

PHYSICAL OCEANOGRAPHY AND ATMOSPHERIC SCIENCES

Themes elicited by the questionnaire:

Ice-ocean-atmosphere interaction

- turbulent fluxes of heat and momentum
- local impact of surface fluxes on polar cyclones – strength and motion
- Ocean- ice shelf interactions – bulk properties
- Ocean-glacier interactions
- Sea ice heat balance

General Circulation

- Subpolar gyre fluxes/ Meridional Overturning Circulation – decadal variability
- Exchanges across shelf/slope regions
- Ice sheet/shelf mass balance and impact on the global general circulation

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Themes elicited by the questionnaire (cont'd)

Biology

Impact of climate change on polar ecosystems

Marine Geology

Relationship of seafloor morphology and ice flow, benthic habitats, and warm water intrusion onto the shelf

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Themes not expressed in survey responses:

Atmospheric transport of iron, dust

Dynamics/thermodynamics of polynyas/ convective processes

Sub ice shelf boundary layer processes

Refinement of tidal models with adequate data

Continued monitoring/modeling of long term trends in water mass properties (eg Ross Sea salinity; deep and bottom water variability)

Coupling of atmospheric modes to sea ice/ circulation variability