

# GREENLAND GUIDE **2016**

**CH2M HILL Polar Services**

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## Greenland Guide

The *Greenland Guide* is written for researchers planning fieldwork in Greenland. Topics are arranged in chronological order: planning, travel to Greenland, fieldwork, and return home. Additional topics of interest are included at the end.

Please contact your CPS project manager (PM) for further information on any topic.

## Greenland, the World's Largest Island

The world's largest island, Greenland, measures more than 1.3 million square kilometers (roughly 1 1/2 times the size of Alaska). More than 80% of the land is frozen beneath an ice sheet that reaches a thickness of three kilometers. Greenland's National Park is the largest protected national park in the world and covers roughly one-third of the island in the northeast.

The indigenous people of Greenland are Inuit, whose roots can be traced to the native inhabitants of Canada's Arctic and further back to the people of Alaska. Greenland's coastal regions are sparsely populated with ~56,925 people, 88% of which are Inuit.

## CH2M HILL Polar Services in Greenland

CH2M HILL Polar Services (CPS) operates under a contract with the National Science Foundation (NSF) to provide logistics support for NSF-sponsored research projects, as well as projects funded by other research agencies. [cpspolar.com](http://cpspolar.com)

CPS 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 at coastal sites
- ✦ Support coordination with appropriate agencies and contractors in Greenland

During the summer field season, CPS coordinates support from our logistics hub in Kangerlussuaq.

While in Greenland, participants are guests of the Government of Greenland. In the event of issues, notify CPS. This maintains clear communication with our Greenlandic hosts.

## Science Projects

A detailed list of science projects currently supported by CPS is available at: <http://ARMAP.org>. Navigate to 'Text Search' to run a report based on your desired criteria.

### 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 & Justice website: <http://www.nanoq.gl/expeditions>.

Projects working at Summit Station (or within the Summit area allotment boundaries) are included under the Summit group permit, acquired annually by CPS. However, Summit area projects are required to independently submit a sub-permit application.

Submit applications for expeditions in the area covered by the Executive Order to:

The Ministry of Nature, Environment and Justice  
P.O. Box 1614 3900  
Nuuk, Greenland  
e-mail: [exp@nanoq.gl](mailto:exp@nanoq.gl)

### Project Summaries and Season Plans

When CPS is notified that a scientist has been funded and will require assistance for Greenland research, a record is created for the project in our database of arctic research information. CPS sends a project summary (report about the life of the project) to the principal investigator (PI) for review and assigns a CPS science project manager (PM) to the project.

As the planning season begins, the PM will work closely with the PI (or their designee) to develop a support plan for the season. CPS documents this in a season plan provided to the NSF for review prior to Greenland deployment.

## Before You Leave for Greenland

Essential items to consider and/or accomplish before you leave for Greenland:

### Physical Qualification Process

All participants working at remote field locations in Greenland for an extended period of time must physically qualify (PQ). For required sites, researchers participating in NSF-sponsored fieldwork must complete a physical and dental examination and provide results to the University of Texas Medical Branch (UTMB) for review and approval. Approval must be received prior to departure for Greenland.

The PQ process is an annual NSF requirement. Your PM will confirm the information you must provide to initiate the process. You will receive the PQ forms via email from UTMB.

Completed forms must be mailed or faxed directly to UTMB – they cannot be submitted electronically. All required forms must be received by UTMB no later than six weeks before scheduled departure to the field.

### **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 UTMB doctor will review Antarctic medical forms to make the determination.

For questions regarding the medical clearance process or compatibility between the two programs, please contact Kim Derry at [Kim at polarfield.com](mailto:Kim@polarfield.com)

### **Passports**

All participants traveling to Greenland must carry a valid passport. Passports are available through the U.S. Post Office and take approximately six weeks to process. A valid passport is required prior to initiating the travel-clearance process with CPS. ***All participants must carry their passport, two passport copies and one other form of picture identification when traveling to Greenland.***

### **Foreign Nationals**

The Visa Waiver Program **does not** apply to people entering the United States from Greenland via the New York Air National Guard (109<sup>th</sup> NYANG) flights. Anyone without a United States or Canadian passport must have a valid **Resident Alien Card** (known as a green card) or **visa** in order to enter into the U.S via ANG.

All field team members carrying foreign passports to/from Greenland via the 109<sup>th</sup> NYANG must provide proof of their visa status in addition to a valid passport. Provide visa type and numbers to the assigned project manager at least four weeks prior to deployment.

### **Military Clearances**

Regardless of entry point into Greenland, CPS processes a military clearance for all participants which allows the use of military transportation and facilities if required. CPS requires all participants to submit name, passport number, passport expiration date, citizenship with place of birth, and date of birth at least four weeks before deployment. The PM will work directly with the research team to gather this information.

### **Money**

The standard currency in Greenland is the Danish Kroner (DKK). U.S. credit and debit cards are accepted. Credit card machines set up for chip/pin technology are standard and credit cards with magnetic stripe/signature required may not be accepted. Options include: chip/pin credit

card, debit card with chip eligible for international use, or cash. (Travelers checks are not recommended.)

In Kangerlussuaq, an ATM is available at the airport. The Greenland Airports Accounting Office exchanges money at a fair market rate, billing a transaction against your credit or debit card. This office is open during business hours.

### **Insurance**

Researchers must confirm with their home institution that they have appropriate insurance coverage for the Greenland deployment. For personal travel in or outside of Greenland, additional traveler's insurance coverage is recommended.

### **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):

Type:	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/>

Evacuation (ambulance) insurance covers transport from the field location to the nearest hospital within Greenland (or possibly Iceland, if evacuation is required from the east coast)

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 submits a list of projects to which this coverage applies to the Government of Greenland.

Researchers are responsible for their own evacuation (ambulance) insurance. Many universities and institutes carry evacuation insurance for their employees. It is the researcher's responsibility to determine with their institution's Risk Management office if their group has the appropriate coverage. Researchers should pursue an evacuation insurance policy for their project team, which is an allowable cost in their NSF grant.

### **Cold Weather Gear Requirements - What to Pack**

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

Select suitable cold weather clothing based on the location where research is conducted. Weather conditions vary widely with location and latitude in Greenland.

The most important rule for arctic work is to stay dry and warm. See our recommendations here: <http://cpspolar.com/for-researchers/risk-management/clothing-lists/>

#### Recommended Cold Weather Gear:

- ❄ Insulated parka with hood
- ❄ Insulated Carhartt bibs, or equivalent (Carhartts work well in dry zones but are ill-suited for use in melt areas.)
- ❄ Non-insulated bib wind pants
- ❄ Pile or fleece jacket
- ❄ Pile or fleece pants
- ❄ Lined wind jacket with hood
- ❄ Long underwear
- ❄ Expedition-weight thermal top and bottoms
- ❄ Sleeping bag, rated to between -20 to -40 degrees Fahrenheit, depending on your location, the time of year, and your tolerance to the cold
- ❄ Sleeping bag liner
- ❄ Glacier model Sorel boots with spare liners, or equivalent
- ❄ Wool socks
- ❄ Sock liners, such as silk, Polypropylene, or equivalent
- ❄ Musher style hat with earflaps
- ❄ Pile hat or wool cap
- ❄ Neck gaiter
- ❄ Leather work gloves
- ❄ Insulated ski gloves
- ❄ Expedition mittens

#### Recommended Personal Gear:

- ❄ Towel and wash cloth
- ❄ Day pack
- ❄ Chapstick
- ❄ Sunscreen
- ❄ Sunglasses (Quality, 100% UV blocking)
- ❄ Water bottle for drinking liquids
- ❄ Old water bottle to be used for night-time urination
- ❄ Medications with copies of any prescriptions
- ❄ Casual and exercise clothing for camp life
- ❄ Hiking boots
- ❄ MP3 player
- ❄ Batteries
- ❄ Reading material
- ❄ Toiletries

## Transporting Cargo to Greenland

Participants must meet receiving deadlines to ensure on-time delivery of cargo to the field. Researchers must notify their PM of all cargo shipments, including cargo shipped on commercial airlines. CPS will arrange for the receipt and transportation of cargo to the appropriate location in Greenland. The cargo system is used to send science project cargo.

### Cargo Shipping Lead Times

All cargo must be shipped to Stratton Air National Guard Base (ANGB) for delivery to Greenland and **registered** (examined and certified) with U.S. Customs before it can leave the country. (See the customs requirements section below). The registration process is straightforward and can be done by the researcher or a representative at home. If self-registration is selected, ship cargo to arrive at Stratton ANGB no later than **ten days before** the scheduled departure flight. If

personnel at Stratton ANGB register the shipment, the cargo must reach the base no later than **three weeks before** the scheduled departure flight.

Emergency, last minute cargo must be submitted to Stratton ANGB no later than three days before the planned flight date and will be accepted if space is available. In accordance with shipping regulations **cargo cannot be delivered on day of flight** – this will result in delayed shipment to Greenland. Only two checked bags and a carry-on bag will be accepted the day of the flight.

Hazardous Cargo shipped via the 109<sup>th</sup> NYANG to Greenland can be registered at Stratton ANGB in Scotia. The CPS cargo representative must be notified in advance, and cargo must arrive no later than **three weeks before** its flight date to be registered. *Note: Cargo sent via ground transport to Stratton ANGB must be prepared for air transport by the shipper. Refer to Hazardous Cargo section below for more detail.*

The 109<sup>th</sup> NYANG airlift schedule provides current information regarding Greenland departure dates and is posted on the CTS site.

If your cargo is scheduled to ship to Greenland from a location other than Stratton ANGB, your PM will inform you of shipping address and timelines.

### **Cargo Tracking System**

CPS uses a web-based tool to monitor cargo, the Cargo Tracking System (CTS). CTS tracks the progress of cargo from its origin to Greenland field site destination. All cargo shipped to Greenland must be recorded in CTS.

**Researchers** use the Cargo Tracking System to:

- ✦ Generate shipping labels and packing lists for each package sent.
- ✦ Check on cargo at designated waypoints en route to the final destination.
- ✦ View the progress of each piece of cargo through the system.

Investigators receiving CPS logistics support have access to the Cargo Tracking System. CPS will provide login and password information. Select the CTS button on the CPS Web site at <http://cpspolar.com/>

For questions on shipping details, priorities, flights or cargo, contact the CPS cargo representative in New York (Dino Guthrie) at [Dino@Polarfield.com](mailto:Dino@Polarfield.com) or via telephone at 518-344-2635 or 518-364-6975.

### **U.S. Customs and Border Protection Requirements**

The U.S. Customs and Border Protection (CBP) agency strictly enforces requirements for cargo leaving and entering the United 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.**

The following section outlines the U.S. Customs forms that need to be completed before shipping cargo to Greenland. Failure to ensure all appropriate forms are complete could delay the return of cargo. For additional Customs information, refer to the U.S. CBP service online brochure "Know Before You Go," <http://www.cbp.gov/travel/international-visitors/know-before-you-go>

## How to Register Cargo

Before it departs for Greenland, all cargo must be examined and registered by a CBP agent either at your local CBP office or in Scotia at Stratton ANGB.

Whether the researcher elects to have cargo registered by a local CBP office or at the Stratton ANGB, the forms listed below need to be complete and copies provided to the CPS cargo representative at Stratton ANGB:

- 1) A detailed **packing list** of the cargo contents. This list will be automatically generated when using the Cargo Tracking System to send cargo to Stratton ANGB.
- 2) A completed **Certificate of Registration** (Department of Commerce **Form 4455**). The form is available for download at <http://www.cbp.gov/xp/cgov/toolbox/forms/>. A total of four copies of the completed form are needed.

## How to Get Answers to Customs Questions

Detailed instructions for preparing the required paperwork can be found on the Cargo Tracking System site at [http://www.polar.ch2m.com/cts/CTS\\_CreateShipment.aspx](http://www.polar.ch2m.com/cts/CTS_CreateShipment.aspx)

Contact the CBP directly at <http://www.cbp.gov/> or via telephone at 518-431-3103.

## Labeling Cargo

The Cargo Tracking System generates standard shipping labels for Greenland cargo. Attach one copy of the label to the side of the container and one to the top of the container.

"Do Not Freeze" cargo must be stenciled onto the piece of cargo to prevent damage.

"Keep Frozen" cargo must be stenciled adjacent to the right side of the CPS shipping label on the container.

"Hazardous Material" must be marked in accordance with the applicable regulations as detailed in the Hazardous Cargo section, below. The border of the CPS label must be marked in red to clearly identify hazardous materials during transport.

To expedite cargo being forwarded to field sites, all cargo is segregated by type (normal, hazardous, special handling) and final destination. To prevent delays or unnecessary shipping expense, do not mix cargo of different types or destinations in the same container.

Research teams continuing to Summit will not have access to their cargo in Kangerlussuaq. If access is needed, this must be coordinated with the research group's PM.

### **Packing Slips**

The Cargo Tracking System generates a cargo packing slip for each container, listing the tracking control number and the contents including approximate dollar values. Place one copy of the packing slip in an adhesive sleeve and fasten it to the outside of the container. Additional copies should be placed inside the container and kept on file.

### **Hazardous Cargo**

Hazardous cargo must be packed and labeled according to Code of Federal Regulations Title 49 parts 100-199 (CFR-49), Air Force Joint Manual AFMAN 24-204 and International Air Transportation Association (IATA) Dangerous Cargo Regulations. It is the sole responsibility of the individual shipper to make sure hazardous cargo is packaged appropriately and has the proper documentation. If shipping via ground transport to Stratton ANGB your hazardous materials must be packed according to the CFR-49 regulations. International Air Transportation Association and CFR-49 regulations should be followed for all hazardous shipments by air to Stratton ANGB. If required, military certification is completed at Stratton ANGB or in Greenland by CPS staff.

Obtain five copies of the Safety Data Sheet for each hazardous material being shipped. These are typically available from the vendor. Distribute as follows:

- One copy enclosed in the container.
- One copy included with the shipper's documents.
- One copy filed in the CPS Greenland office.
- One copy kept on site with the material.
- One copy given to a Greenland CPS staff member for use during retrograde shipping.

### **Import & Customs Law**

All staff and researchers are required to abide by Greenland import and customs laws. Review rules regarding importation of alcohol prior to travel. Rules are subject to change.

<http://www.greenland.com/en/plan-your-trip/practical-travel-info/ofte-stillede-spoergsmaal.aspx>

### **Personal Baggage**

Personal baggage is for clothing and personal supplies. The 109<sup>th</sup> NYANG allows 70 pounds of personal baggage. Hand carry items are limited to one carry-on bag and one personal item. Excess baggage requests must be coordinated with your PM one week in advance of your deployment. Commercial airline baggage fees may apply for your travel to Albany.

## Skis

Skis should be included in the cargo shipment delivered to Stratton ANGB, or hand-carried on the airplane. Ensure that skis are properly bagged and labeled to prevent loss or damage.

## Greenland Import Taxes

The Greenland government levies special import taxes on some goods brought into the country. Please contact the Greenland tax ministry to receive the latest details on these import taxes.

Greenland Ministry of Finance  
Imaneq 4  
P.O Box 1037  
3900 Nuuk  
Phone: (+299) 34 50 00  
Telefax: (+299) 32 46 14  
Email: [oad@nanoq.gl](mailto:oad@nanoq.gl)

## Travel to Greenland

All participants travel to Greenland by air on either military or commercial aircraft. The quickest mode of transport from the US to Greenland is via the New York Air National Guard (109<sup>th</sup> NYANG) from Stratton ANGB in Scotia, New York. Commercial flights are available from Copenhagen to Kangerlussuaq via Air Greenland (<http://airgreenland.com>). Flights from Reykjavik to Ilulissat, Nuuk and Kangerlussuaq are available via Air Iceland (<http://www.airiceland.is/>) at certain times of year. Flights from the US to Reykjavik are available via Iceland Air. (<http://www.icelandair.us/>). CPS can assist with travel arrangements if commercial flights are required within Greenland.

Participants destined for Thule, Greenland, will depart from Baltimore/Washington International Airport in Maryland. For specifics on these flights, contact Jessy Jenkins ([jessy@polarfield.com](mailto:jessy@polarfield.com)) or Kyli Cosper ([kyli@polarfield.com](mailto:kyli@polarfield.com))

## Preparing for the New York Air National Guard Flights

If departing for Kangerlussuaq via a 109<sup>th</sup> NYANG flight, fly into Albany International Airport (ALB), New York, the day before the flight.

## Where to Stay

Researchers arrange their own hotel accommodations in Clifton Park, NY. Clifton Park is 15 miles from the airport and taxis are available at the airport. Bus pick-up for the NYANG flight is provided from the Hampton Inn and Hilton Garden Inn hotels in **Clifton Park**.

There are stores near the hotels in Clifton Park. Food and drink is not provided prior to or on the flight to Greenland, so plan accordingly.

## **The Flight North**

The flight to Greenland is on an LC-130 aircraft out of Stratton ANGB in Scotia, New York. All passengers must report to the Small Air Terminal (SAT) representative in Building 20 at Stratton ANGB between 4:45 - 5:15 A.M. on the day of flight. Dino Guthrie is the primary CPS point of contact at Stratton ANGB. If unable to check-in on time, call 518-344-2635 or 518-364-6975

Taxis are NOT allowed on the base. A scheduled ANG bus will pick up passengers at 5am at the two Clifton Park hotels noted above. Passengers must be in the lobby prior to the pickup time of 5am. Baggage (checked) will be placed in a trailer behind the bus and you will not have access to it again until arrival in Greenland.

Groups wanting to drive personal vehicles to the base and leave them parked while in Greenland must coordinate with your CPS PM during your planning process.

The security guard at the Stratton ANGB gate will have a list of passenger names. Passengers must bring a passport and another form of picture identification, such as a driver's license.

Once inside the building, passengers will check in with the Small Air Terminal representative who will check ID and any other applicable forms (form I-94 for participants who are not U.S. citizens; SEVIS forms for those who are students or family members of students). The pre-flight briefing is typically at 7 A.M., and the flight to Kangerlussuaq departs at approximately 8 A.M.

The flight takes 6-7 hours. Passengers should dress warmly as the flight can be cold. The airplane seats are made of net webbing and are not designed for comfort. The restroom facilities consist of a men's urinal in the front cargo compartment and a fold down toilet with a privacy curtain at the back of the airplane. Smoking, use of chewing tobacco, and drinking alcoholic beverages is prohibited.

## **Arriving in Kangerlussuaq, Greenland**

Local police will meet the aircraft upon arrival to check passenger passports. CPS personnel will meet passengers arriving via the 109<sup>th</sup> NYANG.

Researchers arriving by commercial air will be met by a CPS representative inside the airport. CPS provides transportation to passengers to CPS facilities in Kangerlussuaq.

## **Your Stay in Kangerlussuaq**

CPS administrative offices are located in rooms 109 and 110 at the Kangerlussuaq International Science Support (KISS) facility. The CPS warehouses are located in buildings 415 and 416. The CPS Greenland Science Operations Manager is the point-of-contact and liaison with local and national governmental agencies and in-country vendors.

## **Support Services**

CPS provides a variety of services in Kangerlussuaq, including:

- ✦ Lodging and meals for transiting personnel.
- ✦ Office and administrative services: copier, secure storage for documents and baggage, and mail forwarding.
- ✦ Communications: emergency and business-related phone calls, Internet, and HF radio.
- ✦ Remote-camp support: daily telephone, email, radio contact to remote sites, support flight scheduling, passenger and cargo movement, and weather information.
- ✦ In-country travel arrangements: bookings for commercial domestic flights, arranging special fixed-wing or helicopter charters, truck rentals and hotel information. These requirements must be identified with CPS during the project planning phase before arrival.
- ✦ Warehouse facilities: some indoor storage, limited freezer storage, and outside storage.
- ✦ Shipping and receiving center: packaging and labeling materials, freight forwarding, and receiving.
- ✦ Flight staging areas and cargo handling: cargo transport between aircraft and warehouse, heated space for building pallets and storage, and airport ramp access.
- ✦ Shop facilities: woodworking equipment, metalworking equipment, vehicle maintenance equipment, plumbing tools, and access to all local fabrication and repair shops. These facilities are limited and all fabrication or tool requirements should be identified with CPS before arrival. Use of any shop equipment requires a safety orientation prior to use.
- ✦ Fueling: access to local bulk fuels. Fuel requirements should be identified with CPS during the planning process.

## **Transportation**

Walking is the primary mode of transportation in Kangerlussuaq. CPS has a limited number of bicycles for loan, located in the KISS building. A shuttle bus and taxis are available.

## **Room and Board**

All researchers are housed in the KISS facility and issued meal cards for local dining. Options include the Airport Cafeteria and the Thai Restaurant, Grill and Pizzeria located near the KISS building. Limited vegetarian options are available at these restaurants. An updated list of restaurant options will be provided during your arrival orientation.

The KISS facility has two-person dormitory-style rooms. KISS bills per person, not by room, so all researchers can expect to have a roommate unless otherwise arranged via your PM. Available amenities are communal areas and include: two lavatory and shower suites, two kitchens, a lounge area, one meeting room and research workspaces. Research work spaces are shared spaces that have a few minor items that can assist in lab work; fume hood, running water, centrifuge, and some refrigeration and freezer space. KISS has 120v @ 60Hz Type A plugs (North American style). There are also 230v @ 50Hz Shuco plugs available (Danish style).

A conscientious effort must be made to be respectful to your colleagues and their research.

*NSF only pays for KISS lodging when a research team is working on their funded science project, with the understanding that the team will take a few days off **during** the field season. If a team member is on personal leave or departs Kangerlussuaq to another Greenland destination, NSF will not pay for the room. Research team members should arrange to pay for the room any nights they are on personal leave or if they spend more than two nights away from KISS during the field season. The KISS Manager will accept payment during normal business hours. CPS can store gear temporarily to allow research team members to vacate their rooms for later check-in. Personal travel expenses including accommodations at KISS are not included in the CPS support budget.*

*Any exceptions require NSF approval. Please provide the details of your request and a justification to your project manager to request a departure from this payment policy. This is the NSF policy for any field location where NSF funds cover lodging.*

Accommodations are also available at the Hotel Kangerlussuaq, at participant's expense.

### **Computer/Internet/E-mail**

Wireless Internet is available for CPS-supported participants staying in the KISS building. Internet service in Greenland is typically below the standard of internet provided in the U.S. and Europe and bandwidth is limited. Outages and extreme slowdown are common. Check the white board outside the CPS Operations office to verify the problem is being addressed, if not, please report problems to the CPS Operations office. Addressing internet issues can take time and we ask for your patience.

### **Telephone**

Official project-related and/or emergency calls, can be made via CPS commercial telephone service. The purpose and length of the calls are monitored carefully to manage expenses.

The KISS facility is not set up for participants to make personal long-distance calls. Calls utilizing Skype and other voice-over-IP services can be used. CPS requests no use of video messaging services due to the bandwidth they require. It is best to plan on email as your primary international communication method.

## Recreation and Shopping

A gym building near the KISS facility offers activities including swimming, weight lifting, and other sporting activities. The cost is 20 DKK per visit (~ \$3.00 USD).

Retail in Kangerlussuaq includes the Pilersuisoq, which offers a limited amount of Danish food, clothing, sporting goods, housewares, liquor, beer, and wine. There are also several souvenir shops.

## Weather

Weather in the Kangerlussuaq area is generally 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 to be comfortable in summer's wide range of temperatures. Arctic mosquitoes infest the coast during June and July. Mosquito nets and insect repellent are necessary at this time of year. Sunscreen is also recommended.

## Traveling within Greenland

CPS arranges transportation to and from remote camps for groups continuing on to field sites. The NYANG provides heavy-lift services with ski-equipped Hercules LC-130 aircraft. CPS also arranges air support as required using ski-equipped Twin Otters or helicopters. Researchers must communicate these requirements to their project manager when planning their CPS season support requests.

The following sections provide an overview of the three permanent locations in Greenland that researchers visit: Thule Air Base, Camp Raven, and Summit Station. Participants visiting other remote sites work closely with CPS staff to determine what structures, fuel, equipment, gear, etc., are necessary.

## Thule Air Base

CPS routinely supports researchers working out of Thule Air Base. Thule is an active U.S. Air Force Base and clearances are required for entry to the facility. CPS obtains the needed clearances for base access.

Thule can be reached by weekly Air Mobility Command (AMC) flights, scheduled 109<sup>th</sup> NYANG flights, or commercial flights through Copenhagen and Kangerlussuaq. Passengers traveling on any of these flights require clearance.

Participants stay at the North Star Inn and eat meals in the base dining facility. Researchers are required to pay for meals. Visitors to Thule Air Base should review the Thule Guide. For questions regarding this site, contact Jessy Jenkins at [Jessy@Polarfield.com](mailto:Jessy@Polarfield.com) or Kyli Cosper at [Kyli@Polarfield.com](mailto:Kyli@Polarfield.com)

## Raven Camp

CPS operates Raven Camp. The prepared skiway and alternate landing area are located at 660 29' North by 460 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. For questions regarding this site, contact Tracy Sheeley at [sheeley@polarfield.com](mailto:sheeley@polarfield.com).

## Summit Station

Summit Station is a year-round science-support facility, located at the apex of the Greenland ice sheet inside the southern boundary of the North East Greenland National Park. The elevation is 10,500 feet and the effective pressure altitude ranges from 11,000 to 12,000 feet. Weather conditions range from -108° F in the winter to approximately 32°F in the summer. Winds in the summer are generally mild, but can exceed 40 knots during storm events. Winter is the time of year when major storms can occur; with wind speeds recorded in excess of 70 knots.

Researchers working at Summit Station should review the *Summit Station Users' Guide* which is available at <http://www.cpspolar.com>. For questions regarding this site, contact Matthew Okraszewski at [matthew@polarfield.com](mailto:matthew@polarfield.com)

## Leaving Greenland

Participants departing from Greenland typically transit through Kangerlussuaq. CPS staff assists as needed with cargo and onward travel home.

### **Items Banned in the United States**

Many items routinely found for sale in Greenland are illegal to import into the U.S. The [U.S. Marine Mammal Protection Act](#) prohibits the importation of any marine mammal products. It is also illegal to bring animal fur, bones or skulls to the U.S. from Greenland.

### **Accompanied Cargo and U.S. Customs**

Participants returning to the U.S. via the 109<sup>th</sup> NYANG will fill out a form for accompanying cargo that was generated in the U.S., and is worth less than \$2,000 U.S. per item. This form will be distributed on the aircraft during the flight back to the U.S. Passengers returning to the U.S. with cargo that was not registered prior to being sent to Greenland (for example, a piece of equipment that was used in Greenland before registration became a mandatory part of the outbound-cargo process), need to list this cargo on the form. In addition, any cargo repaired or altered in any way while abroad is subject to duty on the repairs or alterations.

Customs officials will meet the aircraft at Stratton ANGB.

For more information, refer to the U.S. Customs and Border Protection Web site at <http://www.cbp.gov>.

## Unaccompanied Return Cargo

All cargo, with the exception of hand-carry baggage, is returned from Greenland to the U.S. when space is available on NYANG flights. CPS arranges retrograde shipments from Stratton ANGB to the researcher's home university in a timely manner. Participants should contact the CPS cargo representative by telephone at (518) 605-0979 or by email at [Dino@Polarfield.com](mailto:Dino@Polarfield.com) to discuss shipping details and priorities. Researchers are responsible to pay for cargo shipment charges from Stratton ANGB to the home institution.

### Registered Retrograde Cargo

Since cargo is registered prior to shipment to Greenland, the paperwork required for reentry to the U.S. will have been generated already. Two forms need to ship with unaccompanied cargo:

- 1) A completed **Certificate of Registration Form 4455**.
- 2) A detailed, **signed packing list including a statement as follows:**

The above articles were exported from the United States on \_\_\_\_\_, by \_\_\_\_\_ (actual shipper address). Said articles were exported solely for temporary scientific purposes and for no other use abroad than for exhibition, examination, or experimentation, and they are being returned without having been changed in condition in any manner.

For participants departing from Kangerlussuaq to the U.S. via the NYANG, onsite CPS staff can assist with preparing unaccompanied cargo and forms.

### Unregistered Retrograde Cargo

For unaccompanied cargo shipments to the U.S. that were not registered prior to being sent to Greenland (for example, equipment used in Greenland before registration became a mandatory part of the outbound-cargo process), an **Entry and Manifest of Merchandise Free of Duty, Carriers Certificate and Release (Customs Form 7523)** is required. Download this form from the CBP Web site at <http://www.cbp.gov>.

### CPS Help with Customs Declarations

CPS can provide Customs declarations overview information and refer participants to other sources for answers more detailed questions. Contacts are as follows:

Kangerlussuaq, Geoff Miller at [Miller@Polarfield.com](mailto:Miller@Polarfield.com)

Stratton ANGB, Dino Guthrie at [Dino@Polarfield.com](mailto:Dino@Polarfield.com)

## Flying Homeward from Stratton Air National Guard Base

When returning from Greenland via a 109<sup>th</sup> NYANG flight, participants should book flights from Albany departing no earlier than 5:00 P.M. The 109<sup>th</sup> NYANG flights usually touch down at Stratton ANGB around noon. However, winds, mechanical problems and other unforeseen events can cause delays. Allow time to clear customs and plan for a 30 minute drive to the Albany airport.

## Taxi Service at Stratton Air National Guard Base

CPS representatives at Stratton will arrange taxis to the Albany airport or other destination. Passengers are responsible for fares.

## Other Things You Need To Know

### Recreational Travel

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

### How to Reach You in Greenland

The easiest way to communicate with field personnel in Greenland is via email.

CPS Greenland contact information is summarized in the table below:

Location	Telephone/Fax	Email
Denver Headquarters	Voice: 303.984.1450 Fax: 303.984.1445 Emergency: 720.320.6155	<a href="mailto:cpscontacts@ch2m.com">cpscontacts@ch2m.com</a>
Kangerlussuaq	Voice, Office 109: +299 841598 Primary Cell Phone: + 299 524218 Secondary Cell Phone: + 299 524281	Use participant's personal email address or have a message forwarded via <a href="mailto:cpscontacts@ch2m.com">cpscontacts@ch2m.com</a>
Summit Station	Voice: 321.953.9650	Use participant's personal email address or have a message forwarded via <a href="mailto:cpscontacts@ch2m.com">cpscontacts@ch2m.com</a>

## Letter Mail

Letter mail from the U.S. intended for a Greenland program participant can be sent to the CPS Denver Headquarters office or to the CPS Kangerlussuaq address for forwarding:

CPS Denver Mailing Address

CH2M HILL Polar Services

Attn: *Participant's Name*

8100 Shaffer Parkway, #100

Littleton, Colorado 80127-4268 USA

CPS Kangerlussuaq Mailing Address

CH2M HILL Polar Services

Attn.: *Participant's Name*

Postboks 1015

DK-3910 Kangerlussuaq GREENLAND

Outgoing letter mail with proper postage to the U.S. can be provided to CPS staff for forwarding. This mail will be posted by CPS staff in Scotia, New York. Use the Greenland postage system for all other outgoing mail.

## Package Mail

Package mail going to Greenland can be sent to New York using the Cargo Tracking System. See the section, "Transporting Cargo to Greenland." Researchers may receive package mail in Greenland by this method. Please follow the guidelines for using the Cargo Tracking System and to obtain the correct address in this section. Participants can send accompanied or unaccompanied packaged mail directly to the U.S. from Greenland on the 109<sup>th</sup> NYANG flights. Proper customs forms must be completed and sent with the respective package(s). These forms are available from CPS in Kangerlussuaq. Researchers who intend to ship freight commercially through Copenhagen to the U.S. must develop a shipping plan in advance of the trip to Greenland.

## Protection from Wildlife

Polar bear ranges include all coastal areas of Greenland. Participants working in these areas may wish to carry firearms for protection. Participants should contact their CPS Project Manager for information on resources available and what is expected by NSF when groups intend to carry a firearm in the field.

In some cases, an application to transport firearms in Greenland must be filed with the Chief of Police in Nuuk. Click [here](#) to learn more about firearm permitting requirements

Some animals in Greenland can be quite dangerous when provoked. Walrus have been known to attack small boats, and musk oxen and caribou will charge if approached too closely. Most authorities agree that human/animal interactions are often largely in the control of the person. By practicing appropriate behavior and being prepared, the chance of having a negative experience can be minimized.

# Environmental Protection and Conservation

## Principles of Conduct

Much of the Greenland coast is populated. As a guest in these communities, researchers are often seen as emissaries of *all* researchers or scientists. Therefore, researchers must take care to respect private land and subsistence users. It is the responsibility of the researchers to know ahead of time whose land is being used for research, what the rules are for usage, and what permits are required.

Refer to the [National Science Foundation Division of Polar Programs website](#) for more information on the principles of conduct for arctic research. The arctic environment is very sensitive to pollution. Therefore, researchers must conscientiously obey Government of Greenland legislation pertaining to research projects. Current and updated info on legislation is available at the [Government of Greenland website](#)

Program participants must not disturb archaeological relics and/or ruins. Special regulations are in force for the North East Greenland National Park and other designated areas. Refuse dumping is prohibited. Expeditions may not camp near actual or potential breeding sites for birds of prey.

Although no environmental impact statement is required for science projects, Greenland authorities scrutinize all project data forms for potential harm to the environment. Projects can be rejected or restricted based upon adverse environmental impact.

Researchers should obtain advice on local conservation regulations from the police authorities in the proposed study area. NSF project participants are expected to follow all applicable regulations, and to carry out field research with minimal environmental impact.

## Hunting and Fishing

Hunting/fishing licenses and information about season dates are available from the local Post Office.

## Collecting Samples

Any type of sampling activity must be approved by the appropriate agency before the project's start. Regulations for specific types of samples are listed below. See the Government of Greenland site > [Procedures and Forms](#) for links to sampling forms.

- ✦ *Geological samples* may be collected only to the extent approved by the Greenland Bureau of Minerals and Petroleum (BMP). Aside from companies granted prospecting or exploration rights, only the local resident population is allowed to collect and extract mineral resources. This includes precious and semiprecious stones.
- ✦ *Meteorite discoveries and fossils of national interest* must be reported to the Geological Museum in Copenhagen, and the items must be turned over to the museum.

- ✦ *Archaeological findings* must not be moved or disturbed, and should be reported to the Greenland National Museum & Archive as soon as possible.
- ✦ *Vegetation* in protected areas must not be dug up or manipulated without prior specific permission from the Greenland Ministry for Environment and Nature.
- ✦ *Sampling and handling of birds and mammals*, particularly the collection of eggs, tagging, ringing, immobilizing, or the shooting of animal specimens, must have been specifically approved by the Greenland Ministry for Environment and Nature before fieldwork begins. Conservation rules must be followed. Those whose scientific objectives do not pertain to these animals cannot collect reindeer or caribou antlers.

## Suggestions for Improvement

The *Greenland Guide* is edited annually. Please note any inaccuracies, omissions, or invalid links, and send them to [cpscontacts@ch2m.com](mailto:cpscontacts@ch2m.com)