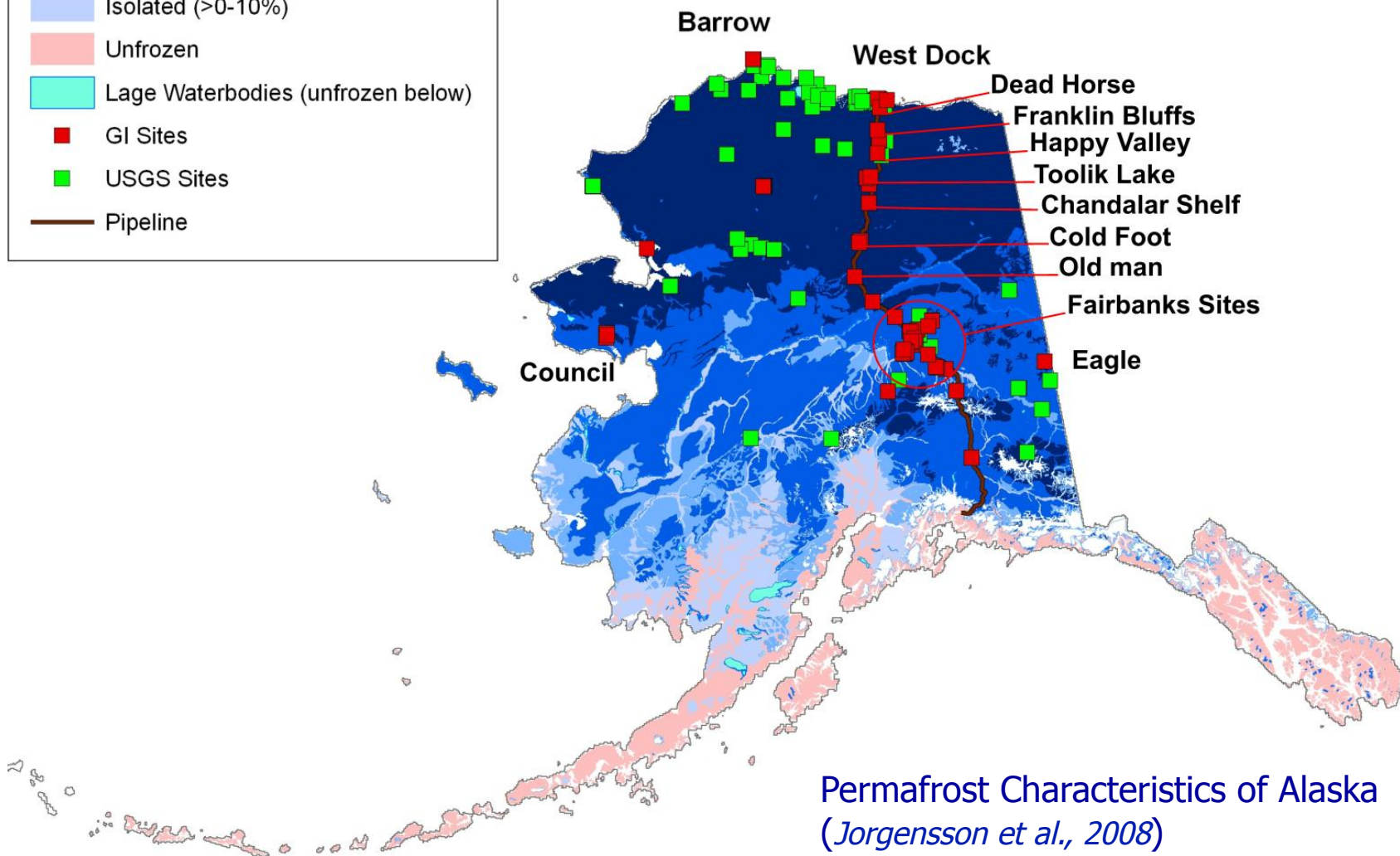
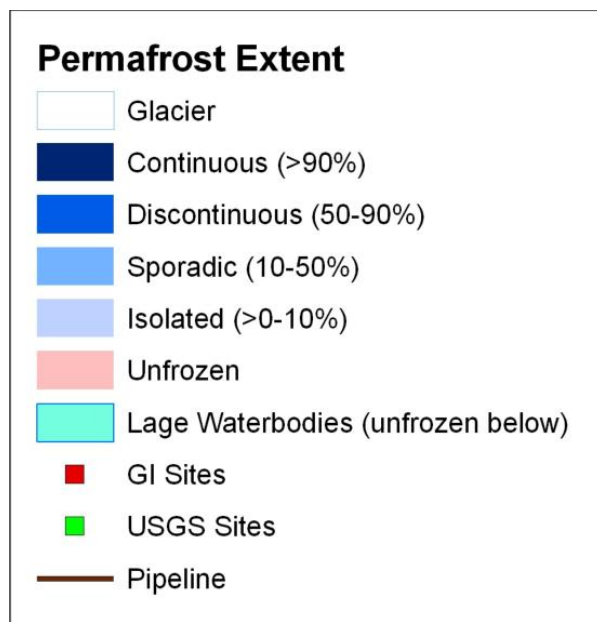


Permafrost and Infrastructure

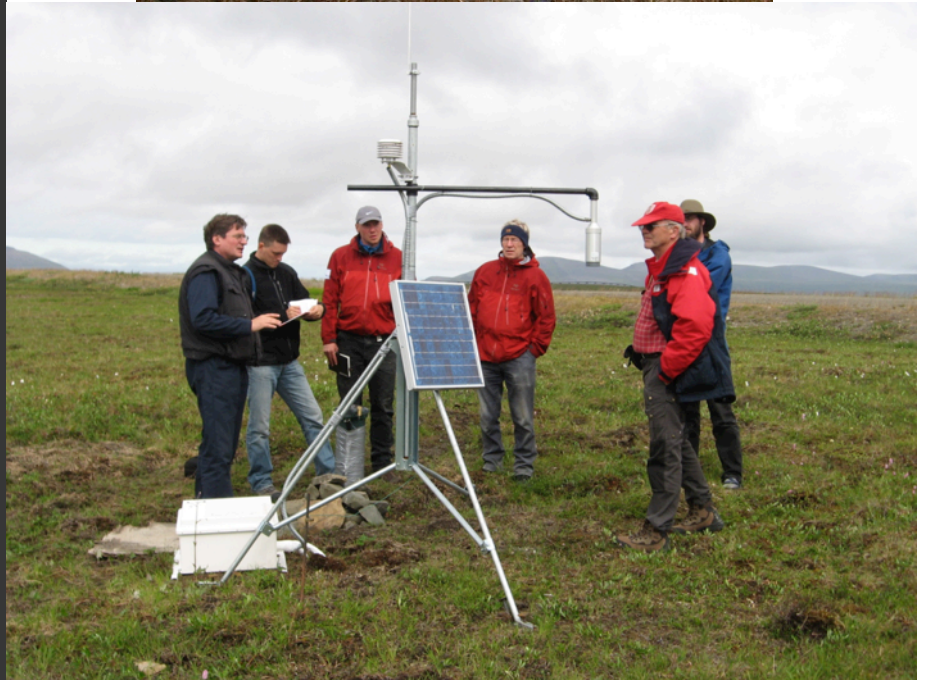
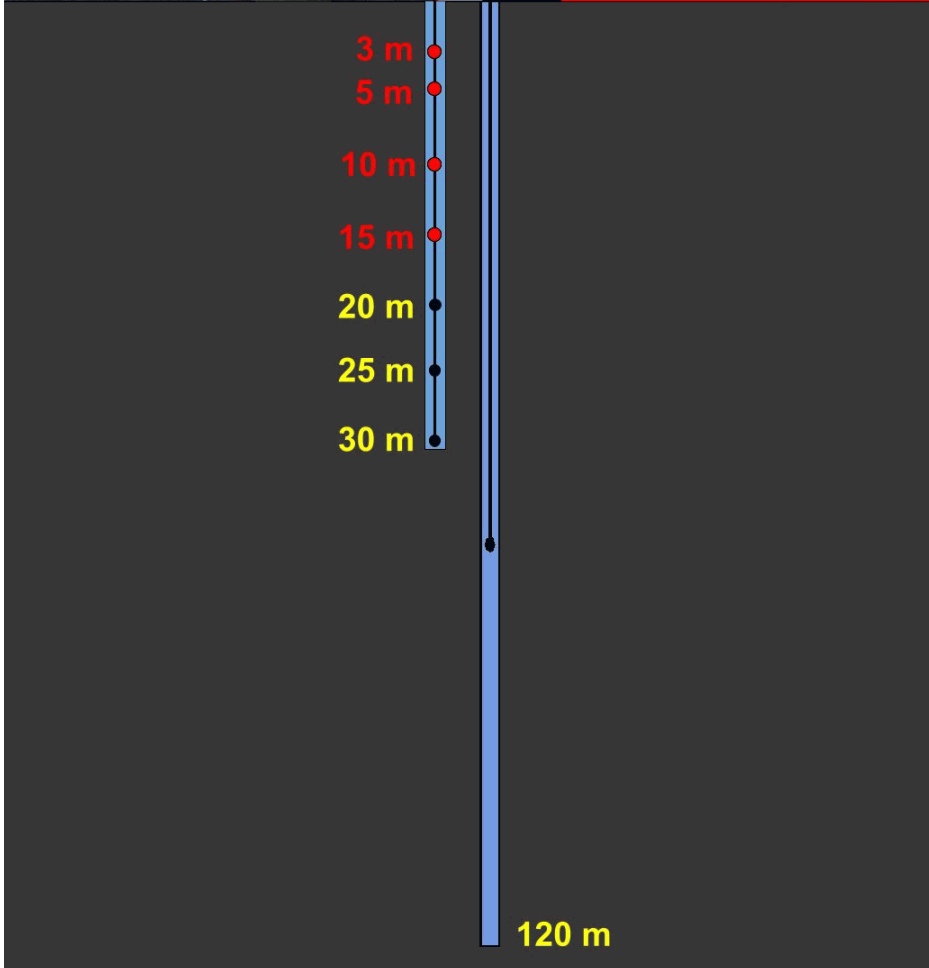
Vladimir Romanovsky and Donald Walker
University of Alaska Fairbanks

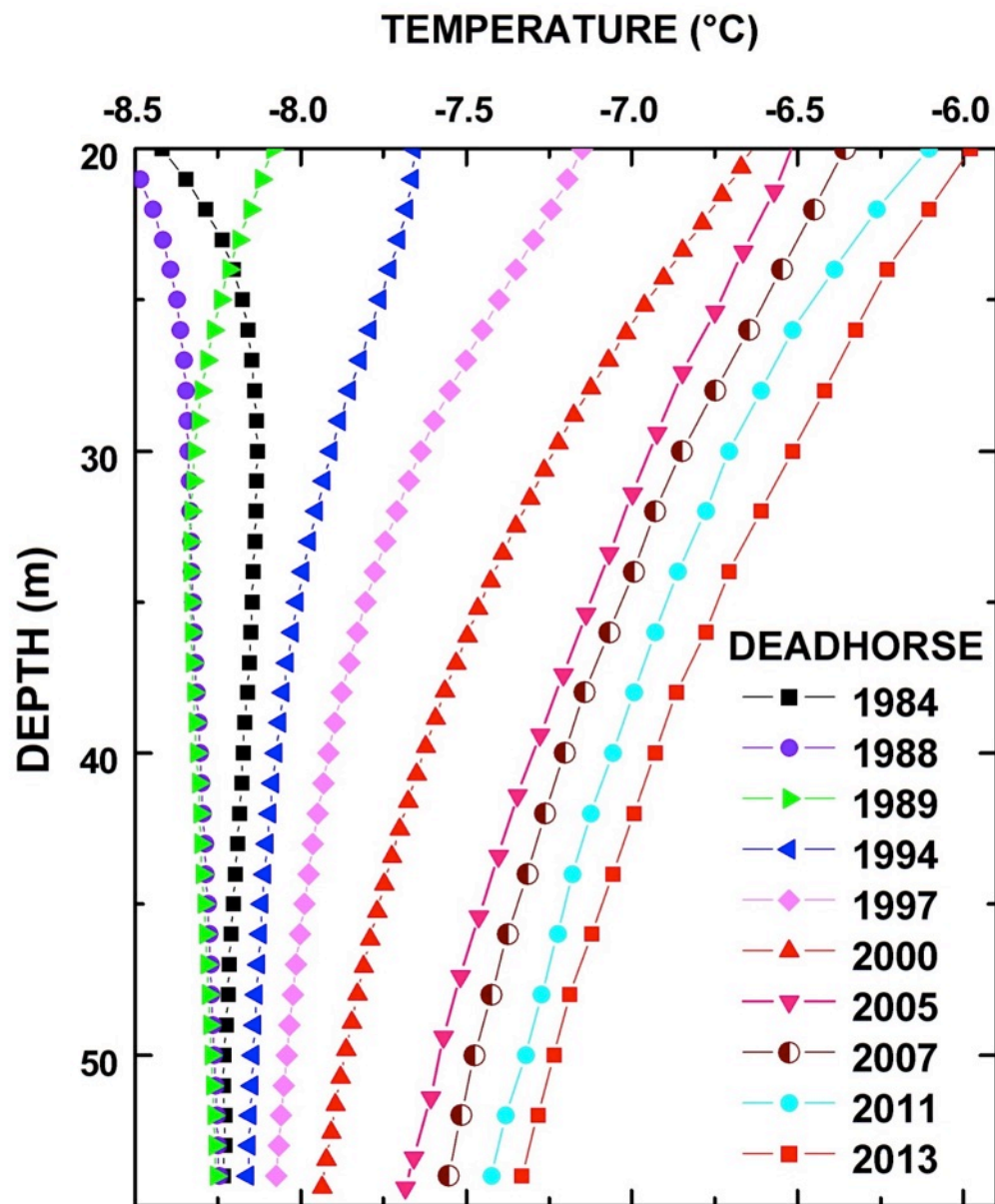


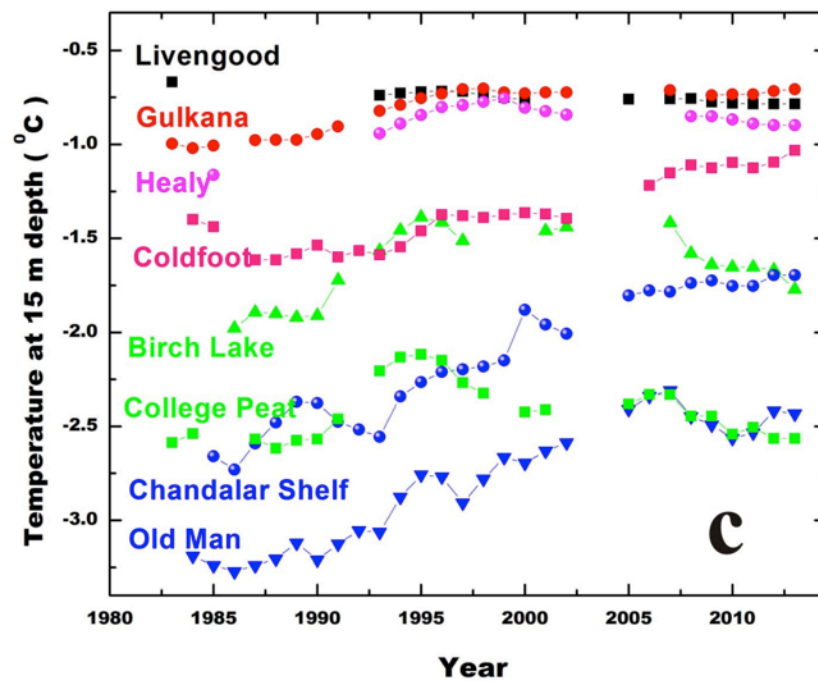
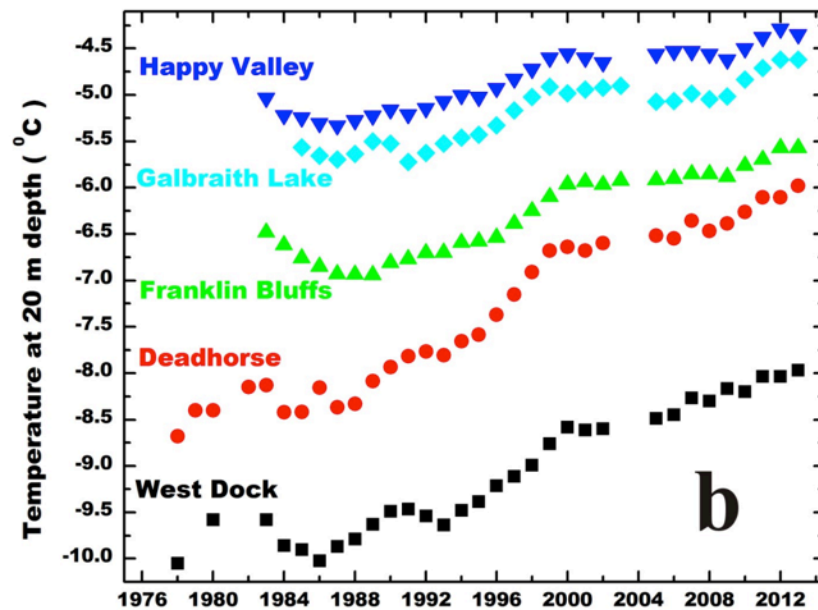
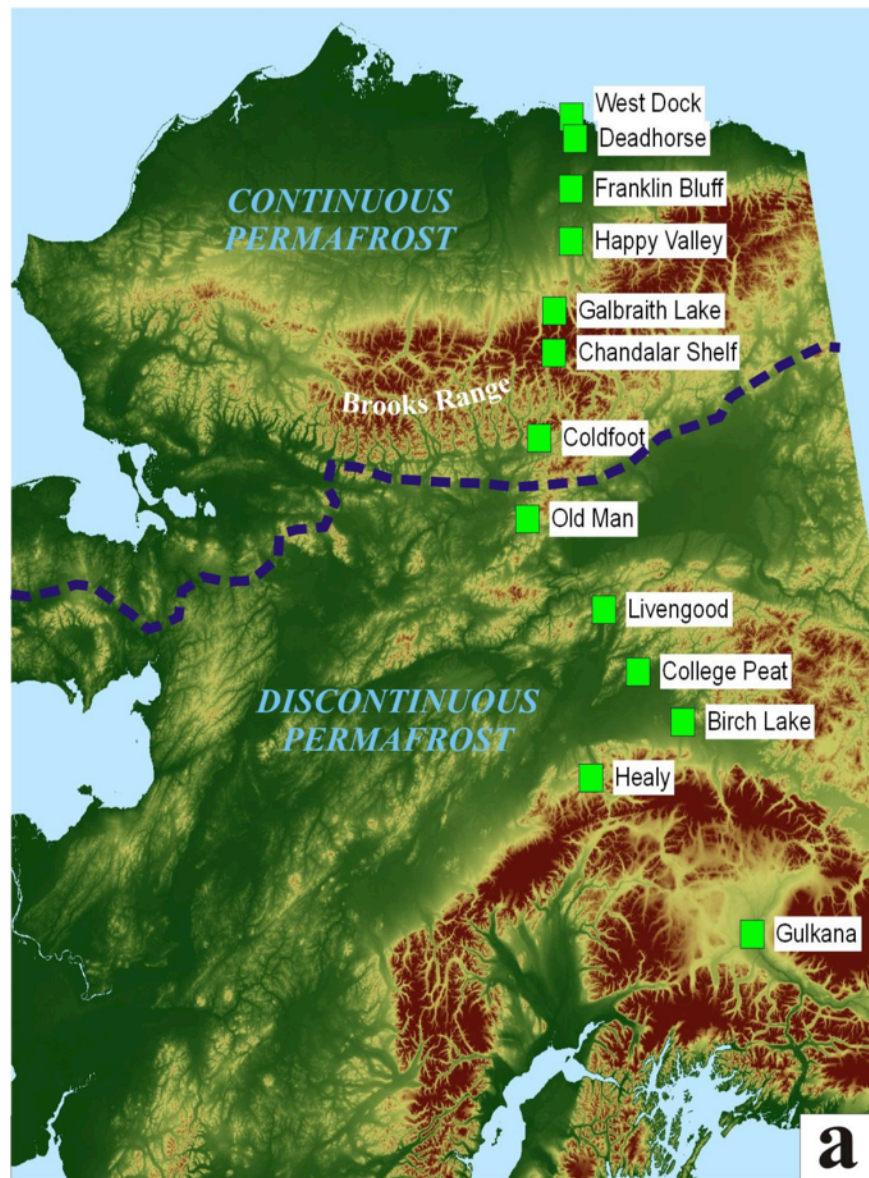
Permafrost Distribution in Alaska and Permafrost Observatories Location



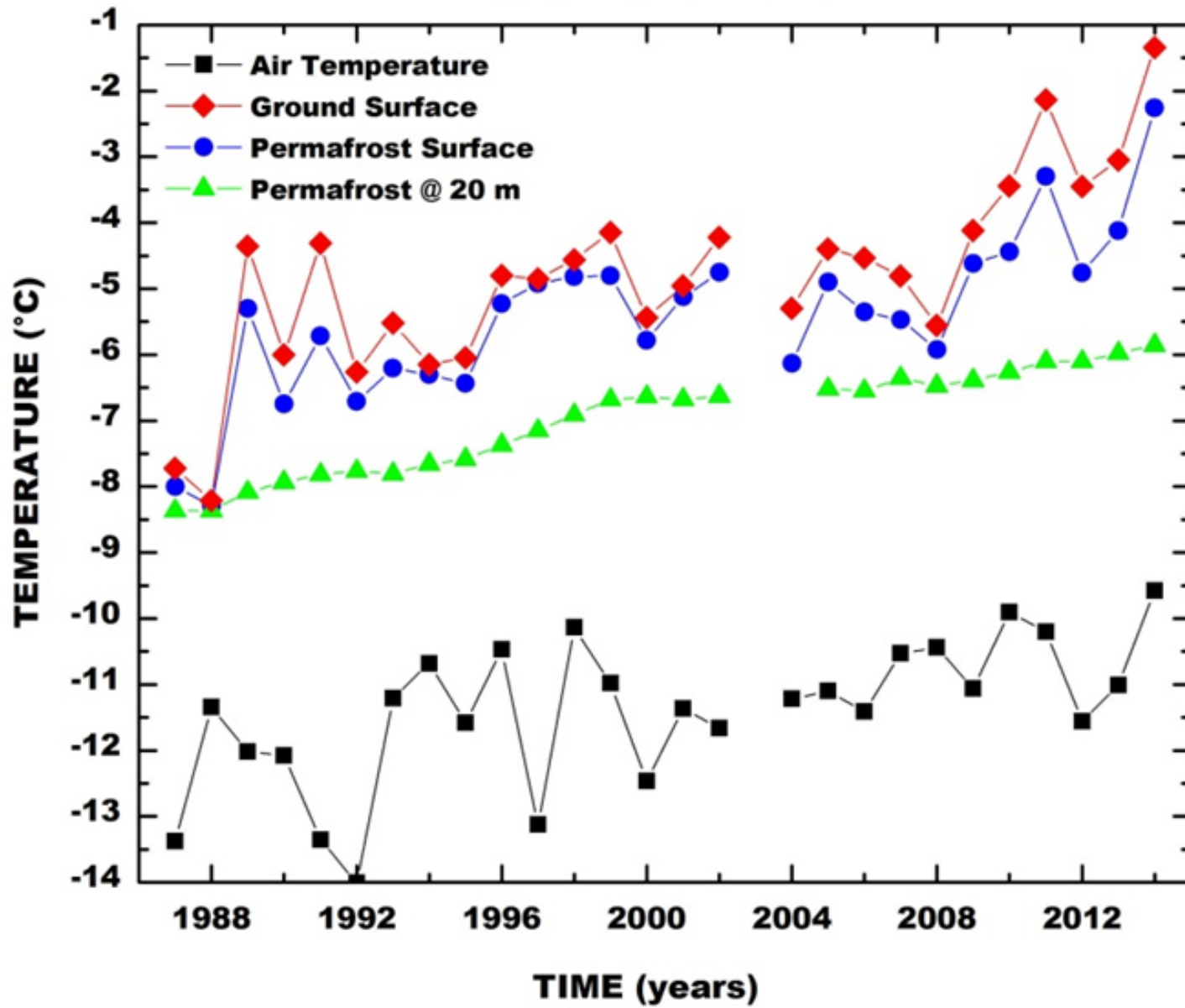
Permafrost Characteristics of Alaska
(Jorgenson et al., 2008)

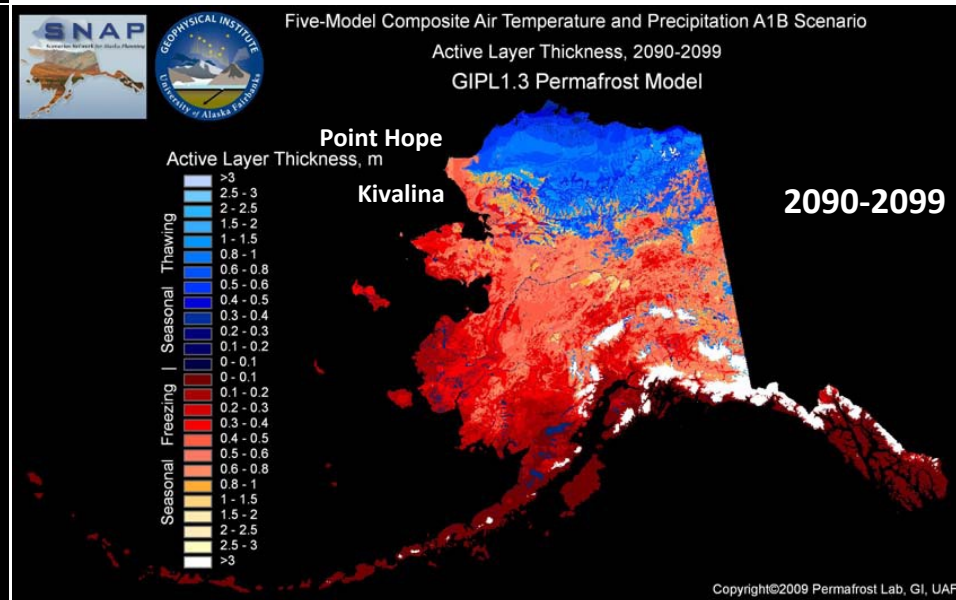
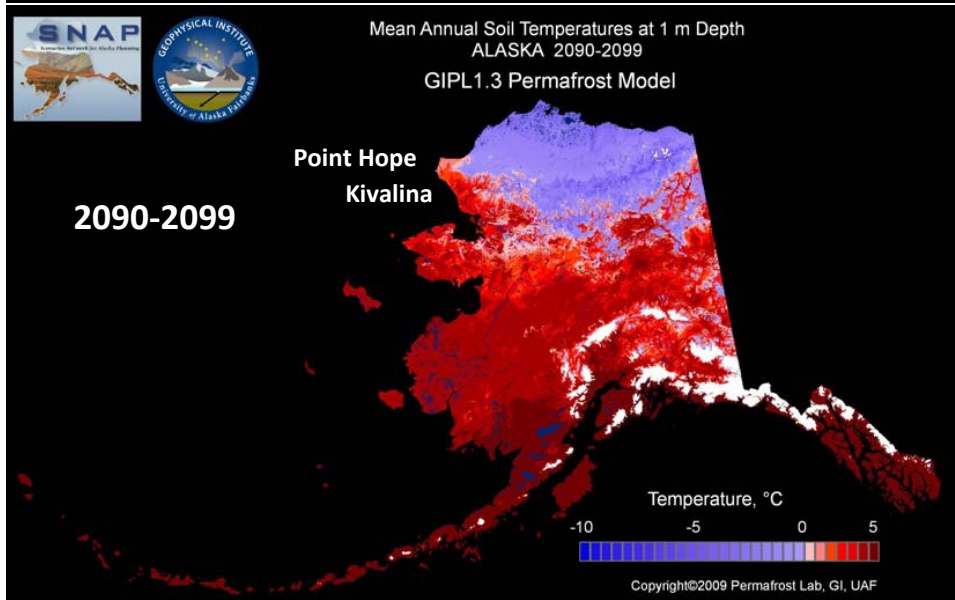
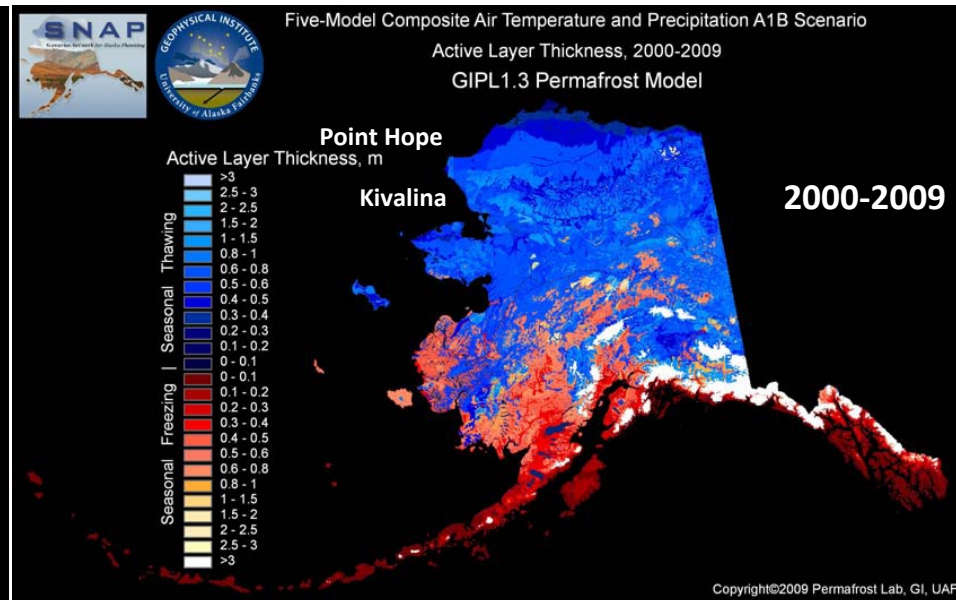
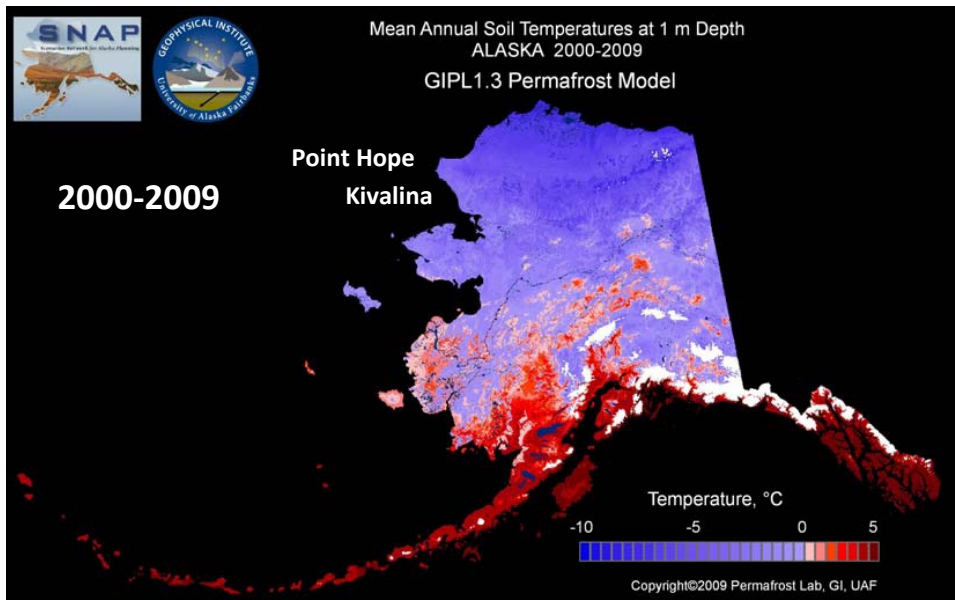






DEADHORSE, 1987-2014





Simulated ground temperatures at 1 meter depth for Alaska for the periods 2000-09 (above) and 2090-99 (below)

Simulated active layer depth for Alaska for the periods 2000-09 (above) and 2090-99 (below)

It is projected that communities of Point Hope and Kivalina will lose their permafrost by 2100

Societal Impacts of Permafrost Degradation



Impact on Infrastructure



Changes in the ground surface





Photo provided by the Fairbanks DOT office



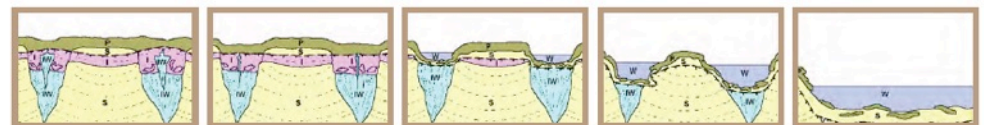
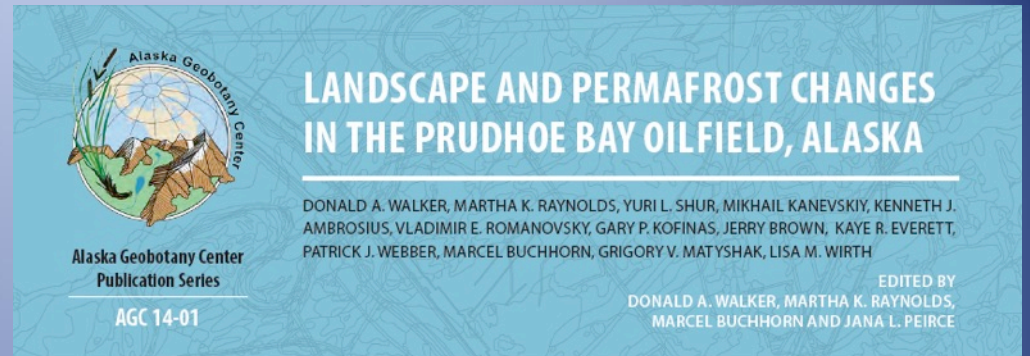
Photo provided by the Fairbanks DOT office



Rapid Arctic Transitions due to Infrastructure and Climate (RATIC)

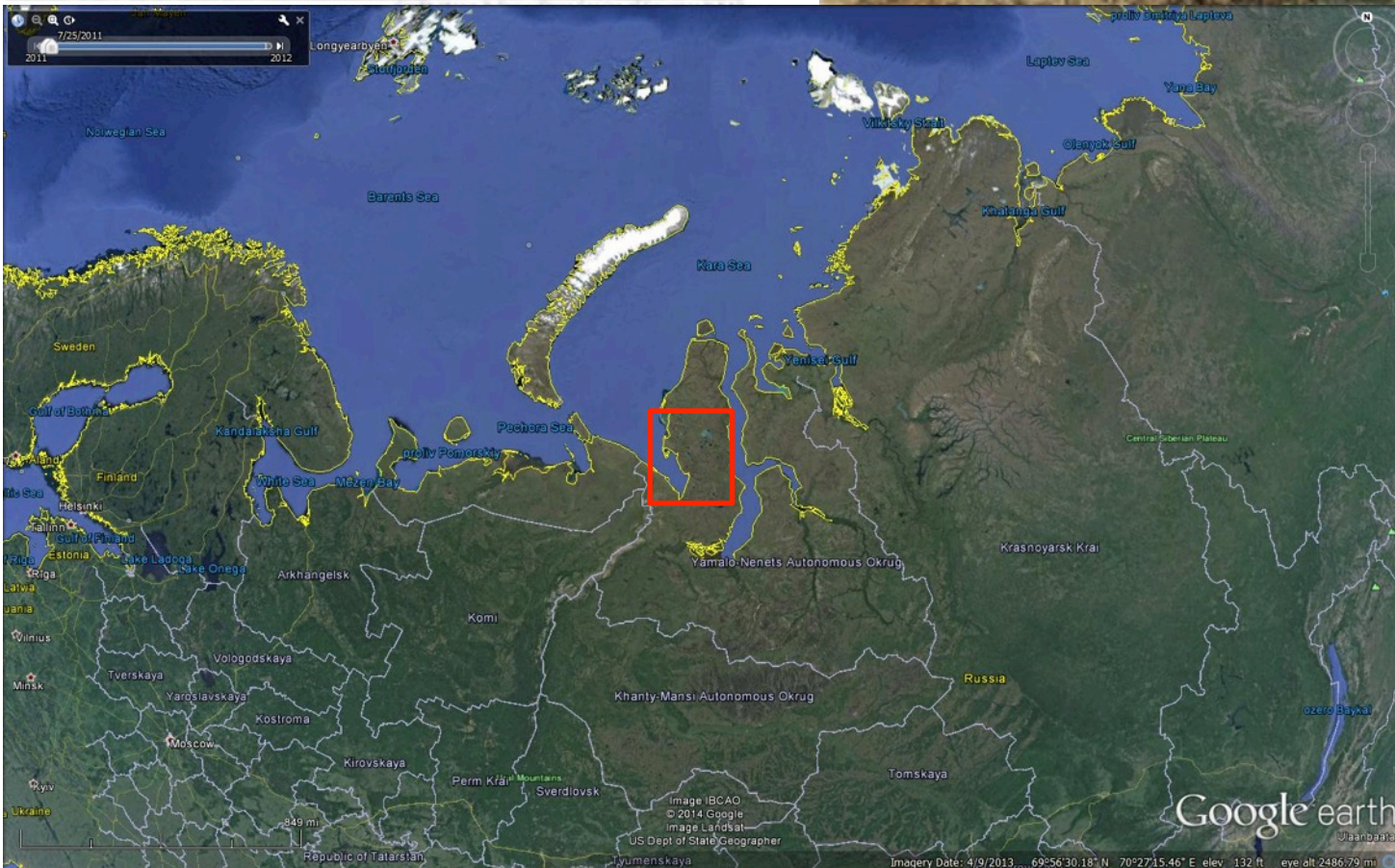
Cumulative effects of infrastructure and climate in the permafrost landscapes of the Prudhoe Bay Region.

- *Skip Walker, Martha Reynolds, Steve Ambrosius, Yuri Shur, George Matyshak, Vladimir Romanovsky, Gary Kofinas, Lisa Wirth*



NOVEMBER 2014





**A Mysterious
Holes on Yamal
Peninsula
in Russia**

