

## ARMY ICE CAP SWING TAKES 22 DAYS FOR ROUND TRIP OF 276 MILES

Twenty-two days to travel 276 miles is a long time in anyone's travel book. Although this is not the rule for travel in the Arctic by caterpillar tractor, such an unusually long trip took place this winter on the Greenland ice cap.

It began as one of the monthly routine supply missions of the U.S. Army Polar Research and Development Center (USA PR&DC) from Camp Tuto to Camp Century, an under-snow research installation. At least once a month a train of five to seven low-ground-pressure D-8 and D-9 tractors, each pulling three to four 20-ton sleds, travels from Camp Tuto to Camp Century carrying food, post exchange articles, medical supplies, books and magazines, diesel fuel, and general camp supplies. Such a tractor train is called a "heavy swing". A command train consists of a command wanigan, a mess wanigan, and a generator wanigan, which provides power, sleeping quarters, mess, and water facilities for the swing. (A wanigan is an enclosed sled.)

On this particular trip — a swing carrying 20 tons of cargo and 60,000 gallons of diesel fuel — everything was fine until the swing had travelled about 20 miles, when a track frame on one of the tractors cracked. Repair was beyond the capacity of the swing maintenance facilities and the tractor had to be left on the trail to be picked up on the return trip. Twenty-five miles farther out a second tractor had to be abandoned on account of engine troubles, which were impossible to repair in the 20-knot wind and 30-below temperature.

Near mile 60 the situation became very grim because an arctic storm with winds of approximately 35 knots and blowing snow and ice sprang up and reduced visibility to zero. One tractor broke a connecting rod and was lost in the storm. Two other tractors became lost for a time while hunting for it. After a three-hour search they found the lost tractor with its driver who was sitting out the storm safe and warm in the cab.

Not only had the storm and the trac-

tor breakdowns slowed down the swing, the nearly total darkness of the arctic days made travelling conditions worse. One tractor carries a beacon light to provide a strong beam to penetrate the darkness and provide a guide for the others. Searching for lost tractors in the dark is at best a difficult task. The little daylight available lasted for only 2 to 3 hours.

The whole trip to Camp Century took 12 days, about three times as long as usual. The longest time a swing took to reach Camp Century was 14 days, but on that occasion it was marooned in a storm for several days, and the total time spent on the round trip was less than that taken by the present swing. The latter used 15,000 gallons of diesel fuel, whereas an average trip requires only 7,000 gallons.

The swing stayed at Camp Century for two days, giving the swing personnel an opportunity to rest and the Camp Century crew a chance to unload the cargo. Soon after the return trip to Camp Tuto had commenced, frozen steering clutches made another tractor inoperable. The trouble could not be remedied on the trail and the tractor had to be towed. The bitter cold and rough conditions had taken their toll. The three tractors that were still working arrived at Camp Tuto pulling the four broken-down tractors as well as empty sleds and wanigans.

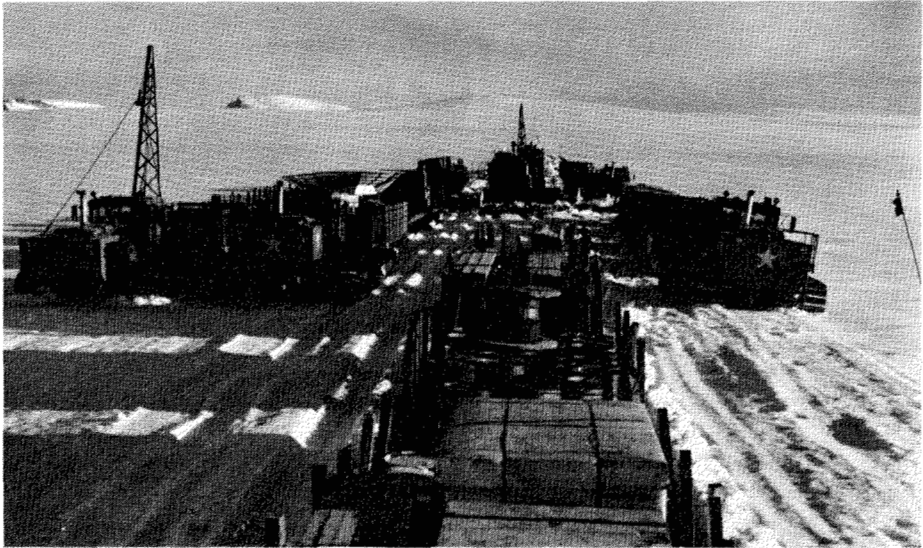
On the way back some time was spent in digging out survival huts and fuel caches along the trail that had been buried by drifting snow. Even with stopping to do this the swing made faster time on the return trip because of better weather and the generally downhill slope from the 6,300-foot altitude at Camp Century to 1500 feet at Camp Tuto. Captain Joseph D. Pettet, Executive Officer of PR&DC's Equipment, Transportation, and Maintenance Company and a passenger on the swing, said they moved at least 4 miles every day.

Despite the greater speed on the return trip, several passengers had to be picked up by aircraft, either UIA Otter or H-34C helicopter, because of Military Air Transport Service flight commitments for return to the United

States. Among them were two British newsmen, who had been at Camp Century gathering material for a news story, and several PR&DC officers.

There were no ration problems; in fact enough food for 35 days was carried on the swing. Four meals are served

to get some skiing on downhill slopes. Near mile 80 the swing met an arctic fox, which, according to Captain Pettet, was "very forward" and begged for food. The men threw him some scraps that he ate hurriedly before wandering off into the darkness.



*U.S. Army Photograph*

every day on a swing to meet the needs of the around-the-clock work schedule. Tractor operators work on six-hour shifts and on account of their strenuous activity are served one and one-half rations at each meal. In spite of the low temperatures encountered on the trip the swing's neoprene fuel tanks "held up beautifully", according to Captain Pettet. Four new collapsible rubber tanks of 6,000 gallons capacity were tested for the first time. Neoprene tanks are used to carry fuel to Camp Century for the diesel generator, which serves as a stand-by in the event the nuclear power plant, the camp's power source, should break down. One decided advantage in using neoprene tanks rather than metal tanks is that the former hold 6,000 gallons of fuel each, whereas the latter hold only 2750 gallons.

There were some lighter moments on the return trip. Captain Pettet managed

An unusually long swing such as this is very trying for both the crew and passengers. They go through long periods of tension and anxiety as they cross the ice cap, seeing nothing but snow all around as far as the eye can see. After several days of this routine it is quite a relief for them to arrive at their destination, whether Camp Century or Camp Tuto, where they have opportunities to see different human faces.

There is a swing somewhere on the Greenland trail for at least two weeks out of every month. Their slowness raises images of the old covered wagons that used to cross the western plains, and the personnel carry on the pioneer spirit in the Army's very modern program of arctic research and development.

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