

Input from Toolik Users

A photograph of a field station in a tundra landscape. In the foreground, there is a body of water. In the middle ground, a cluster of small, colorful buildings (green, blue, and white) is visible. In the background, large, rugged mountains are covered in snow under a clear sky.

Management & Operation Issues, Field Season 2014, Toolik Field Station

Communication with users

- Toolik Survey of all science users under the current CA
- Toolik Steering Committee
 - 2 meetings this year
 - Thank you for your time and assistance!
- Two User Forum meetings at TFS; notes on web
- Two Title IX outreach sessions at TFS
- Personal contacts with concerned individuals

Toolik Survey September 2015

- Successfully invited 781 people (74% of science users 2011-2015) by email
- Received 105 responses
 - 36% PI/co-PIs
 - 29% agency (federal or state) or other researchers
 - 13% Postdoctoral researchers
 - 26% Graduate students
 - 3% Undergraduate students
 - 6% Field trip participants
 - 15% Others
 - Respondents could choose >1 category

Quantitative Results

- Overall TFS management & science support services
 - 95% satisfied, 1% neutral, 4% not applicable
- GIS, EDC, and Maintenance/Science Support services
 - 72-90% satisfied, 0-5% neutral, 10-26% had not used these services
- Food service, transportation, logistical help in Fairbanks
 - 74-98% satisfied, 1-2% neutral, 1-23% had not used these services

Quantitative Results

- Residences
 - 92.5% satisfied, 5.4% neutral, 2.1% no opinion
- Lab space
 - 66% satisfied, 4% neutral, 1% dissatisfied, 29% did not use
- Internet connectivity
 - 83% satisfied, 3% neutral, 7.5% dissatisfied, 6.4% did not use
- Expand Education Mission at TFS
 - 74% agree, 12% neutral, 4% disagree, 9.7% no opinion

Lots of comments!

- Research at TFS was very important for many respondents' career development
- Working at TFS and interacting with other researchers promotes collaboration and convergence in research
- Researchers are very attached to Toolik; there is a strong sense of community and of place

A few quotes from the survey

- *“From my perspective, no other field station provides the excellent atmosphere and facilitates research the way that you do. The first class management, logistics, science support, GIS, EDC, EMT, and food service as well as wonderful group of scientists all contribute to the top notch facility and environment.”*
- *“The station provided unmatched support during my research endeavors and exposure to the community helped me stay abreast of other research.”*
- *“Toolik Field Station has been a pivotal part in the development of my science career. It not only allowed me to have first hand experience in field research techniques, but also fostered an interdisciplinary environment which exposed me to the realm of paths that I can pursue in my scientific career”*
- *“The Toolik Field Station community is exceptional. Via conversations in the field, assisting on projects, annual LTER meetings, the now annual AGU meeting with Arctic ecosystem emphasis, we develop ideas for collaborative proposals.”*
- *“Made a lot of key connections. It was crucial to my advancement. Honestly probably the best single networking opportunity I have ever had.”*
- *“Being part of the Toolik community played a key role in my scientific career; the bulk of my thesis research was done there. The community helped me by providing me with advice on my project, new ideas through discussions with other researchers, and valuable contacts that have served me throughout my time at grad school.”*
- *“Interacting with other scientists, of all levels, while at TFS has been very beneficial from a networking perspective. The EDC has been very helpful with ancillary data collection and even helping out with off-season sampling we couldn't do ourselves. The science support staff has been invaluable in helping build field equipment and troubleshoot. The GIS office is also super helpful and responsive. I feel VERY fortunate to have all of these resources at my fingertips.*
- *“My visit to Toolik this year was very helpful in generating research questions and hypotheses as I start a new PhD program at Dartmouth College.”*

Various specific suggestions

- Will not summarize all here
- Each department has studied the survey to look at the comments applicable to them
- We will implement those that we can
- Concerns about Thom Walker leaving, Jeff Spencer leaving, other personnel actions
 - In a close community, questions are natural
 - What we can reveal is very limited, due to HR regulations, legal concerns

Survey Results

- If you are curious, you can view full survey results at
- <https://www.surveymonkey.com/results/SM-KQGJJV3Y/auth/>
- Password: tfssurveydata2015
- We will conduct more surveys in the future

Toolik Steering Committee

- Provides input to IAB and NSF on the management and operations of the Toolik Field Station, including the services that we offer under our Cooperative Agreement (CA) with NSF
 - Supported by the CA
- Provides input on development of the station, and how it can best meet needs of a broad community of scientists using TFS as a research & education platform
 - Helps facilitate site selection of research plots (if there is a conflict)
 - Provides input on issues related to coordination of science support services & other issues

Toolik Steering Committee

- Members:
 - Steve Oberbauer (co-Chair)
 - Breck Bowden
 - Gus Shaver
 - Michelle Mack
 - Mike Weintraub
 - Ian Billick
 - Dan White
 - Helen Chmura
 - Faustine Bernadac
 - Donie (co-Chair), Brian, Mike, and Brett
- Meets at TFS in summer, in Fairbanks (or Portland) in winter, as desired in between by teleconference

User Forum comments

- On-site user concerns & comments:
 - Common use equipment requests; boardwalk buggy, pH meters suitable for soils, new rechargeable batteries for the electric drills, a third microscope camera, more/better ice augurs, tire repair kits for bicycles, a kayak, newer snowmachines
 - Concern about safety using older snowmachines
 - Discussion about sauna schedule, and loss of one sauna day
 - Changes to the types of helicopters stationed at Toolik require more trips, because the helos can carry less (resolved by CPS)
 - Extensive discussion/requests for greater use of Renewable Energy, better energy efficiency
 - There is not much racial diversity at Toolik. How can we make it less white?
 - Possible disturbance of archaeological sites at the north end of the lake; please do not pile rocks there
 - Lots of use of the suggestion box, primarily in relation to food (comments were mostly positive this year)

Appreciation

- On-site staff very helpful
 - Kudos to Brie, Seth, Adeline, Jeb, Joe, Molly
- Kudos for the website, and its ease of use
- European visitors (INTERACT groups, Ellen Dorrepaal) appreciate TFS support
- EDC data is very useful
 - Consider adding phenology monitoring for more species, especially forbs, in more habitat types
 - Consider adding more information on senescence
- EDC help provided to projects is very useful
- GIS department help with permitting, maps is greatly appreciated

Frustrations

- Continuing frustration with internet connectivity
 - Less frustration than in previous years but still some complaints
 - Need to complete fiber upgrade
- Vehicles - for more for common use, need to replace long-haul vehicles, and for LTER

Issues

- BLM permitting continues to be perceived as challenging and expensive
 - Switching over to Right-of-Way instead of permit for long-term projects
 - BLM is far behind in dealing with applications, prioritizing new research applications over conversions
 - Toolik BLM lease is now complete, under review by UAF legal counsel
 - Toolik will hold permit for common-use boardwalks
- BLM's revision of Resource Management Plan for Dalton Highway corridor not expected for 2-3 years
- Site selection
 - Most site selections went well this year

Issues

- Common resources off the pad
 - Ex: Boardwalks - permitting, repair: TFS will hold permit for common use boardwalks
- Anxiety about future funding for science, logistics costs, changing demography and project base
 - We would like to help as much as possible, but some things are beyond our control

Issues

- Desire to coordinate and integrate scientific research and measurements
 - Preserve legacy of institutional knowledge as PIs retire
 - Toolik Field Station searchable on-line database of Toolik publications – updated this year, merged with LTER publication database
 - TFS will create Toolik Information System with metadata on projects and links to data; possibility of archiving data for non-LTER projects, if not archived elsewhere
 - “Toolik sessions” at AGU to promote collaboration – 2nd year, good attendance

