Eos Paper to summarize findings of the workshop

There is very limited data on soil carbon in permafrost regions and any activity will be a significant contribution to the science.

Description of current environmental conditions
- Distinction of cryoturbated soils from temperate region soils
- Vegetation
- Permafrost
- Hydrology
- Organic Carbon
  - Active layer
  - Deep carbon
  - Special cases – yedoma, lakes, flood plains
- Quality and Quantity and uncertainty

Paper submitted by Grosse et al.

Discussion of rates and impacts of warming
- Estimates of CO\(_2\) and methane emissions
- Role of Cryogenic Processes
  - Permafrost degradation and thermokarst
- Estimates of sedimentation/erosion

Discussion of variables controlling organic matter decomposition and flux rates
- Process oriented approach to determine carbon loss
- Consideration of gradients
- Biogeochemistry
- Variability

Call for a coordinated field program to quantify existing Arctic carbon stocks and fluxes
- Coordination among on-going North American research programs
- Collaboration with Eurasian, European, and Asian Projects
- Potential Network Coordination

Figure

Map by Chris Johnson
Dynamite Figure by Guido (per Jen Harden)