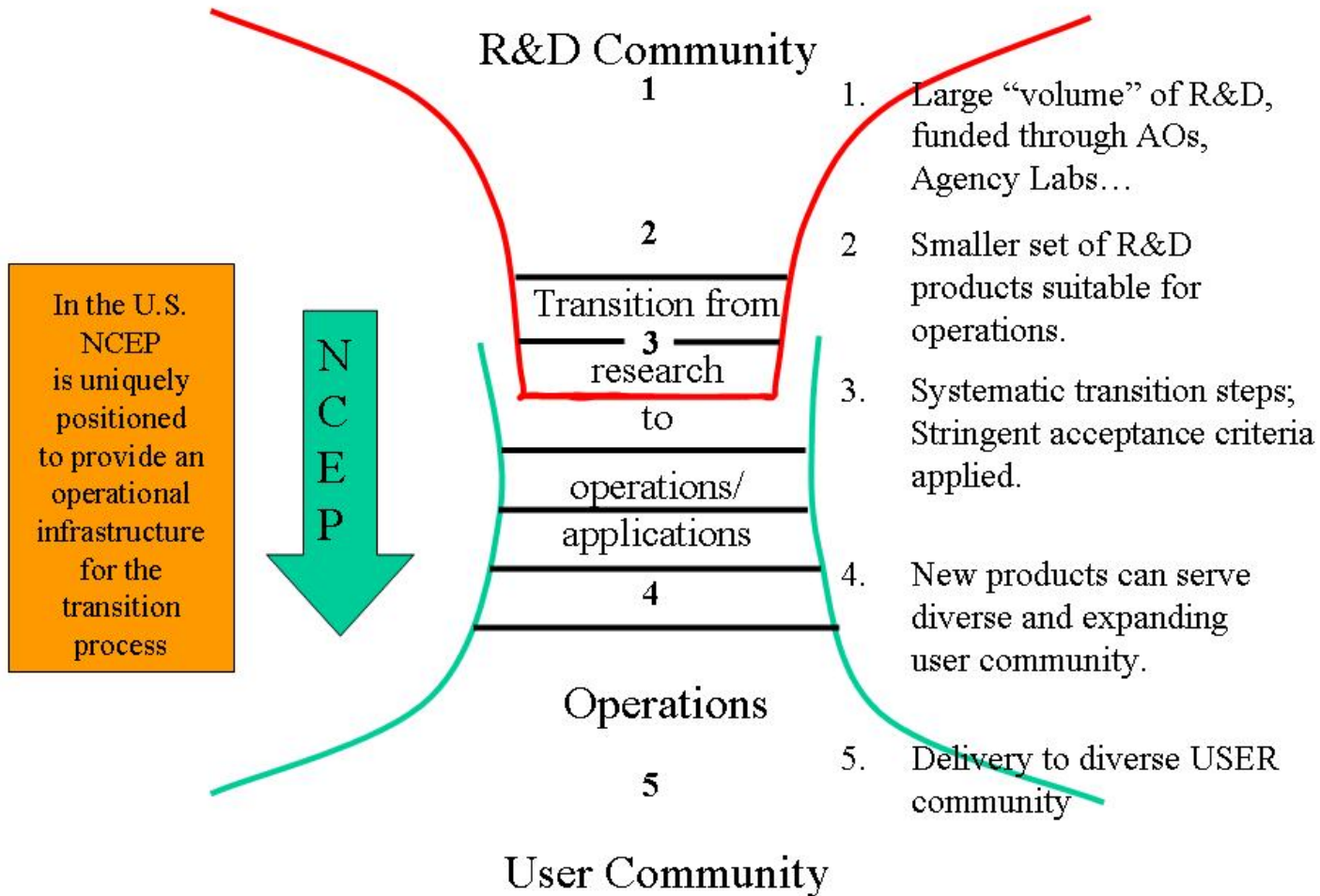


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Research/Operational Perspective

Applying the “Funnel” to the Transition Process





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Research/Operational Perspective

Research to Operations
and
Operations to Research



Operations infrastructure being used in THORPEX



- North American Ensemble Forecast System (NAEFS)
 - Canada-Mexico-U.S. multi-center ensemble
 - Operational implementation in May 2006
 - NAEFS (global)
 - 26 members
 - 50 variables
 - 2 X day
 - ~105 km to 384h
 - Prototype of future international Global Interactive Forecast System



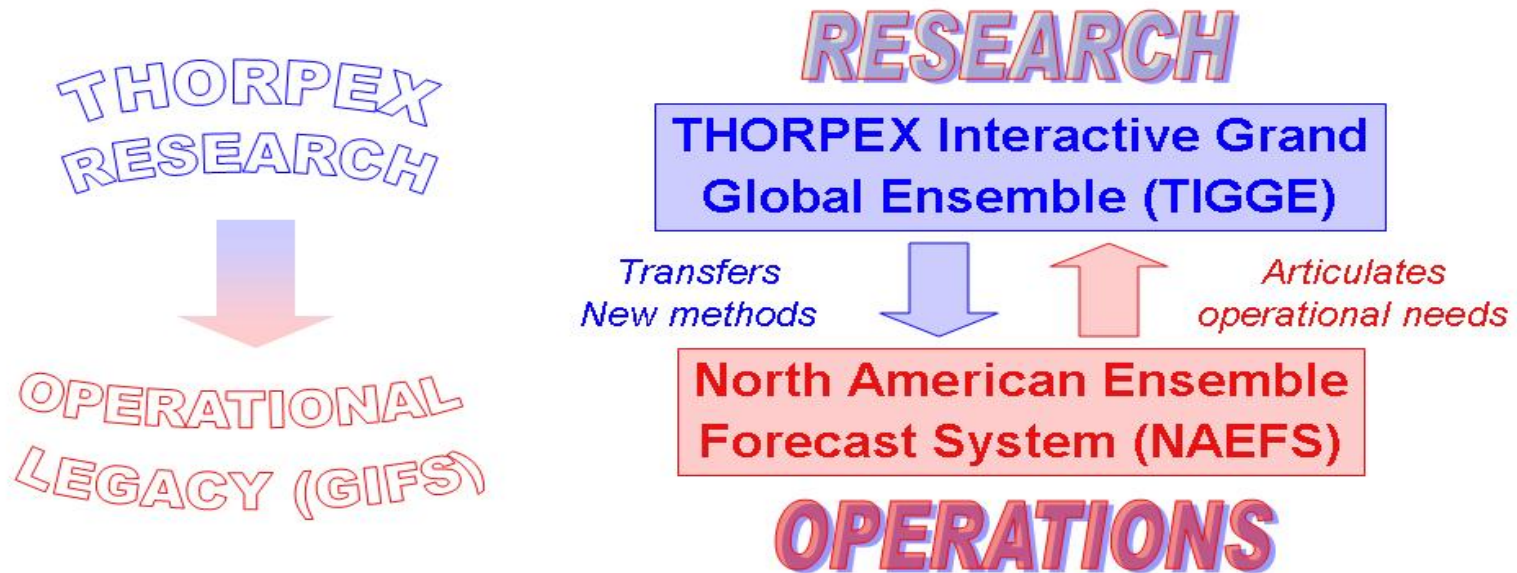


Operations infrastructure being used in THORPEX



NAEFS & THORPEX

Provides framework for transitioning research into operations





THORPEX

Research/Operational Perspective



Climate-Weather Linkages



Climate-Weather linkages through the Climate Forecast System (CFS)



- Optimize observing network for weather and climate forecasting
- Similar data assimilation and model components used for weather and seasonal/interannual forecast systems, through the S/I CFS
- Coupled atmosphere/land/ocean forecast model applications for day 1-60
- Demonstrate value of seamless weather-climate applications using dynamical forecast system



Summary

- NOAA stands ready to provide support to THORPEX (Research, Transition, Operational Implementation, Societal Benefits)
- NCEP will ensure that the operational infrastructure associated with NAEFS and CFS is applied to the THORPEX
- Main goal is to accelerate any and all improvements gained from THORPEX into the operational prediction systems