



Annual Toolik GIS Report

Overview

- **Highlights From 2016**
- **Update on Data Management Plan**
- **Update on Online Mapping Service**
- **Website Usage & Metrics**



Requests Completed

2016: 203 Requests from 39 Institutions

2015: 213 Requests from 36 Institutions

2014: 253 Requests from 33 Institutions

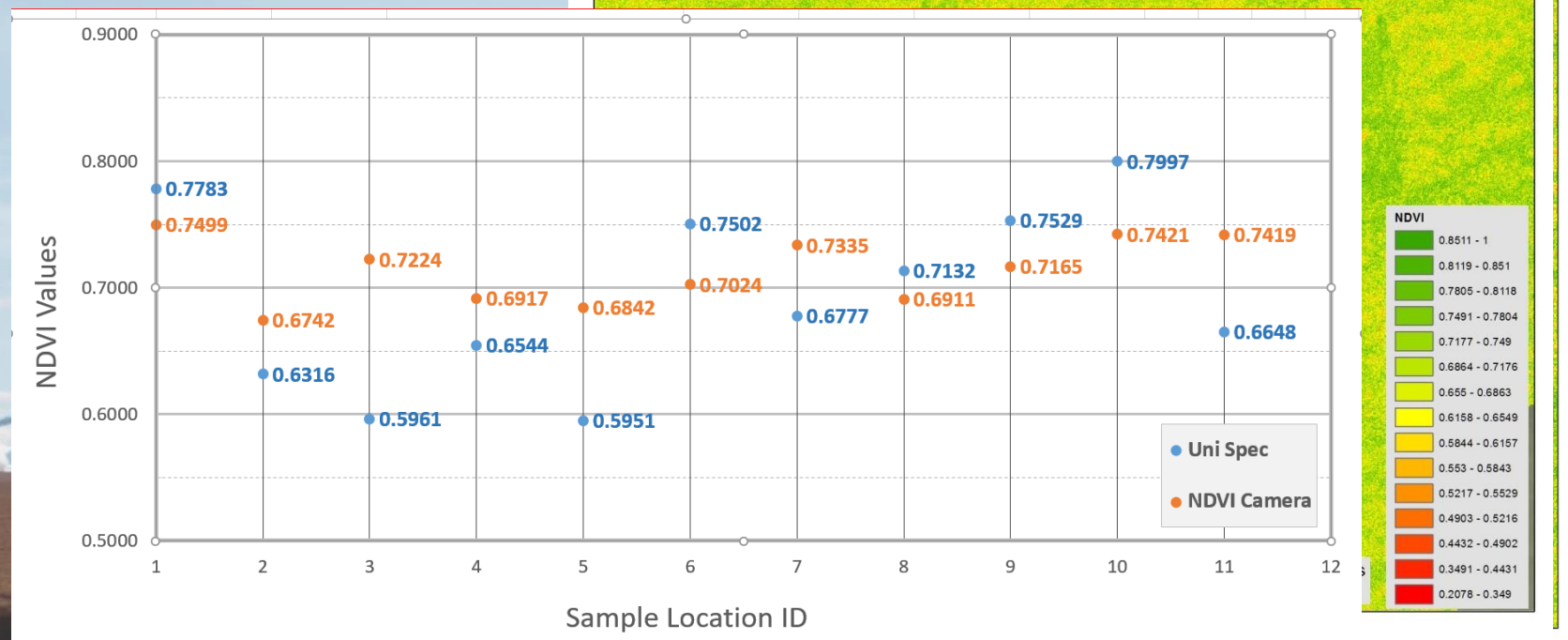
2013: 215 Requests from 28 Institutions



Requests

Drone Applications for Arctic Ecological Research

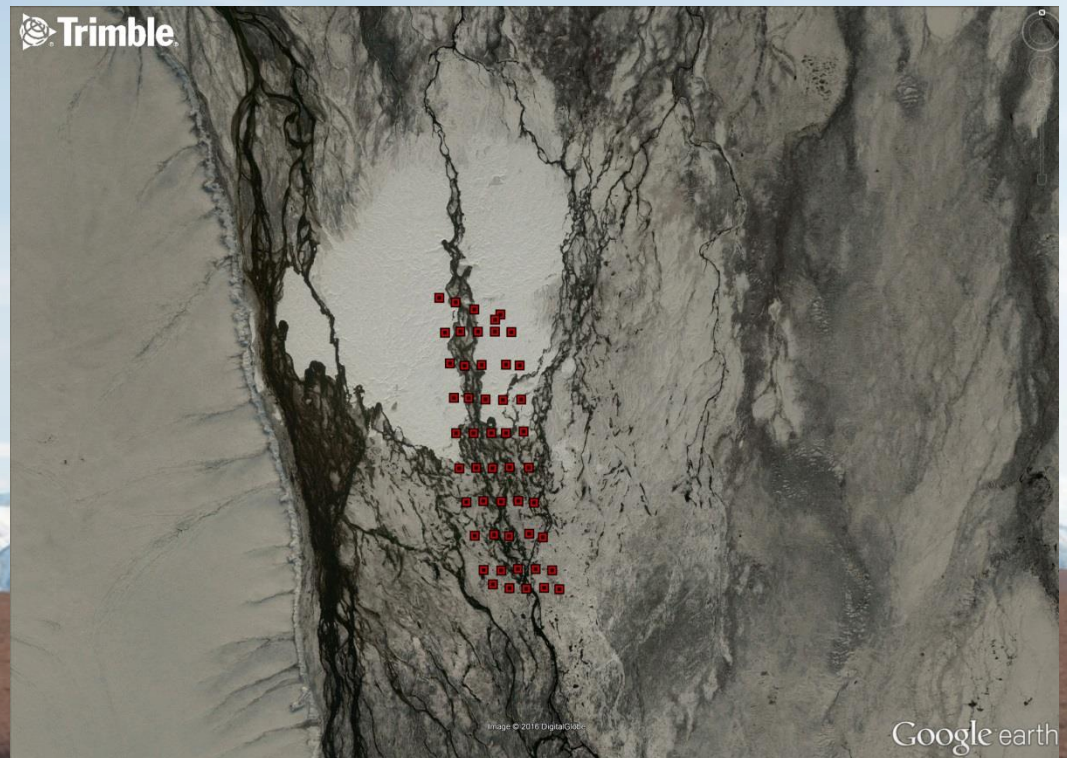
- Flew Small Select Research Areas
- Multiple Cameras



Requests

Summer Field Support

- Provided Field Support for 13 Projects
 - Collected High-Accuracy Elevation Measurements



Requests

Site Selection

- Provided Assistance to 14 Research Groups
 - Alison Beamish
 - Jenny Dalton
 - Daniel Obrist
 - Jan Eitel
 - Javier Fochesatto
 - Becky Hewitt
 - Hollis Woodward
 - Alex Huryn
 - Anne Klene
 - Anna Liljedahl
 - Sue Natali
 - Virginia Walker
 - Matt Walsh
 - Boelman/Gough/Rowe

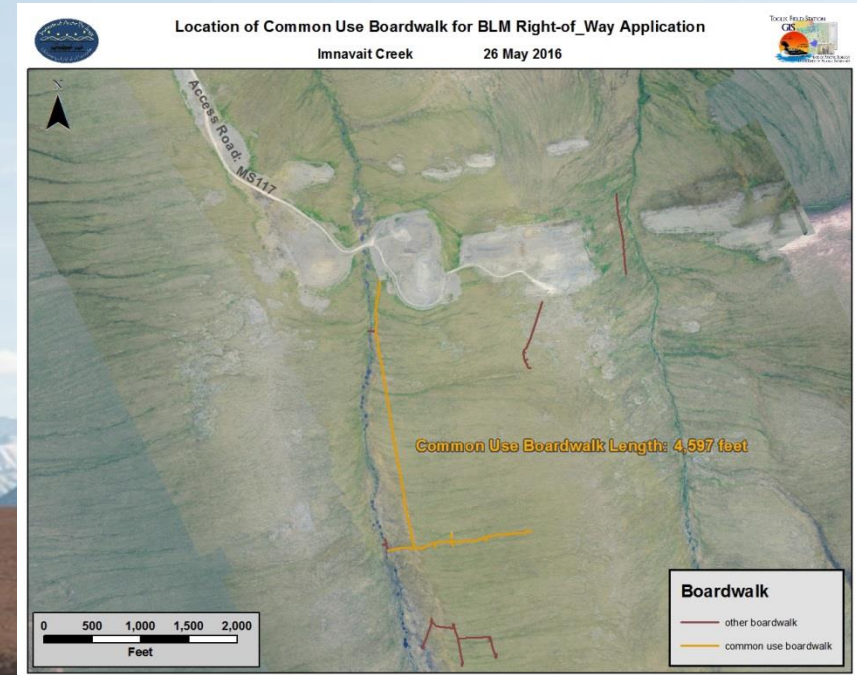
NEON Terrestrial & Aquatics Support

- **Worked Extensively with NEON**
- **Avoid Conflicts with Existing Research Sites**
- **Ongoing Process**



Upgrades to Common Use Boardwalk

- Continued Collaboration With CPS Staff and Toolik Researchers
- South of Toolik in Good Condition
- Shifted Focus to Imnavait for 2016



Long-term Data Management Plan

- **UAF's International Arctic Research Center**
 - **Automated Backup & Storage**
 - **Backed Up on Weekly Basis**
 - **Redundant Backups**



Online Mapping Service

- Science Data Layers
 - NDVI
 - Stream Gauges
 - Fires

The screenshot displays the USGS National Water Research Institute (NWRI) online mapping service interface. The top section shows a map of the Chukchi Sea with various data layers overlaid. The bottom section displays a detailed view of the 'NDVI Trend within NASA ABoVE Study Domain' layer, including a description, layers, access and constraints, and a comments section.

USGS National Water Research Institute (NWRI) Online Mapping Service

Home | Toolik Field Station - Science Data Layers | New Map | Create Presentation | Randy

Details | Add | Edit | Basemap | Analysis | Share | Directions | Bookmarks | Find address or place

Contents

- Toolik Field Station
- Highways: To/From Toolik Field

Click to h... Dec 14, ...

Toolik Field Station - Transportation

Chukchi Sea

NDVI Trend within NASA ABoVE Study Domain

Overview

Trends in vegetation greening and browning across the NASA ABoVE Study Domain

by ehoy2013
Last Modified: October 21, 2014

Tile Layer

Add to Favorites

Description

Growing season NDVI trends were calculated from per-pixel averages of June, July and August bi-monthly, 8km resolution GIMMS 3g NDVI for the years 1982 to 2010. The trends were calculated using the Theil-Sen trend estimator and significance estimated using the Mann-Kendall test (both found in the R "zyp" package). All trends are shown here (not just statistically significant ones). Compared to a simple linear regression, the Theil-Sen slope estimator is more robust to outliers, as it estimates the slope of a time series as the median of all slopes between pairs of observations in the time series. After calculating the trend, the data were projected from LatLong to the Canada Albers Equal Area projection.

Full details regarding this dataset are available through the following journal article:
Guay, K., Beck, P., Berner, L., Goetz, S., Baccini, A. and W. Buermann. Vegetation productivity patterns at high northern latitudes: a multi-sensor satellite data assessment. Global Change Biology 20 (10): 3147-3158, doi:10.1111/gcb.12647. URL: <http://dx.doi.org/10.1111/gcb.12647>.

Layers

NDVI Trend

Access and Use Constraints

Full details regarding this dataset are available through the following journal article:
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Comments (0)

Leave a comment.

Owner

ehoy2013

Tags

ABoVE, NDVI, greening, Alaska, Canada, browning

Credits (Attribution)

Guay et al. 2014 GCB

URL

<https://tiles.arcgis.com/tiles/3qfp2F8C>

Website Usage - Metrics

10 Most Popular Pages

- | | |
|------------------|--------------------|
| 1. Homepage | 6. Statewide Maps |
| 2. General Maps | 7. Online Mapping |
| 3. Data Download | 8. Photos/Imagery |
| 4. Thematic Maps | 9. Service Request |
| 5. Maps Homepage | 10. Plots/Permits |

Downloads - Oct. 1, 2015 to Sep. 30 2016

Maps – 307 Unique Users, 120 Maps, 1345 Downloads

GIS Data – 355 Unique Users, 61 Files, 3988 Downloads

Toolik GIS

