

## WHITE GLACIER

— ENDURE THE EXTREME —

### THE ARCTIC 10+ PC SURVIVAL SUIT

White Glacier's newest survival suit, the Arctic 10+ PC, was tested in August 2022 in a facility in Trondheim, Norway, under conditions far exceeding current standards and regulations. No other survival suit on the market has met these conditions.

The Arctic 10+ PC is specially prepared to comply with the Polar Code and offers the highest level of thermal protection available in an immersion suit or survival suit. It has a beefed-up thermal configuration, internal pockets (survival equipment, urination kit, light), and suspenders for surviving on an ice floe or on land in polar regions.

Thermal protection is a critical performance metric for immersion suits, because many sea accidents have reported fatalities due to extended periods in cold water. Much focus during certification is therefore on the immersion suit's thermal protection.

Depending on the suit category, test subjects wearing it during evaluation are exposed to different water temperatures and

different test durations.

Accidents at sea can occur in winter conditions, and victims could be exposed to much harsher conditions than those established for approval testing of an immersion suit. Yet no international test standards have procedures specifying test conditions with water temperatures below 2°C, air temperatures below 10°C, or any wind-chilling effect.

Different types of insulated immersion suits made by White Glacier have undergone thermal protection tests, with excellent results by international standards. The test conditions posed no challenge to White Glacier's immersion suits, so measures were taken to up the ante and see how the suits would cope with a much more extreme cold-weather situation.

### EXTREME COLD-WATER TESTING

The current test was performed in a test pool where the water temperature was kept at 0°C. Air temperature above the pool was -20°C, with a fan blowing wind over the test subject at 10 km/hour. The combination of air temperature and wind speed

resulted in a wind chill exposure of -30°C.

After 6 hours' immersion, the new Arctic 10+ PC immersion suit provided excellent protection against the cold. It complied fully with the requirements specified in MSC.81(70), even under such extreme conditions. The test is limited to 6 hours for ethical reasons, but the results indicate that the subject would have been protected for far longer.

The test was performed with White Glacier's signature built-in Splash Tent fully deployed, with measurements on the subject's forehead showing a consistent 20°C. This allowed them to breathe warm air even in arctic conditions.

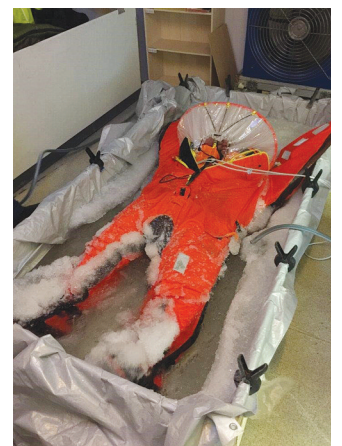
### INCREDIBLE RESULTS

"This is an incredible result when you consider that the water in the test pool had frozen into ice and you had to knock loose ice from the suit to get the test subject out from the test pool," said White Glacier CEO Diego Jacobson.

"I have every confidence that survivability in the Arctic 10+ PC can go well beyond the 6-hour mark in ice water permitted in testing, given how well the subject held up and reported no

discomfort," Jacobson said. "I'd go as far to say that the Arctic 10+ PC is the global leader in survival suits and has to be the product of choice for those industries that require their workers to enter polar and arctic conditions or even other cold water environments."

Even in temperate waters, the Splash Tent's temperature-regulating aspect allows White Glacier suits to remain comfortable – yet fully protected in an instant should the temperature drop. Comfort is a very important feature for survival gear, as it can significantly improve a user's will to live, which has been shown to affect survival.



Testing the Arctic 10+ at -30 degrees.

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EXTREME SHOREX PONANT

# THE POLAR RAID

## AN EXPEDITION WITHIN AN EXPEDITION



The expedition begins: the polar raid test team make their way to find a suitable location to set up for the night while transporting essential gear.

In issue 17 of *CruiseTimes*, available at [cruisetimes.net](http://cruisetimes.net), we revealed how Ponant wanted to push the boundaries with *Le Commandant Charcot*: reaching polar destinations that hardly any other ship can reach, such as the North Pole, or the extreme latitude of 78°44.3' south, a world record.

Photos: Mike Louagie

BY MIKE LOUAGIE

**W**ith its philosophy 'Explore to Inspire', the French cruise ship company launched an experimental 'polar raid' in East Greenland in May 2022. At that time of year, the mighty *Le Commandant Charcot* is for sure the only ship that can cut through this icy landscape.

The polar raid try-out team was led by Nicolas Dubreuil and Greenlander Ole Eliassen. Dubreuil is the French specialist

of the polar regions, specifically Greenland. He headed up the Ponant expeditions for 15 years before starting his own company, SEDNA.

The rest of the group of nine was made up of Ponant employees from the R&D and marketing departments, as well as a few external people, such as a mountain guide and some media representatives.

#### **Polar raid**

The goal of the polar raid was to drop off the group somewhere along the coast so they could then head up into the mountains and spend two nights in the

wilderness.

Captain Etienne Garcia spent several days searching for a spot along the coast where the pack ice was safe enough to park his ship and allow the team to get off. Since the previous cruise, just two weeks earlier, the ice had changed dramatically in a lot of places, making it impossible for passengers to disembark. Thanks to the helicopter, reconnaissance flights could be sent out in search of the perfect spot.

Meanwhile, the polar raid team got themselves and their gear ready. In the large hangar of *Le Commandant Charcot*, the pulkas, skis, tents, sleeping bags, and

freeze-dried food were prepared. The clothing was also put through its paces.

To practise, the tent was set up on an ice floe. Jumping into the freezing cold water while wearing a survival suit was also on the checklist: it's important to know what to do if you fall through the ice. Getting warm Greenland-style – by tickling or wrestling each other – provided some light relief.

The team also learnt how to curve over the ice with pulka and skis – the sealskin underneath helping them to grip the snow better. It took a lot of skill, especially when descending, as the pulka tends to try and overtake the skier.

While practising with the pulkas, the alarm was raised from the bridge to indicate that a polar bear had been spotted. Ole Eliassen was armed, of course, but having to shoot is never part of the plan. The polar raid team immediately made its way back to the ship.

Finally, Captain Etienne Garcia parked the ship at Ittoqqortoormiit. The team set off straight away, first across the ice sheet, then up to a hill near an ancient settlement. The polar bear skins drying on wooden racks served as a reminder for the team to be on their guard. 'These polar bears crept into the village. They paid with their lives,' explained Ole Eliassen.

The tents were set up for the night and the food prepared in the mess tent – the risk of bears meant this had been set apart from the rest. The polar bear lookout team did shifts throughout the Arctic night. And what a magical night that is in May, with the sun barely setting. For most of the team, this was a profound experience: being responsible for the others as they slept.

The first night was about acclimatising. The next day the polar raid moved on to higher mountains: the heavy lifting. Climbing with a pulka behind you isn't easy. The team spirit also played a role: helping each other, waiting for anyone who was a little less fit, setting up the tent for those who were exhausted.

After a brief night's sleep, at 5 a.m. the climb continued even higher to be able to take in the mountain panorama from a peak. By noon the team was back at the ship, sweating, exhausted, but happy. To some it felt like a victory. A euphoria that was later shared with the other passengers, who were keen to regale themselves with tales from the expedition.

### An authentic experience

Nicolas Dubreuil has been organising polar expeditions for 30 years, 15 of them

Ole Eliassen, Greenlandic explorer and guide.



Nicolas Dubreuil, managing partner, SEDNA, and formerly director of expeditions, sustainable development and science for Ponant.

for Ponant. 'I get the feeling that the ships have become too comfortable,' he says. 'The *Charcot* for sure is like a luxury fortress. Mind you, I think it's fantastic that I was able to bring my grandparents on board with me here. But real life in Greenland isn't three hours of excursions and then back on board for dinner. My personal mission is to bring passengers out of their comfort zone. The years I lived on the pack ice: I want to convey a little bit of that to the guests.'

Dubreuil was Ponant's director of expeditions, sustainable development and science at the time. 'I'd lost sight of the real Greenland, the Greenland that was so close to my heart, also because of my friendship with Ole Eliassen. I suggested to Ponant that we take some of the passengers outside and turn them into real ambassadors. It's also kind of in the spirit of the old days, when people were dropped off by a ship and picked up again later.'

Luxury is relative for Dubreuil. 'Caviar for breakfast or a comfortable bed is not luxury for me. The real luxury is the immersion in the destination,' he says. 'Separate yourself from the ship, look past this luxurious cocoon, that's how you



The polar raid test team in Greenland, May 2022.

rediscover your rightful place in nature.'

Dubreuil realises that he can't take everyone with him. 'But when the team comes back on board, they'll be like ambassadors, sharing what they've experienced.' For Dubreuil, it's the sharing that's important.

'The goal is not to reach a mountain

top or walk for 15 hours. The most important thing is the experience. Life in the camp is almost as important as the trek itself. We take people into a hostile environment where they almost freak out. But we prove they can survive there. It's easy to view nature from the helideck. But when you're on the pack ice, it's different.

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# Take the Bear by the Tooth

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'Ponant was looking for ways to be different. Adding a submarine or some other "toy" doesn't make you different,' says Dubreuil. 'The genuine experience we've had with the polar raid, that's authentic.'

He also highlights the team spirit. 'Finding yourselves in a hostile environment together, it creates a bond. The people standing next to you, you have to be able to count on them. The polar bear watch is extremely important. Yes, the guides could do it. But no, the people need to feel that responsibility. The guide goes to sleep, but you can wake them up if there's a problem. You're weary. But at the same time, the spring night is spectacular.'

Nicolas Dubreuil doesn't know whether this kind of expedition-within-an-expedition attracts a different kind of passenger. He thinks that people who want to experience this kind of adventure aren't really the typical cruise passenger.

The input from the Greenlanders is also very important to him. 'They shouldn't be some kind of taxi. Ole Eliassen is also there to talk about his life, to share his culture. For me, that is precisely what makes this expedition a luxury product.'

'Operationally, the product still needs a bit of tinkering with. The Greenlandic guide needs to be able to communicate better in English. I won't always be on hand, and certainly not as a translator.'

## SEDNA

When Dubreuil left Ponant, he created SEDNA, a non-profit organisation with some well-defined goals. 'Travel less but better' is one of his main goals. 'I want to give adults their childlike wonder, their enthusiasm back.'

The combination of science and tourism also plays a crucial role for Dubreuil. Having studied sciences himself, he was at the foundation of bringing science on board *Le Commandant Charcot*. 'When I heard that Ponant was going to build this mighty ship, I felt that science should benefit from it. And it was an idea that was very well received.'

'When I take travellers on scientific expeditions with SEDNA, they know that part of their ticket is going towards science.'

Dubreuil also places a lot of importance on the indigenous communities. 'We train local guides and work with them. I would also like to do more with scientists from Greenland. In France, we believe that science is underfunded. Well, in Greenland they have



**Le Commandant Charcot, seen here halfway between Ittoqqortoormiit and Tasilaq, east coast of Greenland.**



**Polar raid training on snow.**



**Test team come across fresh polar bear tracks. To mitigate potential danger during the night, some team members keep vigil for polar bears.**

no budget at all.'

He admits that the adventurer in him sometimes struggles with certain aspects of cruising, like the gala evenings and dancing. 'When I heard there would be a snow room on the Charcot, I thought it was some kind of surreal joke.'

He believes there is a new type of traveller who wants to experience things like running a marathon in Antarctica, or climbing a mountain. 'Whether they want to board a cruise ship for an expedition will depend on how well we explain it to them.'

Some cruise lines organise an overnight stay in Antarctica. 'Passengers disembark after dinner and sleep in tents set up by the expedition team. In the morning, they're back on board in time for breakfast,' explains Dubreuil. 'We want to take it even further, with one to two nights where the ship is out of sight. It shouldn't be too far away, so it's still there for every eventuality, but we shouldn't be able to see it.'

A few things still need to be worked out in practice. 'I have to get a full seat on the bridge, to be able to make decisions together with the captain and the expedition leader.'

There are two things that play on his



Helicopter pilot carries out reconnaissance flights to help Captain Etienne Garcia find the perfect location where pack ice is safe enough to park his ship and allow the team to get off.

mind: when the Arctic summer kicks in, and the possibility that the expedition can't go ahead. 'This year the pack ice changed from usable to unusable in just two weeks. Thanks to careful exploration and analysis, we were able to make the polar raid a success. There is still a question mark over the extent to which we can guarantee that.

But I'm really looking forward to letting small groups of passengers be a part of this unique experience.'

This one-of-a-kind adventure will be open to bookings for a very limited number of passengers, as part of the summer 2023 polar expeditions of *Le Commandant Charcot*.



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