New Program Thrusts for Code 32:
Integrated Prediction and Arctic Processes

Code 32, Ocean Battlespace S&T Department, in response to the Navy's Task Force Climate Change (Arctic Roadmap and Climate Change Roadmap) and to discussions with the CNR and Oceanographer of the Navy will realign resources to tackle two new long term (10 year) thematic thrusts:

- **Integrated Prediction –** goals: provide the Navy with a global prediction capability based on a coupled, data assimilative atmosphere-ocean-wave-ice model run at a single kilometer spatial resolution and with prediction time scale from near real-time to annual (and potentially decadal). The Navy roadmaps call for these capabilities to be developed in concert with other agencies as a national capability.
- **Arctic Processes –** goals: provide a high resolution coupled component of the integrated model for Arctic regions that would allow assimilation of SAR ice data and develop observational and acoustic capabilities to support the Navy in the "new Arctic". The Navy roadmaps call for these capabilities to be developed in concert with other agencies. Initially emphasis will not be placed on sea level rise issues or land based issues.

ONR Code 32 will seek an IPA to initially work the Arctic side (we would like to have some one to build a good interface to NSF and other Arctic programs). As planning for the programs evolve, we may add an IPA or detailee to help the prediction effort. Any suggestions for an Arctic IPA would be helpful.

Figure 1
Integrated Prediction, Arctic Process and Existing Programs in 322

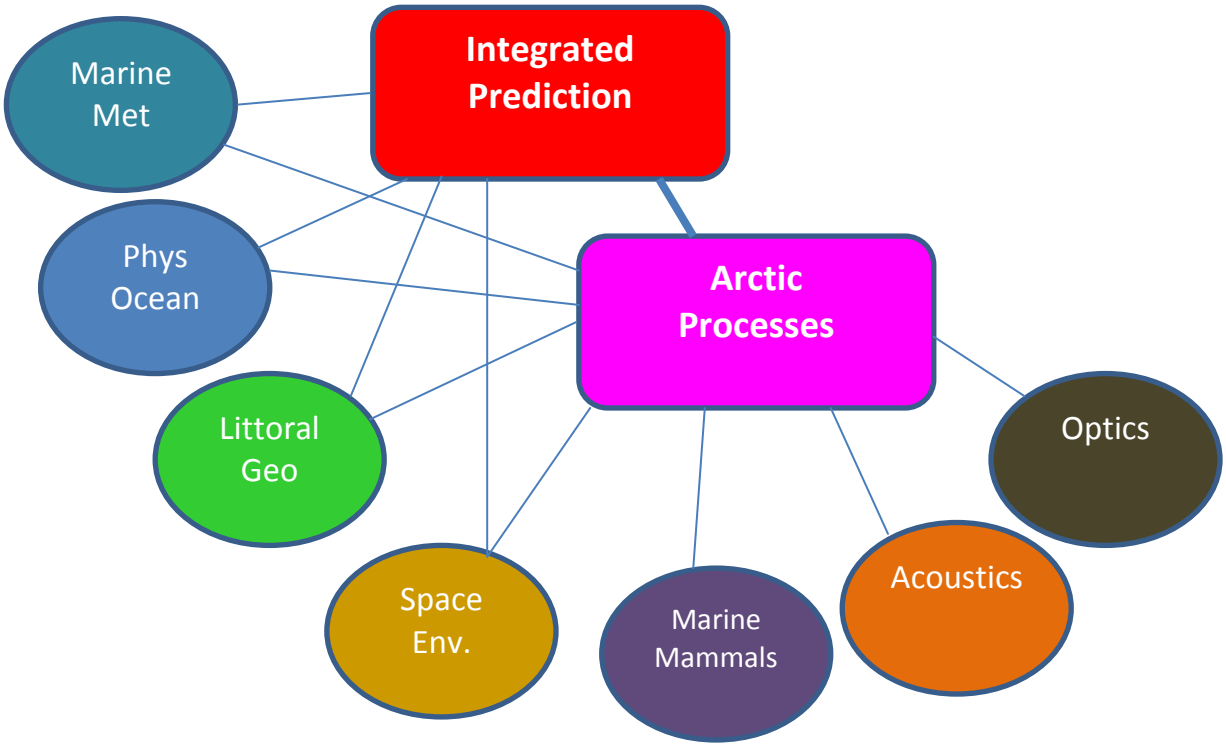

Table 1
Targeted Resources for New Thrusts

Integrated Prediction

NOPP	$2-3M/yr	Note current Hycom investment, waves
From Meteorology 6.2	$2M/yr	
From Phys O 6.1	$1M/yr	(data assimilation)
New DRIs (average)	$2M/yr	

Realign Coupled Model and Coupled Process DRIs to meet new thrust needs
Matched efforts via DOE, NOAA others (unknown $)[1]

Arctic Processes

NOPP	$2-3M/yr
New DRIs (Average)	$3M/yr
From Arctic Acoustics	$2-3M/yr (TBD)[2]
From Marine Mammals	$1 M/yr (TBD)[2]
From Coastal Geosciences	TBD[3]
From Optics	TBD[3]
New Funding From CNR	$5M/yr

Assume 3 year ramp up

Footnotes:
[1] RADM Titley suggested a NOAA contribution of in kind work of order $5M/yr from ESL (this has yet to be confirmed by NOAA)
[2] We can see that there will likely be an Acoustics thrust for the Arctic
[3] Both Coastal Geosciences and Optics will also be likely moved to some degree to address Arctic needs but the amount is TBD