



Alone on a Wide, Wide Sea!

Cocos, for a lonely coral island group, has already had a full share of drama, but the eyes of the world will be upon it once again on October 9 when the fast jets in the speed section of the International Air Race touch down on its 10,000-foot runway

A CORAL airstrip—"a permanently anchored aircraft carrier"—on a tiny atoll in the Indian Ocean, about half way between Colombo and Perth, will be the most dramatic stepping stone on the way from London to Christchurch in next month's big air race. There, early on the morning of October 9, at least six of the fastest military planes in the world are likely to land perhaps within ten minutes of each other. They will then have covered 7280 miles of their 12,270 miles journey. The airstrip is on West Island of the Cocos-Keeling group, a typical pear-shaped atoll of five main islands—the largest of them only five miles long—surrounding a lagoon seven miles wide and nine miles long.

Accurate navigation on the hop to Cocos might easily decide the winner of the race. The sea crossing of 1770 miles from Ceylon to the group will be made by planes in the speed section of the race during daylight, so they will have only the sun for astro-navigation during the period when both ends of the hop are out of radio range. "Navigators will have to be right on the ball," the navigator of one of the R.A.F. Canberras entered for the race said recently of this leg of the flight. "Weather conditions over Ceylon and the Indian Ocean at that time of the year may not be so good, and the Cocos are extremely small." Position will be determined largely by sextant work on this stage because of the scarcity of radio and other aids in the area.

NAVIGATORS ON GROUND

The suggestion in last week's issue of *The Listener* that this will be a navigator's race is also borne out by the latest reports from England. Accounts

of the preparations being made for the three R.A.F. Canberra entries mention that there will be ground navigators included in the 30-man teams at each of the four refuelling points, as well as navigators in each crew. The ground navigators will have the job of preparing the all-important flight plans based on the latest weather information for each stage of the journey, and handing them to the race navigators as soon as they touch down. According to *The Aeroplane*, "a great deal will depend on these resident navigators and their decisions."

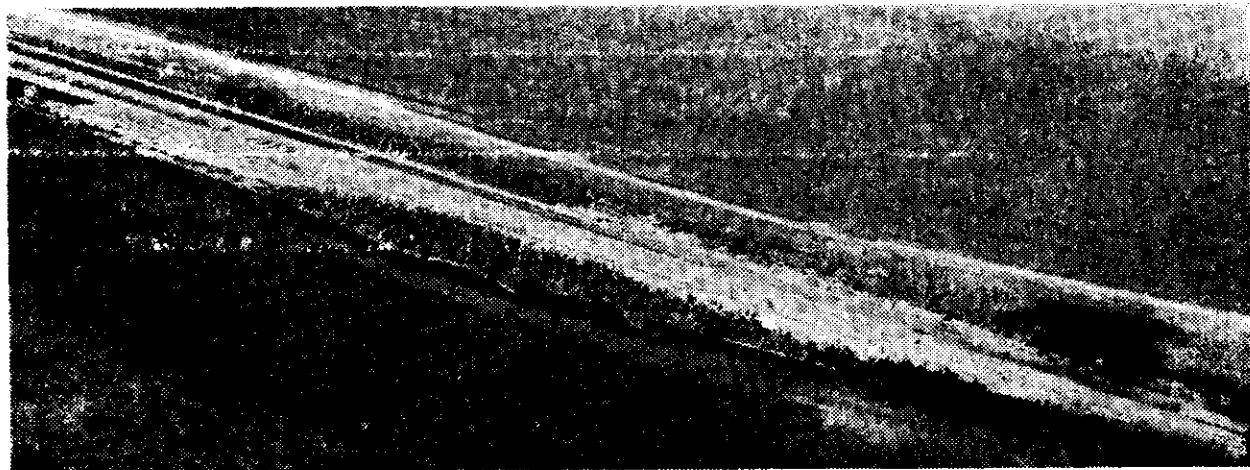
The decision to use Cocos as a refuelling point instead of following the old Karachi-Singapore route will mean an estimated saving of from five to six hours for the Canberras which, on the strength of the record-breaking flights they have already made—and in the absence of any precise information about the Valiant Mk.1—must all be considered formidable entries. The

R.A.F. have been training four Canberra crews (one as a reserve) for the past five months at Wyton, in England. They plan to fly the course in five stages, giving a total mileage of 12,270 miles, which they expect to cover at an average speed of 500 m.p.h. in from 24½ to 25 hours. The elapsed time following the old Singapore route would have been about 30 hours.

The R.A.F. Canberras (as distinct from the two R.A.A.F. entries, a different version of the same plane) are photo-reconnaissance models (PR2s) fitted with three extra fuel tank groups including wing-tip tanks and a tank in the flare bay. Their twin Rolls-Royce Avon Mk.3 jet engines have been adjusted to give an additional 1000 lb. of thrust for take-off under tropical conditions. Special equipment includes a radio compass, periscopic bubble sextant, REBECCA Radar (necessary for exact timing of the let-down at the end of each stage), and VHF radio-direction-finding apparatus. A great deal of

from England between 4.30 and 5.15 p.m. on October 8, the speediest planes presumably leaving last so that they will have a chance of making a daylight landing at Christchurch, where the sun rises at 5.47 a.m. on Saturday, October 10. Night landings will have to be made, however, at Shaibah and Perth.

Three of the stages are the ideal maximum length for Canberra PR3s, with their extra tankage giving a total of 3100 Imp. gallons. According to *The Aeroplane*, the two Indian Ocean hops are relatively short because of the thinness of navigational aids here, and because there is little to choose between two fast stages with an intervening refuelling delay, and a straight run-through flown at a slower, less-consuming speed. In other words, the Canberras could fly from Ceylon to Perth in one hop, but it would take them longer than going at top speed to Cocos, and refuelling within the estimated turn-around time of from 20 to 30 minutes.



"A PERMANENTLY anchored aircraft carrier" is how Cocos has been described, and in this air view of the landing-strip it looks just like one

LEFT: The surf fringed outline of the Cocos Islands shows through the sea-haze as an Australian passenger plane comes in to land

the navigator's work will consist of dead reckoning and astro-navigation.

Though all five Canberras could make the Indian Ocean crossing non-stop, they would have to fly more slowly to get their maximum range. Cocos will be the third of their three stops. The R.A.F. Vickers Valiant will make it the second and last stop before Christchurch.

R.A.F. FLIGHT PLAN

The R.A.F. Canberra flight-plan runs as follows: London-Shaibah (Iraq), 2875 miles; Shaibah-Ceylon (2635 miles); Ceylon-Cocos Islands (1770 miles); Cocos-Perth (1840 miles); Perth-Christchurch (3150 miles). The anticipated times for each of these stages are 5¼ hours, 5 hours, 3½ hours, 3½ hours and 6 hours respectively. The contestants will start