Press Release
International Polar Foundation
Brussels, March 10, 2008

BELARE 2007-2008

Coming Home after an Outstanding Achievement

Alain Hubert and the last members of the BELARE 2007- 08 expedition have made it home after accomplishing an historic task: successfully completing the first phase of the construction of Belgium's new Princess Elisabeth Antarctica, the world's first-ever "zero emission" polar research station.

Over a period of more than four months from November 2007 until March 2008, Alain Hubert and a team of dedicated experts braved sub-zero temperatures, harsh life conditions and the occasional storm to construct the outer shell of the Princess Elisabeth Antarctica station, which now stands on top of a granite ridge at Utsteinen in the Dronning Maud Land. The team also constructed the garages and completed mounting the seven remaining wind turbines next to the station.

The completion of this first phase of the construction is a major accomplishment and a dream come true for Alain Hubert and everyone involved in the project. A project that has been in the making for four years and has involved contributions from countless numbers of dedicated people, the Princess Elisabeth Antarctica station is the first polar research station designed to create zero carbon emissions by utilising a highly energy-efficient design and by running entirely on renewable wind and solar energies. The International Polar Foundation, of which Mr. Hubert is Co-founder and President, has conceived, designed and financed the construction of the station with the help of its financial sponsors and technical partners.

The second and final phase of the Princess Elisabeth's construction will take place during next year's BELARE 2008- 09 expedition, which will last from November 2008 until March 2009. During this season, all the functional systems of the station, such as energy management and waste water treatment, will be installed. By March 2009, construction is expected to be completed and all station systems operational.

Even before the station is fully operational, however, two research expeditions will use the Princess Elisabeth station as a base camp. In November and December 2008, Dr. Frank Pattyn, glaciologist from the Université Libre de Bruxelles (ULB), will lead an expedition to study the mass loss/gain of the Antarctic ice sheet in view of recent climate change, while in January and February 2009, microbiologist Dr. Annick Wilmotte from the Université de Liège (ULg) will lead an expedition to explore the diversity of microorganisms living in rock crevasses and on gravel in the area of Utsteinen.

The International Polar Foundation pursues its fund raising activities to finish off next season's building phase of Princess Elisabeth Antarctica. The target for public donations amounts to 3 million euros in 2008, as a commitment from all citizens taking responsibility for their future through a landmark project for science and society. Total donations after the Tour & Taxis public viewing already reached 300,000 euros and IPF expects a sustained momentum. Tax deductible donations can be made to the International Polar Foundation bank account number: 000-0000090-90.

For more information, visit the Princess Elisabeth Antarctica website at www.antarcticstation.org.

Princess Elisabeth Antarctica

The International Polar Foundation (IPF) was commissioned by the Belgian government to conceive and carry out the Princess Elisabeth station project. The Belgian Federal Science Policy (BELSPO) and the Belgian Federal Department of Defence are active partners in this project. During the Antarctic Treaty meeting held in Edinburgh in 2006, BELSPO, the Belgian Federal Department of the Environment and the IPF presented the Princess Elisabeth Station project.

Once constructed, the Princess Elisabeth station will be managed by a Polar Secretariat. The secretariat will be made up of a director, five representatives from the private sector selected by the IPF, and five from various Belgian government ministries: two from BELSPO and one representative each from the Belgian Ministries of Foreign Affairs, Environment and Defence.

International Polar Foundation (IPF)

The International Polar Foundation is a public utility foundation, which aims to promote polar research as a tool for raising public awareness and fostering understanding of the fundamental mechanics of our climate. The IPF also encourages the adoption of innovative solutions that will enable us to respond in a sustainable manner to the challenges associated with climate change.

IPF Websites

- www.polarfoundation.org: IPF, objectives, structure, projects and creations.
- www.educapoles.org: Educational tools and projects.
- www.explorapoles.org: Polar expeditions and explorers.
- www.sciencepoles.org: Polar sciences and publications in various polar disciplines.
- www.antarcticstation.org: Official website of the "Princess Elisabeth" Antarctic station.

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An Overview of the Expedition

Scheduled over 4.5 months, the BELARE 2007-2008 expedition was to build the Princess Elisabeth Station's outer shell and to set up the seven remaining wind turbines at Utsteinen, East Antarctica.

Princess Elisabeth Station: From Tour & Taxis to Utsteinen

After the success it encountered during its pre-assembly and public viewing at Tour & Taxis, the elements of the Princess Elisabeth station were dismantled and packed into containers. They were then loaded onto barges at the Port of Brussels, destination Antwerp. From there, the containers boarded the Ivan Papanin, a Russian ice-class cargo ship, and started their journey down the Atlantic Ocean to Antarctica on November 6, 2007. Twenty days later, the cargo ship reached Cape Town to refuel and pick up fresh food supplies and twenty or so passengers. Following a stopover at 5°E to drop of members of the Norwegian expedition and supplies bound for the Norwegian Troll Station, the Ivan Papanin arrived on December 14th at Crown Bay, where Alain Hubert had been scheduled to meet the ship to manage the offloading of its cargo. The decision was taken to unload at Crown Bay, 70°S 23°E, rather than at Breid Bay (as was the case for the previous expeditions), due to more favourable ice conditions at Crown Bay. It took the team 6 days to offload all of the containers onto the ice shelf.

BELARE 2007-2008: First Team and First Stage

Alain Hubert (first in and last out) and 24 other expedition members reached Utsteinen by plane in early November. They had brought with them all the living and working equipment they would need until the arrival of the Ivan Papanin. Using some equipment left at Utsteinen from the previous year and a fixed up tractor recuperated from the former Japanese Asuka station, the first team was able to set up the base camp, haul the containers stored at Breid Bay last year back to the base camp, complete the garage construction and drill both the station's anchoring points and the holes for the wind turbines.

Before the drilling began, topographic studies were carried out on the ridge, so as to ensure optimal positioning of the station. Not only was the drilling of the station's anchoring points the most important part of the first building stage, it was also the most difficult to carry out. The composition of the granite rock and the unequal disposition of the rocks made this step the most difficult to overcome.

The base camp was organized around a mess tent, hospital, washroom and office, with each member having their own individual tent. An airstrip was also prepared and marked a few kilometres away from the camp so as to allow flights to bring in new supplies and team members.

BELARE 2007-2008: Second Stage

Around mid-December, the Ivan Papanin arrived at Crown Bay with the 120 containers filled with the elements of the Princess Elisabeth station. The route from the coast to the base camp was secured for the traverses and the offloading point at Crown Bay was prepared by Alain Hubert. As soon as all the cargo had been unloaded onto the ice shelf, the team started its traverses to transport the containers over to the Utsteinen base camp.

The containers were carried in convoys across 190km, using three Prinoth tractors and eight sledges. It took an average of 40 hours to complete a 360-km round-trip traverse, at a speed of 15 km/h. In total, 18 traverses were needed to haul all of the containers to base camp.

December also saw the last six wind turbines mounted on the ridge and the finishing touches applied to the station's foundations and garages. At the beginning of January, the traverses sped up to a regular rhythm, assuring a constant supply of equipment and material for the building crew who had just arrived.

BELARE 2007-2008: Third and Last Stage

In January, as soon as the first containers had arrived at the base camp, the construction of the actual station began, while the traverse convoys continued to bring in new building supplies. The base camp was at its most populated, with approximately 40 people on site.

Building steps:

- metal struts
- wooden superstructure
- flooring
- side modules
- tower
- roof
- insulation layer

Cranes, carpenters, bulldozers, builders - the construction site was filled with action anywhere you looked. In record time, the station came together on top of the granite ridge. Despite the cold wind and freezing temperatures, the builders managed to raise the station on its pilings one week ahead of schedule.

Drilling the station's anchoring points was the toughest part of the job, but also the most important for the successful construction of the station. Drilled within millimetre accuracy, the station's anchoring points ended up being more precise than at Tour & Taxis. For some of the builders, having mounted the station once already at Tour & Taxis proved to be of great help when it came to putting it together again in Utsteinen.

By mid-February, the station's walls and roof were put on and the last step of the station's building stage was reached: the sealing of the joints. In March, the base camp was shut down and the station was closed for over-wintering.Despite the cold wind and freezing temperatures, the builders managed to raise the station on its pilings one week ahead of schedule. Drilling the station's anchoring points was the toughest part of the job, but also the most important for the successful construction of the station. Drilled within millimetre accuracy, the station's anchoring points ended up being more precise than at Tour & Taxis. For some of the builders, having mounted the station once already at Tour & Taxis proved to be of great help when it came to putting it together again in Utsteinen.

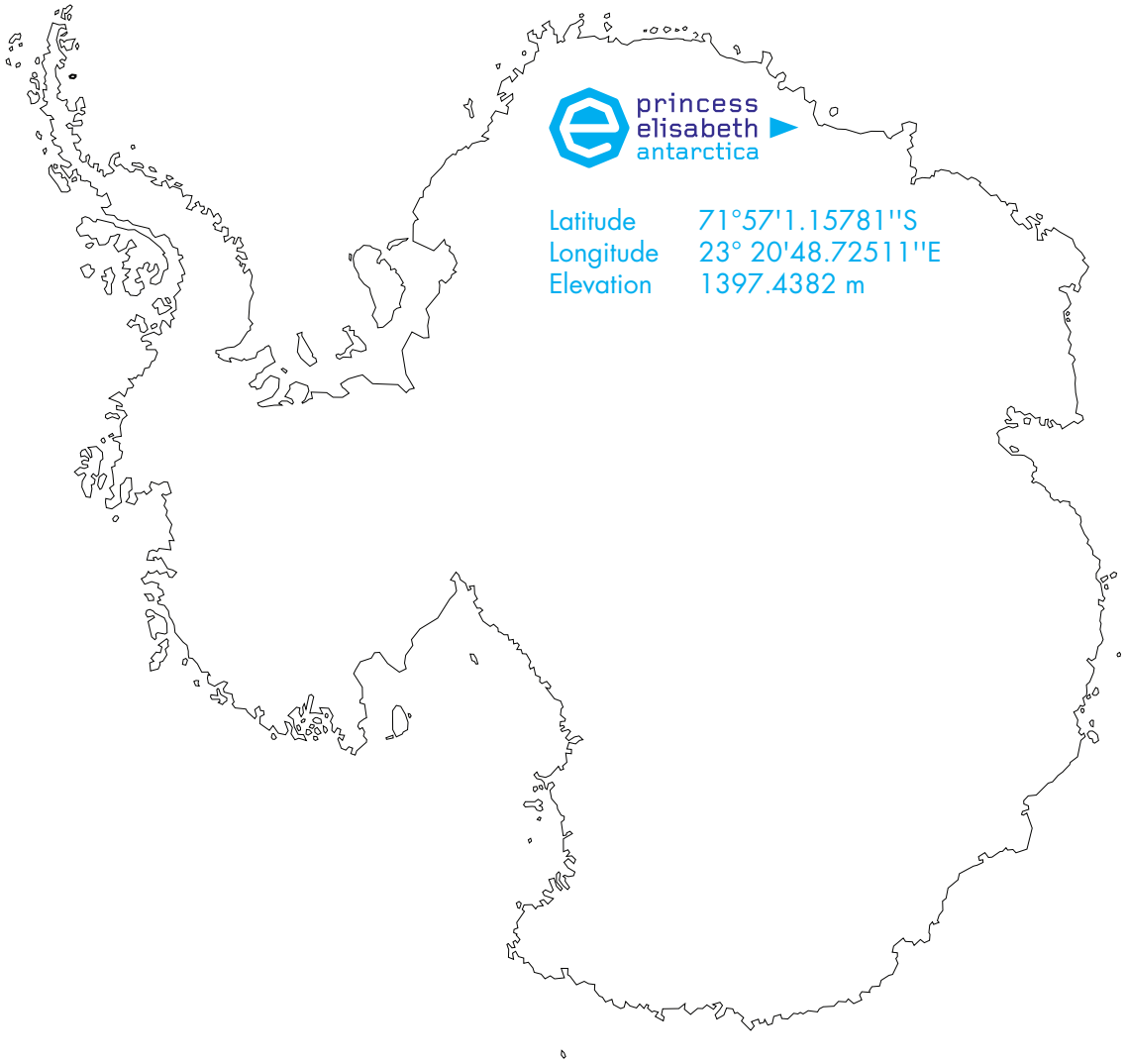
BELARE 2007-2008 team

In all, the BELARE members present in Antarctica totalled about 60 people. At every stage of the construction the BELARE team was comprised of a medical doctor/nurse, a cooking team, qualified mountain guides and first-aid team, construction teams, a base camp management team and, during the construction phase, a driving team.

Daily follow-up: www.antarcticstation.org

Location of the Princess Elisabeth Station

General map of Antarctica showing the location of the station. For exact coordinates of all important locations (Crown Bay, Troll Station, Asuka Station, Novolazarevskaya Station, ...) a Google Earth file is available online at the following URL: http://www.antarcticstation.org/docs/other_documents/belare_2007_2008_kml_080305.kml.



princess elisabeth antarctica

INTERNATIONAL POLAR FOUNDATION

Press Pictures

Amongst others, here are some of the high resolution pictures available online for download at the following URL: http://press.polarfoundation.org/. Please contact the IPF for access codes. Detailed legends and copyrights for each photo are available on the website.

BELARE 07-08

Sunset over Princess Elisabeth Station



BELARE 07-08

Closing the Station's outer Shell



BELARE 07-08

Superstructure of the Station



BELARE 07-08

Building Up to the Metal Structure



BELARE 07-08

Arrival in Crown Bay & Base Camp Scenes



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International Polar Foundation

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Program Administrator
Nighat Amin

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Philippe Samyn and Partners, architects and engineers

Building Physics and Active Systems
3E

Fluid Mechanics
Dr. D. Olivari

Aerodynamics
von Karman Institute

Control Systems and Power Network
Schneider Electric

Electrical Protection and Power Storage
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Ground anchorage
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Belgian Defense
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AWI	Alfred Wegener Institute – Germany
ESA	European Space Agency
IPEV	Institut Paul Emile Victor – France
NASA	National Aeronautics and Space Administration - USA
NIPR	National Institute for Polar Reasearch – Japan
NPI	Norwegian Polar Institute
SANAP	South African National Antarctic Programme
SPRS	Swedish Polar Research Secretariat

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