Strategic Implementation Plan (SIP) for a Community-based Unified Modeling System

Marine Models Working Group

Presented by

Robert Hallberg (NOAA/GFDL)

Presented at NOAA Community Modeling Workshop

April 18-19, 2017; College Park, MD

Marine Models WG
Membership

- *Patrick Burke (NOAA/NOS) ***
- *Eric Chassignet (Florida State U) ***
- *Bob Hallberg (NOAA/GFDL) ***
- *Pat Hogan (NRL) ***
- *Avichal Mehra (NWS/NCEP) ***
- Alistair Adcroft (NOAA/GFDL)
- Clarissa Anderson (UCSD)
- Brian Arbic (U. of Michigan)
- Robert Banks (Delft U.)
- Cecelia Bitz (U. of Washington)
- Arun Chawla(NWS/NCEP)
- Gokhan Danabasoglu (UCAR)
- Bob Grumbine (NWS/NCEP)
- Elizabeth Hunke (LANL)
- Rick Luettich (UNC)
- Joe Metzger (NRL)
- Andy Moore (UCSC)
- Shastri Paturi (NWS/NCEP)
- Steve Penny (UMD/ESSIC)
- Todd Ringler (UCAR)
- Shan Sun (NOAA/ESRL)
- Sergey Vinogradov (NOAA/NOS)
- Alan Wallcraft (NRL)
- John Wilkin (Rutgers U.)

- *Co-Chair **

Marine Models WG
Scope

…. meet the needs of the broader research and operational communities for marine modeling applications (ocean, sea ice, waves, tides, storm surge, etc.) as it relates to integration within a unified modeling framework with time scales ranging up to 1 year across all spatial scales with global geographical coverage.

Marine Model WG
Initial Recommendations

- Establish strong ties with existing communities of operational marine models and help build consortiums for next generation models
- Adopt common coupling infrastructure (NEMS-NUOPC, FMS) for marine models
- Plan on workshops, training, webinars and documentation covering operational marine models and associated tools
- Expand existing visiting researcher programs to address development and improvement of operational marine models
- Establish new standing Working Sub-Groups to advise on specific issues related to marine modeling (e.g. Storm-Surge, Ecosystems)
- Establish programs/projects which provide sustained programmatic resources for R2O and O2R activities

Marine Model WG
Barriers/Challenges

- Provide training in established procedures, model codes and tools available for data processing and model applications. These could be in the form of workshops, summer schools, webinars with supporting documentation
- Allowing researchers access to operational systems would help in the transfer of validated model components and parameterizations to operational systems (R2O focus)
- Operational centers should build on knowledge gained by researchers in exploring optimum marine forecast system configurations for existing and new operational models (O2R focus)
- Unavailability of programmatic funds for dedicated R2O and O2R projects
- Increase the ocean community's access to shared computing hardware and software