

What, When, and Where for ABoVE

Liz Hoy, Peter Griffith, CCE Office

Sites and Measurements

- Keeping up-to-date with ABoVE research efforts:
 - Where are ABoVE scientists doing research?
 - When will ABoVE scientists be there?
 - What are ABoVE scientists measuring?
- Uses for these data:
 - Coordinating the collection of core measurements at multiple site locations
 - Preparing for the airborne campaign
 - Future planning
 - Identifying collection gaps
 - Other...

Development of Sites
and Measurements Tool

Ground Measurements

- CCEO developed a list of common ground measurements - Use and add to our draft [“defined vocabulary”](#)
- Examples:
 - Wildlife – population, position, age, health, etc.
 - Disturbance – Vegetation type, tundra burn class, drainage class, slope, aspect, etc.
 - Carbon – CO₂, CH₄, CO, 14C, water vapor, etc.

Field Studies Map

- CCE Office is working on a tool to capture and display ABoVE sites and measurements
- PIs or a representative from their project team can input information
 - Plan to know where you will be working, when you will be there, and what measurements you will be collecting before using the tool



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Website Accounts: one username/password needed for the following websites:

- ▶ North American Carbon Program (NACP)
- ▶ NASA Carbon Cycle and Ecosystems (CC&E)
- ▶ NASA Terrestrial Ecology (TE)
- ▶ NASA Carbon Monitoring System (CMS)
- ▶ NASA Arctic-Boreal Vulnerability Experiment (ABoVE)

username:
(email address)

password:

(Remember to sign out)

[Forgot Username or Password?](#)

[Create an Account](#)

What can you do with your website account?

- Receive ABoVE relevant announcements and other informative emails
- Update your contact information
- Update your ABoVE Project Profile and Hazards Assessment
- View/Update your ABoVE Safety Training Plan

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Search Site



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My Account

Welcome Liz!

- ▶ [Administrative Tools](#) >>
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PROJECT: CCE Office Fieldwork

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Select your project: most likely, from a list of 1 or 2

Click on a project below, then click the 'Next' button (top right).

Project	Project Title
CCE Office Fieldwork	
Chopping-03	Changes in Shrub Abundance in Arctic Tundra from the Satellite High Resolution Record for the Arctic-Boreal Vulnerability Experiment and Impacts on Albedo
Cook-B-02	Fingerprinting Three Decades of Changes in Interior Alaska (1982-2014) Using Field Measurements, Stereo Air Photos, and G-LiHT Data
Eitel-01	LiDAR, passive spectral, and ecophysiological approaches to link Forest Tundra Ecotone structure and function
Fisher-01	A Model-Data Integration Framework (MoDIF) for ABoVE Phase I research: simulation, scaling and benchmarking for key indicators of Arctic-boreal ecosystem dynamics

⏪ ⏩ 1 2 3 4 5 ... 5 items per page 6 - 10 of 42 items ↻



PROJECT: Carroll-01

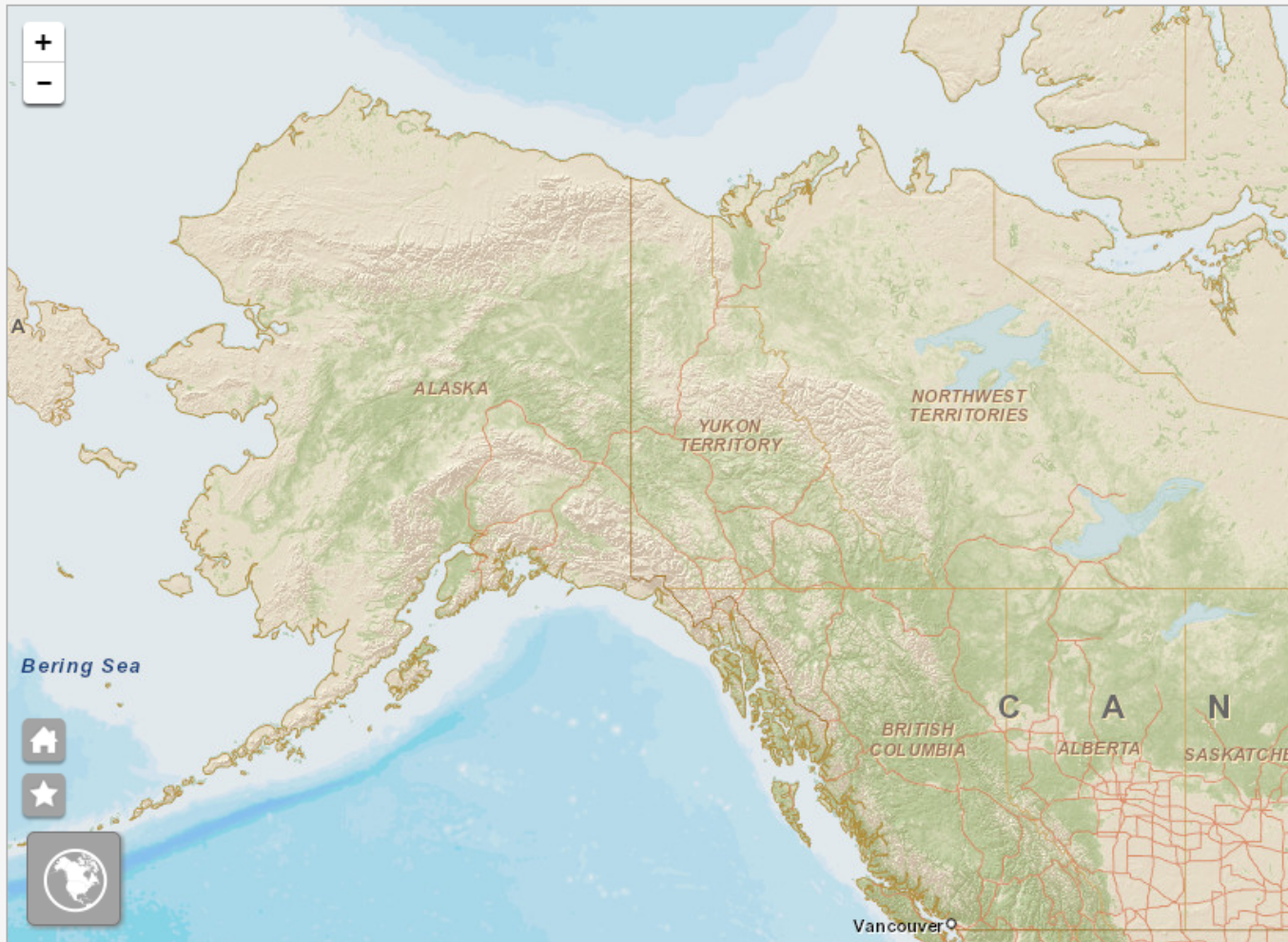
Funding Dates: 2013-05-01 to 2015-05-01
Project Type: Core
Solicitation: Pre-ABOVE: Terrestrial Ecology (2012)
Joined: 2013

Last revised on 2016-01-15 14:56:12

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Sites

Measurements

?

Create New Feature Group:

New

Creating:

Select a Feature Set or Draw your own:

Select/Add the features to the Features List:

Add

Review and Submit the Feature Group:

Reset

Submit



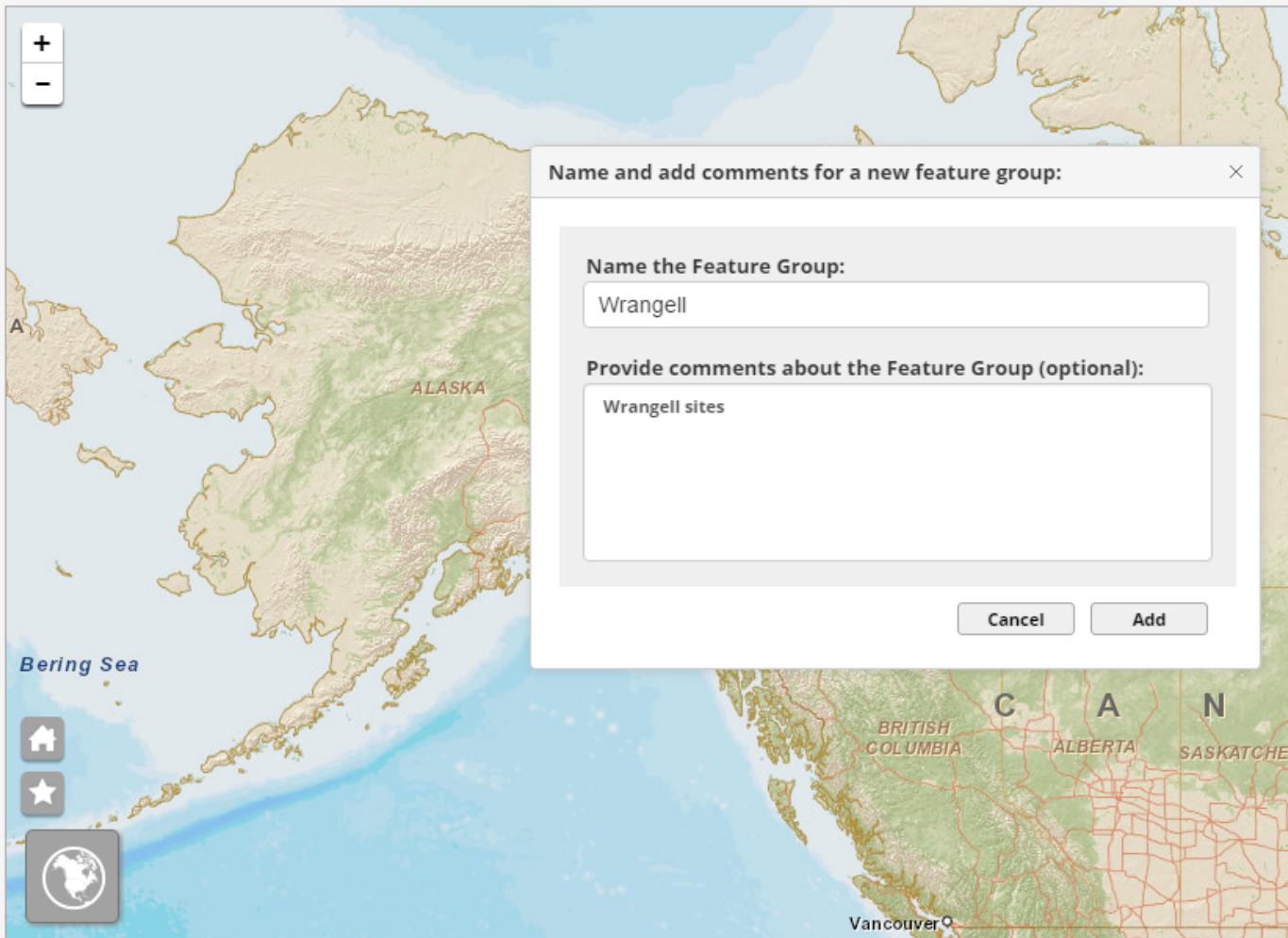
PROJECT: Carroll-01

Funding Dates: 2013-05-01 to 2015-05-01
Project Type: Core
Solicitation: Pre-ABOVE: Terrestrial Ecology (2012)
Joined: 2013

Last revised on 2016-01-15 14:56:1

1. Create a new site

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Sites Measurements ?

Create New Feature Group:

Creating:

Select a Feature Set or Draw your own:

Select/Add the features to the Features List:

Review and Submit the Feature Group:

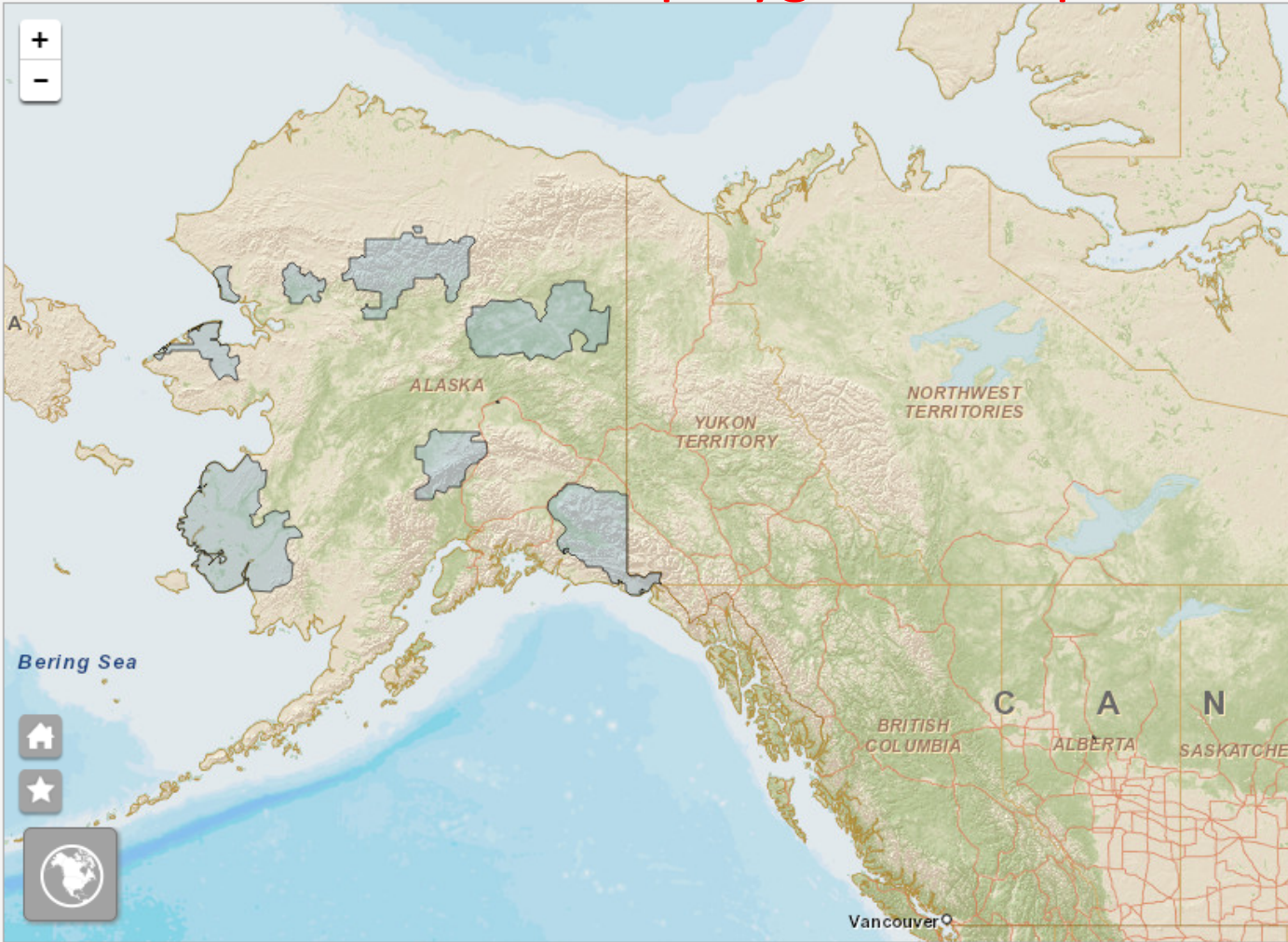


Funding Dates: 2013-05-01 to 2015-05-01
Project Type: Core
Solicitation: Pre-ABOVE: Terrestrial Ecology (2012)
Joined: 2013

Last revised on 2016-01-20 12:46:5

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2. Select location: polygon example



Sites Measurements ?

Create New Feature Group:

Creating: Wrangell

Select a Feature Set or Draw your own:
Parks and Refuges

- Select/Add the features to the Features List:
- KODUK VALLEY NATIONAL PARK
 - Lesser Slave Lake Bird Observatory
 - Wrangell-St. Elias Park/Preserve/Wilde
 - Yukon Delta National Wildlife Refuge
 - Yukon Flats National Wildlife Refuge

Review and Submit the Feature Group:

- Wrangell-St. Elias Park/Preserve/Wilderne

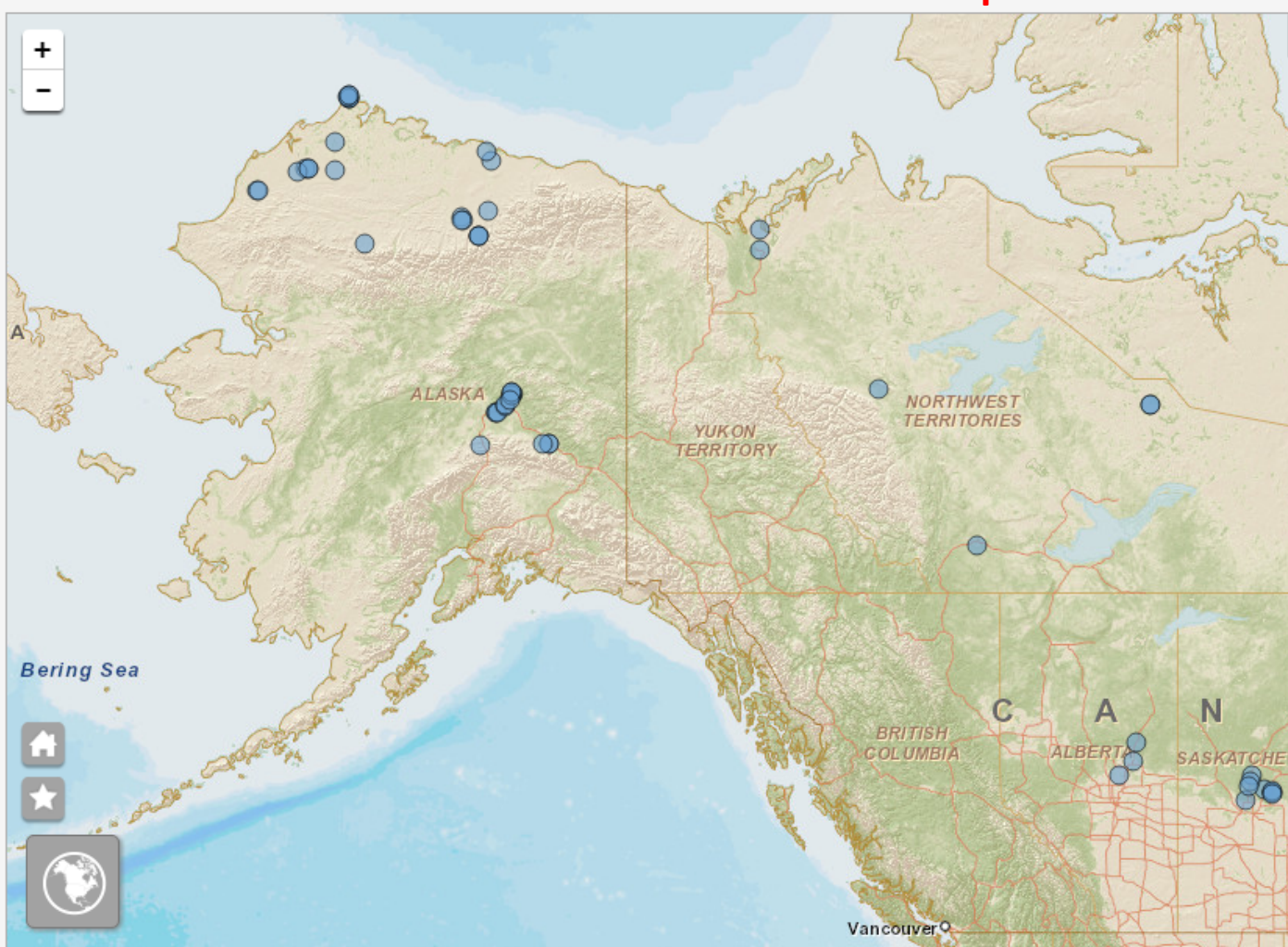


2. Select location: Point example

Funding Dates: 2013-05-01 to 2015-05-01
Project Type: Core
Solicitation: Pre-ABOVE: Terrestrial Ecology (2012)
Joined: 2013

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Sites Measurements ?

Create New Feature Group:

Creating: Wrangell

Select a Feature Set or Draw your own:

- Flux Towers
- Draw Features
- Cities|Towns|Sites
- Flux Towers**
- Logistics Centers
- Parks and Refuges
- Research Stations

Barrow (Biocomplexity)

Review and Submit the Feature Group:

Wrangell-St. Elias Park/Preserve/Wilderne



PROJECT: Carroll-01

2. Select location: Draw your own example

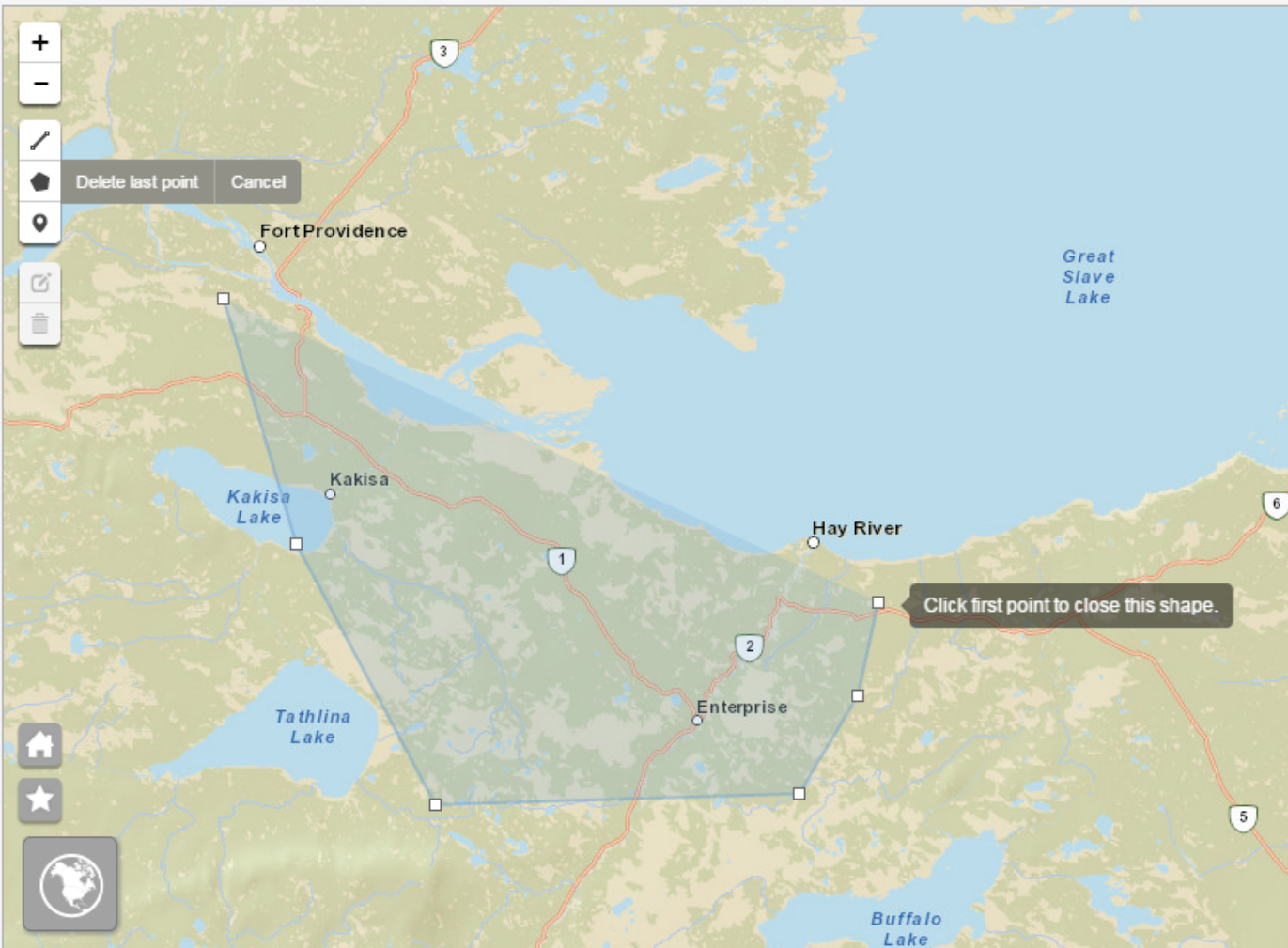
Funding Dates: 2013-05-01 to 2015-05-01
Project Type: Core
Solicitation: Pre-ABOVE: Terrestrial Ecology (2012)
Joined: 2013

Last revised on 2016-01-15 14:56:13

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Sites

Measurements

?

Create New Feature Group:

New

Creating: Yellowknife Fires

Select a Feature Set or Draw your own:

Draw Features

Select/Add the features to the Features List:

Add

Review and Submit the Feature Group:

Reset

Submit

PROJECT: Carbon-01

Funding Dates: 2013-05-01 to 2015-05-01
Project Type: Core
Solicitation: Pre-ABOVE: Terrestrial Ecology (2012)
Joined: 2013

Last revised on 2016-01-20 12:00

3. Add Measurement Information

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Sites **Measurements**

Data Collection Event:

Create Mode

Measurement Types

- ▾ Wildlife
 - Population data
 - Position data
 - age structure
 - health
 - harvest
- Vegetation Structure & Function
- Vegetation Dynamics & Distribution
- Disturbance
- Carbon Dynamics
- Hydrology
- Weather
- Snow
- Permafrost
- Ecosystem Services

Select the measurement

Select the month(s)

2016			2017		
1	2	3	1	2	3
4	5	6	4	5	6
7	8	9	7	8	9
10	11	12	10	11	12
2018			2019		
1	2	3	1	2	3
4	5	6	4	5	6
7	8	9	7	8	9
10	11	12	10	11	12

Submit and you are done!

⊗ Reset ⊕ Add

Next Steps

- Once sites and measurements are entered, CCEO will make available a display interface:
 - Sites and measurements displayed by PI, by working group, etc.
 - Time slider to view sites/measurements over time
 - More detailed project profiles on the website

DigitalGlobe Imagery on the Web

DigitalGlobe EnhancedView Web-Hosting Service ([EV-WHS](#))

ABOVE researchers have online access to view imagery through the DigitalGlobe EnhancedView Web Hosting Service

- Ability to view imagery, however not a space to process imagery
- Imagery from ~2011 and forward is available within the web-based system
- Must adhere to the NASA-NGA data policy and the NextView License to use
- Contact Liz Hoy for directions to sign up (elizabeth.hoy@nasa.gov)



DigitalGlobe EV-WHS

← → ↻ <https://ewhs.digitalglobe.com/myDigitalGlobe/Console.html#18/65.29076/-146.47326> 📍 ☆

Map Options My Imagery Use With Supplemental Layers Analytics Elizabeth Hoy

Search by location name or coordinates... 🔍

Lat: 65° 17' 29.90"N : Lon: 146° 28' 26.54"W Grid Off

BETA Elevation: No data Best

+
-
🏠
⚙️
📍
✍️

Zoom Level: 18
20 m
50 ft

🔄 With Selected... 🌥️ 📄 🗑️ 📷 🔒 📏 ?

2011-04-02 2014-05-13 2015-03-27 2015-03-27

DigitalGlobe EV-WHS

← → ↻ <https://ewhs.digitalglobe.com/myDigitalGlobe/Console.html#18/65.29076/-146.47326> 📍 ☆

Map Options My Imagery Use With Supplemental Layers Analytics Elizabeth Hoy

Search by location name or coordinates... 🔍

Lat: 65° 17' 30.16"N : Lon: 146° 28' 30.97"W Grid Off

BETA Elevation: No data Best

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Zoom Level: 18
20 m
50 ft




🔄 With Selected... 🌥️ 📷 📄 🗑️ 📏 ?

2011-04-02 2014-05-13 2015-03-27 2015-03-27



DigitalGlobe Imagery Tasking

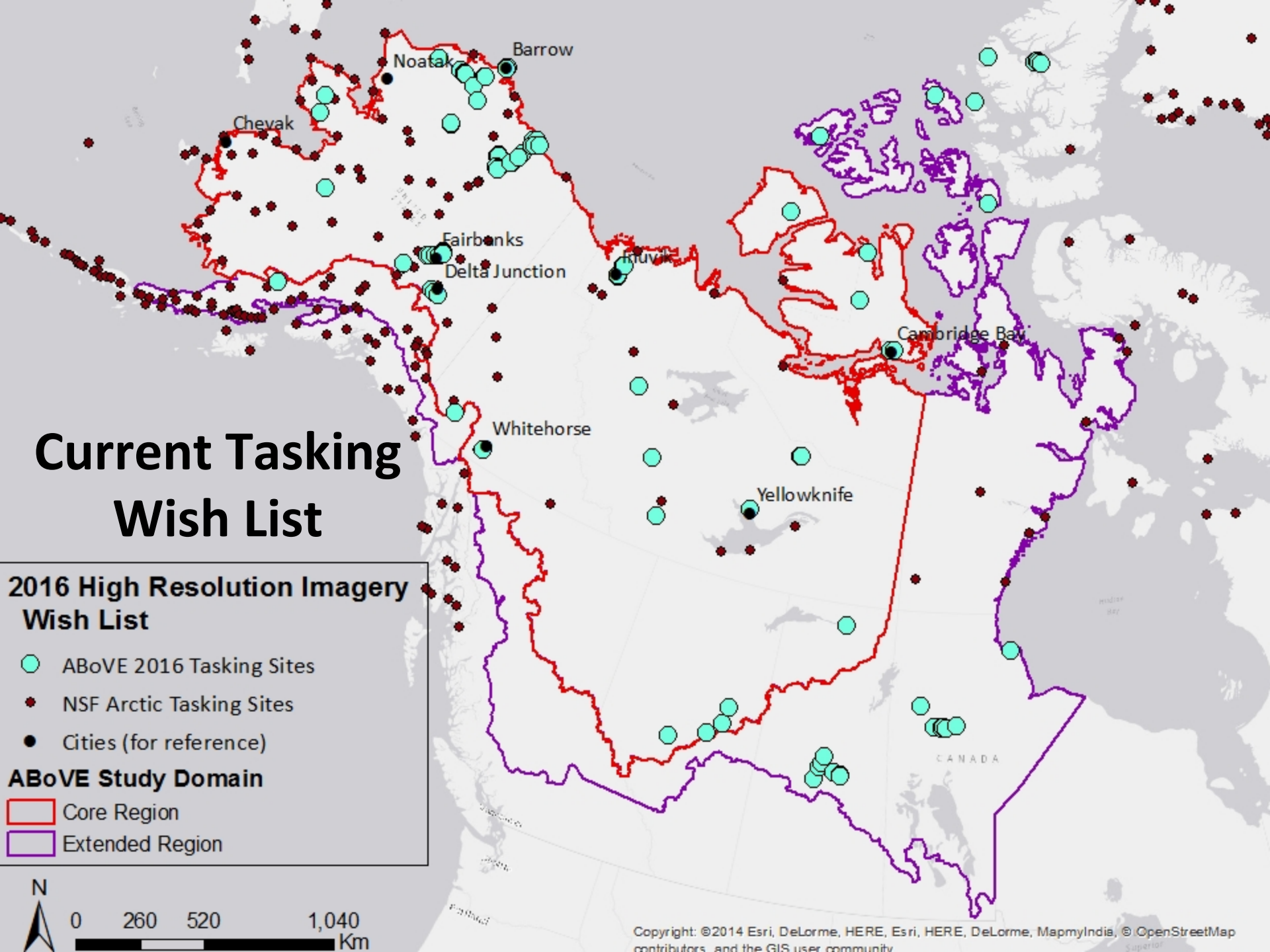
Current Tasking Wish List

2016 High Resolution Imagery Wish List

-  ABoVE 2016 Tasking Sites
-  NSF Arctic Tasking Sites
-  Cities (for reference)

ABoVE Study Domain

-  Core Region
-  Extended Region



DigitalGlobe Tasking

- Please submit new locations to me by Friday (1/22/15)
- Imagery can be requested as
 - mono/stereo
 - Daily/weekly/monthly/once
 - Panchromatic/multi-spectral
- Imagery collection is not guaranteed, but we will do our best