

## The Story of the Snow Cruiser

RESEARCH FOUNDATION OF ARMOUR INSTITUTE OF TECHNOLOGY  
HAROLD VAGTBORG, DIRECTOR

As second in command Expedition, Dr. Thomas of the Research Foundation of Technology, visualized an exploration unit for the Antarctic. It would be able to plan a unit that its own. . . . It would be able to cross large crevasses in the ice miles from its base or to accommodate four or five living quarters and command the scientific investigations with which to maintain contact with the outside world. For months, Dr. Poulter has

watched the product of his imagination develop into a monster of iron and steel and rubber and glass called the Snow Cruiser. Resembling a huge trans-continental bus of ultra-futuristic design, the Snow Cruiser is 55' long, approximately 20' wide and 15' high, weighing — completely equipped — approximately 75,000 pounds. Shortly after November 1, the Snow Cruiser will be shipped from Boston. Two months later it will be unloaded on the Great Ice Barrier—where the Antarctic begins. There it will serve for three years as the mobile research and survey unit of the United States Antarctic Service.

The Snow Cruiser is a project of the Research Foundation of Armour Institute of Technology. It was designed by the staff of the Research Foundation

under Dr. Poulter's direction. Its cost of \$150,000 was defrayed by friends of the Foundation and more than seventy co-operating manufacturers. The Snow Cruiser is merely loaned to the government for the forthcoming expedition to the South Pole.

Both motive and auxiliary power for the Snow Cruiser is supplied by two 150 hp. diesel engines, each directly connected to a traction-type generator. A 75 hp. traction motor is affixed to each wheel and power may be directed to any one wheel or to any combination of one, two, three, or four wheels.

One of the most interesting features of the Snow Cruiser is the ingenious arrangement which will enable it to cross 15-foot crevasses in the ice. Each of the wheels is equipped with a hydraulic lift, making it possible to raise any one—or any combination—of the 10-foot, rubber-tired wheels a distance of four feet. When the Snow Cruiser reaches a crevasse, power is directed to the rear wheels, the front wheels are withdrawn and the back wheels push the nose across the crevasse. When the rear wheels reach the crevasse, the front wheels are lowered, power is diverted to them, the back wheels are drawn up and the tail of the Cruiser is pulled across the opening. Once across, the back wheels are lowered into normal position and the Cruiser proceeds under four-wheel drive.

The Snow Cruiser, which can turn around in its own length, move sidewise at a 25 degree angle or climb 37 per cent grades, has a cruising range of 5,000 miles and a maximum speed of 30 miles per hour. In the Antarctic, it will carry a year's supply of food for the four or five-man crew of scientists and technicians, two spare tires, 2,500 gallons of diesel fuel oil, and 1,000 gallons of gasoline for the five-passenger, ski-mounted cabin plane which will be moored on the top deck. The Snow Cruiser contains living quarters, combination galley and dark room, two-way radio station, engine room, \$50,000 scientific laboratory, a machine shop and control room.

The plane will be equipped as a laboratory and will also carry special aerial cameras. It will operate within a 300-mile radius of its moving base, enabling the crew to photograph and map large unexplored areas of

Antarctica. It is hoped that the Snow Cruiser and its plane, together, will be able to accomplish more in the way of exploration and survey during its first three months in the Antarctic than have all previous expeditions combined.

Dr. Poulter will command the Snow Cruiser during its first three months in the South Pole region. When it returns for supplies to one of the two stationary bases to be established at strategic points, he will return to the United States, remaining in touch with the Snow Cruiser by means of radio. Dr. F. A. Wade, Chief Scientist of the United States Antarctic Expedition, will then become commander of the Snow Cruiser. Other members of the crew will include Corporal Felix Ferranto, radio operator, Theodore A. Petras, airplane pilot, both of the United States Marine Corps; Charles Meyer, chief machinist's mate, U. S. Navy; and "Navy," Dr. Wade's pet Labrador huskie, like his master, a veteran of the last Byrd expedition.

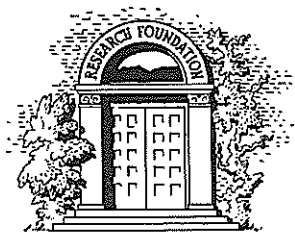
*Stamp collectors will be interested to learn that the Snow Cruiser will carry covers to the South Pole. These will be given a special cachet of historic significance, franked to the most currently available commemorative and dated on the day, hour and minute of arrival at the South Pole. These covers, individually to each collector, are being handled through the Fidelity Stamp Co., 945 Pennsylvania Ave., N. W., Washington, D. C., at 50c per cover, or 12 for \$5.00.*

DR. F. A. WADE



DR. THOMAS C. POULTER





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