

## Amundsen 2014 Field Manual



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## Introduction

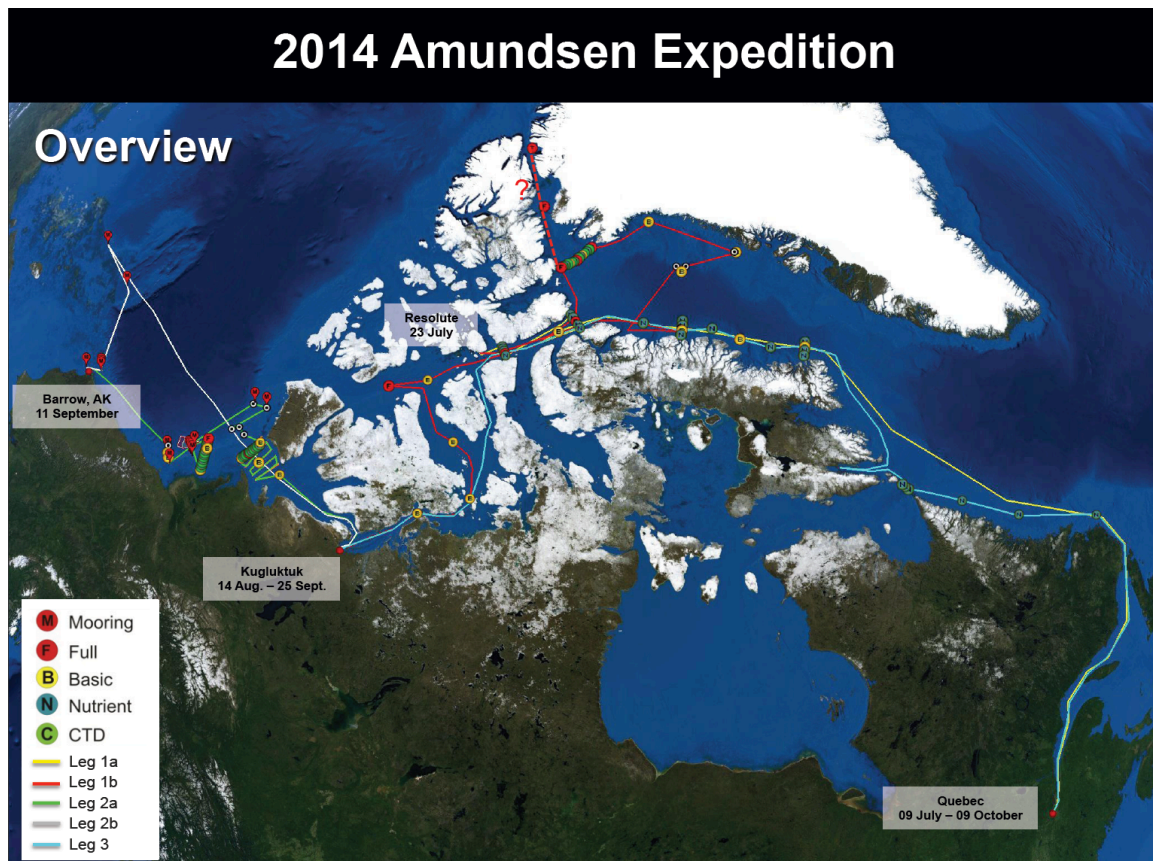
The *CCGS Amundsen* is one of the few Canadian Coast Guard ship to have a dual purpose. The Coast Guard maintains the infrastructure operational and available for science for up to 152 days of operations per year, over a period of 6 months from mid-May to mid-November.

During the summer of 2014 the *CCGS Amundsen* will conduct research in the North Water Polyna, Baffin Bay, Beaufort Sea and Chukchi Sea under the ArcticNet initiative with partners including NETCARE and JMSTEC. The ships time will be divided to allow for continued sampling of the water column at specified stations along the designated path, an iceberg study with on ice sampling, an opportunistic ice program and dedicated mooring recovery and deployment in the Southern Beaufort Sea.

## Cruise Path

### DRAFT PLAN

The *Amundsen* is scheduled to leave Quebec City on July 8-9 and return on October 9. All dates listed below are tentative and subject to change.



#### Leg 1a (09 July to 23 July)

Leaving Quebec City on 09 July, the Amundsen will head directly to Lancaster Sound to conduct sampling operations at selected ArcticNet stations and to study the sources and impacts of aerosols in the Arctic as part of the Netcare program. The ship is scheduled to be in Resolute on 23 July for a science rotation and the end of Leg 1a.

#### Leg 1b (23 July to 14 August)

After the science rotation in Resolute, the ship will sail back east and then south towards Scott Inlet (stn 170) where it will spend a couple of days carrying out ROV dives, CASQ coring and a full suite of oceanographic sampling operations. From there, the ship will continue east towards Greenland and then north conducting sampling operations at selected stations along the way. After sailing through the Northwest Passage, the Amundsen will stop in Kugluktuk on 14 August for a full crew change and the end of Leg 1.

#### Leg 2a (14 August to 11 September)

Leg 2a will start from Kugluktuk on 14 August. The Amundsen will spend approximately 4 weeks in the Beaufort Sea/Amundsen Gulf region to conduct mooring operations, coring operations and SX90 sonar and multibeam surveys within the framework of ArcticNet's BREA funded projects. Oceanographic sampling will also be conducted along the ArcticNet designated transects. The ship is expected to be offshore Barrow, Alaska around 11 September for a science rotation and the end of Leg 2a.

#### Leg 2b (11 to 25 September)

As part of a collaboration between Canada and Japan, two weeks will be spent in the Beaufort and Chukchi Seas conducting mooring operations, oceanographic sampling and sea ice related activities. The ship will be back in Kugluktuk on 25 September for a full crew change and the end of Leg 2.

#### Leg 3 (25 September to 09 October)

After a full crew change in Kugluktuk, the ship will sail back east through Peel Sound and Lancaster Sound. Basic sampling operations will be carried out along the coast of Baffin Island. The ship is scheduled to be in Quebec City on 09 October.

### Required Courses

All participants are **required** to have the following:

WHIMIS Training

First-Aid Training

Fall Arrest Training

Highly recommended training:

## Possession and Acquisition License (PAL)

Required if completing science with a helicopter:  
Helicopter Underwater Egress Training (HUET)

Please contact Lauren Candlish (lauren.candlish@umanitoba.ca) if you would like to take any of the above courses or have any questions.

## Shipping Equipment

All equipment will need to be in Quebec City at the Coast Guard Depot 2 weeks prior to the departure date. The tentative date for all equipment to arrive is June 20 2014.

The shipping address is:

Garde côtière canadienne/Canadian Coast Guard  
Dépôt 18 101, boul. Champlain  
Québec, Québec G1K 7Y7  
CCGS Amundsen 2014 Expedition (U. Laval)  
Attn: Danny Boutin / Keith Levesque

All boxes must be labeled with the Principal Investigators Name, research institution. Weight and dimensions of the each box must be recorded. A complete cargo manifest must be sent to Keith Levesque prior to shipping. A detailed internal cargo manifest must also be listed for all items coming from CEOS. Any asset tags must be required and items need to be signed out prior to shipping. Shipping labels for both boxes and pallets are available in the appendix.

## Pre-Departure Preparations

### Mobilization and Demobilization

There will be 3 weeks of mobilization prior to the departure date. The first week will be at sea trials. Any heavy equipment or items that need to be tested are to be installed and tested during this time. The last two weeks are for most items and equipment. Each group is expected to have at least one representative in Quebec City to load the ship. If the representative is also boarding the ship for leg 1A they may be able to stay onboard the ship close to the departure date. All other participants are expected to find their own places to stay and cover their own costs. During mobilization lunches will be provided onboard the ship.

Similarly for demobilization each group will need a representative in Quebec City. No participants will be allowed to stay on board the ship during demobilization.

## Before the Ship Sails

It is important to take the following points into consideration before boarding the ship:

- The date and time that you must arrive on board
- The time the ship will sail
- The duration of the voyage
- Your passport and identification papers if the ship will be going abroad
- Your working hours while aboard
- The work environment (the ambient temperature and the type of clothing to wear)
- Your medical fitness – All Fleet personnel must undergo a medical examination; all other personnel will want to know of any medical problems they may have that could be detrimental to their safety. Though each ship has one or several persons on board with first-aid training, access to medical care is generally limited. Should you experience health problems prior to the ship's scheduled departure, please consult a medical practitioner concerning any precautions that should be taken, and ensure that it be made clear that it will not be possible to quickly reach doctors or paramedics during the voyage. Before the ship sails, the Commanding Officer must be notified of any health problem or medication requiring special attention. All supernumerary personnel must fill out and submit a "Statement of Medical Fitness" form before the ship sails.
- **Health and medical insurance- It is up to the individual to make sure they have proper coverage for while at sea. There have been medical evacuations in the past where the individual received treatment outside of Canada.**
- The members of the scientific research personnel and/or the personnel of other programs will want to discuss the following points with their program leader: the location of the major work areas; their responsibilities on board the ship; plans concerning gear and additional safety equipment and items needed for the program.
- The research scientists and/or the members of other programs who want to board hazardous material or dangerous chemicals must provide the Scientist-in-Charge and/or the Commanding Officer with the Material Safety Data Sheets (MSDS) for these products, if any. In addition, all dangerous goods loaded aboard must be wrapped in compliance with the Transportation of Dangerous Goods Regulations.

The following forms must be completed before the ship sails:

- Statement of Medical Fitness (Appendix VI). This form provides a means by which to ensure that supernumerary personnel who are aboard CCG ships

- are able to endure normal conditions of life at sea and that their health status will not endanger the health and safety of the other people aboard.
- Personal Information Form. The telephone number of the person to be contacted in case of an emergency, allergies, etc., must appear on this form (Appendix VIII).
  - Waiver and release. This form must be filled out only by persons who are not federal government employees (Appendix VII). One of the objectives of the waiver and release form is to draw the attention of the person signing it to the possibility of an accident occurring and the precautions that should be taken, given the circumstances (in particular, having an adequate insurance policy in the event of an injury).
  - Material Safety Data Sheets, as applicable.

### Personal Packing List

A recommended packing list is below. This packing list is not all-inclusive as personal items will vary.

#### **Outerwear**

Steel toed Boots  
Waterproof jacket/rain gear  
Warm mitts  
small gloves  
hats \*2  
scarf or neck warmer \*2  
extra thick wool socks \*2

#### **Clothing**

underwear \*10  
socks \*10  
pyjamas (roommates will appreciate you wearing these)  
long undershirts \*2  
long underwear  
sweat pants/fleece pants  
sweatshirt  
down vest  
nice sweater/shirt (Sunday dinner)  
tshirts \*5  
jeans or working pants\*2  
gym shorts  
running shoes  
flip flops or slippers

flats or nicer shoes

### **Personal**

health card / insurance card

PAL, Fall Arrest Training Card/ First Aid Certification

Passport – required for all participants

money (\$300)

cheque book (can pay for the canteen/wine with this)

iphone/ipod / charger

watch / alarm clock

camera

card reader/camera cord/charger

photo card

laptop/ipad

medication (gravel/sea sickness meds, pain meds (Tylenol etc), cold meds, muscle pain, polysporin, prescriptions)

first aid / sewing kit

sunscreen

feminine products or personal grooming supplies

hand cream/lotion

medicated lip balm

shampoo/conditioner

hair brush

sunglasses/goggles

toothbrush/toothpaste

glasses

headphones

travel coffee mug

pocket knife/utility knife

notebook

pens

pencils

highlighters

personal snacks (chocolate, popcorn etc)

## **Life On Board the Amundsen**

### **Items and Services Provided On Board**

- Sheets, pillows blankets, towels, facecloths, cleaning supplies, toilet paper, hand soap and laundry detergent (sheets and blankets are periodically replaced)
- Laundry facilities



- Personal flotation device (temporary loan only)
- Meals
- There is no cabin cleaning or maid service onboard, occupants are asked to keep their cabins clean. Regular inspections of the ship's premises are periodically conducted by the designated authorities aboard.

### Drugs and Alcohol

No illegal drugs are allowed on board. If a participant is found with them they will be removed from the ship and sent home at their own costs.

No personal alcohol is allowed onboard the ship. No cabin parties are allowed. Socializing is to be done in the crews lounge or in the officers lounge.

### Meals

The chefs will typically prepare two options for dinner, one meat and one basic vegetarian. Scientists are asked to eat during meal times and to give up your seat when finished for others.

Snacks are available during off hours but you must clean up after yourself. Dishes are to be brought back to the sink and all food items to be put away.

### First-Aid and Medical

There is a nurse onboard the ship at all times. If you need to see the nurse, they are available during working hours. If it is an emergency you can find the nurse in their room or call the bridge to locate the nurse.

### Transportation to and from the Amundsen

During full leg changes there will be a charter flight from Quebec City to the crew change location. All participants who use the charter flight will be charged for the associated costs. (~\$1000/direction). Mid-leg crew changes will likely be booked individually. If there is a large enough group a charter flight may be booked. Details about this will come out closer to the time.

### Technical information

The power supply onboard the ship is 110V, with the standard North American plug. If you need a power bar in a lab, ask for one and it will be provided to you. Do not bring a power bar with you as it can damage your instruments or cause a fire.

## Communications

There are internet services onboard the ship. Scientists can use two computers with internet access. Please limit your time as there is always someone waiting. There is no skype or other VOIP services available on board. The internet connectivity is very limited. When the ship is too far north you can lose the satellite connection and thus there will be no internet or tv service available.

There are phone services available on board. A phone card can be purchased from the logistics office with rates approximately \$1/minute.