

# GREENLAND GUIDE 2008



**CH2MHILL**  
Polar Services



Table of Contents

CH2M HILL Polar Services ..... 1

Table of Contents ..... 3

Your *Greenland Guide* ..... 5

Greenland, the World’s Largest Island ..... 5

CH2M HILL Polar Services in Greenland ..... 5

Science Projects ..... 6

    Project Approval/Permit ..... 7

    Project Plans and Season Support Plans ..... 7

Before You Leave for Greenland ..... 7

    Physical Qualification Process ..... 7

        Arctic and Antarctic Compatibility ..... 8

        Protecting Your Privacy ..... 8

    Passports ..... 8

    Foreign Nationals ..... 9

    Money ..... 9

    Insurance ..... 9

    Search and Rescue (SAR) ..... 9

    Military Clearances ..... 10

    What to Pack ..... 10

Transporting Cargo to Greenland ..... 11

    Cargo Tracking System ..... 11

    Cargo Shipping Lead Times ..... 11

    U.S. Customs and Border Protection Requirements ..... 12

        How to Register Your Cargo ..... 12

        How to Get Answers to Your Customs Questions ..... 12

    Labeling Your Cargo ..... 13

    Packing Slips ..... 13

    Hazardous Cargo ..... 13

    Personal Baggage ..... 14

    Skis ..... 14

    Greenland Import Taxes ..... 14

Your Travel To Greenland ..... 14

    Preparing for the New York Air National Guard 109th Flights ..... 15

        Where to Stay in Schenectady ..... 15

        Food for the Flight ..... 15

    The Flight North ..... 16

    Arriving in Kangerlussuaq, Greenland ..... 16

Your Stay in Kangerlussuaq ..... 17

    Support Services ..... 17

    Transportation ..... 17

    Room and Board ..... 18

    Computer/Internet/E-mail ..... 18

    Telephone, Telex, Fax ..... 18

    Recreation and Shopping ..... 18

# GREENLAND GUIDE **2008**

---

Banking.....	18
Weather .....	19
Travelling within Greenland.....	19
Your Stay at Thule Air Base .....	19
Your Stay at Raven Skiway.....	19
Your Stay at Summit Station .....	20
Summit Station Users' Guide.....	20
Station Manager .....	20
Science Coordination Office .....	20
Station Layout.....	21
Science Storage .....	21
Communications .....	21
Computer .....	22
Internet Usage Guidelines.....	22
Telephone .....	22
Food .....	22
Medical .....	23
Altitude Sickness .....	23
Water Conservation .....	24
Recreation .....	24
Drugs and Alcohol .....	24
Leaving Greenland.....	24
Items Banned in the United States .....	24
Accompanied Cargo and U.S. Customs .....	24
Unaccompanied Return Cargo .....	25
Registered Retrograde Cargo .....	25
Unregistered Retrograde Cargo.....	25
CPS Help with Customs Declarations .....	26
Flying Homeward from Stratton Air Base.....	26
Taxi Service at Stratton Air Base.....	26
Other Things You Need To Know .....	26
Recreational Travel.....	26
How to Reach You in Greenland .....	26
Electronic mail.....	27
Letter Mail .....	27
Package Mail.....	27
Health and Safety .....	28
Protection from Wildlife.....	28
Hunting and Fishing.....	28
Environmental Protection and Conservation.....	28
Principles of Conduct .....	28
Collecting Samples .....	29
Suggestions for Improvement .....	29

## *Your Greenland Guide*

This *Greenland Guide* is written for you, the National Science Foundation (NSF) **researcher** or CH2M HILL Polar Services (CPS) **employee**, as a general reference guide to living and working in Greenland. Look for the boldface word **researcher** or **employee** for information that applies specifically to you.

We have arranged the topics according to the general chronological order in which you will experience your trip, from the planning and preparing stages, to the flight north and your field season in Greenland, to your return home. At the end of the document, we have also included a few additional topics of general interest.

We hope this guide will be a helpful general aid to you in planning your trip to Greenland. We invite you to call your CPS project manager or supervisor for further information on any topic of interest or concern to you.

## **Greenland, the World's Largest Island**

The world's largest island, Greenland measures more than 1.3 million square kilometers or 840,000 square miles (roughly 1 1/2 times the size of Alaska). 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 about 7,500 Danes and 48,000 Inuit. More than 80% of the land is frozen beneath an ice cap that reaches a thickness of three kilometers or two miles.

Greenland also boasts the largest protected national park in the world, with an area of 289,500 square miles. The National Park of North and East Greenland, in the northeastern section of the country, is approximately one-third of the island.

## **CH2M HILL Polar Services in Greenland**

CPS is an experienced project-management team operating under a contract with the National Science Foundation (NSF) to provide logistics support for NSF-sponsored research projects, as well as some projects funded by other research agencies. For more information see our website at <http://www.polar.ch2m.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 the appropriate agencies and contractors in Greenland.

## GREENLAND GUIDE **2008**

---

During the summer field season, the CPS Greenland logistics manager coordinates support functions from our Kangerlussuaq offices and warehouses.

Summer administrative services available in Kangerlussuaq include:

- ↪ *Office support:* secure storage for documents and baggage, and mail forwarding.
- ↪ *Communications center support:* Internet, business-related telephone calls, fax, telex, HF and VHF radios.
- ↪ *Remote camp support:* flight scheduling, passenger and cargo movement.

Summer warehouse services available in Kangerlussuaq include:

- ↪ *Warehouse facilities:* field equipment issue, indoor and outdoor storage, and limited freezer storage.
- ↪ *Shipping and receiving center:* packaging and labeling materials, freight forwarding, and receiving.

CPS provides **researchers** with camping gear and field equipment such as tents, stoves and generators. CPS does not provide **researchers** with cold weather clothing or sleeping bags. CPS provides **employees** with camping and field equipment, cold weather clothing and sleeping bags.

While in Greenland, we are all guests of the Greenland and Danish governments. CPS asks your cooperation in building rapport with the organizations that help and host us. Please let the CPS representatives in Greenland attend to your support requirements and resolve your problems. This ensures you can complete your work and helps establish clear communications with our hosts.

### Science Projects

A detailed list of science projects currently supported by CPS is available at <http://ARMAP.org>. Navigate to 'Text Search' and use the text boxes to run a report based on your desired criteria. You may also view current Greenland Project Plans on our website at <http://www.polar.ch2m.com>. Navigate to Greenland > Project Plans.

## Project Approval/Permit

Most science teams planning to conduct research in Greenland must complete an annual application in order to obtain approval from the Danish Polar Center (DPC). The application forms are available from the DPC at <http://www.dpc.dk>. Applications are submitted directly through the DPC, not through the U.S. State Department. For assistance with the application process, contact:

Poul Henrik Sorensen  
E-mail: [pohs@fist.dk](mailto:pohs@fist.dk)  
Telephone: +45 7248 8125

## Project Plans and Season Support Plans

The CPS staff works closely with all projects requiring our assistance to develop a plan outlining anticipated field support. The resulting season support plan is provided to the NSF for review and approval prior to the start of the season. Plans must be completed at least four to six weeks prior to departure for Greenland. Review existing season support plans at <http://www.polar.ch2m.com>. Navigate to Greenland > Project Plans to view current season support plans.

When we learn that a project has been funded that will require our assistance for Greenland research, we create a record in our database of arctic research information. We send a report containing information about the life of the project, called a project summary, to the principal investigator for review. At the same time, we provide information on the CPS employee who has been assigned to manage our support to the project (though, in many cases, the PI already knows who her/his CPS project manager is). As the planning season begins, your CPS project manager will contact the principal investigator (or his/her designee) to begin developing the particular support needed for the season ahead. CPS documents this support in a season plan. Contact your project manager if you have any questions about the support planned for your project.

## Before You Leave for Greenland

The following sections provide details on some of the essential things you need to consider and/or accomplish before you leave for Greenland.

### Physical Qualification Process

All participants must be physically qualified before traveling to remote sites in Greenland. **Researchers** participating in NSF-sponsored fieldwork and **employees** must complete a physical examination, with the results reviewed by the NSF, before departure for Greenland.

There are two types of exams: these are called the *long form* and the *short form*. Any person under the age of 40, with no medical difficulties in the prior year, is required to have a *long form* NSF exam once every two years. During the year between *long form* examinations, NSF requires a *short form* exam.

Those participants 40 years and older, or with prior-year medical difficulties, must complete the *long form* examination on a yearly basis.

Complete dental exams are required on an annual basis for all persons. Panorex or full mouth x-rays are required for all new participants and once every five years for repeat personnel.

You can download the necessary medical forms from our website at <http://www.polar.ch2m.com> by navigating to Greenland > Medical Forms. Note that completed forms cannot be submitted electronically to CPS.

If you cannot access our website, or if you have any questions regarding the medical clearance process, please contact [kyli@polarfield.com](mailto:kyli@polarfield.com). CPS must have your completed medical exam forms no later than eight weeks before your scheduled field departure. The NSF requires 54 days for review and approval of all medical and dental forms.

## Arctic and Antarctic Compatibility

In some cases, a recent medical clearance for work in one polar region may qualify you for work in the other. You may be exempt from further medical examination if you physically qualified for the U.S. Antarctic Program during the previous year. CPS will work with you to determine whether you qualify for possible exemption early in the physical qualification process. An NSF doctor will review your Antarctic medical forms and then make the determination. You may also be able to use your Arctic examination to qualify for the Antarctic Program. For further details regarding compatibility between the two programs, contact [kyli@polarfield.com](mailto:kyli@polarfield.com).

## Protecting Your Privacy

The NSF maintains your medical record. In addition, in case medical advice is needed from any Greenland field camp, CPS has contracted with Medical Advisory Services, Inc. (MAS), for 24-hour consultation services, and a sealed copy of your forms is provided to them. The forms will be viewed only if a remote consultation is required. One year after your field season, the medical documents are destroyed in accordance with the Privacy Act of 1974, Public Law 93-579.

## Passports

All participants traveling to Greenland must carry a valid passport. Passports are available from your local U.S. Post Office and take approximately six weeks to process. Please note that you must have a valid passport before you begin the travel-clearance process with CPS. **Employees** may receive reimbursement for passport expenses by submitting a completed expense report. CPS requires a receipt for passport expenses,

as well as a receipt for the passport photos. ***Be sure to pack your passport and one other form of picture identification when traveling to Greenland.***

## Foreign Nationals

U.S. border security has been tightened in recent years, and changes in policy have placed further restrictions on people entering the U.S. from Greenland. 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 109<sup>th</sup>) flights. Therefore, 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.

All field team members carrying foreign passports who want to travel to/from Greenland via the NYANG 109<sup>th</sup> must provide proof of their visa status in addition to a valid passport. VISA type and numbers should be sent to [Jason@polarfield.com](mailto:Jason@polarfield.com) at least four weeks prior to deployment.

## Money

The standard currency throughout Greenland is the Danish Kroner. U.S. credit cards, U.S. debit cards and traveler's checks are accepted at limited locations. In Kangerlussuaq, the Greenland Airport Authority Accounting Office exchanges money at a fair market rate, billing a transaction against your credit or debit card. Cash advances of 500 Kroner maximum on your credit or debit card may also be obtained in Kangerlussuaq at the Hotel Kangerlussuaq.

## Insurance

**Researchers**, be sure to check with your home institution to confirm you have adequate insurance for your stay in Greenland. If you are planning to travel outside of Greenland for pleasure, you may want to consider additional traveler's insurance coverage.

CPS provides Worker's Compensation coverage for **employees** working in Greenland, but your coverage ends when your contract ends. Consider traveler's insurance if you plan to travel inside or outside of Greenland for pleasure.

## Search and Rescue (SAR)

The NSF acknowledges responsibility for the safety of all **researchers** and **employees** who are working on or associated with an NSF-sponsored research project. In the unlikely event of a search-and-rescue operation, all expenses will be the responsibility of the NSF. Safe field operations remain the primary responsibility of those working in the field. Please read and understand the CPS publication, *Field Manual*. The manual is available on the CPS website at <http://www.polar.ch2m.com>. Navigate to Safety, and then click on the *Field Manual* Link.

Information on field safety also can be found on the DPC website, <http://www.dpc.dk>.

## Military Clearances

Regardless of your entry point into Greenland, CPS processes military clearances for all **researchers** and **employees**. This allows the use of military transportation and facilities should the need arise after your travel begins. CPS requires all participants to submit name, passport number, passport expiration date, citizenship with place of birth, and date of birth at least 30 days before deployment.

### What to Pack

**Researchers** are responsible for their own cold weather clothing, boots and sleeping bags. CPS provides cold weather clothing and gear for **employees** only. CPS maintains small quantities of boots, sleeping bags and parkas in Kangerlussuaq for emergency replacement of lost or destroyed clothing.

Select cold weather clothing suitable for the site where you will perform your research. Take into consideration that weather conditions vary widely with location and latitude in Greenland. The most important rule in dressing for arctic work is to stay dry and warm. This can be accomplished by layering clothing and choosing fabrics that wick perspiration away from your body and hold little moisture. Clothing should be layered and loose, thus providing insulating air spaces between layers and the ability to regulate temperature by adding or removing layers. Fabrics to consider are Polar Plus Fleece, Polypropylene, Capilene, Gore-Tex or its equivalent, wool, and silk. Over-dressing, which can lead to excessive perspiration, is just as bad as under-dressing. Avoid cotton fabrics and jeans for remote field site use.

Note: CPS does not provide **employees** with sunglasses, long underwear, or socks. All individuals are expected to provide these items for themselves.

Updated January 2008

### 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
- \* Compact discs
- \* Batteries
- \* Reading material
- \* Toiletries

Also, refer to the Danish Polar Center's information pages: "Safety - during fieldwork in Greenland" at <http://www.dpc.dk/sw5351.asp>.

## Transporting Cargo to Greenland

CPS needs your cooperation to ensure the timely delivery of your cargo for the field season. **Researchers** must notify CPS of all cargo shipments, including cargo shipped on commercial airlines, so CPS can arrange for the receipt and transportation of your cargo to the appropriate location in Greenland.

### Cargo Tracking System

To simplify the cargo-shipping process, CPS has a web-based tool, the Cargo Tracking System (CTS). The CTS tracks the progress of cargo from its origin to Greenland field sites. **Researchers** and **employees** can use the Cargo Tracking System to:

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

NSF-funded investigators receiving CPS logistics support have access to the Cargo Tracking System. Select the CTS button on the CPS website at <http://www.polar.ch2m.com>. Your CPS point-of-contact will provide login and password information.

Contact the CPS cargo representative in New York by email at [earl.vaughn@gmail.com](mailto:earl.vaughn@gmail.com) or by telephone at 518.331.3103. You may discuss your shipping details and priorities, and ask any questions about the flight or cargo you are shipping to Stratton Air Base.

### Cargo Shipping Lead Times

All cargo must be shipped to Stratton Air Base for delivery to Greenland. It also **must be registered** (that is, examined and certified) with U.S. Customs before it can leave the country. (For more on U.S. Customs requirements see the following section below).

The registration process is quite straightforward, and can be done by you or a representative at home. If you choose to register your cargo at home, please be sure to ship it so that it arrives at Stratton Air Base **ten days** before your flight is scheduled to depart. If you prefer that personnel at Stratton Air Base register it for you, the cargo must reach the base **three weeks** before its flight departure date.

Hazardous Cargo shipped via the NYANG 109<sup>th</sup> to Greenland can be registered in Scotia at the Stratton Air Base. You must provide the CPS cargo representative with advance notice, and cargo must arrive at least **three weeks** before its flight date to be registered in Scotia.

The NYANG 109<sup>th</sup> airlift schedule carries the most recent information regarding Greenland departure dates. The schedule can be found on the CPS website at <http://www.polar.ch2m.com>. Navigate to Greenland > Calendars and Schedules.

*Note: Even cargo sent via ground transport to Stratton Air Base must be prepared for air transport by the shipper.*

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

The U.S. Customs and Border Protection (CBP) agency has tightened enforcement of requirements for cargo leaving and entering the United States. The best way to ensure that your southbound cargo is not held up by CBP in Scotia is to **register it before it leaves the U.S.**

The following section outlines the U.S. Customs forms you will need to complete before shipping your cargo to Greenland. Be sure you complete all appropriate forms as failure to do so could delay the return of cargo to you or your home institution.

For additional Customs information, you may refer to the U.S. CBP service online brochure "Know Before You Go." This resource is available on the official CBP website, <http://www.customs.gov/xp/cgov/travel/vacation/kbyg/>.

### **How to Register Your Cargo**

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

Whether you elect to have your cargo registered by your local CBP office or at the Stratton Air Base, you will need to complete the forms listed below and provide copies of these forms to the CPS cargo representative at Stratton Air Base:

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

### **How to Get Answers to Your Customs Questions**

Detailed instructions for preparing the required paperwork can be found on the CPS website at <http://www.polar.ch2m.com>. Navigate to Greenland > Customs.

You may also contact the CBP directly at <http://www.customs.gov/> or via telephone at 518.431.3103.

## Labeling Your Cargo

The Cargo Tracking System generates standard shipping labels for your 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 conspicuously marked to prevent damage to your cargo. Stencil "Do not freeze" on the appropriate piece.
- ✦ "Keep Frozen" cargo should 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.

## 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 in your files.

## Hazardous Cargo

Hazardous cargo must be packed and labeled according to Code of Federal Regulations CFR-49, Air Force Joint Manual AFAM 24-204 and International Air Transportation Association 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. International Air Transportation Association and CFR-49 regulations should be followed for all hazardous shipments to Stratton Air Base. If required, military certification is completed at Stratton Air Base or in Greenland by CPS staff.

Obtain five copies of the Material 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.

## Personal Baggage

Please use the cargo system to send the majority of your science project cargo and use personal baggage for clothes and personal supplies. The NYANG 109<sup>th</sup> allows 70 pounds of personal baggage but additional baggage may be flown on a space-available basis. Coordinate with your CPS project manager and the CPS cargo representative in advance if you have more than 70 pounds of luggage or cargo. Please note that if you are flying commercially to Albany, most commercial airlines charge a fee for baggage weighing more than 50 pounds.

In addition to your allotted 70 pounds of baggage on the NYANG flight, you may also bring food and drinks to consume during the flight as none is provided on NYANG flights to and from Greenland. Please note that you may not bring food into the United States, so bring only what you expect to eat and drink on the return flight.

## Skis

You may bring skis to Greenland. Include them in your cargo shipment to be delivered to Stratton Air Base, or bring them with you and hand-carry them on the airplane. Ensure that your 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 in to the country. If you plan to bring items like chocolate, sugar, soft drinks, tobacco, or alcohol to Greenland, be prepared to pay the taxes. Please contact the Greenland tax ministry to receive the latest details on these import taxes.

Greenland Ministry of Taxation  
P.O. Box 1605  
3900 Nuuk  
Greenland  
Phone +299 345000  
Fax +299 322040  
email: [tax@gh.gl](mailto:tax@gh.gl)

## Your Travel To Greenland

All participants travel to Greenland by air on either military or commercial aircraft. The least expensive mode of transport to Greenland is via the New York Air National Guard 109<sup>th</sup> (NYANG 109<sup>th</sup>) flights from Stratton Air Base, Scotia, New York. Commercial airline service is also available to Kangerlussuaq from Baltimore, Maryland, and Copenhagen, Denmark, via Air Greenland. CPS can assist you with your travel arrangements if commercial flights are required.

Participants heading to Thule, Greenland will depart from Baltimore/Washington International Airport in Maryland. For specifics on these flights, contact [Susan@polarfield.com](mailto:Susan@polarfield.com).

CPS pays for **employee** travel expenses from the departure airport to and from Greenland, excluding personal travel. CPS does not compensate for travel to and from the airport of departure. **Researchers** are responsible for payment of all travel expenses to and from Greenland.

## **Preparing for the New York Air National Guard 109th Flights**

Participants departing for Kangerlussuaq via a NYANG 109<sup>th</sup> flight should fly into Albany, New York, the day prior to their flight. The Albany International Airport is about 15 miles from Schenectady, where you should make your hotel reservations. Your flight to Greenland is on an LC-130 aircraft, flown by the NYANG 109<sup>th</sup> out of Stratton Air Base in Scotia, New York.

### **Where to Stay in Schenectady**

**Researchers** arrange their own hotel accommodations in Schenectady, New York. Most participants stay at the [Holiday Inn Nott Terrace](#) (telephone 518.393.4141). The Holiday Inn offers courtesy transportation from the Albany airport between 7:00 AM and 10:00 PM. Use the toll-free hotel telephones in the baggage claim area to call for a ride. Participants will need to take a taxi to the Holiday Inn when the hotel shuttle is not available.

Another option is the [Days Inn Schenectady](#), located right across the street from the Holiday Inn (telephone 518.370.3297). This hotel does not have a free shuttle from the airport, so participants staying here will have to take a taxi to the hotel.

CPS reserves a room for **employees** at the [Holiday Inn Nott Terrace](#) in Schenectady. Please note there are several Holiday Inns in the area so be sure you go to the correct hotel. The hotel has a free shuttle service from the Albany airport between 7:00 AM and 10:00 PM. Use the toll-free hotel telephones in the baggage claim area to call for a ride. **Employees** must pay for both room and incidentals upon departure in the morning. CPS will reimburse you for the room and tax. Please keep your hotel receipt.

### **Food for the Flight**

Because food and beverages are not provided on the five-to-seven-hour flight; we recommend that you purchase food and drink before leaving. Stewart's, the mini-mart store located in front of the Holiday Inn, sells food and drinks. The store is open from 5:30 A.M. until 9:00 PM.

## The Flight North

All **researchers** and **employees** need to report to the Aerial Port Facility (APF) representative in Building 20 at Stratton Air Base by 5:15 A.M. on the day you are scheduled to fly to Greenland. You may check in as early as 4:45 A.M. Earl Vaughn is your point of contact for Stratton Air Base. Please call Earl if you are unable to check-in on time. He can be reached at (518) 331-3103.

Arrange with the hotel front desk to reserve a taxi for the morning of your flight. It is a 20-minute drive to Stratton Air Base from downtown Schenectady. Please plan to share a taxi from the hotel to Stratton Air Base with other participants. **Employees**, please keep the taxi receipt for reimbursement.

It is a good idea to arrive early in case of delays at the gate due to increased security. The guard at the Stratton Air Base gate will have a list of passenger names. Remember to bring your passport and another form of picture identification, such as your driver's license.

Ask the gate guard to direct you to Aerial Port Building 20. Once inside the building, check in with the Aerial Port representative who will check your 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). After validating your identity, the representative will tell you where to place your personal bags. The pre-flight briefing is typically at 7 A.M., and the flight to Kangerlussuaq usually departs at 8 A.M.

Dress warmly as the flight can be cold. The seats on the airplane are made of net webbing and are not designed for comfort. Water may be provided on the flight but food is not. The restroom facilities consist of a men's urinal in the front cargo compartment and a toilet by the paratroop doors at the back of the airplane. Smoking, use of chewing tobacco, or drinking alcoholic beverages is prohibited on military aircraft.

Contact the CPS cargo representative by email at [earl.vaughn@gmail.com](mailto:earl.vaughn@gmail.com) or by telephone at 518.331.3103 with general questions regarding your flight.

## Arriving in Kangerlussuaq, Greenland

Upon arrival in Kangerlussuaq, local police will meet the aircraft and check your passport. CPS personnel will be waiting outside the plane for all personnel arriving via the NYANG 109<sup>th</sup>. If you arrive by commercial air, a CPS representative will meet you just inside the airport on the other side of the glass doors, located straight ahead once you enter the airport building. CPS staff will then drive you to the CPS facilities in Kangerlussuaq. **Employees** are issued cold weather clothing 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 532 and 534. The CPS Greenland logistics manager, office 109, provides a central 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: visiting personnel are housed in the KISS facility, and take meals at the airport cafeteria, Gammel Cantina.
- ✈ Office and administrative services: guest computer, copier, secure storage for documents and baggage, and mail forwarding.
- ✈ Communications center: emergency and business-related telephone calls, Internet, fax, telex, and HF radio.
- ✈ Remote-camp support: daily telephone, email, radio or telex contact to remote sites, support flight scheduling, passenger and cargo movement, and limited medical capability.
- ✈ In-country travel arrangements: bookings for commercial domestic flights, arranging special fixed-wing or helicopter charters, and hotel information. These requirements should be identified with CPS 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, airport ramp access, and Air Force pallet systems.
- ✈ Shop facilities: woodworking equipment, metalworking equipment, vehicle maintenance equipment, plumbing tools, and access to all local fabrication and repair shops. These facilities are very limited and all fabrication or tool requirements should be identified with CPS before arrival.
- ✈ Fueling: access to local bulk fuels. Fuel requirements should be identified with CPS before arrival.

### 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 for sightseeing or personal transport.

## Room and Board

All **researchers** and **employees** participating in the current field season are housed in the KISS facility and issued meal cards for the local dining hall, Gammel Kantina, located at the airport complex. There are standard meal hours for dining and the setting is cafeteria-style. The KISS facility has dormitory-style rooms which two people share. The bathrooms are communal, and two kitchens, lounge areas, meeting rooms and laboratories are available on site.

[The Greenland Home Rule Government](#) manages the KISS facility.

You may also book accommodations at the [Hotel Kangerlussuaq](#) at your own expense. Other dining facilities in Kangerlussuaq include the Hotel Kangerlussuaq Airport restaurant and the Roklub at Lake Ferguson. Dining at these facilities is at your own expense.

## Computer/Internet/E-mail

Wireless Internet is available for CPS-supported participants staying in the KISS building. The KISS facility also features a guest computer for **researchers** and **employees** to use on a shared basis.

## Telephone, Telex, Fax

Official project-related calls, and/or emergency calls, can be made from Kangerlussuaq via CPS commercial telephone service. Because of the expense involved, the purpose and length of the calls are monitored carefully.

The KISS facility is not set up for participants to make personal long-distance calls. It is therefore best to plan on communicating from Kangerlussuaq via email.

## Recreation and Shopping

A gym building near the KISS facility offers recreational activities including swimming, weight lifting, tennis, badminton, basketball, softball, bowling, and rowing. The cost is 20 Kroner per visit (which equals about \$3.75 U.S. dollars). There are three retail shops in Kangerlussuaq: two souvenir shops in the airport and the Pilersuisoq, a store that offers Danish food, clothing, sporting goods, housewares, liquor, beer, and wine.

## Banking

Banking facilities are not available in Kangerlussuaq. Personal and payroll checks cannot be cashed. Traveler's checks, cash (Danish Kroner), and some U.S. credit cards and debit cards are accepted in Kangerlussuaq. The Greenland Airport Authority Accounting Office exchanges money at a fair market rate, billing a transaction against

your credit card or debit card. You also can get a cash advance of a maximum of 500 kroner on your credit card at the Hotel Kangerlussuaq.

## 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.

## Travelling within Greenland

When it's time to go into the field, CPS arranges transportation to and from remote camps. The NYANG provides heavy-lift services with ski-equipped Hercules LC-130 aircraft. CPS can also arrange air support as required using ski-equipped Twin Otters or helicopters. **Researchers** need to indicate these requirements when outlining their CPS season support requests.

In the following sections, we 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, and so on, are necessary for the work to be done. For more information on a variety of field topics, please read the CPS *Field Guide*, which is available for download on the CPS website at <http://www.polar.ch2m.com>. Navigate to Safety and click on the *Field Manual* Link.

## Your Stay at 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 NYANG 109<sup>th</sup> flights, or commercial flights through Copenhagen and Kangerlussuaq. Passengers traveling on any of these flights require clearance.

Participants stay at the Thule Station for Arctic Research (TSAR) or the North Star Inn and eat meals in the base dining facility. **Researchers** are required to pay for meals. For answers to your specific questions on Thule, contact [Susan@polarfield.com](mailto:Susan@polarfield.com).

## Your Stay at Raven Skiway

CPS operates the Raven skiway training facility for use by the NYANG 109<sup>th</sup>. The prepared skiway and alternate landing area are 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 cap, where snow melting and ablation are roughly equal to accumulation. In addition to its primary function as a training facility, this site currently hosts one autonomous science instrument platform. The renewable-energy-powered camp is capable of providing limited support for science research projects. This facility is staffed only during the boreal summer months. Contact Mark Begnaud, [mark@polarfield.com](mailto:mark@polarfield.com), with questions regarding this site.

## Your Stay at Summit Station

Summit Station is a year-round science-support facility, located at the apex of the Greenland ice sheet at an elevation of 10,500 feet. The effective pressure altitude ranges from 11,000 to 12,000 feet. Weather conditions range from -108<sup>o</sup> F in the winter to approximately 32<sup>o</sup> 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! Summit is situated inside the southern boundary of the North East Greenland National Park.

### Summit Station Users' Guide

**Researchers** and **employees** planning to work at Summit should be familiar with the *Summit Station Users' Guide*. The guide acquaints participants with the systems in place at Summit for creating a quality research environment for all.

As discussed in the guide, visitors to Summit Station are expected to participate in the “pedestrian culture” being promoted there (for example, curbing vehicle use and using cleaner, renewable energy sources). The commitment to reducing vehicle and machine emissions is critical, as many of the experiments at Summit are impacted by pollution. The users' guide is available for downloading on the CPS website at <http://www.polar.ch2m.com>. Navigate to Greenland > Summit Users Guide.

### Station Manager

The CPS Summit Station site manager has the final authority on all safety and operational issues at the station. The manager works directly with the Summit Station project manager and the Science Coordination Office (see section below) to coordinate activities requested by science groups on site.

### Science Coordination Office

Because Summit Station research is so dynamic and diverse, the Science Coordination Office (SCO) was established to ensure that the needs of all researchers are met, and that potential conflicts of interest between research and operational requirements are minimized. Researchers who have ongoing projects at Summit, and who are familiar

with the operational requirements of both the science community and the station itself, form the SCO. **Researchers** wishing to conduct experiments at Summit should query the SCO ([sco@summitcamp.org](mailto:sco@summitcamp.org)) to ensure that their work is considered in the framework of ongoing science and operations at Summit.

More information can be found in the *Summit Station Users' Guide*, available at <http://www.polar.ch2m.com>. The SCO also maintains its own website at <http://www.geosummit.org>. Email may be sent to <mailto:sco@geosummit.org>.

## Station Layout

Summit Station houses a variety of structures. The Big House is a 26-foot-wide by 56-foot-long building that serves as the center of station activity. It contains the kitchen, dining hall, communications office, and has a complete bathroom and laundry facility.

The Green House structure is made up of two 8-foot-wide modules with a 16-foot connecting link between them. It contains a laboratory, emergency kitchen, bathroom, a bedroom and a lounge. The Berthing Module—the main living quarters—has six rooms, including a small common area, and a bathroom with a sink and toilet. This structure contains no shower or tub.

Power is supplied to the station by diesel generators in a module that includes a snow-melting device for water production. Other temporary structures are used at the station to support various science projects as needed.

Most **researchers** and **employees** sleep in Arctic Oven tents. The tents are set up on plywood floors to provide greater insulation and protect the tent from damage during shoveling. Participants are provided with sleeping pads and foam insulating board for added warmth and comfort.

Flights into Summit Station are via ski-equipped aircraft. The aircraft land on a 15,000-foot by 200-foot snow runway or “skiway” that CPS maintains with heavy equipment.

## Science Storage

A cargo line is provided for storing shipping containers, gas cylinders, and spare materials. Some indoor heated storage for supplies and spare parts can be provided for items that cannot be frozen. Please identify your needs for this limited space prior to arrival at Summit. Investigators should plan to remove all of their supplies from the station at the end of their trip. Only priority items approved by the Summit Station Project Manager can remain over the winter season or beyond the length of the science campaign.

## Communications

Summit Station has a VSAT satellite link that provides a continuous 512-kilobits-per-second network connection and telephone service of reasonable quality. Access to an Internet connection and associated services (email, file transfer, telnet, and Web browsing) are available to users anywhere at Summit Station via a wireless local area network. The wireless local area network is based on the common IEEE-802.11 standard and can accommodate any wireless card falling under that standard.

### Computer

A guest computer is set up for **researchers** and **employees** to use on a shared basis. This computer can host limited video conferencing. It also offers a CD writer. *Please bring your own blank CDs.*

- ↪ Participants wishing to bring their own laptops should ensure that a wireless card compatible with the IEEE-802.11 standard is installed on their computer.

### Internet Usage Guidelines

Rather than develop a strict policy governing use of these capabilities, CPS offers the following guidelines:

- ↪ Be aware that bandwidth is limited. This is not the T-3 connection you may be accustomed to at your home institution.
- ↪ If possible, schedule activities that consume heavy bandwidth during periods of low usage. If that is not possible make other participants aware of your plans so they can attempt to reschedule their planned usage.
- ↪ Remember that science and business needs always take priority over personal use.
- ↪ Be considerate of others. Limit your time on the network and on the guest computer so others can comfortably use this shared resource.
- ↪ If the system is abused, it becomes unusable for everyone. If this occurs, CPS will institute policies to regulate usage.

### Telephone

**Researchers** and **employees** are issued an access code for telephone use during their stay at the station. Please limit telephone use to 10 minutes per week. Notify CPS management if you need to increase that limit. If prior arrangements are not made and a review of telephone records shows excessive use, **researcher** grants may be charged back for those costs and **employees** will be responsible for paying at the rate of \$.35 per minute for calls to the U.S. and \$.50 per minute for international calls. Calling cards do not work with this system.

## Food

Summit Station is staffed with a cook. Meals are provided six days a week, excluding breakfast, which is self-serve. On Sunday all station personnel are asked to assist with meals to provide the cook with a day off. Typically, people cook their own food or have left-overs. All personnel at Summit Station are expected to help with daily chores.

## Medical

CPS contracts with Remote Medical International (RMI) to provide emergency and non-emergency medical consultation to Summit Station personnel. RMI staffs Summit Station with a full-time, on-site paramedic. The station is stocked with a full field-medical kit.

In addition to RMI services, several staff members on station possess Wilderness First Responder credentials.

After you arrive at Summit, the camp medic will request some basic medical information from you regarding allergies, conditions to be aware of, etc. Be sure to bring a sufficient supply of any prescribed medications for the duration of your stay.

Upon arrival in Kangerlussuaq, anyone experiencing symptoms of an illness should be evaluated for fitness prior to flying to Summit. Please alert the Kangerlussuaq operations manager if you feel that a medical condition has developed that would make it unwise for you to travel to Summit. Even a moderate head cold can greatly diminish a participant's tolerance to altitude.

## Altitude Sickness

Summit Station is located at an altitude of over 10,000 feet. Altitude sickness is a serious concern and can potentially result in evacuation. For that reason, CPS recommends that all participants traveling to Summit Station consult with their physician regarding *Diamox*, a prescription medication for preventing altitude sickness.

You will not have a chance to acclimatize before arriving. Follow these suggestions to minimize the risk of altitude sickness:

- ☞ Do not drink alcohol for a few days before coming to Summit Station.
- ☞ Avoid fatty or greasy foods.
- ☞ Eat a large amount of carbohydrates for a few days before arriving.
- ☞ Drink as much non-alcoholic liquid as possible, starting a few days before flying out.

The night before your flight, and especially the morning of your flight, continue to eat as much carbohydrate-loaded food (for example, potatoes and bread) as possible. Consider drinking a carbohydrate-loaded beverage the evening before, and the day of, your flight. Bring the beverage with you to drink the first few days at Summit Station. Carbohydrate loading is one of the best methods to minimize altitude sickness the first few days of exposure.

## **Water Conservation**

Summit Station water is made with a great deal of effort by melting snow. Plan on washing only one load of laundry per week and limiting your showers to one every four days. Bring ample clothing to get through eight days. Hand soap and laundry detergent are supplied.

## **Recreation**

There are limited recreational facilities and materials available at Summit, including exercise equipment, a video and music library, and books. Skiing or walking the skiway are also popular activities.

## **Drugs and Alcohol**

CPS does not tolerate alcohol or drug abuse. Any personnel over the age of 21 who wish to drink alcohol are expected to drink responsibly. Anyone using illegal drugs or abusing alcohol will be sent from Summit Station on the next available flight.

## **Leaving Greenland**

All adventures come to an end. When you're ready to go home, you will likely transit through Kangerlussuaq to await your homeward flights. There you will find the same support services available as when you arrived in Greenland (see the section on Kangerlussuaq for more information). CPS staff will assist you as needed with your cargo and your onward travel home.

The return trip is much like the trip to Greenland, but in reverse. In the following sections, we touch on some of the differences.

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

Please be aware that many items routinely found for sale in Greenland are illegal to import into the U.S. In particular, the [U.S. Marine Mammal Protection Act](#) prohibits the importation of any marine mammal products.

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

On your return to the U.S. via the NYANG 109<sup>th</sup> flight, you will be asked to fill out a form for cargo *accompanying* you that was generated in the U.S., and is worth less than \$2,000 U.S. per item, just as you would on commercial aircraft. This form, Customs Declaration Form CF 6059B, will be distributed on the aircraft during the flight back to the U.S. If you return to the U.S. with cargo that was not registered prior to being sent to Greenland (for example, you are carrying a piece of equipment that was used in

Greenland before registration became a mandatory part of the outbound-cargo process), you will need to list it on this form. In addition, any cargo repaired or altered in any way while abroad is subject to duty on the repairs or alterations.

*For more information, refer to the U.S. Customs and Border Protection website at <http://www.customs.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 109<sup>th</sup> flights. CPS arranges retrograde shipments from Stratton Air Base to the researcher's home university in a timely manner. Contact the CPS cargo representative by telephone at 518.331.3103 or by email at [earl.vaughn@gmail.com](mailto:earl.vaughn@gmail.com) to discuss shipping details and priorities.

**Researchers** are expected to pay for cargo shipment from Stratton Air Base to the home institution.

### **Registered Retrograde Cargo**

Since you registered your cargo prior to its shipment north to Greenland, the paperwork required for reentry to the U.S. will have been generated already. These two forms need to ship with your 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

If you are departing from Kangerlussuaq to the U.S. via the NYANG 109<sup>th</sup>, onsite CPS staff can assist you in preparing unaccompanied cargo and forms.

### **Unregistered Retrograde Cargo**

If you want to ship unaccompanied cargo to the U.S. that was not registered prior to being sent to Greenland (for example, you have some equipment that was used in Greenland before registration became a mandatory part of the outbound-cargo process), you will need to fill out an **Entry and Manifest of Merchandise Free of Duty, Carriers Certificate and Release (Customs Form 7523)**. Download this form at on the CBP website at <http://www.customs.gov/xp/cgov/toolbox/forms/>.

**CPS Help with Customs Declarations**

CPS can provide you with Customs declarations overview information and refer you to other sources for answers to your more detailed questions. Your contacts are as follows:

Kangerlussuaq/Denver	Mark Begnaud	<a href="mailto:mark@polarfield.com">mark@polarfield.com</a>
Stratton Air Base	Earl Vaughn	<a href="mailto:earl.vaughn@gmail.com">earl.vaughn@gmail.com</a>

**Flying Homeward from Stratton Air Base**

When returning from Greenland via a NYANG 109<sup>th</sup> flight, be sure to book your return flight from Albany to depart no earlier than 5:00 P.M. The NYANG 109<sup>th</sup> flights usually touch down at Stratton Air Base around noon. However, winds, mechanical problems and other unforeseen events can cause delays. Allow time to go through Customs and for a 30-minute drive to the Albany airport.

**Taxi Service at Stratton Air Base**

Contact CPS representatives in Greenland or at Stratton Air Base if you would like to have a taxi waiting at the base (if your flight is delayed, the taxi’s waiting charges will be your responsibility). Your returning baggage will be in either the Aerial Port parking lot or, in case of rain, inside the Aerial Port building.

**Other Things You Need To Know**

**Recreational Travel**

Greenland has many recreational opportunities. Participants are responsible for food, lodging and transportation arrangements if staying in Greenland for personal reasons following their fieldwork. Please notify CPS or the CPS Greenland Logistics Manager before going to Greenland if you anticipate post-season travel.

**How to Reach You in Greenland**

CPS Greenland contact information is summarized in the table below:

Location	Telephone/Fax	
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 84 15 98 Primary Cell Phone: + 299 524218 Secondary Cell Phone: + 299 524281 Fax: +299 84 15 99	Use participant’s personal e-mail address or have a message forwarded via <a href="mailto:cpscontacts@ch2m.com">cpscontacts@ch2m.com</a>

Summit Station	Phone: 321 953 9650 Fax: 321 953 9651	Use participant's personal e-mail address or have a message forwarded via <a href="mailto:cpscontacts@ch2m.com">cpscontacts@ch2m.com</a>
----------------	--	--

**Electronic mail**

The easiest way to communicate with field personnel in Greenland is via e-mail. If the participants are working at Summit Station or in Kangerlussuaq, contact them using their personal e-mail account. If you are unsure of their location or e-mail address, you may send them a message via [cpscontacts@ch2m.com](mailto:cpscontacts@ch2m.com) and the message will be forwarded to them.

**Letter Mail**

Letter mail from the U.S. intended for a Greenland program participant can be sent to the CPS Denver Headquarters office. Alternately, mail for participants in Greenland can be sent to the CPS Kangerlussuaq address and then forwarded on from there.

CPS Denver Mailing Address	CPS Kangerlussuaq Mailing Address
CH2M HILL Polar Services Attn: <u>Participant's Name</u> 8110 Shaffer Parkway, #150 Littleton, Colorado 80127-4268 USA	CH2M HILL Polar Services Attn.: <u>Participant's Name</u> Postboks 1015 DK-3910 Kangerlussuaq GREENLAND

For outgoing letter mail destined for the U.S., participants affix proper postage and give it to CPS staff. This mail will be posted in the U.S. 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 by using the Cargo Tracking System. Please see the section, "Transporting Cargo to Greenland," which describes the system and its use. **Researchers** and **employees** 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.

U.S. regulations have become more stringent in recent times, but participants can still send accompanied or unaccompanied packaged mail directly to the U.S. from Greenland on the NYANG 109<sup>th</sup> flights. Before doing so, proper customs forms must be completed and sent with the respective package(s). These forms are available from the CPS representative based in Kangerlussuaq.

For **researchers** and **employees** who intend to ship their freight commercially through Copenhagen, Denmark, to the U.S., be sure to develop a shipping plan in advance of

your trip to Greenland. Shipping cargo to the U.S. via Copenhagen can be complicated and requires a fair amount of planning. Know before you go.

## **Health and Safety**

Refer to the health and safety section of the *CPS Field Manual* for a list of health and safety topics of concern to Greenland participants. From our website at <http://www.polar.ch2m.com> navigate to Safety and click on the *Field Manual* Link.

## **Protection from Wildlife**

Because polar bears live in the northern regions of Greenland, participants working in these areas may wish to carry firearms for protection. The Danish Commission must approve importation of firearms for this purpose in Greenland. An application to transport firearms in Greenland must be filed with the Chief of Police in Nuuk.

Some other 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, you can minimize the chance of having a negative experience.

## **Hunting and Fishing**

Hunting and fishing licenses are available from the local Post Office, and these activities may be performed only during designated times of the year.

## **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, take care to respect private land and subsistence users. Know ahead of time whose land you will be using for research, what the rules are for usage, and what permits are required.

Refer to the National Science Foundation Office of Polar Programs website at <http://www.nsf.gov/od/opp/arctic/conduct.jsp> for more information on the principles of conduct for arctic research.

The arctic environment is very sensitive to pollution. Therefore, you must conscientiously obey Greenland Home Rule legislation pertaining to research projects.

See all the pertinent legislation at the Danish Polar Center website <http://www.dpc.dk/sw1099.asp>.

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, the Danish and Greenland authorities do scrutinize all project data forms for potential harm to the environment. Projects can be rejected or restricted based upon adverse environmental impact.

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.

See also, "Access to protected and restricted areas" at the Danish Polar Center website: <http://www.dpc.dk/sw6616.asp>.

## 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. Links to all of the agencies mentioned below are found on the Danish Polar Center's web site at <http://www.dpc.dk/sw1103.asp>.

- ↪ *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 us at [cpscontacts@ch2m.com](mailto:cpscontacts@ch2m.com).