



# Toolik Field Station

## 2025 Overview



# Staff changes

## Farewell

Laura Belval

Faye Ethridge

Scott Filippone

Randy Fulweber

Justin Johnson

Mike Reynolds

Matt Walker

Jorge Noguera Tapia

## Welcome

Lindsey Clark

Brian Tamm

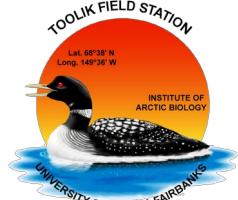
\*New Station Supervisor\*

\*New GIS Manager\*

**Happy retirement to Brian Barnes!**

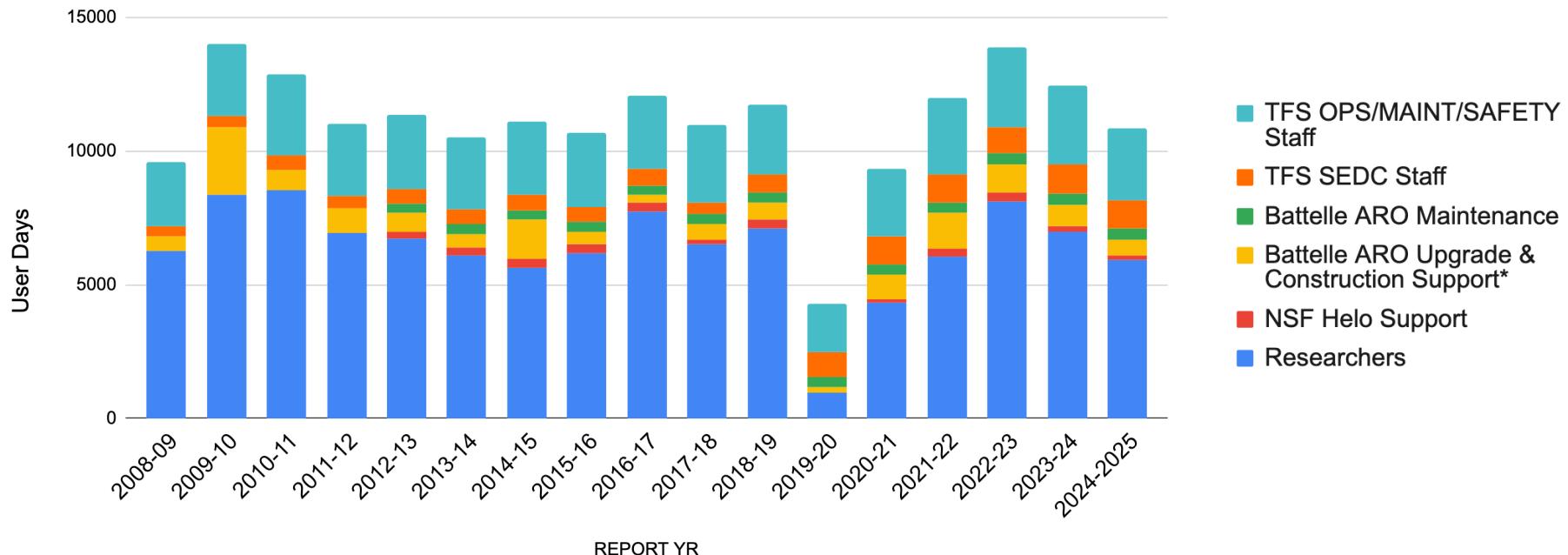


# 2025 Operations



# Total user days

Station Occupancy (2008-present)



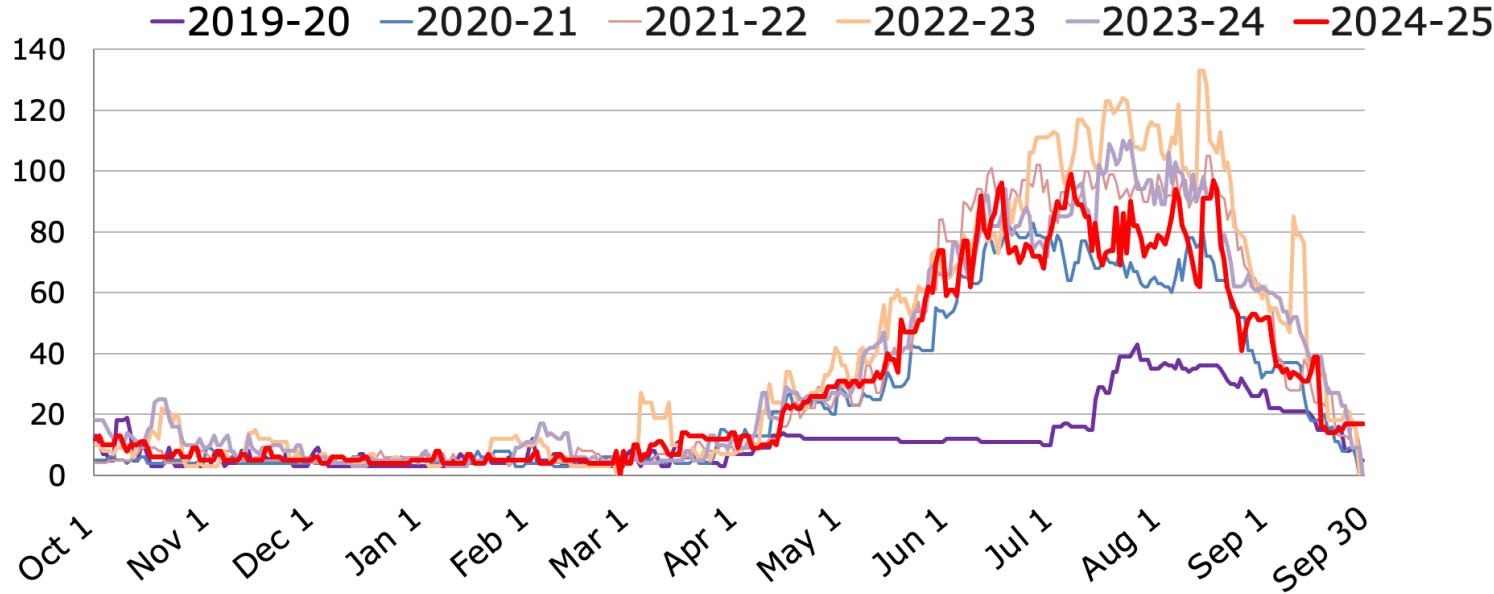


# Daily population

TOOLIK FIELD STATION

1 OCT TO 30 SEP

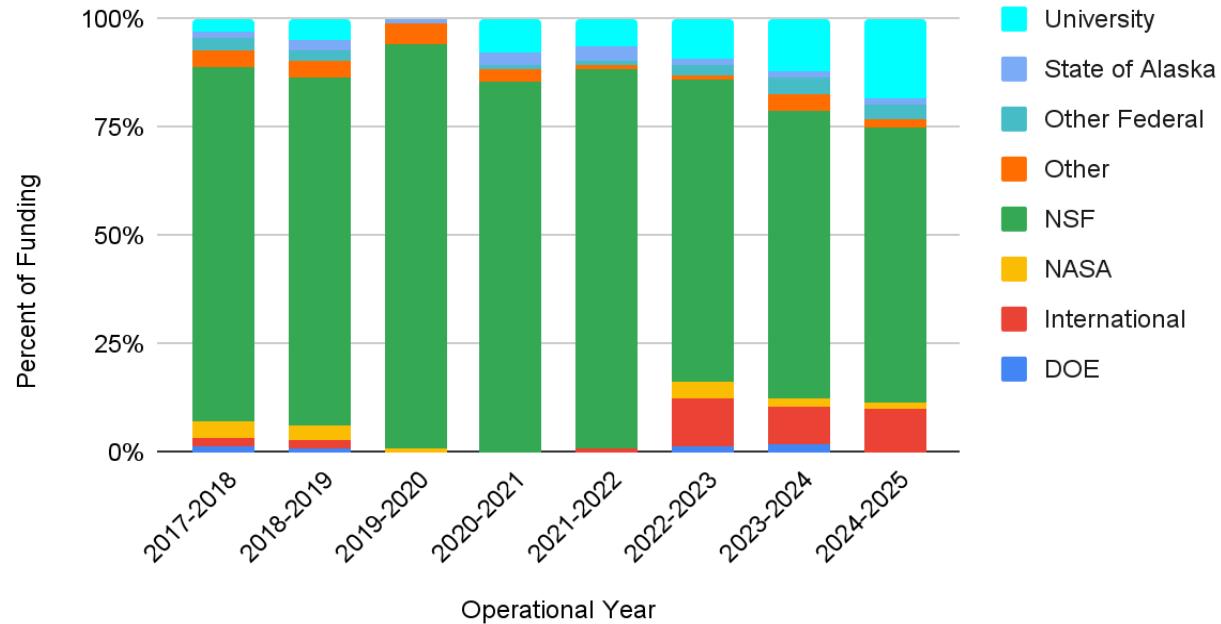
FIELD SEASONS 2019-20 TO 2024-25





# User days by funding source

Funding source since 2017-2018



- Efforts to diversify funding are starting to show results
- University = invoicing university. Funds constitute a mix of field courses, projects in no-cost extensions, and university funding.



# New projects - 2025

- Numerous Aurora Projects
  - Stephen Kaepller - Clemson (NSF AGS)
    - Taking over Jim Labelle's antenna array
  - Emma Spanswick - UCalgary (Can. Fund for Innov)
    - Blue light camera and HF Antenna
  - James Hecht - Aerospace Corporation
    - Photometer (Aero.Corp/NASA)
- Geology of Arctic Sedimentary Basins
  - Jared Gooley (USGS)
- Soil to Sea: the fate of terrestrial permafrost carbon in aquatic systems
  - Evelyn Keaveney (UK NERC)
- EVOME - started in earnest
  - Linda Deegan & Mark Urban (NSF)
- GTH 89 Retrogressive Thaw Slump Carbon Fluxes
  - Jenny Watts & Kyle Arndt (Woodwell)
- BLM Rare Plant Surveys
  - Justin Fulkerson (BLM)
- Brooks Range Glaciers
  - Darrell Kaufman & Giff Miller (NSF)
- Changes in tundra soil microbes by extreme events
  - Jinyun Kim (Korea Polar Research Institute)
- WATCH
  - Xanthe Walker & Michelle Mack (NSF)
- AWARE - Arctic Carbon Warning Network
  - Ted Schuur (Minderoo Foundation)
- Arctic Rock Glaciers
  - Austin Routt - Tundra Awardee returned for more fieldwork (Dept. of Interior)
- Voitia hyperborea
  - Ryan Thummel (Self-funded)
- Belmont Soil
  - Go Iwahana (NSF)



# Facility Upgrades - 2025

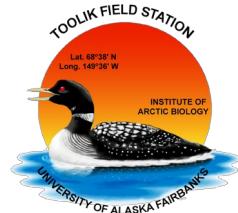
- Wellness Room opened and used often
- Repurposed old Shower Module into multi-use office & work space
  - Now houses researcher warm storage and EDC
  - Adds an all-season workspace for winter researchers
- Composter installed
- New bikes
- Sauna deck
- Battelle ARO
  - Installed EV charger





# Logistics Updates - 2025

- No new NSF vehicles added to the fleet. One old UAF vehicle exchanged.
- Fiberglass toppers on both Ram trucks are failing. Plans on replacing one before this season.
- 642 passengers transported (267 staff, 375 users).
- 111 northbound trips, 108 southbound trips.
- 106,752 combined miles traveled.
- Vehicles had ~83 weeks out of service combined. Largest issues noted below.
  - Stakebed 20 weeks:
    - Abandoned at the station once and Coldfoot twice. 15 mph limp mode, 5 mph limp mode, coolant leak, and one trip with intermittent stops to clear engine codes to avoid limp mode.
  - Sprinter van 17 weeks:
    - Sprinter has continual issues sensors (especially NOX) seemingly tricking the vehicle into check engine. Spent the end of season at Toolik with Maint team overhauling road worthiness.
  - Both Ford trucks ~14 weeks each. Issue experienced with 5503 reliably develop on 5530 within about one year:
    - Manifold issues, coil pack arcing, catalytic converter cracks.
  - Ram (6801)~11 weeks:
    - Failed CV joint. Guardrail collision caused tie rod bending among other smaller issues.



# Building community

- New online orientation posted to myToolik
- 3 Pre-field information sessions, led by Jason Dobkowski & Emma Johnson
- 2 User Forums
- 1 Green Dot Bystander Intervention training
- 17 weekly Talking Shop seminars
- Community liaisons: Jason Dobkowski, Jessie Motes, Jonathan Carcache & Rachel Badzioch
  - Organized community events throughout the summer, including Toolik trivia
- Updated the reporting pathways flyers in towers & bathrooms to be more clear



# 2025 Safety

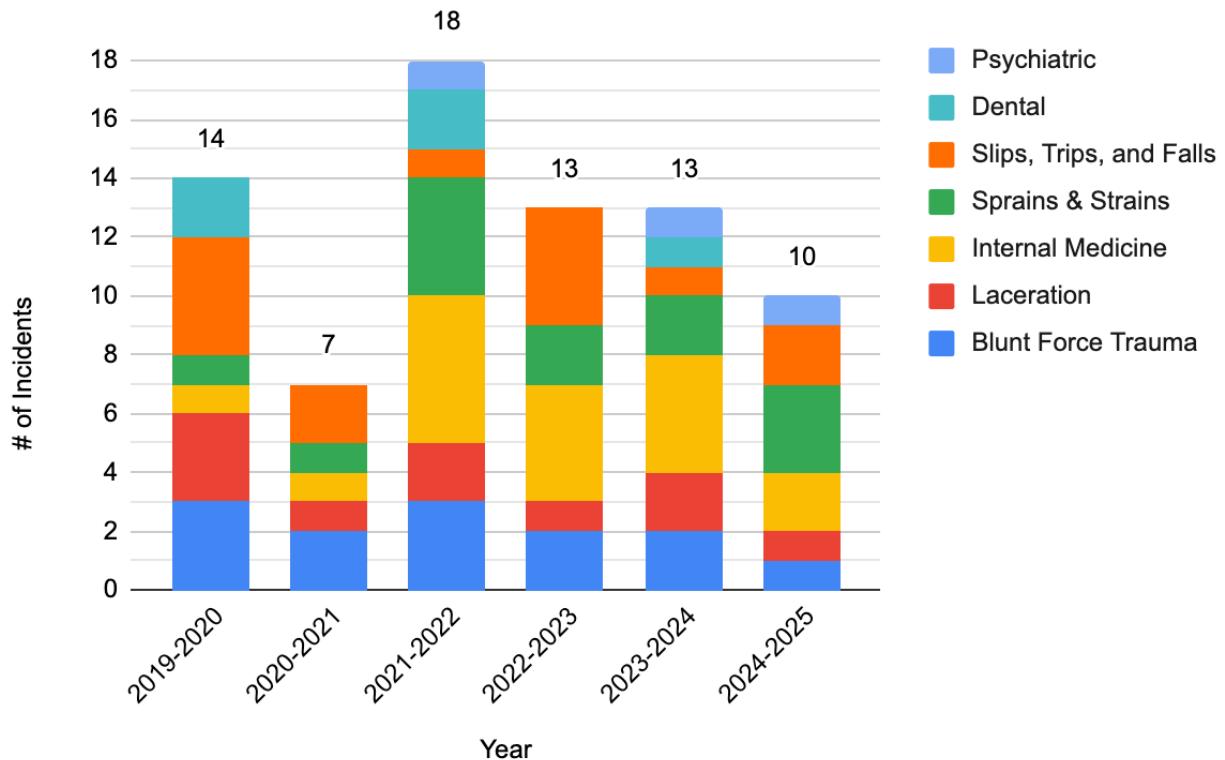


# Safety in 2025

- Two alternating EMTs providing 24/7 support from April 15 to September 19
  - Lalo Morales & Scott Filippone (Safety Officer)
  - Coverage correlates with Battelle ARO spring & fall campaigns
  - Dual role as medical provider and workplace Health & Safety support
- Winter medical coverage was provided by staff Wilderness First Responders.
  - Minimum of one Wilderness First Responder present year-round
- Physician Sponsor: Dr. Susan Dietz, Providence Medical Center, Anchorage, AK
- Completed Table Top exercise in July to assess emergency action plan
  - Went well with very little gaps in response. It also highlighted some currently overlooked perspectives to incorporate in EAP (i.e. research project PIs).



# Medical response



● No road or  
boating  
incidents



# Chemical & Environmental Safety

- Replaced smoke detectors & fire extinguishers in April
- Completed lab chemical inventory in July
- PFS Safety lead Bevin Luna visited in July
- UAF EHSRM conducted tank inspections Sept. 10-12
- Visit from new EHSRM director in August
- Haz waste picked up in May 20 (2024) - 2025 scheduled spring 2026
- No reportable spills



# Safety Trainings

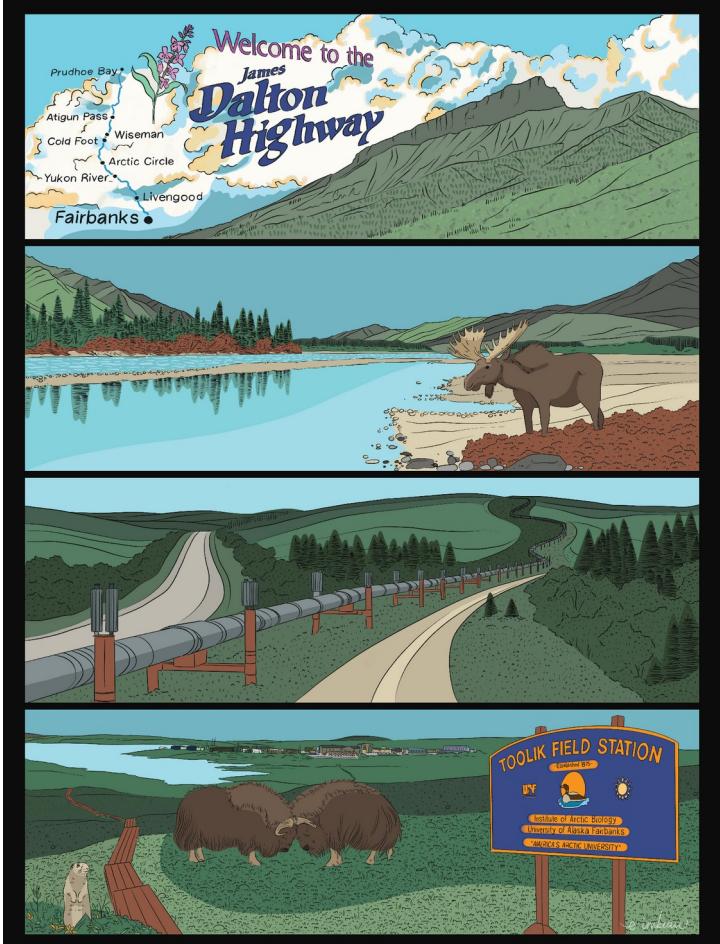
- Bear & boat safety training available for all
- Bloodborne pathogen & EAP training for staff
- Road safety orientation for all, given by either TFS Logistics or Safety, depending on departure location
- CPR training for Polar Field Services team

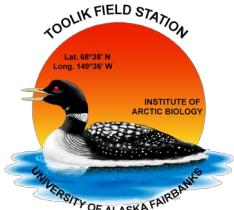


# 2025 Outreach

# Outreach

- 40 outreach events & site visits reaching over 2,300 people
  - Tabling events
  - Virtual & in-person classroom visits
  - Outreach visits
  - Town Halls
- 8 visiting artists
  - TFS sponsored: Kristin Link & Elise Imbeau
  - Privately funded: Michael Boardman & Heidi Fischer
  - With class or project: Iris Sutton w/ Climate Scholars & Jen Moss, Sara Tabbert & Nicole Walker w/ Walker & Mack
- 4 media visits
  - 4 reporters (two to the station and one to Fairbanks)
  - National Geographic photographer w/ Arctic Ground Squirrel project





# Field Courses & Education

- 6 field courses + 1 day trip
  - USC Hydrology in May
  - UAF Climate Scholars in May
  - North for Science middle schoolers in June
  - UAF Summer Sessions, led by Klara Maisch
    - Sketching & Science in June
    - Science & Sense of Place in June
  - UAF Soil Geography in July (brief visit for two non consecutive nights)
  - OSU Upward Bound high schoolers in August
- 3 visiting teachers w/ Arctic LTER
- 85 participants total





# Tundra Awardees

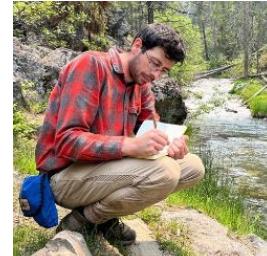
- Three awards in 2025

- Claire Bachand & Morgan Brown, UAF grad students, supported by Reeburgh fund
- Preston Kemeny & Marisa Repasch
- Emma Chandler

- New updates from past awardees

- Cansu Culha '24 returned in 2025 & will return in 2026
- Austin Routt '24 returned in 2025 & planning field course for 2027
- Returning in 2026: Alex Michaud '22, Mingyue Yuan '23 & Marisa Repasch '25
- 7 out of 16 awardees have returned to Toolik to continue research

- 2026 applications close on Feb. 15





# Toolik in the Media

- Quarterly newsletters paused while comms manager on maternity leave & filling in Utility Report writing for station manager
- 65 media stories published
  - 36 with local & regional reach, 30 with national & global reach
- Highlights
  - NY Times, [Russia's Warming Arctic Is a Climate Threat. War Has Shut Scientists Out of It.](#)
  - Forbes, [NASA Just Shot Rockets At The Northern Lights. This Is What Happened](#)
  - Feature in UAF's Aurora, [Nurturing Arctic science – and scientists](#)
  - LTER Network Office, [A changing Arctic drives a new generation of research](#)
  - AK Science Forum, [Calling lost chickadees in far north poplars](#)
  - Alta Magazine, [Where Art Meets Research at the Top of the World](#)