Sufficient fuel will be carried in reserve (1000 gallons) for a diversion to Changi, Singapore, if the Cocos cannot be found on time.

Wing Commander L. MacD. Hodges, the 35-year-old leader of the R.A.F. Canberra team, told the *Birmingham Post* recently that the Air Council of the R.A.F. was at first not keen on the expense of equipping the Cocos as a staging post. They suggested a route by way of Singapore. "That would have been too long," Wing Commander Hodges said. "We stressed that if the thing was to be worthwhile at all the only thing to do was to put a party into the Cocos."

The party sent to Cocos by the R.A.F. is, in fact, larger than it has sent to any other stopping-place—about 100 men of the 250 which it will use for ground servicing during the race. They will live in tents at the West Island airstrip. All are trained in the servicing of jet planes and have serviced Canberras in 15 minutes. *Flight* said recently that the use of the Cocos base has caused much difficulty. Three 2000-gallon tankers, auxiliary pumping equipment from the 2nd Tactical Air Force and Eureka equipment have been specially transported there, and as the islands have no natural harbour, thousands of gallons of jet fuel in 50-gallon drums have had to be manhandled off landing craft.

LAST HOP IS LONGEST

The longest lap, from Perth to Christchurch, offers two slightly different routes, according to the weather. If the strong westerly winds expected over Australia materialise, a Rhumb Line track will be flown. But if the helpful winds are not present a more southerly Great Circle route, passing over Tasmania and 60 miles shorter than the other, will be followed. Sufficient reserve fuel (estimated at 300 gallons) must be carried on this hop in case a diversion to Auckland has to be made. This is likely if early-morning mist shuts out Christchurch airport. The decision to make this diversion must be made 800 miles from the New Zealand coast, and the required information about the condition of the airport will be broadcast to the planes from three NZBS stations, 2YA, 3YA and 3YZ, during the early hours of the morning.

The estimated time for the flight of around 24½ hours does not take into account the possibility of the planes picking up the westerly jet streams that are likely to be present over parts of the route. The jet stream has been described as a "mysterious wind tunnel in the sky," through which winds blow at very high rates of speed of from 80 to more than 200 m.p.h., at altitudes of from 20,000 to 50,000 feet. These winds often double the speed of high-flying aircraft, as occurred recently in America when a Tornado jet bomber averaged 886 m.p.h. over a distance of 205 miles. In summer the speed of the winds in the jet stream decreases to about half the tremendous winter-time speeds. Even so should the Canberras be able to pick up the jet stream for a while on some stage of the flight, they should get to Christchurch in less than 24 hours.

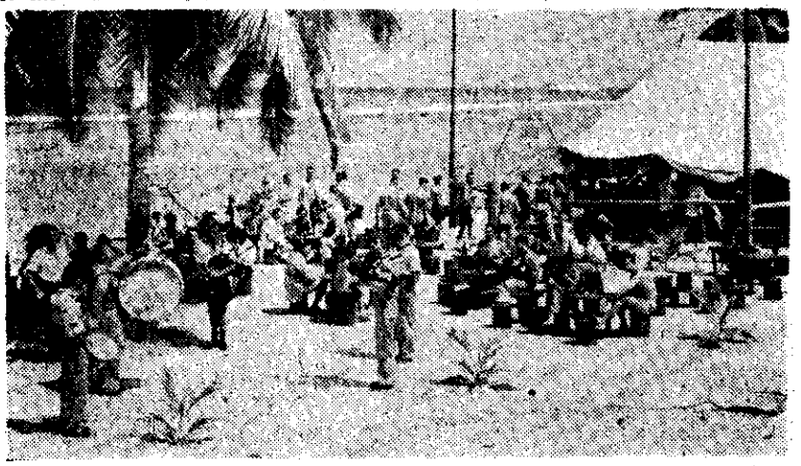
FOOD PROBLEM

The question of food for the crews on the flight was recently commented on by Wing Commander Hodges, who said: "When you have an oxygen mask on you can't do much eating. But we will have tins of orange juice which we can suck through rubber tubes. If the pilots want a proper meal diet sheets will be posted ahead to the staging point."

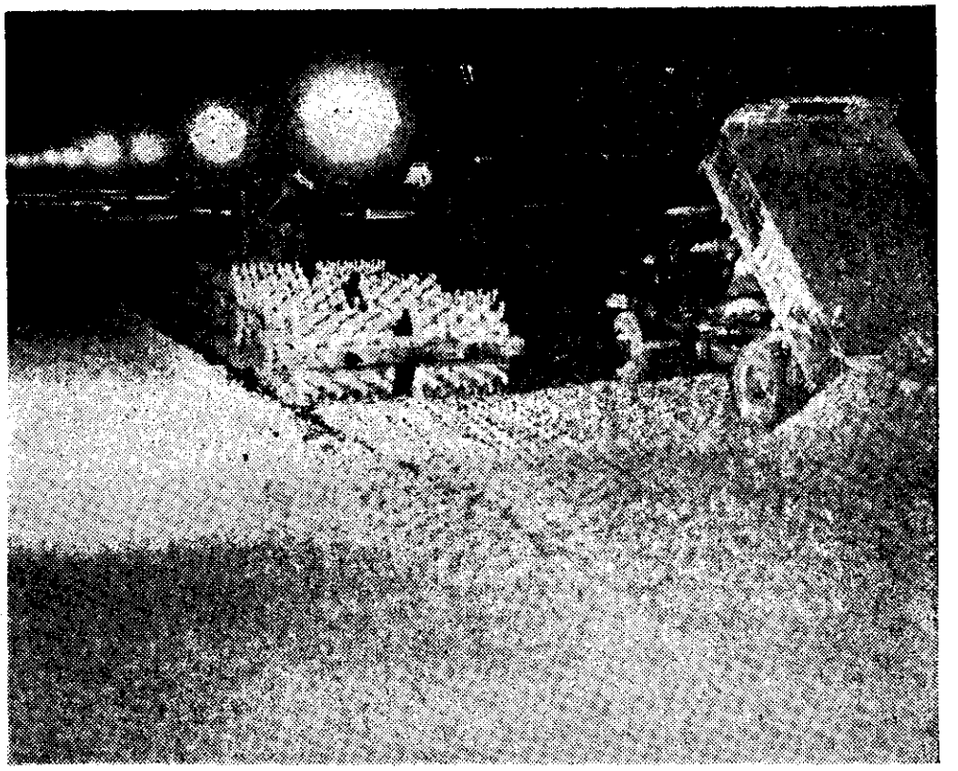
Although the R.A.F. is spending £100,000 on its Canberra and Valiant entries, the value of the race as a testing ground for these new aircraft is said to be much greater than this. Group Captain L. J. Stickley, C.O. of the R.A.F. station at Wyton, said that the race would answer many questions of vital interest to the R.A.F. which would without it have taken many months to solve.

In a forecast of the likely winner of the race the magazine *Flight* said last month: "On its existing record alone of high-speed, long-distance flying, the Canberra seems indeed to have a better chance than most other aircraft of winning the speed section."

NEXT WEEK—How to listen to the Race.



IN THE SHADE of the sheltering palm—Australian servicemen stationed on Cocos relax in their home-made beer garden



HOW THE COCOS STRIP WAS BUILT – Night shift trucks and rollers of the No. 2 Airfield Construction Squadron, R.A.A.F., laying and rolling the crushed coral foundation

Cocos Airstrip is Compacted Coral

THE first airstrip on West Island, of steel-matting, was laid down by the Royal Air Force late in the war as a base for air strike operations in Malaya and the East Indies. Though the station was closed down in 1946, the strip was used again in 1948 by a Qantas Lancastrian making an experimental survey flight from Perth to Johannesburg. Four years later the administration of the group was transferred from the Straits Settlements to Australia, and the Royal Australian Air Force built the present airstrip and buildings. The new strip, of compacted coral 10 inches deep, is 10,000 feet long and 150 feet wide and cost about £A700,000. The old R.A.F. control tower, which dominates the airstrip, has been renovated and fitted with the most up-to-date radio, navigational and meteorological equipment, so that Cocos airport now has all communication and navigational aids for regular landings by day or night. To service conventional piston aircraft on regular services the first static fuelling system in the Australian area was installed. These aircraft refuel from hydrants connected to 12,000-gallon tanks instead of from the mobile fueller with which most air travellers are familiar.

Cocos became an important link in the Perth-Johannesburg air service just over a year ago, when a Qantas Constellation made the first commercial flight across the Indian Ocean—a flight which listeners will remember was described for the NZBS by Joan Faulkner Blake in a Sunday evening talk. Constellations now fly this route fortnightly, landing at Cocos on Tuesday evenings on the west-bound flight and early on Sunday mornings on the return journey. Sixty or seventy people, including women and children, turn out for the landing and take-off, whatever the hour of day or night. The airstrip is also used by Qantas on a fortnightly Skymaster service between Singapore, Jakarta, Perth and Sydney.

The Cocos Islands are in many ways an island paradise with a healthy, intelligent population, few pests and a remarkably equable climate, though during the monsoons the weather can be rough, and in the past disastrous cyclones have caused much damage. The islands were discovered by an agent of the East India Company about the time Shakespeare was writing *The Tempest*, but the surviving settlement was made in 1827 by Captain John Clunies Ross. Clunies Ross found there a former British resident of Borneo, Alexander Hare, who was searching for a congenial spot to live with his harem of over 100 women. In the end all of Hare's women deserted or were abducted by seamen. Darwin called at Cocos on his famous voyage on the Beagle and based part of his theory on studies of coral formation made there. Before the age of flight the most important development was the establishment of a cable station, which was wrecked by a party from the German cruiser Emden in 1914. However the raider was run down by the Australian cruiser Sydney and battered to pieces at North Keeling Island, 15 miles north of the main group, where parts of the wreck can still be seen. In the recent world war Cocos was again in the news when a Japanese naval vessel shelled the cable station. Though it was announced then that it had been totally destroyed, it was, in fact, quickly repaired and operated throughout the war. The Clunies Ross family, which developed the copra industry, has continued to exercise a benevolent rule on Cocos right down to the present time.