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

Marine Models Working Group

Presented by
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Marine Models WG
Membership

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- Clarissa Anderson (UCSD)
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…. 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.
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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
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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