GREENLAND GUIDE 2024

Battelle Arctic Research Operations https://battellearcticgateway.org/

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This guide assists researchers planning fieldwork in Greenland. Contact the Battelle ARO project manager (PM) for additional information on any topic.

COVID-19

Since March 2020, travel to Greenland has been impacted by the COVID-19 pandemic. Current NSF protocols related to deployment are maintained <u>here</u> .

Researchers are responsible for abiding by all federal, regional, and local COVID-19 guidelines and requirements.

Greenland, the World's Largest Island

Greenland covers more than 1.3 million square kilometers (about 1.5 times the size of Alaska). More than 80% of the land is frozen beneath an ice sheet that reaches a thickness of three kilometers. The Northeast Greenland National Park, the largest protected national park in the world, covers roughly a third of the island.

Greenland's coastal regions are sparsely populated with ~56,000 inhabitants. The indigenous people are Inuit and make up 85% of the population. Their roots trace to the native inhabitants of Canada's Arctic and further back to the people of Alaska.

Greenland is home to three UNESCO (United Nations Educational, Scientific and Cultural Organization) sites: <u>https://visitgreenland.com/about-greenland/unesco-sites/</u>

Battelle ARO Services in Greenland

Battelle ARO (B-ARO) operates under a contract with the U.S. National Science Foundation (NSF) to provide logistics support for both NSF-sponsored research projects and projects funded by other research agencies. <u>https://battellearcticgateway.org/</u>

Battelle ARO services in Greenland include:

- + Logistics support (transportation, air support, cargo movement, and facilities management)
- + Field camp management and staffing
- + Military travel, base, and area clearances
- + Lodging and arrangements
- + Coordination with appropriate agencies and contractors in Greenland
- + Battelle ARO coordinates support from a logistics hub in Kangerlussuaq from April to August.

While in Greenland, participants are guests of the Government of Greenland, and work under the auspices of the NSF. This arrangement is facilitated by a cooperative relationship between

the NSF and the Government of Greenland. In the event of issues, contact Battelle ARO for assistance to maintain clear communication with our Greenlandic hosts.

NSF Policy: Principles for Conducting Research in the Arctic https://www.nsf.gov/geo/opp/arctic/conduct.jsp

Government of Greenland: https://exp.gl/Legislation--Logistics

Polar Code of Conduct

NSF-supported Arctic research field sites, camps and stations are managed in accordance with NSF policy:

NSF Polar Code of Conduct: <u>https://www.nsf.gov/geo/opp/documents/policy/polar_coc.pdf</u> *NSF Harassment Notice*: <u>https://www.nsf.gov/pubs/issuances/in144.jsp?org=NSF</u>

The Battelle ARO site supervisor has the responsibility and authority to address issues and may remove any participant who is exhibiting unacceptable behavior from a field location.

Science Project Planning

Project Approval/Permits

Science teams planning to work in Greenland must comply with all permitting requirements of the Government of Greenland. An overview can be found on the Ministry of Nature, Environment and Justice website: <u>https://exp.gl/About</u>

Additional permit links: https://exp.gl/Permit-Application/Additional-Permits

Many projects working at Summit Station (or in Summit area allotment boundaries) are included in the Summit expedition permit acquired annually by Battelle ARO but must independently submit a sub-permit application to the Government of Greenland. Groups traveling on long day trips from the station may be required to apply for an Expedition Permit. <u>Permits</u>

Projects Summaries and Season Plans

When NSF notifies Battelle ARO that a scientist has been funded and will require logistical support for Greenland research, a project record is created in the arctic research information database. Battelle ARO will provide a project summary to the principal investigator (PI) and assign Battelle ARO project manager (PM). The PM is the key point of contact for NSF logistics support with responsibilities that include assisting with field planning; finalizing and implementing NSF approved logistics budget; arranging vendor contracts; and monthly status reporting to the NSF. In addition, because risk management is an important practice to the NSF and for Battelle ARO, the PM will work with science team to identify field risks and suggested mitigation measures.

The PM will work closely with the PI to develop a support plan for the field season, which is documented in a season plan provided to NSF and the entire science team prior to deployment.

Before Departure for Greenland

Physical Qualification Process

Researchers planning work at remote field locations for an extended period must physically qualify (PQ). Specific requirements vary based on field location and length of stay. The process includes physical and dental examinations, completion of medical forms (provided by email to participant), and submission. The PM will inform the team if PQ is required and provide instructions to initiate the process.

The PQ packet will include directions to submit information. Keep copies of test records and forms in case of questions or delays. The PQ application must be submitted **no later than 8 weeks prior** to the scheduled deployment date, as PQ determination takes 6-8 weeks after all forms have been received. An approved PQ is required prior to departure for fieldwork.

Arctic and Antarctic PQ Compatibility

Exemption from further medical examination may be granted if the candidate physically qualified for the U.S. Antarctic Program during the previous year. The medical contractor will make this determination. For questions regarding PQ process, contact Greg Huey at <u>greg@polarfield.com</u>

NSF Policy: Safety and Occupational Health

https://www.nsf.gov/geo/opp/documents/policy/SOH_POL_2000.10a_V6.pdf

US Passports

A valid passport is required for travel to Greenland and is required prior to initiating the travelclearance process with Battelle ARO. Participant must carry passport, one copy, and one other form of picture identification. Six months of passport validity is recommended for international travel.

https://travel.state.gov/content/travel/en/passports/need-passport.html https://www.usps.com/international/passports.htm

Non US Passports

The Visa Waiver Program **does not** apply to military flights. Participants without a US or Canadian passport must have a valid Resident Alien Card (green card) or **visa** to exit or enter the US. Any field team member using a foreign passport to/from Greenland via military aircraft must also provide proof of visa status. Provide visa type and number to the PM at least four weeks prior to deployment. <u>Requirements are subject to change: notify the PM if you will travel</u> with a foreign passport. Six months of passport validity is recommended for international travel.

Some countries require a visa to enter Greenland: <u>https://www.nyidanmark.dk/uk-UA/You-want-to-apply/Short-stay-visa/Visa-to-the-Faroe-Island-or-Greenland</u>

Military Clearances

Battelle ARO processes a clearance for participants traveling on military aircraft. The PM will provide a link for participants to upload the required details. Data must be entered at least four weeks prior to their deployment date. It is the participant's responsibility to notify the PM of any changes prior to deployment, including travel with a new or different passport.

Money

Currency in Greenland is the Danish Kroner (DKK). U.S. credit/debit cards with chip/pin technology are accepted. An ATM is available at the Kangerlussuaq airport.

Insurance

Researchers must know the grant terms, and discuss with the institution risk management office to understand policies on medical evacuation, liability, workers' compensation insurance, etc.

Search and Rescue (SAR)

Research parties intending to work in the remote field must carry the following insurance coverage (in addition to the remote travel permit):

Туре:	Coverage in DKK	Coverage Unit:
Search and Rescue (SAR)	DKK 1,000,000	Per project
Evacuation (ambulance) transport for expeditions traveling south of latitude 78°	DKK 280,000	Per person
Evacuation (ambulance) transport for expeditions traveling north of latitude 78°	DKK 600,000	Per person

Check conversion rates at http://www.xe.com/

NSF will cover SAR costs through U.S. Government self-insurance for NSF-funded scientists who do not have this coverage available through their institution or other policies. NSF provides the Government of Greenland a list of projects to which this coverage applies.

Researchers are responsible for their own evacuation (ambulance) insurance, which covers transport from the field location to the nearest hospital within Greenland (or possibly Iceland.) Many universities and institutes carry evacuation insurance for their employees. It is the researchers' responsibility to determine with their institution's Risk Management office if their group has appropriate coverage. Researchers should pursue an evacuation insurance policy for their project team, an allowable cost in their NSF grant.

Greenland permit requirement map:<u>https://exp.gl/media/b5b84110-343b-4ba2-a432-786ced360fd0/PEWFYQ/map-large.png</u>

Cold Weather Gear Requirements

Researchers provide their own cold weather clothing, boots, and sleeping bags. Weather

conditions vary widely with location and latitude in Greenland. The most important rule for Arctic work is to stay dry and warm. Select suitable clothing based on the research location. For recommendations on what to pack, consult the PM.

Personal Baggage, Excess Baggage and Skis

Excess baggage requests must be coordinated with the science PM at least four weeks in advance of deployment. Commercial airline baggage fees may apply for travel to Albany. Skis must be properly bagged and can ship with science cargo or as baggage from NY.

Baggage size limits can be found in the ANG Travel Bulletin

Transporting Cargo to Greenland

Participants must meet deadlines to ensure on-time delivery of science project cargo to the field. Researchers must notify the PM of all cargo shipments, including cargo shipped on commercial airlines. Battelle ARO will arrange for the receipt and transportation of cargo to the appropriate location in Greenland.

Cargo Tracking System

Battelle ARO uses a web-based program to monitor and track cargo. All cargo shipped to Greenland must be recorded in the system, which tracks the progress of cargo from its origin to its Greenland field site destination. It is the researcher's responsibility to ensure all inbound and outbound shipments are accurately entered into the system.

For questions on shipping, priorities, flights, or cargo, contact the Battelle ARO cargo staff in New York at <u>Dino@Polarfield.com</u> or 518-344-2095 (office) or 518-364-6975 (cell).

Cargo Tracking System Instructions

Cargo Packaging, Shipping and Timelines

ANG Customs and Cargo Instructions

All cargo must arrive at the Stratton Air National Guard Base in New York **no later than three weeks prior** to the desired northbound flight. Cargo must be entered into the online <u>Cargo</u> <u>Tracking System (CTS)</u> and must be properly registered with customs. Current ANG flight schedules are available in the Cargo Tracking System. Resources and instructions for the Cargo Tracking System are available on the <u>Battelle ARO Gateway</u>.

All cargo must arrive at McGuire Air Force Base in New Jersey **no later than four weeks prior** to the desired arrival date at Pituffik Space Base. Researchers must coordinate with the Battelle ARO Project Manager to request military provided shipping labels and delivery instruction to McGuire Air Force Base.

The 109th NYANG airlift schedule provides current Greenland departure dates and is posted on the Cargo Tracking System site. If shipping science cargo to Greenland from a location other than Stratton or McGuire, the PM will provide shipping address and required delivery timeframe.

Researchers continuing to Summit Station will not have access to their cargo in Kangerlussuaq. If access is needed, arrange it in advance with the PM prior to the northbound flight.

U.S. Customs and Border Protection Requirements

ANG Customs and Cargo Instructions

U.S. Customs and Border Protection (CBP) strictly enforces requirements for cargo leaving and entering theUnited States. The best way to ensure that southbound cargo is not held by CBP in Scotia is to register it before it leaves the U.S.

Greenland Import Taxes and Customs Law

All participants are required to abide by Greenland import and customs laws. Review rules regarding importation of alcohol prior to travel. Rules are subject to change. Customs and Greenland FAQs: <u>https://visitgreenland.com/plan-your-trip/#practical-info</u>.

The Greenland government levies special import taxes on certain goods brought into the country. Contact the Greenland tax ministry to receive the current import tax information: Greenland Ministry of Finance, Phone: (+299) 34 50 00, Email: tax@nanoq.gl

Travel to Greenland

All participants travel to Greenland by air on either military or commercial aircraft. The most direct mode of transport from the U.S. is via the New York Air National Guard (109th NYANG) from Stratton ANGB in Scotia, New York. Commercial flights are available with varying schedules:

- Copenhagen > Kangerlussuaq via Air Greenland (<u>http://airgreenland.com</u>)
- Reykjavik > Ilulissat and Nuuk via Iceland Air. (http://www.icelandair.us/)
- U.S. > Reykjavik via Iceland Air. (<u>http://www.icelandair.us/</u>).

Participants destined for Pituffik (fka Thule Air Base) follow a different travel path. Contact Tracy Sheeley (<u>sheeley@polarfield.com</u>) or Kyli Cosper (<u>kyli@polarfield.com</u>).

Travel from Home to New York

Plan to arrive in NY the day prior to the 109th flight to Kangerlussuaq. Albany International Airport (ALB) is the closest airport, and book flights as early in the day as possible. Rideshare or taxi to accommodation – some taxis do not accept credit cards.

Flight details are outlined in the ANG Travel Bulletin.

Arrival in Kangerlussuaq, Greenland

Researchers will be transported to the KISS building. A briefing will be provided upon arrival. Please bring food to cover the first night in Kangerlussuaq, as restaurants and stores are likely to be closed prior to aircraft arrival.

Stay in Kangerlussuaq

Battelle ARO operations offices are located at the Kangerlussuaq International Science Support (KISS) facility (Rm 104). Warehouses are in buildings 415 and 416 (offices, field gear, comms equipment, and cargo services). The Battelle ARO Kangerlussuaq Site Supervisor is the point-of-contact and liaison with vendors and local/national government agencies.

Support Services

Battelle ARO provides a variety of services in Kangerlussuaq, including:

- ✦ Lodging.
- + Office and administrative services, including wifi access.
- ✦ Communications: phone, Internet.
- + Remote-camp support: daily telephone, email, radio contact to remote sites, flight scheduling, passenger and cargo movement, and weather information.
- + In-country travel arrangements: fixed-wing or helicopter charters, truck rentals, commercial domestic flight booking as required, and hotel information.
- + Warehouse: indoor/outdoor storage, limited freezer/keep chilled storage.
- ✦ Field gear allocation and training.
- + Shipping: freight forwarding and receiving, packaging, and labeling materials.
- Flight staging and cargo handling: cargo transport between aircraft and warehouse, heated space for building pallets and storage, coordination.
- + Shop facilities: equipment for limited carpentry tasks. Referral for local fabrication and repair shops. Facilities are limited and use of equipment requires a safety orientation.
- ✦ Fuel: access to local bulk fuels.

All support and logistical needs must be identified to the PM during the planning phase prior to deployment to the field.

Transportation

Options in Kangerlussuaq include walking, bicycles, vehicles, local bus, and taxis. Battelle ARO maintains a limited vehicle fleet and driver training is required.

Room and Board

Researchers are housed in the KISS facility. Rooms are two-person dorm-style rooms, billed by bed, not room. All participants should expect a roommate. Communal areas include: three lavatory/shower suites, two kitchens, meeting room, and a lounge. Available power includes US (120v @60Hz Type A plugs) and Danish (230v @50Hz /shuco plugs.)

Research workspaces/labs are available at KISS – usage is coordinated by the field team with the KISS Manager, not Battelle-ARO staff.

Meals are paid out of pocket by researchers. There is a grocery store and restaurants in Kangerlussuaq. Vegetarian options are limited.

KISS lodging is only reserved while in use due to both NSF support budgets and the KISS Facillity Management policy – if a researcher departs for an overnight, they will need to vacate their room. Battelle-ARO will assist with baggage storage as required.

Computer/Internet/E-mail

Wireless Internet is available for Battelle ARO-supported participants staying in the KISS building. Bandwidth is limited and science and work activities take priority over personal use. Disable auto-update features, cloud services, data synchronizing applications, podcast subscriptions, and other passive bandwidth uses on all devices. Place devices on 'airplane mode' when not in use. If science outreach is planned while in Kangerlussuaq, please coordinate with the Battelle ARO Ops Office in advance.

Telephone

Official project-related and/or emergency calls can be made via Battelle ARO commercial telephone service where available. International calls are monitored carefully to manage expenses. Personal international calls are not permitted -primary communications occur via internet.

Recreation and Shopping

A gym near the KISS facility offers activities including swimming, weightlifting, and other sporting activities. There is a nominal fee.

Grocery options in Kangerlussuaq include the Pilersuisoq grocery store and the Kang Mini-Marked convenience store. There are several gift shops and limited other retail options.

Weather

Weather in the Kangerlussuaq area is often cold through May, and snow is always a possibility. June, July, and August are normally temperate, ranging from 40°F to 70°F. Cool rain is common in summer months, so layer clothing for a wide range of temperatures. Arctic mosquitoes infest the coast during June and July. Mosquito nets and insect repellent are necessary. Sunscreen is recommended.

Traveling within Greenland

Battelle ARO arranges transportation to and from remote camps for groups continuing to field sites. The NYANG provides heavy-lift services with ski-equipped Hercules LC-130 aircraft. Battelle ARO also arranges air support using ski-equipped fixed wing or helicopters. Flight requirements must be communicated to the PM during the planning process.

Researchers may visit the three permanent locations below. Participants visiting other remote sites work with Battelle ARO to determine all related requirements.

Military flight arrivals to Kangerlussuaq from the US arrive in the late afternoon and may be delayed. Personal bags will be delivered upon arrival. Cargo will be available the following day. If traveling elsewhere in Greenland, plan for a buffer day in Kangerlussuaq to allow for

flight delays and cargo access.

Pituffik Space Base

Battelle ARO routinely supports researchers working out of Pituffik Space Base, an active U.S.Base. Clearances are required for entry to the facility which Battelle ARO will obtain on researcher behalf. The base is accessed by weekly Air Mobility Command (AMC) flights, scheduled 109th NYANG flights, and commercial flights through Copenhagen and Kangerlussuaq. Clearance is required to travel via any of these flight options.

Pituffik Guide

Raven Camp

Raven Camp is a prepared skiway and alternate landing area located at 66° 29' North by 46° 17' West, at just under 7,000 feet elevation. Raven is located close to the "equilibrium zone" on the ice sheet, where snow melting and ablation are roughly equal to accumulation. The camp is used for NYANG training and can provide limited support for science research projects. This facility is staffed only during the boreal summer months.

Summit Station

Summit Station is a year-round science support facility, located near the apex of the ice sheet inside the southern boundary of the Northeast Greenland National Park. The elevation is 10,530 feet and the effective pressure altitude ranges from 1,000 to 12,500 feet. Recorded temperature extremes since 2009 range from -89°F in the winter to 34°F in the summer. Winds in the summer are generally mild but can exceed 40 knots during storm events. Major storms can occur in winter, with wind speeds recorded more than 70 knots.

Summit Guide

Leaving Greenland

Participants departing Greenland typically transit through Kangerlussuaq. Battelle ARO staff will provide information on southbound flight preparation requirements (allocation returns, baggage check-in, passport verification, and onward transport from Stratton ANGB) and assist with cargo processing. They will update on flight schedules and any related delays. Plan for a buffer day in Kangerlussuaq prior to return to the USA to meet flight-related cargo and security requirements.

Many items routinely sold in Greenland are illegal to import into the U.S. https://www.cbp.gov/travel/us-citizens/know-before-you-go/prohibited-and-restricted-items

Arrival at Stratton Air National Guard Base

The return flight is 6-7 hours in length.

Upon arrival, customs officials will meet the flight. Customs clearance may take up to 1 hour.

Once clear, you will reclaim your bags. Battelle-ARO NY staff will transport you and your baggage to the gate entry. Battelle-ARO NY staff arranges taxies to airport or hotels based on the information you provided in Kangerlussuaq, but the traveler is responsible for payment of the fare.

If you travel home same day, book your flight departing Albany no earlier than 4:00 pm to allow time for any departure delays from Greenland, customs processing, and transport to airport. Stratton ANGB will arrange transport to the Albany airport. Passengersare responsible for fares.

Other Topics

How to Reach You in Greenland

Denver HQ	Kangerlussuaq	Summit Station
Office: 303.984.1450	+299.524218 (GL exchange)	321.953.9650 (US exchange)
Emergency: 303.378.2912		

Letter Mail and Package Mail

Letter mail from the U.S. for a Greenland program participant can be sent via Battelle ARO at Denver Headquarters or Kangerlussuaq for forwarding:

Denver Mailing Address Battelle ARO Attn: *Participant's Name* 861 SouthPark Dr., Suite 400 Littleton, Colorado 80120 USA Kangerlussuaq Mailing Address Battelle ARO Attn.: *Participant's Name* Postboks 1015 DK-3910 Kangerlussuaq GREENLAND

Letter mail from Greenland to the U.S. can be provided to Battelle ARO staff with proper postage for forwarding. This mail will post from Scotia, New York. Use the Greenland postage system for all other outgoing mail.

Package mail can be sent via ANG flights. The sender must complete customs forms. Send to: <u>New York Mailing Address</u>
Battelle ARO attn Dino Guthrie Attn: *Participant's Name*109 Small Air Terminal, Bldg 20
1 Air National Guard Road Scotia, NY 12302-9752

Orders direct from vendors must include all details on the address above to ensure proper delivery; large packages must be shipped using the cargo system. Package mail is delivered in a mail bag and is not meant to offset cargo requirements.

Personal Travel

Researchers are responsible for food, lodging and transportation arrangements if staying in Greenland for personal reasons following fieldwork. Participants are not covered under program insurance while on personal travel. Participants must notify their PM prior to deployment if post season travel is anticipated.

Protection from Wildlife

Wildlife interaction will be addressed as part of the risk assessment and B-ARO can provide further documentation and trainings as appropriate.

Participants working in polar bear ranges areas may wish to carry firearms and in some areas, travel with a firearm may be required per Government of Greenland regulations. Contact the PM for information and NSF expectations for travel with firearms. An application to transport firearms in Greenland may be required. <u>https://exp.gl/Permit-Application/Additional-Permits</u> Bear or pepper spray is illegal in Greenland.

Endangered Species: Researchers working in locations where polar bears may be present must follow the <u>Interaction Plans</u> developed by Battelle ARO and the NSF.

Suggestions for Improvement

The *Greenland Guide* is edited annually. Please note any inaccuracies, omissions, or invalid links, and send them to <u>Sheeley@polarfield.com</u>