NOAA/NWS Current Modeling Efforts

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http://polar.ncep.noaa.gov/seaice/YOPP/
(to come 7/15/2017)

Sea Ice

- Modeling
  - Dynamics:
    - Drift Rule (operational, ensemble)
    - KISS (Keeping Ice's Simplicity)
    - EVP (CICE consortium)
    - Decohesive (D. Sulsky, UNM)
  - Thermodynamics
    - Winton
    - Icepak (CICE consortium)
- Observation
  - Passive microwave concentration (Team, Team2; operational)
  - VIIRS thickness, temperature, concentration (J. Key)
- Data assimilation
  - G. Vernieres (JCSDA, JEDI)
- Model Verification
  - Baseline CICE+MOM w. Shan Sun et al (ESRL, NCAR)
  - R. Grumbine (to come on public page)

Coupled System

Atmosphere: Global Spectral, FV3
Ocean: MOM5, MOM6, Hycom
Ice: CICE5+, KISS, SIS2
Infrastructure: NEMS/NUOPC + ESMF

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Next Generation Global Prediction System (NGGPS)

Implementation 2019

Weather (16 days)

Subseasonal (~35 days)

Seasonal (9 months (2 years?))

Connections

Users

NWS Forecast Offices — Alaska, Great Lakes
NWS/NCEP Ocean Prediction Center
Arctic Testbed (Gene Petrescu, NWS Alaska Region)
And Others…

Collaborators

CICE Consortium (DOE/LANL, NRL, ECCC, NCAR, NOAA/GFDL, ESRL, …)
ECCC (Smith, Dupont, Pestiaux) — Verification
NOAA/NESDIS (Farrell, Bayler) — Observations
NOAA/OAR ESRL (Intrieri, Solomon) — Coupling
NOAA/OAR GFDL (Winton et al.) — SIS2 NEMS, MOM6
NOAA/OAR GLERL (Wang) — Fast Ice, Great Lakes
NRL Stennis (Allard et al.) — Consortium, GOFS 3.1
SUNY-Albany (Liu) — Melt Ponds, Data Assimilation
UMD (Carton, Penny) — Data Assimilation
UNM (Sulsky, LeGuy) — Ice Dynamics

More connections

Sea Ice Outlook (SIPN)
Sea Ice Drift Forecast Experiment (SIDFex)
Year of Polar Prediction (YOPP)
Polar Prediction Project (PPP)