

New British Antarctic Ship

A new polar vessel is to be provided for the British Antarctic Survey by the Natural Environment Research Council. It will cost about £1.75 million to build and it is hoped that it will be ready for operations in the Antarctic in October 1970. The new vessel will not be an addition to the polar fleet, because it will replace one of the survey's existing vessels, RRS Shackleton, and it will also replace a ship chartered each year by the survey to supply bases which the Shackleton cannot reach in some ice conditions.

The new research ship will be built by Robb and Caledon at Leith, Scotland. It will be 326 feet long, with a

beam of 60 feet, and it will be specially designed for ice breaking. There will be accommodation for 62 survey personnel and the crew, approximately 130,000 cubic feet of space for general cargo, and a laboratory equipped for biological and oceanographic work. There will also be a helicopter deck. Propulsion will be by a diesel-electric system and there will be a service speed of 14 knots. If necessary, the ship will be able to operate for 50 days at full speed — a safety factor when it is operating over long distances in ice-filled waters.

BLACK ICEBERGS II

JOHN PITTS

Black icebergs have been a mystery to sailors ever since Captain Cook took Resolution into Antarctic waters in 1773. In the last edition of *Antarktische Bulletin* Dr. André van der Merwe recalled the surprise of expedition members on R.S.A. when they saw them several times on voyages to and from Antarctica in 1967.

Dr. van der Merwe reported that he had written to Sir Vivian Fuchs for a possible explanation of them and quoted Sir Vivian's letter giving several alternative guesses. They can be only 'guesses' because as Sir Vivian says, '... very little is known about this phenomenon.'

Another British scientist to comment on them was Sir Alister Hardy, chief Zoologist on R.R.S. Discovery during the research ship's voyages in the Southern Ocean from 1925 to 1927. In his enthralling book about their expedition 'Great Waters', Sir Alister writes from his diary: 'Saturday, February 20, 1926: I was called at 4 o'clock this morning to see an enormous iceberg of black ice. I had

told all the officers when on watch to have me called at any time if any unusual sight was to be seen. It was not yet light: the whole scene was dark, cold and grey. The iceberg might almost have been land. A line of ice, like a coast, stretched away on either side of a great raised portion which presented a black front to us for all the world like a massive face of rock.

Such icebergs, which may be most dangerous because almost invisible if met at night, have usually come from the glaciers of the active volcanic islands in the South Sandwich group; here black ash continually falls on the ice and becomes embedded in it. They may well have given some of the early navigators the impression of land and so account for some of the islands on old charts which have subsequently been shown to be false. We shall later see curious piebald icebergs, blotched black and white, which are formed in this way and in the distance may look like huge cows resting on the horizon. As it became clearer we could see some magnificent formations of ice; behind some low-lying floes two sharply pinnacled icebergs appeared in the uncertain light of dawn to have a greatly exaggerated height.'

Sir Alister's comments obviously do not solve the mystery of the Black Bergs. This will be done only when some expedition brings back sufficient of the black ice for detailed chemical analysis. As the black icebergs are usually met in open waters, it is not easy for ships to approach them and even more difficult for scientists to collect the ice. Meanwhile, are there any more explanations?

The origin of black icebergs is still a mystery to scientists.

Photo: A. van der Merwe.

