

Antarctic Treaty

Electronic Information Exchange System

Party: Belgium 2014/2015 Annual Information

Operational Information – National Expeditions - Stations

Name: **Princess Elisabeth**

Type: Summer

Location: **Site Name:** Utsteinen **Lat:** 71° 57′ 00′′ S **Long:** 23° 20′ 00′′ E

Maximum Population: 34

Remarks / Description:

Supplies and equipment from the Belgian Army- 30kg of medical equipment and supplies. Medical **Medical Facilities:**

facilities have basic equipment - defibrillators, ventilators. No Xrays, ultrasound or other sophisticated diagnostic capabilities. Emergency facilities installed at the airstrip.. Medical

personnel: 1 Dr & 1 paramedic (1st period) Number of patient beds: 1

Princess Elisabeth is constructed as a compact station. The main building - designed for optimal use by 12 people with a surface area (living, technical, research, storage) of 900 m² - is located above ground-level and anchored onto snow-free rock area. A garage and storage building constructed under the snow in the lee side of the ridge provides room for around 30 additional beds and people. There are a few satellite units (containers) located nearby the station, providing shelter for eg. scientific activities. The station is built to utilize renewable energy as the primary energy source with the minimum use of fossil fuels. Energy production: The station is equipped with 9 wind turbines, with a capacity of 54 kW. In addition solar photovoltaic panels (9 kW, 90 m2) and solar thermal panels (20 kW, 200 m2) are installed. The photovoltaic system will be capable of providing up to 10% of the electrical load and thereby reducing the number of batteries required. Energy consumption: The station has a comprehensive energy management regime. An ingenious energy

monitoring and control system which steers the different processes in the building according to demand, and keeps energy use coordinated to energy supply has been installed. In addition technologies reducing consumption are present, such as use of low energy-use equipment,

"presence detector" systems for unoccupied rooms, etc. Heating and water production and storage: The station has solar thermal panels installed which are used to heat the thermal buffer. The excess heat is used to melt snow and heat sanitary water. Zero emission policy: The systems described above allow the station to be close to a zero emission station. Back-up generators have been installed to ensure a constant energy supply. It is currently expected that the generators will be used maximum 200 hours per season. However, fuel will be used for vehicles and transport, and the estimated fuel consumption (polar diesel, petrol, Jet A-1) per season is at approx 400 drums. All fuel is currently stored in 200 liter drums. Transport and production is not accounted for in this zero emission framework, but the daily operation of the station would entail near zero emission. Waste management: Water is recycled several times before the treated water finally is discharged into a nearby ice pit. All other waste is sorted, stored in a shipping container and returned to Cape Town

for recycling and proper disposal.

Operating Period: From: November To: February

Operational Information - Non Governmental Expeditions - Vessel-Based Operations

Name: LATITUDE OCEANE SPRL

Contact Address: 40 RUE NYSTEN, B-4000 LIEGE Operator:

Email Address: info@vaihere.com

Website Address: http://www.vaihere.com

Name of Vessel: VAIHERE

Country of Registry: Belgium

Number of Voyages: 3

Maximum Crew: 4

Maximum Passengers: 10

Remarks: Voyages:

Depart. Date Depart. Port Arrival Date Arrival Port Expedition Leader

12 Dec 2014 Ushuaia 04 Jan 2015 Ushuaia

Visited Sites: View in Google Earth Map

Site Name: Dallmann Bay Latitude: 64°20 'S Longitude: 62°53 'W

Visit Date: 18/12/2014 This visit includes landing: No Activities: Small Boat Cruising

Site Name: Dallmann Bay Latitude: 64°20 'S Longitude: 62°53 'W

Visit Date: 19/12/2014

This visit includes landing: Yes Number of Visitors: 12

Activities: Kayaking, Small Boat Cruising, Small Boat Landing, Station Visit

Site Name: Waterboat Point/ Gonzalez Latitude: 64º 49 ' 00 ' ' S Longitude: 62º 52 ' 00 ' ' W

Visit Date: 20/12/2014

This visit includes landing: Yes Number of Visitors: 8

Activities: Small Boat Landing, Station Visit

Site Name: Waterboat Point/ Gonzalez Latitude: 64° 49′ 00′′ S Longitude: 62° 52′ 00′′ W

Visit Date: 21/12/2014

This visit includes landing: Yes Number of Visitors: 11

Activities: Small Boat Landing, Station Visit

Site Name: Enterprise Island Latitude: 64°32′S Longitude: 62°00′W

Visit Date: 22/12/2014

This visit includes landing: Yes Number of Visitors: 12 Activities: Small Boat Cruising, Small Boat Landing

Site Name: Jougla Point Latitude: 64°49′35′′S Longitude: 63°29′37′′W

Visit Date: 24/12/2014

This visit includes landing: Yes Number of Visitors: 10

Activities: Kayaking, Small Boat Landing

Site Name: Damoy Point/Dorian Bay Latitude: 64° 49′ 00′′ S Longitude: 63° 32′ 00′′ W

Visit Date: 24/12/2014

This visit includes landing: Yes Number of Visitors: 10 Activities: Extended Walk, Small Boat Cruising, Small Boat Landing

Site Name: Goudier Island Latitude: 64°49′30′′S Longitude: 63°29′36′′W

Visit Date: 24/12/2014

This visit includes landing: Yes Number of Visitors: 11

Activities: Small Boat Landing, Station Visit

12 Jan 2015 Ushuaia 05 Feb 2015 Ushuaia

Visited Sites: View in Google Earth Map

Site Name: Goudier Island Latitude: 64°49′30′'S Longitude: 63°29′36′'W

Visit Date: 26/01/2015

This visit includes landing: Yes Number of Visitors: 11

Activities: Station Visit

Site Name: Jougla Point Latitude: 64°49′35′′S Longitude: 63°29′37′′W

Visit Date: 26/01/2015

This visit includes landing: Yes Number of Visitors: 11 Activities: Small Boat Cruising, Small Boat Landing

Site Name: Lemaire Channel Latitude: 65°04'S Longitude: 63°57'W

Visit Date: 27/01/2015 This visit includes landing: No

Activities: Ship Cruise

Site Name: Ile Pleneau Latitude: Longitude:

Visit Date: 27/01/2015

This visit includes landing: Yes Number of Visitors: 12 Activities: Small Boat Cruising, Small Boat Landing

Site Name: Ile Pleneau Latitude: Longitude:

Visit Date: 28/01/2015

This visit includes landing: Yes Number of Visitors: 13

Activities: Extended Walk, Small Boat Cruising, Small Boat Landing

Site Name: Enterprise Island Latitude: 64°32′S Longitude: 62°00′W

Visit Date: 31/01/2015

This visit includes landing: Yes Number of Visitors: 12

Activities: Small Boat Cruising, Small Boat Landing

13 Feb 2015 Ushuaia 07 Mar 2015 Ushuaia

Visited Sites: View in Google Earth Map

Site Name: Melchior Islands Latitude: 64°19′S Longitude: 62°57′W

Visit Date: 17/02/2015 This visit includes landing: No Activities: Small Boat Cruising

Site Name: Goudier Island Latitude: 64°50 'S Longitude: 63°30 'W

Visit Date: 19/02/2015

This visit includes landing: Yes Number of Visitors: 14

Activities: Station Visit

Site Name: Ile Pleneau Latitude: Longitude:

Visit Date: 20/02/2015

This visit includes landing: Yes Number of Visitors: 14

Activities: Small Boat Landing

Site Name: Hovgaard Island Latitude: 65°08 'S Longitude: 64°07 'W

Visit Date: 21/02/2015

This visit includes landing: Yes Number of Visitors: 13

Activities: Small Boat Landing

Site Name: Charcot, Port Latitude: 65°04′S Longitude: 64°00′W

Visit Date: 22/02/2015

This visit includes landing: Yes Number of Visitors: 12

Activities: Small Boat Landing

Site Name: Vernadsky station Latitude: 65° 15′ 00′′ S Longitude: 64° 15′ 00′′ W

Visit Date: 23/02/2015

This visit includes landing: Yes Number of Visitors: 14

Activities: Small Boat Landing

Site Name: Winter Island Latitude: 65°15′S Longitude: 64°16′W

Visit Date: 23/02/2015

This visit includes landing: Yes Number of Visitors: 13

Activities: Station Visit

Site Name: Argentine Islands Latitude: 65°15′S Longitude: 64°17′W

Visit Date: 24/02/2015

This visit includes landing: Yes Number of Visitors: 14

Activities: Small Boat Landing

Site Name: Enterprise Island Latitude: 64°32′S Longitude: 62°00′W

Visit Date: 26/02/2015

This visit includes landing: Yes Number of Visitors: 14

Activities: Small Boat Landing

Site Name: Wilhelmina Bay Latitude: 64°38 'S Longitude: 62°10 'W

Visit Date: 27/02/2015 This visit includes landing: No

Activities: Ship Cruise

Site Name: Melchior Islands Latitude: 64°19 'S Longitude: 62°57 'W

Visit Date: 01/03/2015

This visit includes landing: Yes Number of Visitors: 12

Activities: Small Boat Landing

Site Name: Melchior Islands Latitude: 64°19 'S Longitude: 62°57 'W

Visit Date: 02/03/2015 This visit includes landing: No Activities: Small Boat Cruising Name: SIMON YATES

Contact Address: Denby, North Dykes, Gt Salked Penrith, Cumbria CA11 9ND **Operator:**

Email Address:
Website Address:

Name of Vessel: IORANA

Country of Registry: belgium

Number of Voyages: 1

Maximum Crew: 1

Maximum Passengers: 4

Remarks: Voyages:

Depart. Date Depart. Port Arrival Date Arrival Port Expedition Leader

05 Jan 2015 Ushuaia 31 Jan 2015 Ushuaia

Visited Sites: View in Google Earth Map

Site Name: Charles Point Latitude: 64°14 'S Longitude: 61°00 'W

Visit Date: 13/01/2015

This visit includes landing: No

Site Name: Herschel, Cape Latitude: 64°04′S Longitude: 61°02′W

Visit Date: 14/01/2015

This visit includes landing: Yes Number of Visitors: 2 Activities: looking at a small Chinstrap Penguin colony

Site Name: Murray, Cape Latitude: 64°21 'S Longitude: 61°38 'W

Visit Date: 15/01/2015 This visit includes landing: No Activities: Anchoring Only

Site Name: Bluff Island Latitude: 64°22′S Longitude: 61°34′W

Visit Date: 16/01/2015

This visit includes landing: Yes Number of Visitors: 3

Activities: Climbing, 3rd person landed in order to bring back to the yacht a person hurted by a falling rock during a climbing,

Skiing, Small Boat Landing

Site Name: Murray, Cape Latitude: 64°21 'S Longitude: 61°38 'W

Visit Date: 17/01/2015 This visit includes landing: No Activities: Anchoring Only

Site Name: Enterprise Island Latitude: 64°32 'S Longitude: 62°00 'W

Visit Date: 18/01/2015 This visit includes landing: No

Site Name: Enterprise Island Latitude: 64°32 'S Longitude: 62°00 'W

Visit Date: 19/01/2015

This visit includes landing: No Number of Visitors: 2

Activities: Anchoring Only, went aboard a sunken whaling ship to which the yacht was anchored

Site Name: Enterprise Island Latitude: 64°32 'S Longitude: 62°00 'W

Visit Date: 20/01/2015

This visit includes landing: Yes Number of Visitors: 3

Activities: Extended Walk, Small Boat Landing

Site Name: Base Melchior **Latitude:** 64°19′59′′S **Longitude:** 62°58′59′′W

Visit Date: 21/01/2015

This visit includes landing: No

Activities: Anchoring Only

Site Name: Base Melchior Latitude: 64°19′59′′S Longitude: 62°58′59′′W

Visit Date: 22/01/2015

This visit includes landing: Yes Number of Visitors: 3 Activities: Extended Walk, wildlife watching, Station Visit

Site Name: Base Melchior Latitude: 64°19′59′′S Longitude: 62°58′59′′W

Visit Date: 23/01/2015

This visit includes landing: No Activities: Anchoring Only

Operational Information – Non Governmental Expeditions - Land-Based Operations

No new information have been provided during the reported period.

Environmental Information - Contingency Plans

Title: Code of Conduct

Scope/coverage of the plan:

Objective:Guidelines to keep Antarctica pristine, protect Antarctic wildlife, be safe, for field activities, fuel spill

prevention and waste management

Organisation:

Name: Vancauwenberghe Maaike

Contact Point: Job Title or Position: Programme manager

Phone: +32 2 2383678 **Email:** vcau@belspo.be

File: <u>CCGuide_en.pdf</u>

Title: Environmental code of conduct

Scope/coverage of the plan:

Objective: MAXIMISE your Antarctic experience with MINIMUM environmental impact

Organisation:

Name: Vancauwenberghe Maaike

Contact Point: Job Title or Position: Programme manager

Phone: +32 2 2383678 **Email:** vcau@belspo.be

File: FichesEnvCodeOfCond_en.pdf

Title: Fuel spill action card

Scope/coverage of the plan:

Objective:

Organisation:

Name: Vancauwenberghe Maaike

Contact Point: Job Title or Position: Programme manager

Phone: +32 2 2383678 **Email:** vcau@belspo.be

File: FichesFuelSpActionCard_en.pdf

Title: Fuel spill action plan

Scope/coverage of the plan:

Objective: Response procedures in the event of a fuel spill in Utsteinen base camp or during the traverses

Organisation:

Name: Vancauwenberghe Maaike

Contact Point: Job Title or Position: Programme manager

 Phone:
 +32 2 2383678

 Email:
 vcau@belspo.be

File: RProcedure en.pdf

Environmental Information - Environmental Impact Assessment (IEE/CEE List - Annex I)

Type: IEE

PRELIMINARY ENVIRONMENTAL EVALUATION FOR ANTARCTIC ACTIVITIES CARRIED OUT BY THE Title:

BELGIAN ANTARCTIC RESEARCH EXPEDITION BELARE 2014-2015

International Polar Foundation (IPF) with support of the Ministry of Defence, BELSPO and FPS Organization(s) responsible:

Health, Food Chain safety and Environment

Science Support for station & field campaigns & On-going maintenance at the Princess Elisabeth **Activity:**

- Construction / operation of facilities

- Science

- Waste management

Site name: Princess Elisabeth Station Latitude: 71° 51′ 00′′ S Latitude: 23° 20′ 00′′ E Locations:

Period/length of the activity:

Topics:

Decision/Comment: Proceed - No more than a minor or transitory impact

Environmental Information - Environmental Impact Assessment (Monitoring and follow-up Activities)

Name of Activity: ENVIRONMENTAL IMPACT & MITIGATION REPORT BELARE 2014-15

Location: Site Name: Princess Elisabeth Station Lat: 71° 57′ 00′′ S Long: 23° 20′ 00′′ E

Under the provisions of the relevant belgian legislation, the annual Expedition is carried out under a permit from the Ministry of Environment, (FPS Public Health, Food Chain Security and the Environment). The permitting process requires IPF to submit a Preliminary Environmental

Environment). The permitting process requires IPF to submit a Preliminary Environmental Evaluation of the impact of activities, to the Minister for Environment. The Minister issued a permit

for activities in line with the request, in October 2014.

Most of the environmental impact of operations comes from the air and land operations on site, from vehicles and planes that require fuel. While the PE station renewable energy production capacity provides an important offset, the emissions from transport remain one of the most important impacts. Transport capacity is a vital part of Antarctic operations in support of scientific activities, and for this reason it is important to look at every means to reduce fuel consumption. Not only does the use of excessive fuel add to costs but also to generalised environmental pollution and production of wastes, which require further processing, albeit in another location. Fuel consumption of the existing stock cannot be reduced without certain important changes to the mode of operation: • Rotation of vehicles on a regular basis – return to Belgium, would allow each vehicle to be properly maintained in an environment which is less extreme, and allow for optimal fuel consumption to be maintained for a longer life-time of the vehicle – wastes would also be entered into the disposal chain in an area where it is easier to manage. • Replacement of the vehicles on a regular basis. This would remove more polluting older vehicles from the stock at the station, where they are difficult to maintain. • Introduction of less fuel consuming vehicles for uses that do not involve heavy loads in traction. • Use of bulk fuel solutions reducing the number of traverses necessary to bring fuel back to the station. • Creation of fuel depots at marked locations to avoid carrying fuel on field expeditions near the coast, where these could be re-supplied by depots nearer the area of operations. This type of depot would also improve safety for field traverses, especially if

combined with the deposit of tents

Actions Taken:

Information Obtained:

Related EIA:

File: EIMR 2014-15-Ann 6- ENV MITIGATION OF ACTIVITIES.pdf

Environmental Information - Area Protection and Management (Permit, Visit and Activities)

ASPA / ASMA: Type: ASPA Number: 140 Name: Parts of Deception Island, South Shetland Islands (More

<u>Details)</u>

Permit Number: 2014/03

Summary of activities:

Number of people: Permitted to enter: 2 That actually entered: 2

Permit Period: From: 25 Jan 2015 **To:** 12 Feb 2015

entering Sites B (Crater Lake), D (Fumarole Bay), F (Telefon Bay) and K (Ronald Hill to Kroner Lake) for collecting non-marine algae. A scientific sampling campaign is included as the analysis of the **Purpose:**Deception Island diatom flora might be of great importance in our understanding of the survival of

Deception Island diatom flora might be of great importance in our understanding of the survival of non-marine algae during glacial maxima. Sampling of lakes, mosses and wet soils for non-marine

algal research within the framework of the BELSPO CCAMBIO project.

Due to logistic problems and bad weather, the initial 9 day visit was reduced to only 3 days. Therefore, only a limited number of localities was visited. 1st day was devoted to sample the area around Crater Lake, samples were taken during a limited amount of time (bad weather). 2nd day was used to sample the area round Telephone Bay, only 2 hours were passed on site. 3rd day was used to sample the area around Whalers Bay and Kroner Lake. Again, only 3 hours were spent in the area. Access to all areas was always by Zodiac to avoid too much trampling of the area in walking/driving up there. From each landing point, only short walks were made to the different sampling areas. Sampling included collection of water from the lakes (partly filtered on site, partly

stored immediately in closed vials). Additionally, samples were taken from the littoral sediment, surrounding moss vegetations and plankton. All were stored immediately in closed vials. No chemicals were brought on site but samples were fixed immediately upon return in the lab of the Base Gabriel de Castilla. That way, spillage of chemicals in the field was avoided. Sampling site 1: Crater Lake: 3 lake samples, 8 moss samples, 4 soil samples Sampling site 2: Telephon Bay: 4 lake samples, 6 moss samples, 3 soil samples Sampling site 3: Irizar Lake: 2 lake samples, 10 moss samples, 4 soil samples Sampling site 4: Whalers Bay & Kroner Lake: 1 lake sample, 10 moss

samples, 4 soil samples.

Event or project name/number: project CCAMBIO

Environmental Information - Are	ea Protection and Mana	gement (Chang	ie or Damage)
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No change or damage was observed during this reporting period.						

Other Information - Relevant National Legislation

No new information have been provided during the reported period.