



2013-2015

LOGISTICS IN EXTREME ENVIRONMENTS
PRINCESS ELISABETH ANTARCTICA STATION

START



YOU ARE LEAVING AT THE START OF THE RESEARCH SEASON. WHERE DO YOU STOP OVER ON YOUR WAY TO THE PRINCESS ELISABETH STATION IN ANTARCTICA ?



South Africa

New Zealand

South America

Australia

Incorrect !

TRY AGAIN

Correct!

You would stop off in **Cape Town in South Africa** before taking a flight to Novolazarevskaya Station (Novo), your first landing in Antarctica. After a few hours (or overnight) you fly on a smaller aircraft from there to the Princess Elisabeth Station.

NEXT





AIR TRANSPORT TO NOVO STATION IS ORGANIZED BY THE ANTARCTIC LOGISTICS CENTRE INTERNATIONAL (ALCI). AT WHAT TIME OF YEAR CAN YOU FLY TO NOVO?



All year round

October to March

December to March

June to September

Incorrect !

TRY AGAIN

Correct!

Flights between South Africa and Novo station are organised by [ALCI](#) during the austral summer, from the end of **October** to the beginning of **March**.

NEXT



THE TEAMS PREPARE THEIR EQUIPMENT AND DO FIELD TRAINING BEFORE THEY DO THEIR FIELDWORK.

WHAT IS THE TEAM IN THE PHOTOGRAPH DOING ?

- ▶ CAVING
- ▶ A SAFETY EXERCISE IN A CREVASSE
- ▶ COLLECTING ICE SAMPLES
- ▶ MEASURING THE TEMPERATURE OF THE ICE

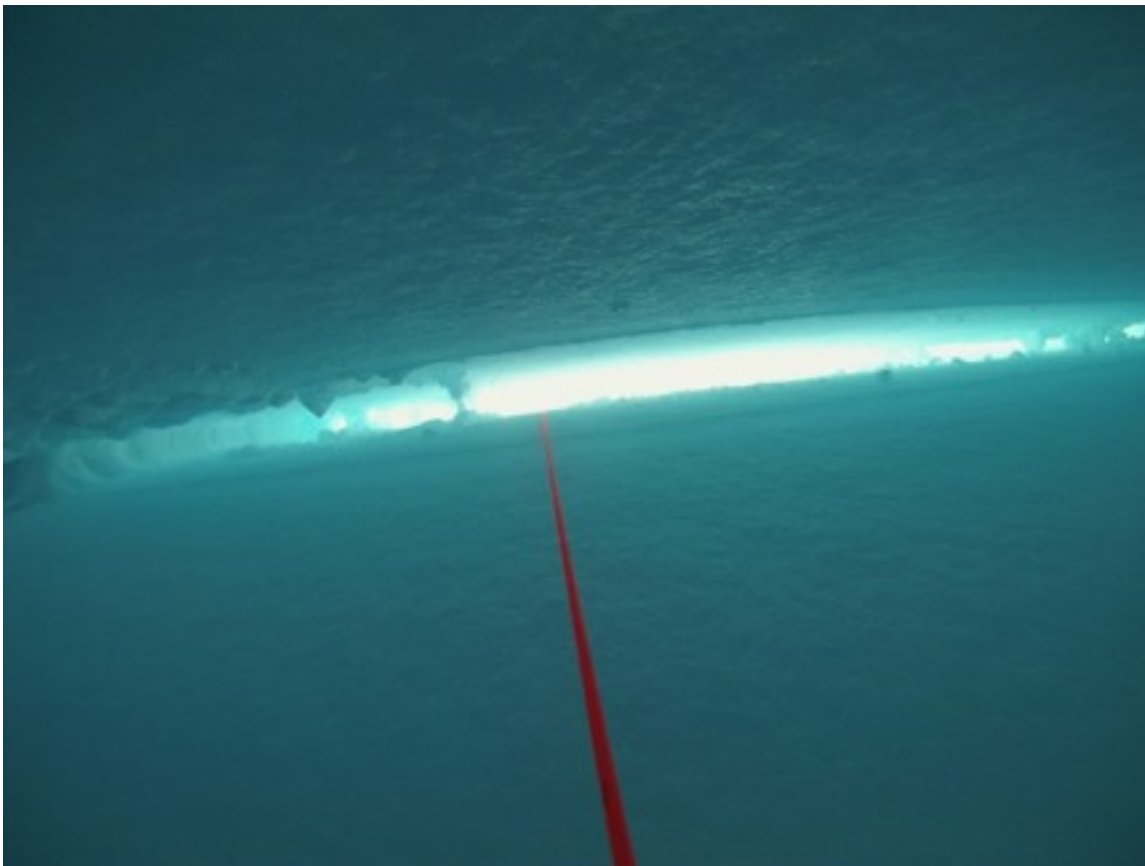


Incorrect !

TRY AGAIN

Correct!

Moving on ice is dangerous because of crevasses. Field guides ensure the safety of all teams. All personnel who need to travel on the ice have to do field training on the **hazards of crevasses** to learn essential safety and rescue techniques.



NEXT



ANYONE WHO GOES IN THE FIELD ALSO LEARNS TO DRIVE ONE OF THESE VEHICLES. WHICH ONE ?



PRINOTH



SKIDOO



BICYCLE



TOYOTA HILUX

Incorrect !

TRY AGAIN

Correct!

To travel in the field, scientists are trained to **drive skidoos**.

NEXT



YOU ARE A SCIENTIST AT THE STATION AND YOU WANT TO CONTACT YOUR COLLEAGUES AROUND THE WORLD TO SEND THE RESULTS OF YOUR FIELD WORK. HOW DO YOU COMMUNICATE WITH THEM ?



VHF RADIO



WALKIE TALKIE



SATELLITE LINK



SATELLITE PHONE

Incorrect !

TRY AGAIN

Correct!

The **SES satellite antenna** allows the station to have a broadband Internet connection. Scientists use it to transmit data and to keep in touch with their colleagues. It also helps to control the station during the winter when there is nobody there.

NEXT

Correct but not ideal !

Satellite phones can be used to contact **any number in the world**.
However, they are very expensive so are only used for short calls in an emergency or when there are no other available means of communication.

TRY AGAIN



THE SCIENCE TEAMS ARE GETTING READY TO GO TO THE COAST WHERE THEY'LL BE CAMPING DURING THEIR FIELDWORK.

ALL THE EQUIPMENT IS CHECKED BEFORE THEY LEAVE. WHAT IS SHOWN IN THE PICTURE ?

- ▶ A FREEZER TO CONSERVE FOOD WHILE AT THE COAST
- ▶ A COLD BOX TO PRESERVE SAMPLES COLLECTED IN THE FIELD
- ▶ AN EXPERIMENT TO STUDY ICE CHARACTERISTICS
- ▶ A SNOW MELTER TO PROVIDE WATER FOR THE FIELD TEAM



Incorrect !

TRY AGAIN

Correct!

Water at the field camp is produced with the **snow melter**. The teams fill the snow melter regularly with snow to make plenty of water.

NEXT



HERE IS A PICTURE TAKEN ABOUT 220 KM AWAY FROM THE STATION. WHAT IS IT ?

- ▶ A NEIGHBOURING RESEARCH STATION
- ▶ A CONTROL TOWER FOR AEROPLANES
- ▶ A SHIP THAT IS GOING TO UNLOAD SUPPLIES
- ▶ A BIRD OBSERVATORY



Incorrect !

TRY AGAIN

Correct!

This is a supply ship called **Mary Arctica**, which is unloading containers onto the ice shelf. The ship brings technical, logistical and scientific equipment for the station as well as food supplies. It will leave with scientific samples (for example ice cores) and waste.



NEXT



YOU ARE PART OF THE TEAM THAT IS GOING TO MEET THE SHIP. HOW LONG WILL IT TAKE YOU TO TRAVEL FROM THE COAST TO THE PRINCESS ELISABETH STATION (220 KM TRIP) USING THE PRINOTH TO TRANSPORT THE CONTAINERS ?



12 HOURS

3 DAYS

24 HOURS

10 HOURS

Incorrect!

TRY AGAIN

Correct!

It takes about **24 hours**, taking into account stops for refuelling, crossing crevassed areas, etc.

NEXT



YOU ARE A GLACIOLOGIST AND YOU HAVE ARRIVED ON THE ROI BAUDOUIN ICE SHELF TO CARRY OUT YOUR RESEARCH. THE CAMP IS ALL SET UP AND YOU HAVE STARTED TO WORK BUT YOU'VE HAD TO TAKE SHELTER IN THE CONTAINERS. WHY ?

- ▶ A POLAR BEAR HAS COME QUITE CLOSE TO THE CAMP
- ▶ A STORM IS MAKING IT IMPOSSIBLE FOR YOU TO GO OUTSIDE, SNOW HAS COVERED EVERYTHING AND THE WIND HAS DAMAGED YOUR TENT
- ▶ IT'S TOO COLD TO GO OUTSIDE
- ▶ FALLING METEORITES MAKE IT IMPOSSIBLE FOR YOU TO GO OUT



Incorrect !

TRY AGAIN

Incorrect !

There are no polar bears in Antarctica.
You are stuck inside the containers for another reason.

TRY AGAIN

Correct!

There are no polar bears in Antarctica.

The temperature at the coast in summer when research is carried out is not too cold – sometimes it is even above freezing.

The researchers had to shelter in the containers during the 2014/2015 research season due to a **storm**.

NEXT



WHAT IS THE PERSON IN THE PICTURE DOING ?

- ▶ MEASURING SNOW ACCUMULATION
- ▶ PUTTING UP A FLAG TO SHOW THAT THERE IS A DANGEROUS CREVASSE
- ▶ MAKING A HOLE TO INSTALL A MEASURING INSTRUMENT
- ▶ TAKING PART IN AN EXERCISE TO RETRIEVE HIS TENT AFTER A STORM

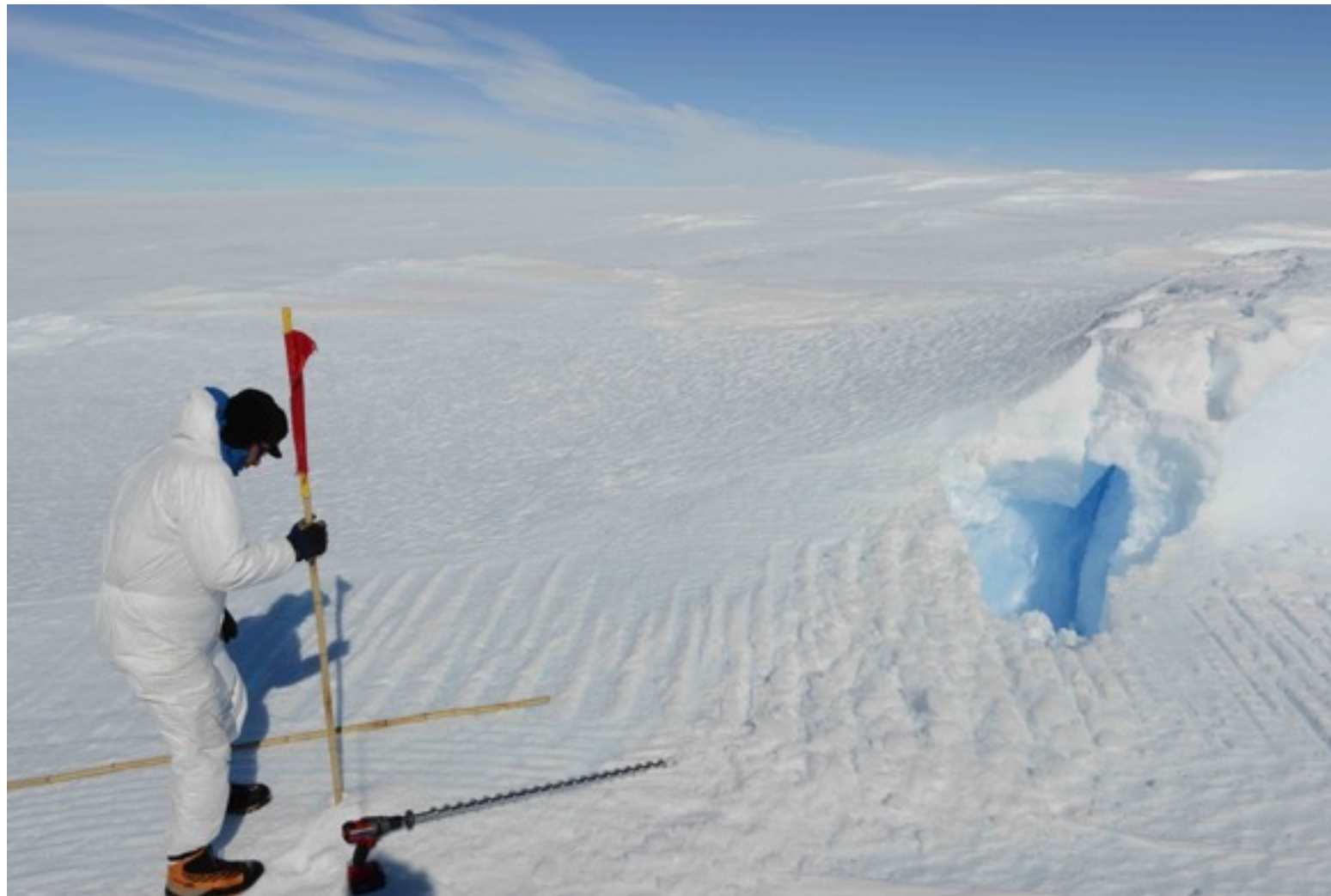


Incorrect !

TRY AGAIN

Correct!

Crevasses are a very significant danger. They are not always easy to see especially when a layer of snow covers them. Once the hazard is identified, flags are placed nearby as a warning.



NEXT

Well Done !

You can now do this quiz again or visit www.educapoles.org for other quizzes, teaching files and educational projects for the polar regions, polar science, climate change and sustainable energy.

START AGAIN

A project of:



Supported by the Brussels-Capital Region and Wallonia.

