RV „Polarstern“ departed from Cape Town at 9 pm on the 28 November 2007 with 98 persons on board, of whom 45 are crew members and 53 are involved with carrying out the scientific mission of this research cruise. The latter represent 18 institutes and 4 companies from Australia, Belgium, Germany, Great Britain, Holland, Norway, Spain, South Africa, Sweden, Switzerland and the U.S.A. On the evening of a sunny spring day and after a glorious sunset, we sailed south watching the twinkling lights of Cape Town gradually merge with the starry sky. Everything had gone according to plan and even the strong winds facing us currently do not disturb us too much, so we are in excellent spirits.

28 November was a remarkable day for another reason as well – Polarstern celebrated its 25th anniversary in Berlin. Two hundred guests including many politicians headed by our Kanzlerin Dr. Angela Merkel reviewed the successes of the world famous research icebreaker in the famous halls of the German Natural History Museum. We on board ship used the opportunity of a live telephone conversation with Angela Merkel to highlight the multidisciplinary, international scientific nature of the ship´s activities that focus on processes of climate change in the Southern Ocean in the framework of the International Polar Year (IPY).

The scientific projects of the cruise are part of three major IPY programmes and will be presented in detail in the upcoming weekly reports. Here I will give just a short summary. The Synoptic Circum-Antarctic Climate-Processes and Ecosystem study (SCACE) aims to investigate the physical and biological patterns in the Antarctic Circumpolar Current to understand the temporal and spatial variability that determines ocean productivity and water mass transport. The project System Coupling (SYSTCO) aims to understand the impact of pelagic-benthic coupling on deep-sea biota in distinct regions between the Subtropical Convergence and the Antarctic continent. The Lazarev Sea Krill Study (LAKRIS) aims to reveal the life cycle pattern, distribution and physiology of Antarctic krill between 60° S and the Antarctic continent. In addition to the science programme, Polarstern will supply Neumayer II station as early as possible in the season and thus is heavily depending on sea-ice conditions. We will also support the logistic operations of two other ships that transport material for the construction of the new Antarctic station Neumayer III.

The first few days on board were spent unpacking the innumerable boxes and setting up the multifarious instruments. Some newcomers however had to adapt to the long swell, before they could start setting up their laboratories that are now nearly ready, awaiting the first station work. Planning meetings were held, to inform everybody about the activities to come and to adjust some fine-tuning of the operations between the groups involved. Thanks to the great help from the ship´s crew everybody is happy and grateful.

In the Polar Frontal Zone at 52° S we intended to start our station work. The fast eastward flowing water of the Antarctic Circumpolar Current may transport organisms over long distances, e.g. krill and its larvae from the South Georgia and South Shetland Islands along with zooplankton and phytoplankton, both being potential food sources for our target species. In order to gain an overview of the hydrographical fields, we commence surface measurements starting well north of the
Subtropical Convergence. We have continued surface measurements of water temperature and salinity that indicate the surface extensions of the different water masses we cross. In addition we continuously measure the phytoplankton pigment chlorophyll and collect surface zooplankton species by means of a Continuous Plankton Recorder (CPR). Visual observations of birds, whales and other vertebrates are performed during the daylight that can be very long in our area at the beginning of the Antarctic summer. Due to a strong depression system and wind forces around Beaufort 10 we have not proceeded as fast as planned.

Polarstern is a secure life-supporting system and we are fortunate in that many members of the crew who looked after us so well during the previous campaigns are again on board. They are doing their best to make our stay profitable and comfortable. The large variety of food is delicious, well presented and splendidly served.

Last Sunday the 1st of Advent, practising of Christmas corals was heard on board ship announcing celebrations ahead of us. With our best wishes to all beloved in the northern hemisphere.
I remain your
Uli Bathmann
5 December 2007