

George M. Low, NASA's Apollo program manager.

The confidence of the Apollo officials is obviously high. Last November, even though they were elated about the highly successful first flight of the mighty Saturn 5 booster, they would make no such statements about cutting redundant missions—in this case a second unmanned LM flight—out of the schedule. In March a review board will meet to decide whether the LM is ready for men or not. The answer is likely to be that it is.

OCEANOGRAPHY

First long look at a cold sea

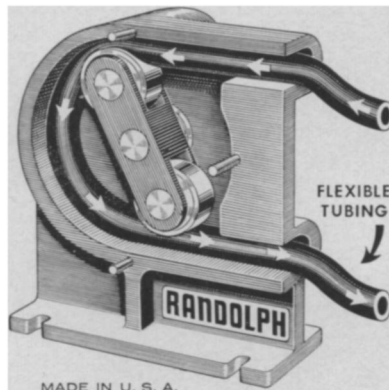
Little is known about the Weddell Sea, which lies in a bight of Antarctica and encompasses almost half a million square miles, extending to within about eight degrees of the South Pole. "There are just scraps of data, a lot of it dating back to the 1930's and collected with 1930's-type equipment," says Comdr. Eugene Delaney, chief of the Oceanography Branch of the U.S. Coast Guard.

Last week, the Coast Guard's largest icebreaker, the 310-foot Glacier, set sail from Punta Arenas, Chile, bound for the Weddell Sea. Together with a 278-foot icebreaker from the Argentine Navy, the General San Martin, the Glacier will take part in the first organized oceanographic survey ever made of the Sea, a project that will last two years and involve 50 scientists and technicians from the U.S., Argentina, Norway and West Germany.

The researchers will conclude their first voyage by mid-March. If they stay much longer, the long Antarctic winter could trap the ships in unbreakable ice and hold them, possibly into 1969. Even in summertime, however, ice is a problem below the Antarctic circle. In addition to the usual helicopter to scout for paths through the ice, this year's expedition is equipped with its own ground station to receive weather satellite photographs showing possible avenues.

Scientists will analyze the water for mineral content and nutrients, and attempt to correlate their measurements with others made northward in the Atlantic. Cold as they are, the Antarctic waters teem with life, so plankton samples and a variety of other biological and chemical observations will be made. To take readings after the ships are gone, the investigators plan to anchor four instrumented buoys in the Sea, equipped with recorders to play back the information the following summer. The buoys will be moored below the surface to prevent the moving ice from decapitating them.

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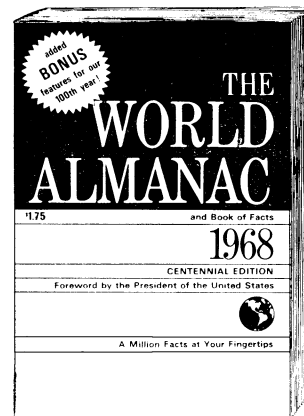
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