



Annual Toolik GIS Report

Overview

- **Highlights From 2018**
- **Website Usage & Metrics**
- **Summer Internship Program**
- **Archaeological Survey**
- **Repeat Aerial Photographs**
- **Unmanned Aerial System (UAS) Services**



Requests Completed

2014: 253 Requests from 33 Institutions

2015: 213 Requests from 36 Institutions

2016: 203 Requests from 39 Institutions

2017: 224 Requests from 34 Institutions

2018: 207 Requests from 33 Institutions



Website Usage - Metrics

10 Most Popular Pages

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

Downloads - Oct. 1, 2016 to Sep. 30 2017

Maps – 468 Unique Users, 191 Maps, 3892 Downloads

GIS Data – 226 Unique Users, 51 Files, 1651 Downloads

Requests

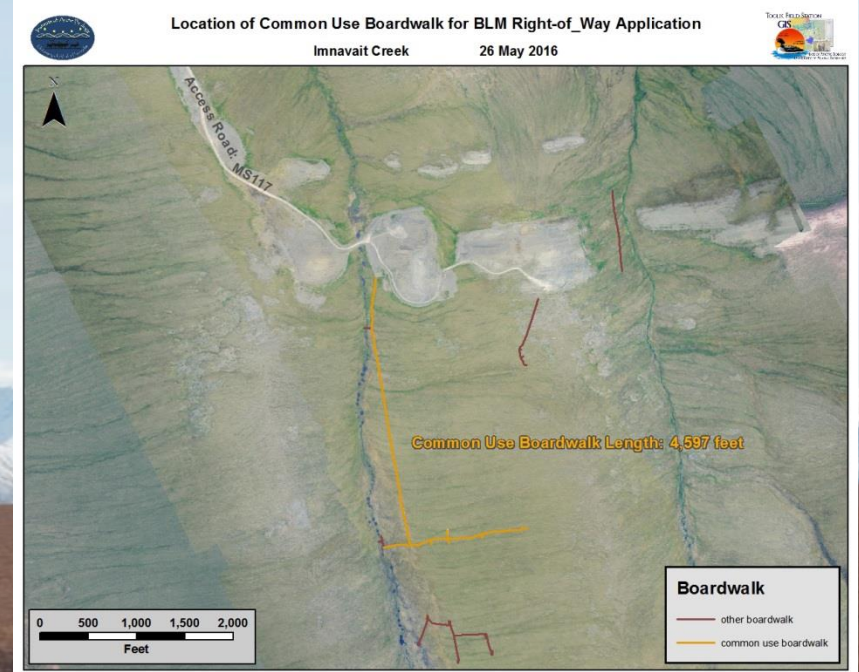
Site Selection

- **Provided Assistance to 9 Research Groups**
 - **Vole Project**
 - **Ameriflux**
 - **Renier Geisler (INTERACT)**
 - **Arctic LTER**
 - **Maija Marushchak (INTERACT)**
 - **Doak & Morris**
 - **Ruud Rijkers**
 - **Alireza Tabatabaeenejad**
 - **Yonghong Yi**



Upgrades to Common Use Boardwalk

- Continued Collaboration With CPS Staff and Toolik Researchers
- South of Toolik in Good Condition
- Imnavait Main Boardwalk Repaired
- Toolik Inlet / Lake I-8



Summer Internship Program

- Hands On Training and Experience
- Spatial Surveying Tools, Techniques, and Processing
- Contributed to GIS Program



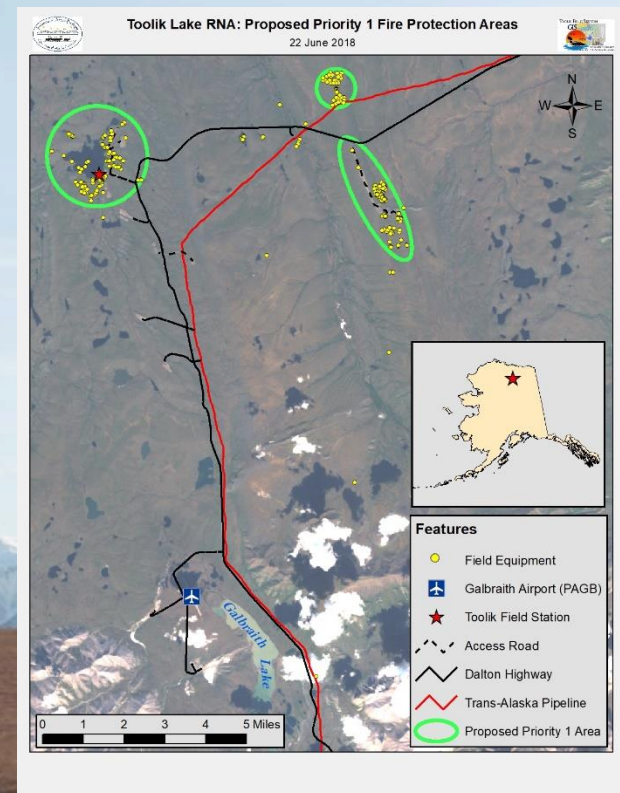
Archaeology Survey Support & Coordination

- **On-site Archaeology Survey - Summer 2018**
- **Planning Meetings, Data Sharing**
- **Toolik GIS Staff On-Site During Survey**

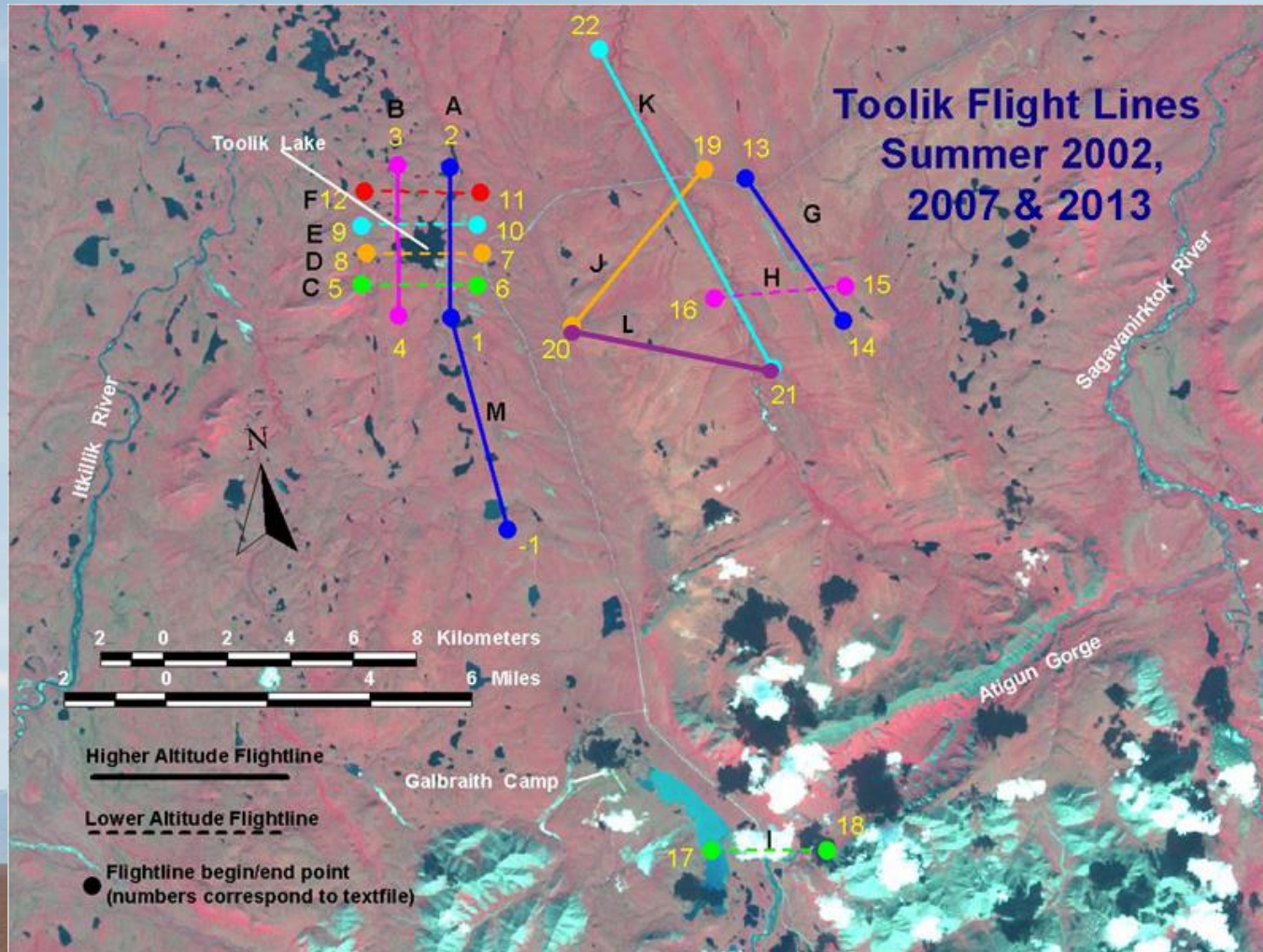


Fire Management at TFS

- Meetings With BLM Fire Management Office
- No Retardant in Zone Around TFS
- Prioritize Saving Equipment in Field



Aerial Photo Collection 2018

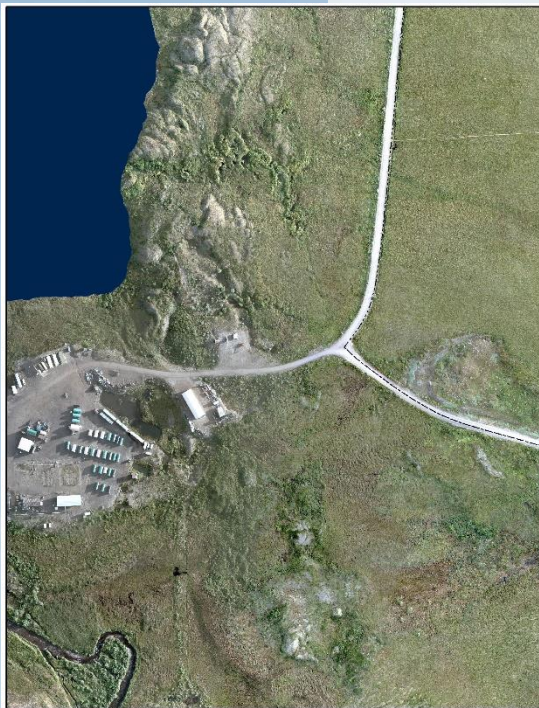


UAS Services

- **2017 Proof of Concept**
- **2018 Offered Services to Research Community**
- **Services in High Demand**
 - **Had to Defer Some Projects Until 2019**
- **Committed to Supporting 7 Research Projects**



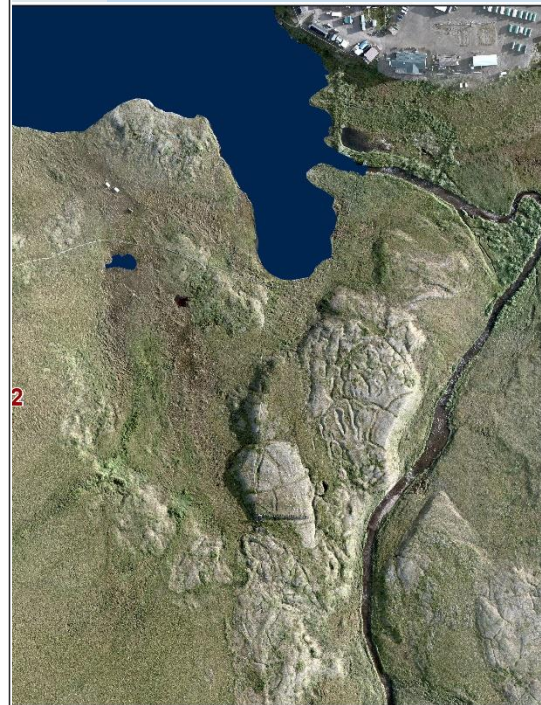
UAS Services



400 450



34,000m²



2

UAS Image Processing

- **Desktop Computer: 3.5 Days Processing**
 - **Desktop Cost - \$6200**
- **Amazon's "Ferrari" Instance: 6.5 Days Processing**
 - **Processing Cost - \$4415.26**



Toolik GIS

