

## GEOGRAPHY

# Last Great Land Journey

Antarctica, almost as large as Australia and Europe together, was first sighted in 1820. An expedition will attempt the 2,000-mile crossing from Weddell Sea to Ross Sea.

By **CHRISTINE ROSS**  
Science Service Correspondent

► HOW MANY persons have the remotest idea where they will be on New Year's Day 1958?

Sixteen men know that if all goes according to plan, they will see the New Year in at the South Pole. They are the members of the Commonwealth Trans-Antarctic Expedition, who in November will set off from London on the second stage of what must be the last great land journey in the world.

Dr. Vivian Fuchs, leader of the expedition and originator of the scheme, is no stranger to the Antarctic, for he has already spent two years on active exploration with the Falkland Islands Dependencies Survey, for which he was awarded the Founder's Gold Medal of Britain's Royal Geographical Society. He answers questions briefly and directly, neither minimizing the difficulties nor dramatizing the dangers, and he gets up from time to time to trace on a large wall map the route the expedition will take.

"There are two things I would like to say a word about right at the start," Dr. Fuchs said. "They are the nature of the expedition and its purpose. First, the expedition is a Commonwealth venture. It will cost \$1,400,000, and four Commonwealth Governments have helped to finance it—Britain, New Zealand, Australia, and South Africa.

## Purpose Is Scientific

"Men from all these countries are taking part in the expedition, and the leader of the New Zealand party is Sir Edmund Hillary, who needs no introduction. George Lowe, another New Zealander who was in the Everest expedition, will make the crossing with the United Kingdom party as the official photographer.

"The Theron, in which we made the long journey to Vahsel Bay last winter, and which stood up to such a buffeting in the pack-ice, was a Canadian vessel, built as a sealer for Arctic waters, and her captain and crew were expert in ice navigation.

"Now for our purpose. This is a scientific expedition, and the crossing, interesting as it is in itself, is not the chief object. The main party will consist of two geologists, including myself, two surveyors, both with previous Antarctic experience, two meteorologists, a seismic physicist, a glaciologist, two engineers, a doctor, a photog-

rapher, a radio operator, two pilots and an air mechanic. So you see the kind of body we are."

They would be making constant scientific observations, Dr. Fuchs pointed out. These would include mapping and survey work, meteorology, climatology, glaciology, seismic soundings, which, on the actual crossing, would be taken every 20 or 30 miles to record the depth of the ice. Geological investigations would be made whenever exposed rock presented an opportunity.

Constant physiological tests would be made to discover the effect on the human body of intense cold, how it affected the appetite for different kinds of food, and in what respects the effect varied according to whether a man was on foot, in the air or riding on a tractor.

"I would not feel justified," Dr. Fuchs said, "in spending so much money and so many years out of men's lives for the crossing of the continent as an end in itself. We are going to do a serious, planned job, and crossing the continent happens to be an essential part of it."

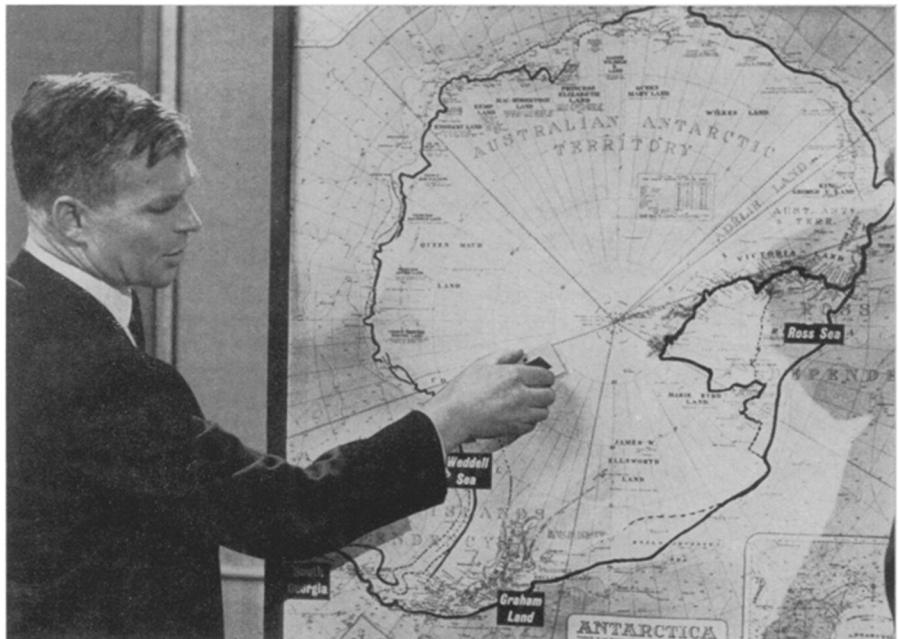
The expedition is divided into two parties, one under Dr. Fuchs, known as the main or crossing party; the other, led by Sir Edmund and called the New Zealand or support party. In the first there will be 16 men, including an Australian, two New Zealanders, and a South African; the second party will number 22, of whom two are from the United Kingdom and five belong to New Zealand's International Geophysical Year party.

Dr. Fuchs said that, although the Commonwealth Expedition is not directly connected with the Royal Society's Geophysical Year Expedition, it will cooperate with it so far as it is able in the course of its work.

## Modern Equipment Used

"Our expedition," he said, "has all the modern advantages. We shall be using tracked vehicles, Sno-cats for the crossing and weasels for depot laying, with aircraft for support and reconnaissance, and dog sledges with trained huskies, and trained drivers too, for special work, and in case we can not take the vehicles down the glacier on the descent to the Ross Sea.

"That will depend on the advice Sir Edmund's party are able to give us when we meet them near the pole. For the New



**CROSSING THE "LAST CONTINENT"**—Dr. V. E. Fuchs, who will lead the Commonwealth Trans-Antarctic Expedition, explains the Expedition's plans for crossing the continent. The 2,000-mile trek from Weddell Sea to Ross Sea across the South Pole has been called the one really great adventure left to man. Dr. Fuchs will be aided by Sir Edmund Hillary, first conqueror of Mt. Everest.

Zealand party will have come over a route never before explored. We might even have to abandon the tracked vehicles and ski the rest of the way, taking the stores on the dog sledges."

"Our base hut," Dr. Fuchs said, "will have normal electric lighting from two six kilowatt generators, solid fuel heating, with auxiliary electric fires and liquid fuel stoves. Radio communication will be maintained with the Falkland Islands and possibly with Cape Town, and it is also hoped that we shall be able to speak direct to London from the base.

This, of course, is if everything goes according to plan. In an expedition of this kind, spread over such a long period, there are always so many things you have to take into account—illness, loss of stores or equipment, accident to men, the aircraft, the tractors, the dogs."

### Airplanes for Reconnaissance

Airplanes will do reconnaissance and route-finding, Dr. Fuchs explained, "Aircraft are useless for exploration without ground control. From the air you quite definitely cannot do our work. You cannot, for instance, map satisfactorily without ground parties, or study the habits of the ice. A geologist could not study the composition of rocks from the air."

In November of this year, the main party under Dr. Fuchs will sail from the United Kingdom for the Weddell Sea, this time in the Magga Dan, an ice-going vessel now under construction in a Danish shipyard. About the same time Sir Edmund's party will set off from New Zealand for McMurdo Sound in the Ross Sea.

The general plan is for the two parties to set up bases on either side of the continent and for each to work toward the pole. The base on the Weddell Sea has already been established earlier this year, and named by Dr. Fuchs "Shackleton" in memory of the great explorer who planned to cross the continent as long ago as 1914.

### Base Camp Prepared

A winter party of eight was left behind to build the base camp and to haul to safety further inland the 350 tons of stores landed on the ice from the Theron. They will also carry out such reconnaissance as is possible in the intense cold and round-the-clock darkness of the Antarctic winter, and generally prepare the way for the arrival of the main party in January, 1957.

"The season in the south is so short that you cannot just arrive and put down a base and go straight on across," Dr. Fuchs explained. "You need to have the kicking-off base ready for you.

"In the second season, that is the Antarctic summer of 1956-57, we shall establish a depot approximately 300 miles inland from Shackleton. The actual crossing, which will take four months, counting the delays for scientific observations and other work, will be made between November, 1957, and March, 1958. For we must

all be clear away from the Ross Sea by then, before the ice closes in again."

Sir Edmund's party will meanwhile have the important task of setting up depots to replenish the supplies of the main party along the stormy plateau 10,000 feet above sea level. Sir Edmund intends to call his base in the Ross Sea "Scott."

From there it will be his responsibility to reconnoiter the Koettlitz and Ferrar Glaciers and select the route down which his party will eventually guide Dr. Fuchs and his companions at the end of their long and arduous journey.

They will also establish a depot about 150 miles inland from Scott, and another near Mount Albert Markham, about 500 miles from the Pole, where they will expect to meet the crossing party at the end of January, 1958.

It will be a momentous occasion. Both parties will then travel back together along the route pioneered by the New Zealand party. The following month should see the withdrawal of the whole Trans-Antarctic Expedition to New Zealand, which has been the point of departure and return for many another expedition to the unknown continent.

Science News Letter, August 18, 1956

### PSYCHOLOGY

## U. S. Polar Airmen Will "Thaw" in Sydney

► U. S. AIR FORCE men flying over the Antarctic with Operation Deepfreeze will spend their furlough in Sydney to "thaw."

Globemaster transport planes will pick up about 15 men each week from the Little America base on the shores of McMurdo Sound. Capt. H. C. Allen, liaison officer for the U. S. expedition, is on his way to Christchurch, New Zealand, to make arrangements for a base maintenance camp for the expedition aircraft.

Eight Globemasters would be used to fly materials from Christchurch to McMurdo Sound base where 93 men were stationed the year round.

The first Globemaster would reach Christchurch in September. Smaller planes would be dismantled and flown over to Antarctica in pieces. The Globemasters would drop supplies and sections of prefabricated buildings to sites picked out by the U. S. Navy.

The normal term of service in Antarctica is one or two years with no leave.

Science News Letter, August 18, 1956

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