

Subject: MV SA Agulhas

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Dear Stirling

This 'Motor Vessel' we are on (that is what MV stands for) is called the SA Agulhas. The SA Agulhas is named after the southernmost point of Africa, Cape Agulhas, which they say is a Portuguese name for the cormorants that live there. She (ships are always called 'her', probably because sailors are mostly men) is 115 m long, 18 m wide, weighs about 6000 tonnes when loaded and has diesel engines that generate 4400 kW of power. It can travel nearly three-quarters of the way around the world on a full tank!

SA Agulhas belongs to the Department of Environment Affairs, and its main purpose is to take people and stores to the bases in Antarctica, Marion Island and Gough Island. In between it does oceanographic and fisheries work closer to the South African coast. It was built for this purpose in 1977.

Its first voyage was in 1978, when it took the materials for the 'old base' (SANAE III) down to Antarctica. My colleague, Pedro Monteiro, was on that first voyage, doing his master's degree on the biogeochemistry of the Southern Ocean. While not technically an icebreaker, it is a 'Class 1' ice-certified ship, and can crack through pack-ice up to about 300 mm thick.

It has a specially-shaped bow to do that, and a belt of reinforced steel all around the waterline. It has bow thrusters and stern thrusters in addition to normal propellers, so that it can manoeuvre down twisty passages through the ice, and hover in one place in the ocean while we take samples from deep down.

Other special features are: the helicopter landing pad above the stern, with a hanger for two helicopters; and the big cranes up front for unloading cargo onto the ice. It also has three labs, like the one I am working in, and space for about ninety passengers (plus a crew of 25 and 12 officers, for a maximum of 134 people on board). This trip the Agulhas is full and the kitchen, called a 'galley', works flat out to keep us fed. From the bottom of the keel to the deck above the bridge, it adds to nine stories high, so I get lots of exercise running up and down the stairs. The tallness of the ship and the shape of the hull make it to roll around a lot when the waves are big, as they are at the moment.

This is quite an old vessel for doing the type of work that it does. It is very well maintained, and is inspected every year. But quite soon it will be replaced by a new vessel, quite similar in design but slightly longer and wider. I wonder what will happen to her when she retires from Antarctic service? It will be quite sad if she just becomes

scrap metal. She could become just an ordinary cargo ship, but the diesel engines make her expensive to run.

Some other time I will take you on a tour of the bridge and the engine-room.

Love,

Dad