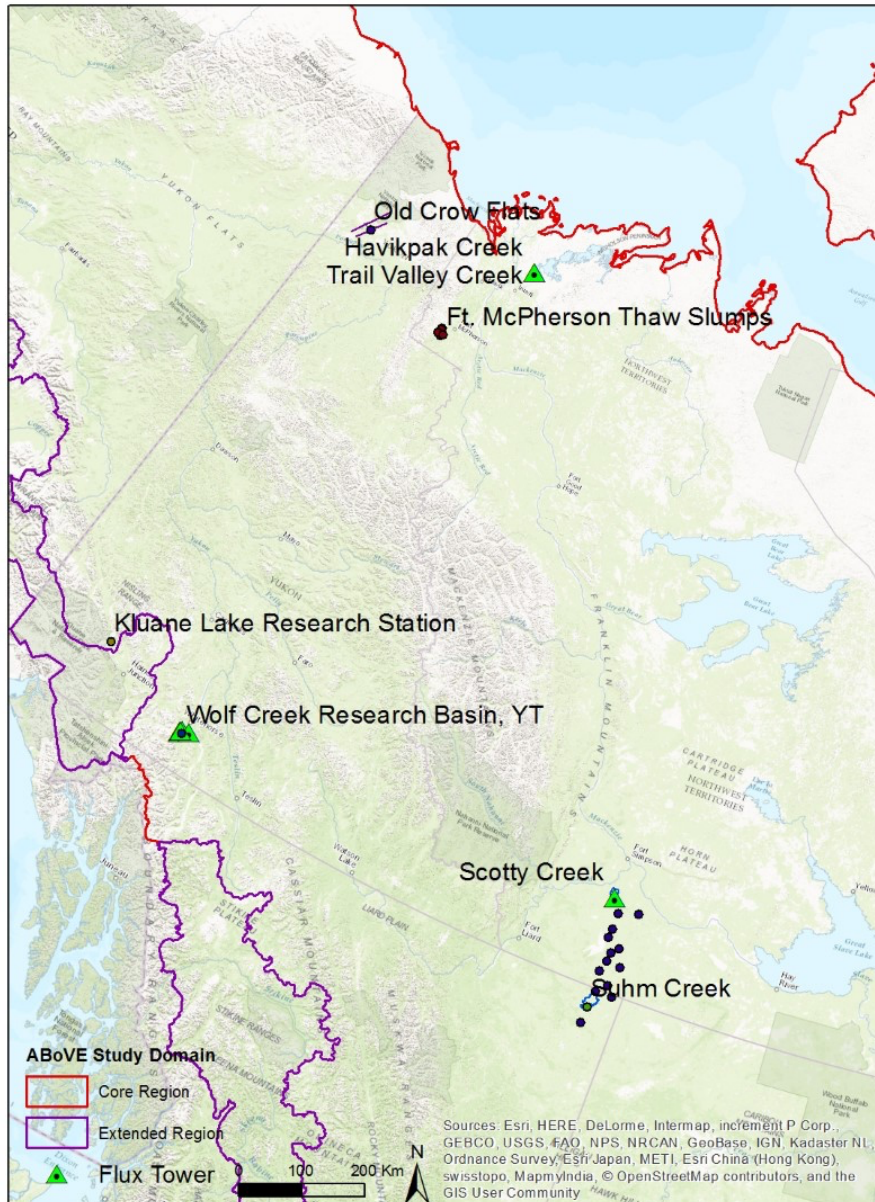


# Partnerships with Canadian Universities



# Goals for this meeting



1) For sites that seem “likely” to be flown, help to coordinate sensor needs with field data acquisition

- *Field data wants/needs?*
- *Timing of these needs?*
- *Spatial extent, other details*
- *What can airborne projects contribute to field programs?*

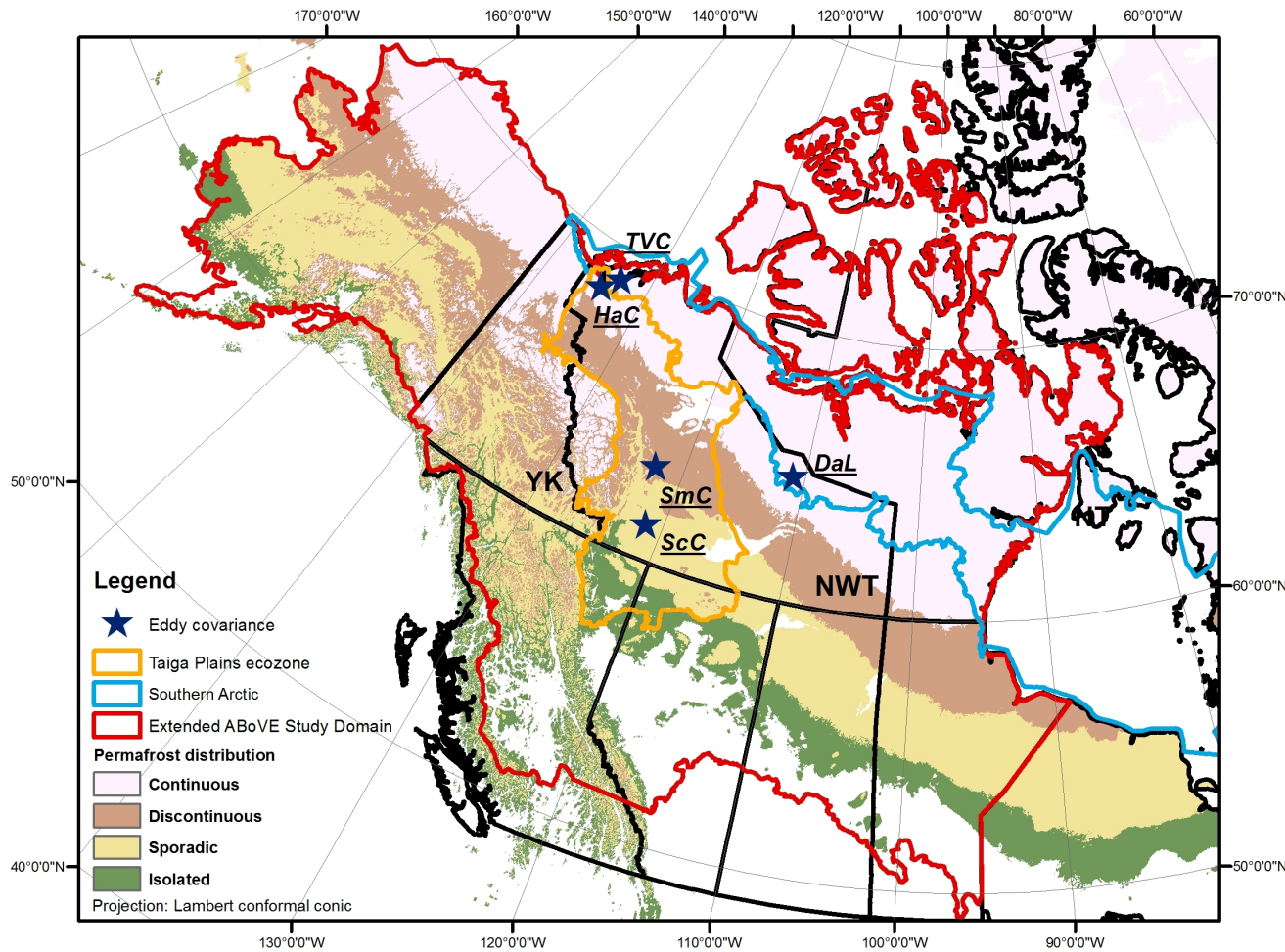
2) For the other sites, what added value do these sites offer? What would the campaign be missing by not flying these sites?

Location	Leads	Field data acquisition						Sensor Request	Airborne projects
		Climate	Permafrost	Snow	Plants	Carbon	Hydrology		
Trail Valley, Havikpak Creek	<i>Marsh Sonnetag Derksen</i>	X	X	X	X	X	X	1, 2	A, B, C, D, E, F
Kluane	<i>Hik Danby Myers-Smith</i>	X	X	X	X		X	All	A, B, C, E, F
Wolf Creek	<i>Carey Pomeroy</i>	X	X	X	X		X	3, 4, 5, 6	B, C, D, E, F
Peel Plateau	<i>Tank</i>		X			X	X	4, 3, 6	A, C, D, G

1=LIDAR, 2=Multispectral, 3=LVIS, 4=UAVSAR, 5=AIRMOSS, 6=PRISM

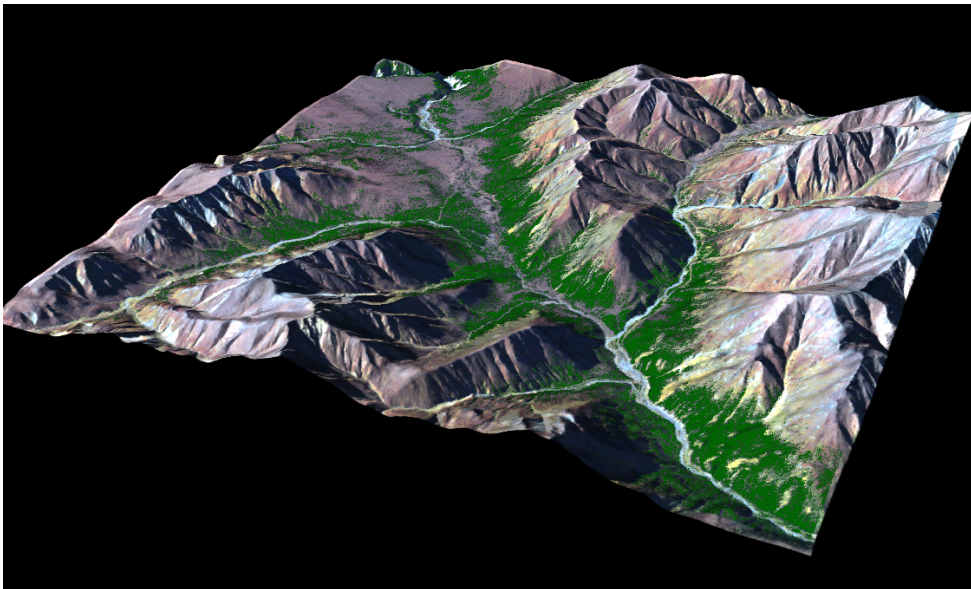
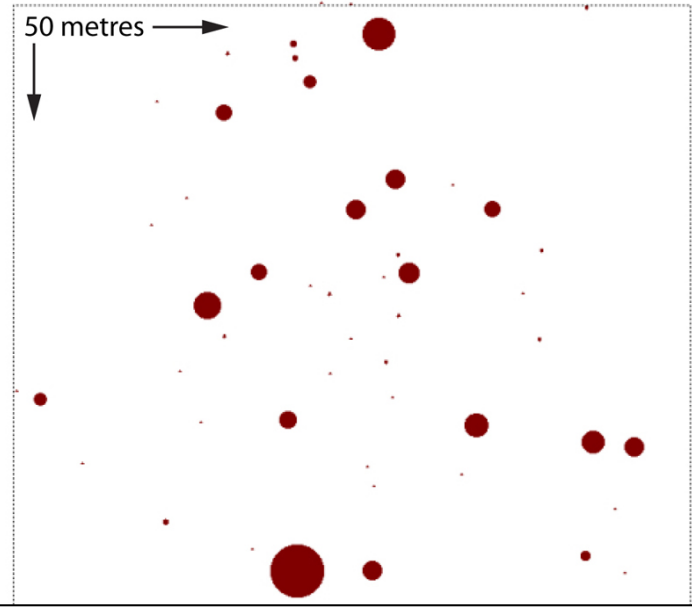
A=Smith, B=Schaefer, C=Iwahana, D=Tabatabaenejad, E=Drewry, F=Huemmrich, G=Miller

# Focal topics: carbon/energy/vegetation



- Nine eddy covariance towers
- Tundra to boreal
- Forested to shrub to open canopy

# Kluane forest-tundra ecotone (Danby, Hik)



# Treeline at Wolf Creek (Carey, Pomeroy)

Abrupt

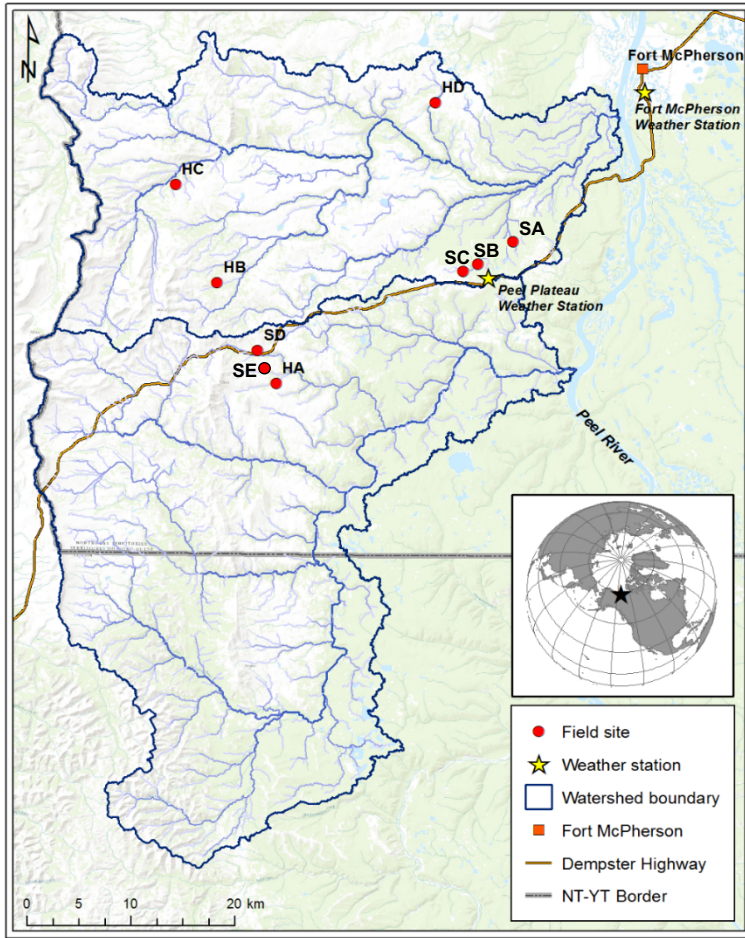


Diffuse



Turetsky, Johnstone, Mamet

# Focal topics: Thermokarst

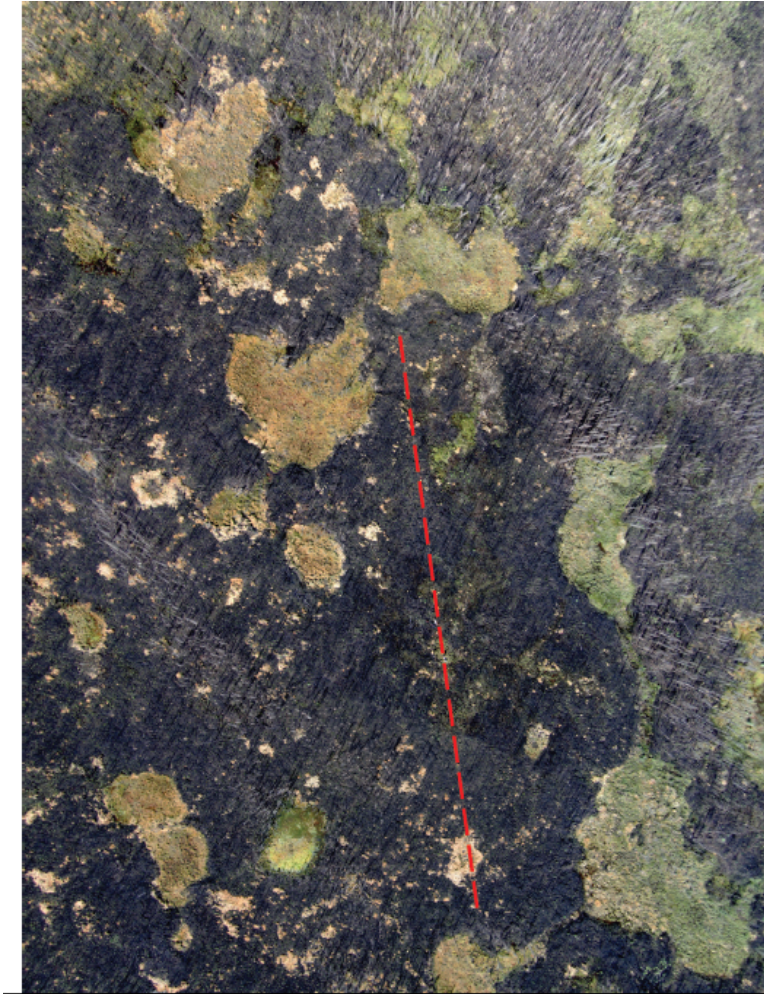
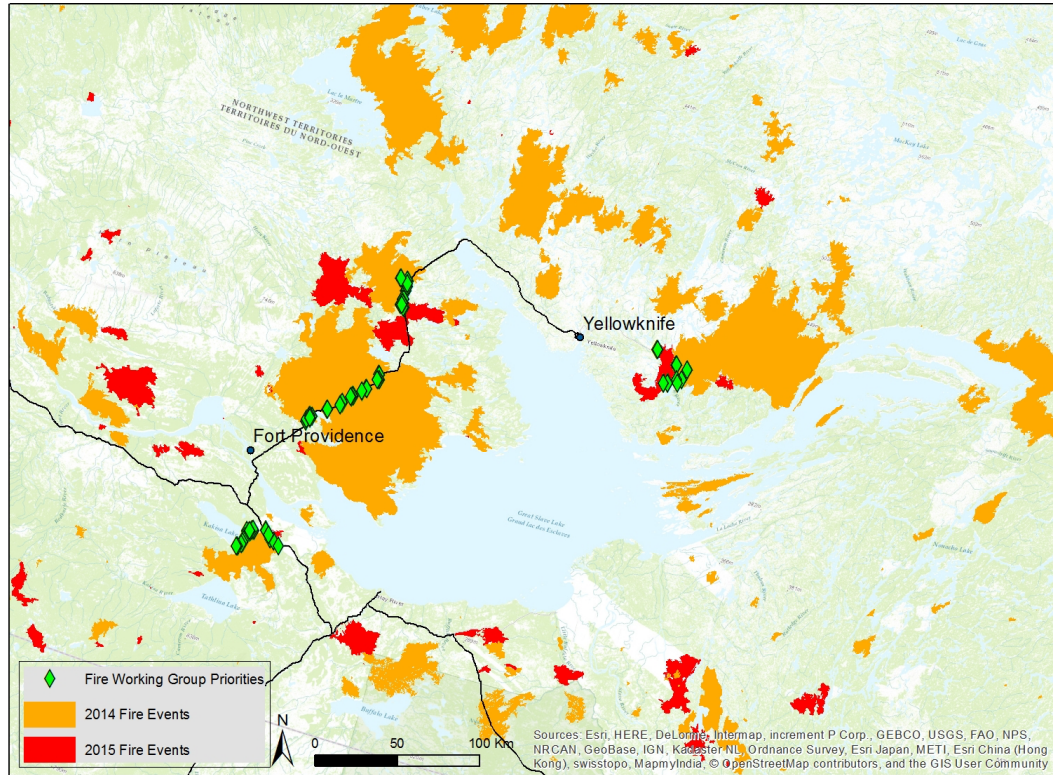


*Mega-slump site SB*

## Peel Plateau (Tank)



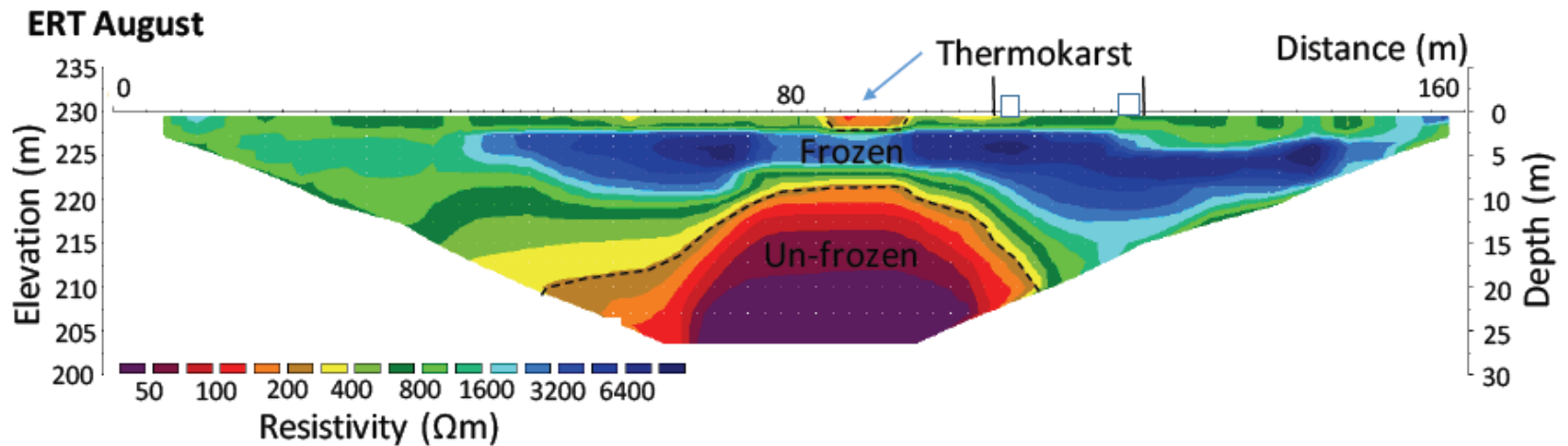
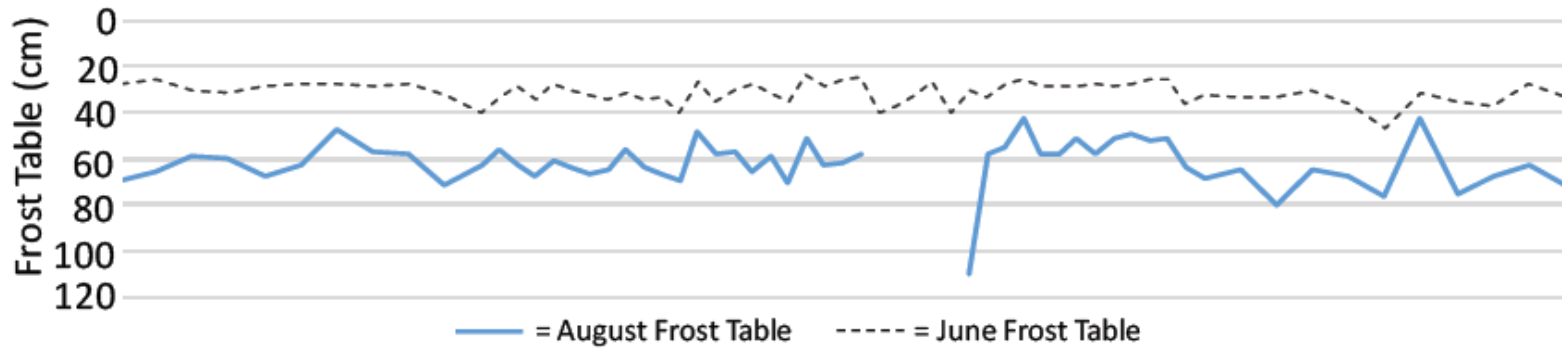
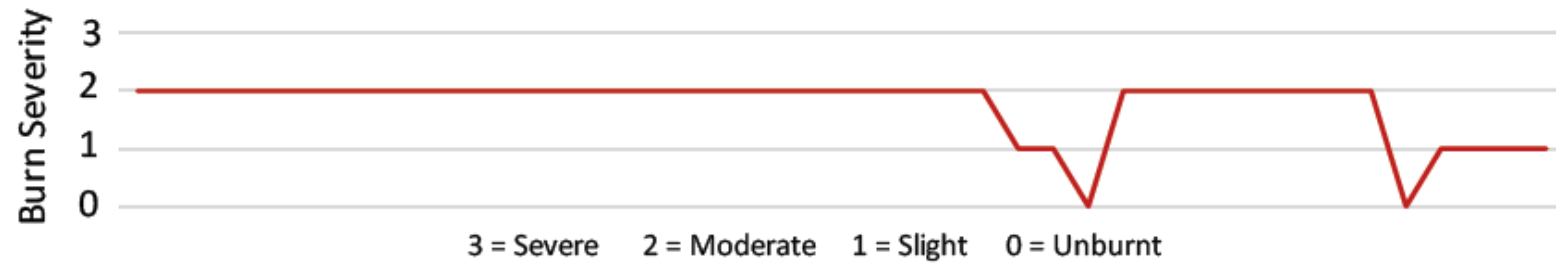
# Focal topics: Thermokarst

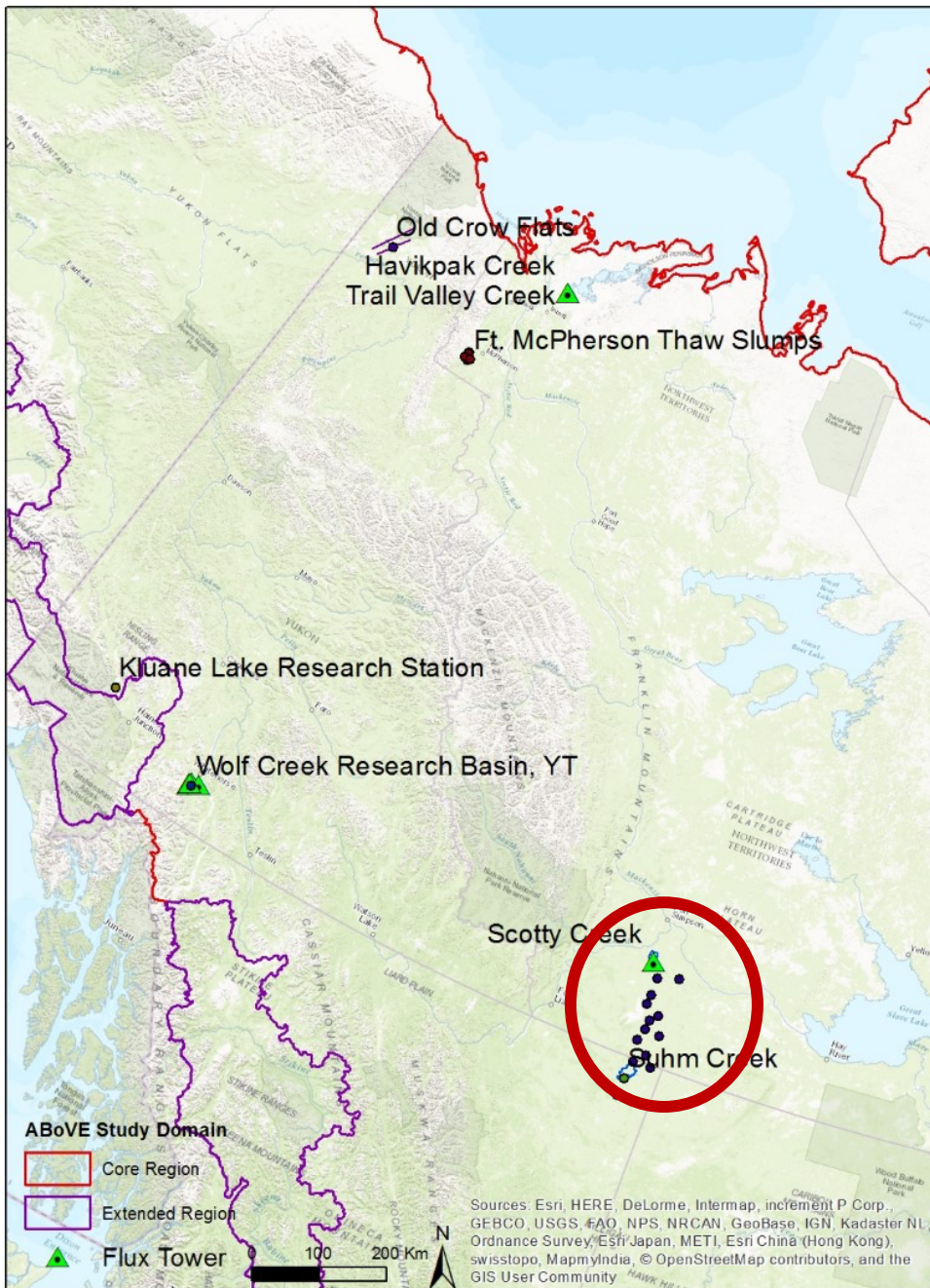


*Turetsky, Baltzer, Mack, Johnstone*



# Peatland Site August 16, 2015

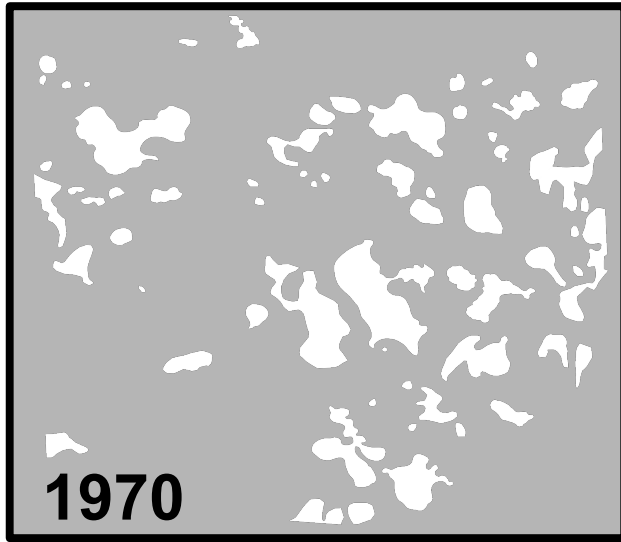




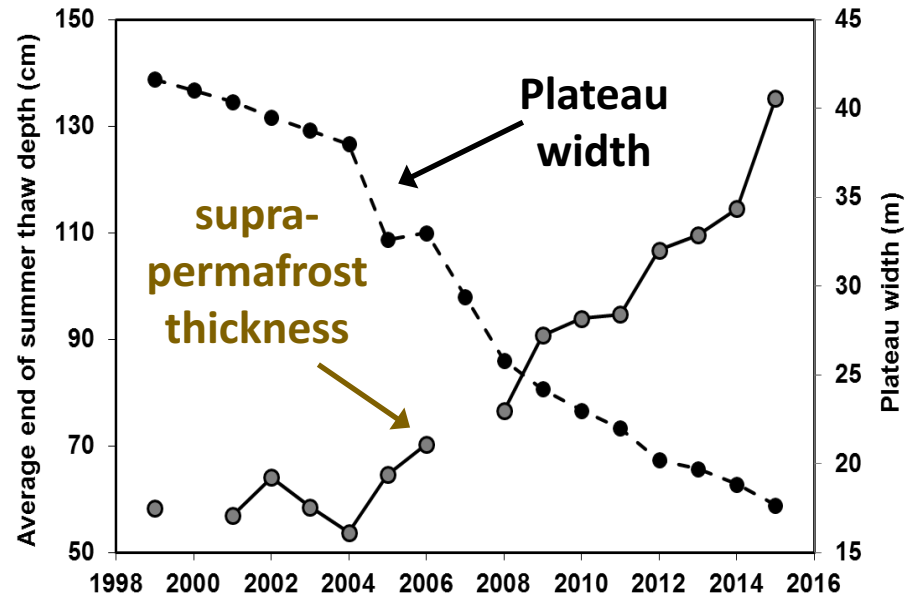
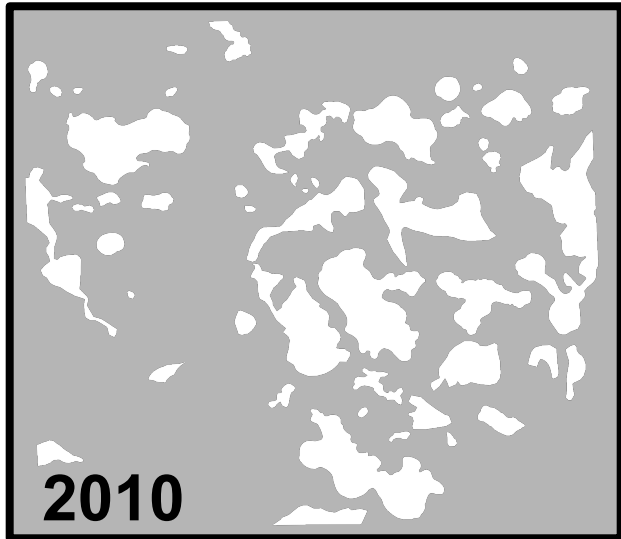
Scotty Creek  
(Quinton et al.  
affiliated project)  
would require a lot of  
flight hours

Thought exercise:  
What would the  
airborne campaign  
miss if these sites  
were not flown?

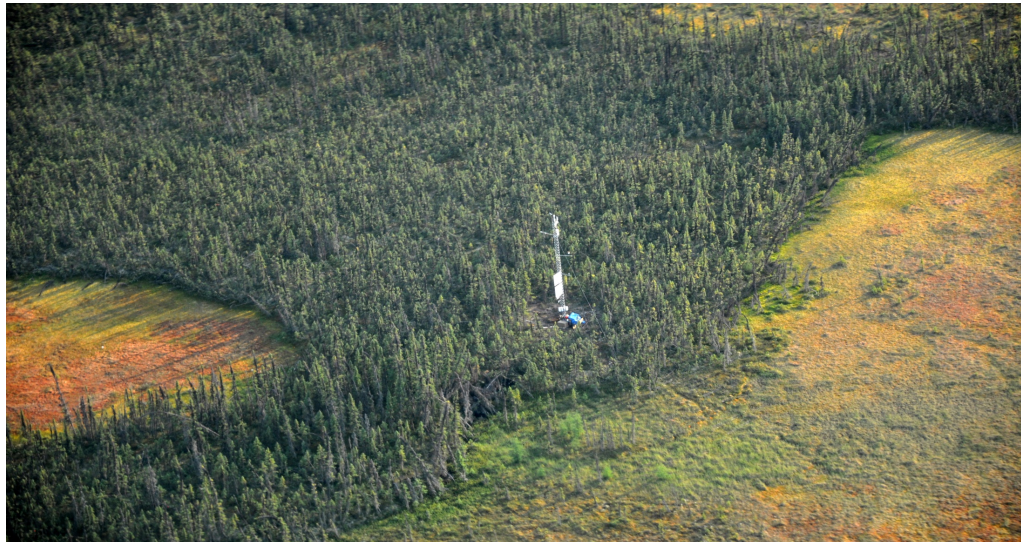
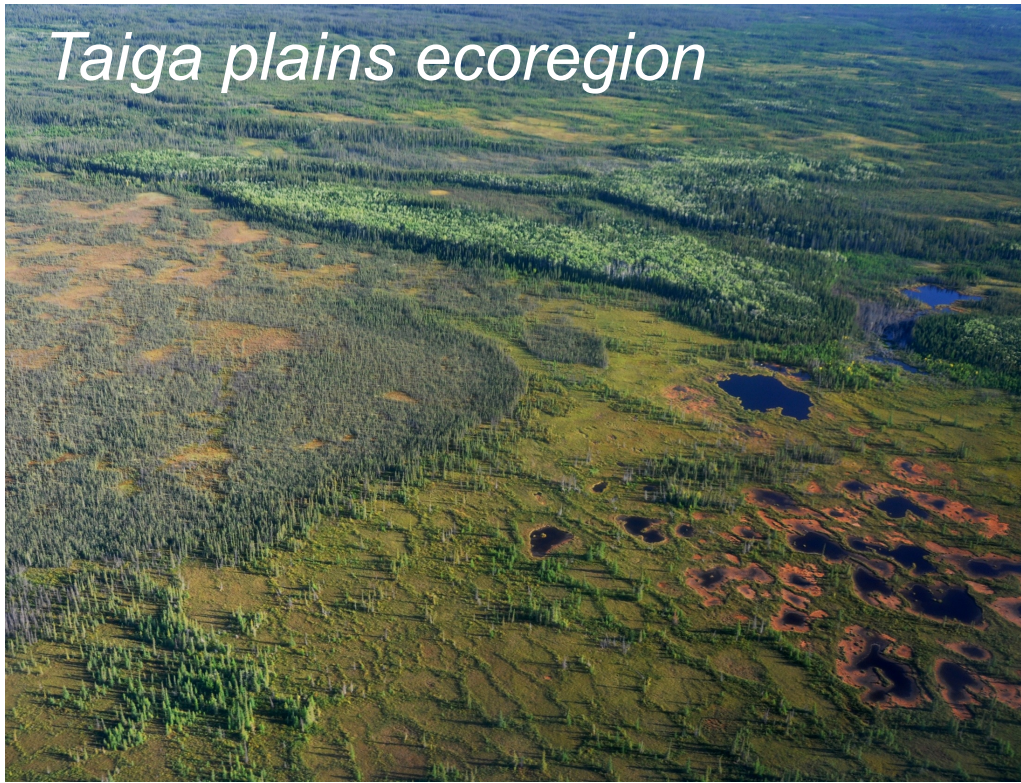
# Scotty Creek – a sentinel of change



■ Permafrost



## *Taiga plains ecoregion*



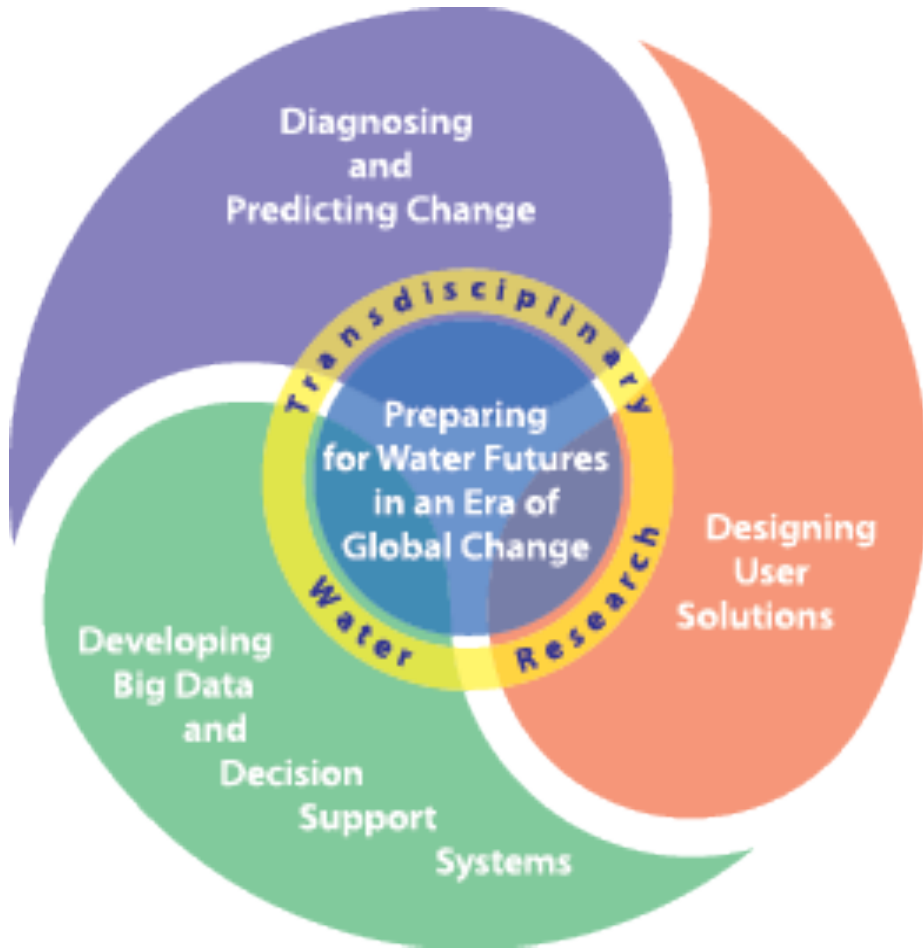
- Alaskan forests and wetlands account for less than 10% of boreal area in North America.
- Canadian boreal wetlands account for 52% of global boreal wetlands and 28% of global boreal forests.
- The road system is biased towards well drained systems

# Partnerships with Global Water Futures (GWF)



CANADA  
FIRST  
RESEARCH  
EXCELLENCE  
FUND

APOGÉE  
CANADA  
FONDS  
D'EXCELLENCE  
EN RECHERCHE



*What can airborne projects contribute to field programs?*

We need help with regionalization. Will talk about this more on Thursday.....