

China's Snow Dragon

Xuelong's rescue of a Russian ship proves the country is a responsible global player By Ding Ying



CHOPPER RESCUE: Passengers from the trapped Russian vessel *Akademik Shokalskiy* prepare to board the Chinese helicopter *Xueying 12* on January 2

the State Oceanic Administration.

On December 27, 2013, *Xuelong* struggled through dense ice floes for 6.1 nautical miles so that it could reach the stranded Russian ship *Akademik Shokalskiy*, after receiving its call for help. There were 22 scientists, 26 tourists, four reporters and 22 crew members on board the Russian ship at the time.

By January 7, the Chinese icebreaker *Xuelong* (Snow Dragon) had been making preparations to free itself for days, warming up its engine and creating an "ice-breaking runway" for itself by sailing back and forth while waiting for a favorable westward wind. The vessel had been trapped since January 3, after its mission to rescue 52 passengers on board a stranded Russian ship. The edge of the massive expanse of ice, had begun to loosen, and some small openings had begun to appear. At 18:30 Beijing time on January 7, *Xuelong* broke through the ice surrounding it and successfully made it back out into open water.

In the Antarctic, China fulfilled its commitment as a responsible power through the selfless rescue undertaken by *Xuelong*. At the same time, major powers proved to

the world that they are able to save lives by working together.

Timely help

According to Australian newspaper *The Australian*, the rescue action cost at least 400,000 Australian dollars (\$360,000).

Xuelong left Shanghai in early November 2013 to travel to the Antarctic on China's 30th scientific expedition. On account of the rescue, the expedition had to reschedule all of its research missions. As a result, it may miss the whole expedition season.

"The rescue will greatly influence *Xuelong's* expedition, replenishment and navigational plans. But we don't regret performing the rescue," said Qu Tanzhou, Director of China's Polar Office under

The Australian icebreaker *Aurora Australis* and the French icebreaker *Astrolabe* were also on their way to help. Unfortunately, *Astrolabe* had to give up because of unexpected circumstances. *Xuelong* had established an emergency relief group after the Russian ship's captain sent a formal request for helicopter extraction of their crew and passengers.

On January 2, *Xueying 12*, a helicopter on board *Xuelong*, successfully evacuated all 52 passengers and crew members, their luggage and the research equipment aboard *Akademik Shokalskiy*, which had been stranded since Christmas Eve. Everything they extracted was transferred to the Australian icebreaker *Aurora Australis* over the course of six flights. *Xuelong* became trapped one day after the rescue, due to ice

floes caused by poor weather conditions. After this development, the U.S. Coast Guard dispatched its own icebreaker, *Polar Star*, to help rescue both ships, though it was eventually relieved from the rescue mission after favorable weather allowed *Xuelong* to free itself.

Wang Jianzhong, *Xuelong's* Captain, said that tidal conditions had been extremely complex in the area, which was experiencing large astronomical tides, causing the positions of the nearby iceberg and ice floes to change rapidly. Experts from China's National Marine Environment Forecasting Center predicted that a warm wet air current from the north and a westerly wind would arrive on January 7, which would then create conditions allowing *Xuelong* to break through.

Xuelong was not designed for rescue missions, according to Qu. However, it was the closest to *Akademik Shokalskiy*, and it was easiest for them to conduct the rescue mission. "Based on international maritime regulations and humanitarian principles, *Xuelong* was obligated to attempt the rescue, whether it was successful or not," said Qu.

"We will never regret giving up on our expedition plans to make the rescue. The decision was based not only on internationalism and a humanitarian spirit, but also China's responsibility as a power in exploring the polar areas," he stressed.

Qu added that conducting scientific expeditions in the Antarctic area is very risky. Previously, Chinese explorers had encountered problems, and received assistance from other countries such as Australia and the United States. Following the same humanitarian principles should be the first response when receiving signal for help, he said, explaining why Chinese, Australian and French vessels all headed to the stranded Russian ship.

A peaceful region

Wang Zipan, a famous Chinese polar expert who has visited the Antarctic 12 times, believed that great powers have managed to peacefully coexist in the Antarctic region. "If there is a peaceful and perfect corner on the globe, it must be the Antarctic," he said.

The Antarctic Treaty was signed in 1959, declaring the Antarctic as a no man's

land where scientific activity is not to be impeded while military activities are strictly prohibited. During the past five decades, all expedition teams in the area managed to maintain this agreement, offering a helping hand when others are in need is a necessity too.

"In the history of expeditions to the Antarctic, there is not one record of standing by when accidents occur. There is only a difference in how much one helps, but there are no refusals to lend a hand," Wang Zipan said.

According to statistics released by German Finance Online, major powers generally spend tens of millions of euros on expeditions to the Antarctic every year. The website said that China invested 42 million euros (\$57 million) on scientific expedition projects in 2013 alone, making China one of the major players in the Antarctic. *Xuelong's* rescue mission also proved China's qualifications as a responsible power in the polar region.

Wang Xiaopeng, a researcher on marine studies with the Chinese Academy of Social Sciences pointed out that, since the Antarctic was declared a no man's land, competition around the area has never stopped. However, major powers have been helping each other in the area with scientific expeditions, establishing stations and salvaging ship wrecks in spite of public and hidden competition between them.



SUCCESSFUL ESCAPE: The Chinese research vessel and icebreaker *Xuelong* sails in open waters in the Antarctic on January 7

About *Xuelong*

Built in Ukraine in 1993, *Xuelong* is an icebreaker that has been strengthened to give it a China Classification Society-rated Class B1 hull, allowing it to break ice up to 1.1 meters thick (including 0.2-meter-thick snow) at a sailing speed of 1.5 knots. Originally designed as an icebreaking cargo and supply ship, China bought it and refitted it into a polar research vessel.

The vessel is provided with advanced navigational, positioning and automatic piloting systems as well as two helicopter platforms, a hangar and the necessary equipment for helicopters. The ship has a total lab space of 200 square meters, which is shared between labs for marine physics, chemistry and biology, as well as meteorological and clean labs and a data processing center. The vessel is fitted with advanced equipment for researching and ocean surveying. *Xuelong* is currently under the control of the Polar Research Institute of China.

Source: Chinese Arctic and Antarctic Administration

Overall length: 167 meters
Molded breadth: 22.6 meters
Molded depth: 13.5 meters
Full draft: 9 meters
Full loaded displacement: 21,025 tons
Maximum speed: 18 knots
Cruising radius: 20,000 nautical miles
Main engine power: 13,200 kilowatts
Auxiliary engine power: 800 kilowatts (three on board)
Deadweight capacity: 10,225 tons

"Cooperation and mutual aid are traditions among explorers in the Antarctic. China received help from other countries in the past. The recent rescue was also carried in the spirit of cooperation and mutual aid," Wang Xiaopeng said. ■

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