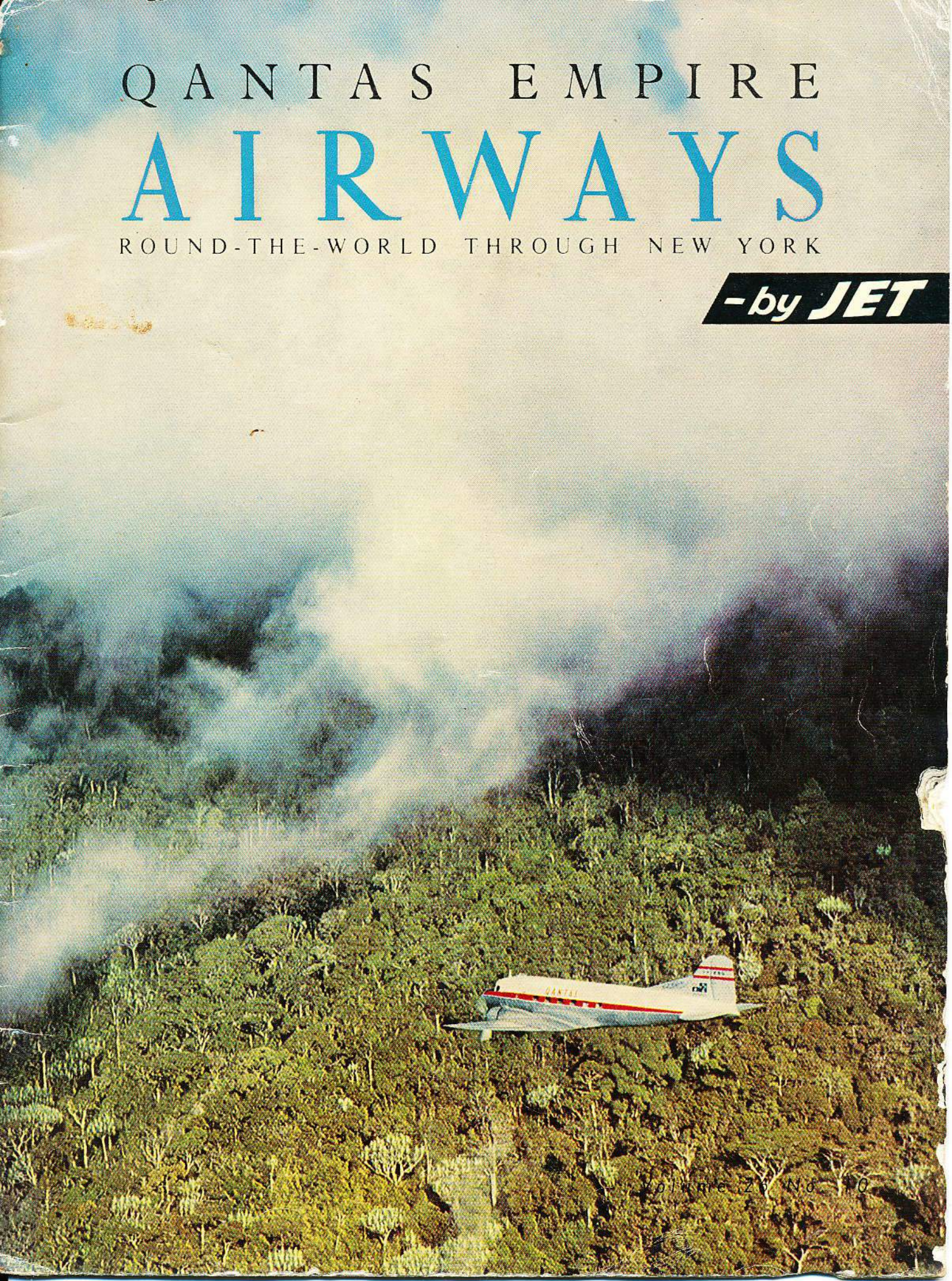
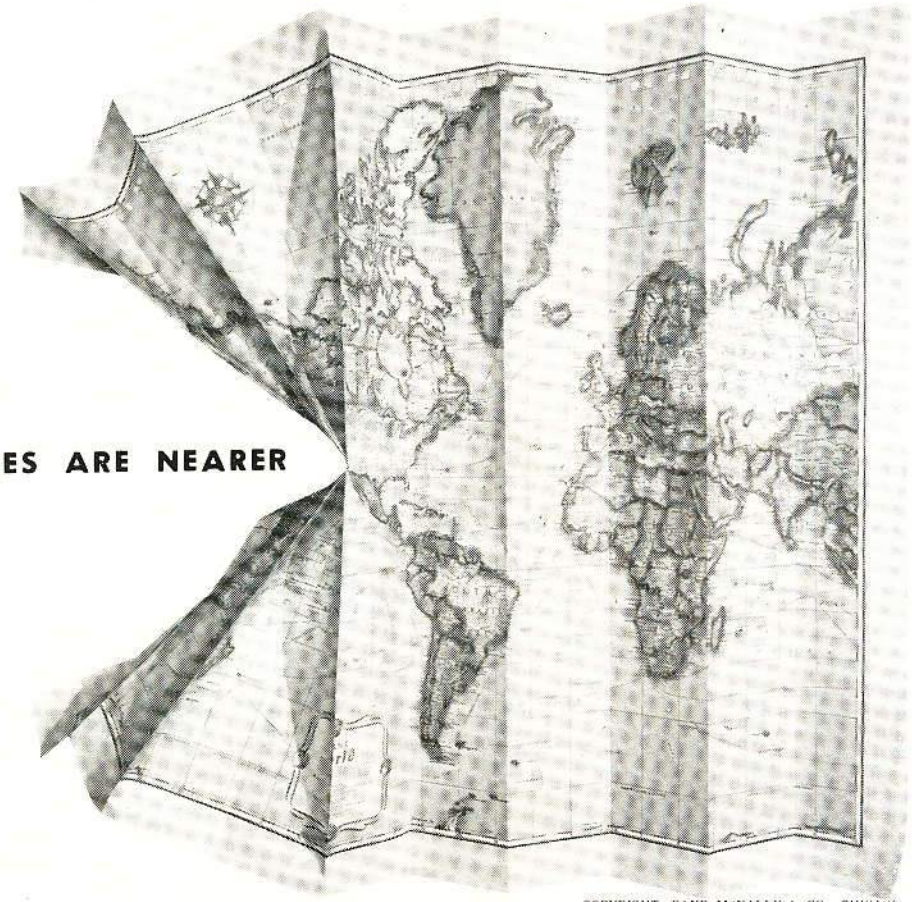
QANTAS EMPIRE AIRWAYS

ROUND-THE-WORLD THROUGH NEW YORK

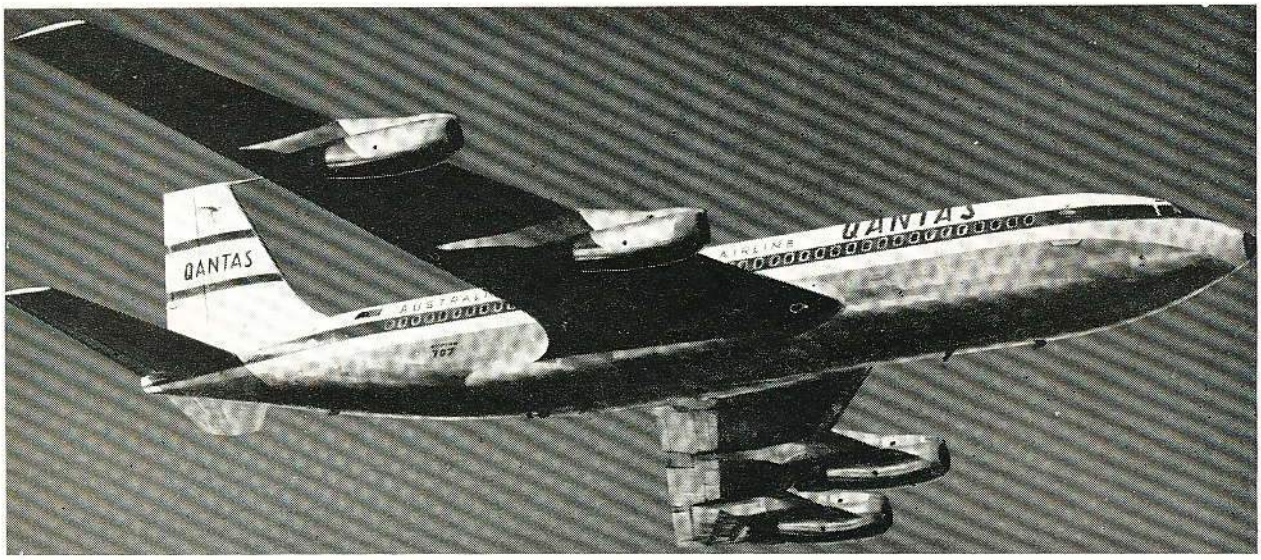
-by JET



FARAWAY PLACES ARE NEARER



You get to faraway places faster when you fly in a wonderfully comfortable Boeing 707 jetliner over the round-the-world routes of Qantas.



BOEING 707

Typical of the New Guinea pilot is Qantas First Officer Colin Williamson, pilot of the Otter aircraft permanently based at Goroka, 5,000ft. up in the New Guinea Highlands. He has logged more than 2,300 hours of New Guinea flying since joining Qantas in 1957.

"Gone finish along New Guinea"

BY PETER MANN

QANTAS 'im gone finish along New Guinea.

Meaning in an approximation of Pidgin English, the local *lingua franca*, that after some 20 years Qantas has withdrawn from New Guinea operations and written *finis* to a unique chapter in its own and aviation history.

A fluent command of Pidgin and the ability to translate familiar Airport signs such as "NO SMOKING" into "SMOK ITAMBU," and "LADIES" or "GENTS" into "BILONG MERI" or "BILONG BOI," is among the least of the unfamiliar skills Qantas had to acquire over the years during which it built its "New Guinea Internal" services into an operation with few parallels.

There is nothing quite like New Guinea flying elsewhere in the world.

Business is done on a cash-and-carry basis in midstream when a Qantas Otter amphibian float-plane calls at Kikori in the swampy delta country of the Gulf of Papua. New Guinea flying is a strange contrast for this Qantas pilot, John Seaton. Previously he was flying in the Antarctic.

New Guinea flying has an earthy personalised atmosphere long departed from most commercial flying. Everybody flies in New Guinea. There is seldom an alternative.

For these people who make up the thin and widely scattered population of the Territory of Papua and New Guinea the aeroplane is as much part of daily life as the 8.15 bus or the baker's delivery cart to the city dweller.

For them, the airline's " company image " is not something based on the gleaming facade of a big downtown office, or luxurious booking halls and passenger lounges, or internationally famous airport terminal buildings, or huge jet airliners resplendent in familiar livery.

It is an image based on aircraft which local people know individually as well as they know their own car. An image based on person to person contact —on pilots who are chaps one knows personally and individually as old friends; whose daily, twice weekly, weekly or maybe fortnightly visits are the eagerly-awaited visits of close acquaintances.

Then again New Guinea flying is different because New Guinea itself is so different.

The Territory is fiercely rugged country with the north divided from the south throughout its length by the massive cordillera of the Central Highlands where individual peaks tower beyond 15,000 ft. and dozens exceed 10,000 and 12,000 ft.

For the most part these jagged peaks and thrusting, vertical, knife-edge ridges are divided by deep jungle ravines and gorges carrying racing streams, swollen by the constant tropic rains. Fog, cloud and sudden blinding rain storms sweep constantly and unpredictably through this country.

But here and there the complex system of greater and lesser ranges are separated by magnificent, broad, grassy valleys, themselves up to 5,000 ft. and more above sea level. It is in many of these beautiful, fertile valleys that one finds the groups of settlers for whom the air services are a vital link with an otherwise almost inaccessible outside world.

And so, scattered through this impossible country, dwarfed by the surrounding immensity, one finds scratched out on mountainsides like little handholds of civilisation, some of the strangest and trickiest air strips in the world.

There are strips sloping uphill at grades that would be classed as reasonably tough pulling for a motor car—where pilots land uphill, taxi at full power to reach the top end of the strip, park sideways to avoid running away, and then take off in a swoop down the hill ; strips which begin abruptly at the edge of a precipice and end equally abruptly against a sheer mountain face at the other end ; strips that are approached along deep valleys and by ducking through narrow gaps in the soaring ramparts ; one strip at least where it is possible to fly past the strip only a few score yards out from its edge, but two or three hundred feet below it.

Let any two or more " Old New Guinea Hands "—particularly pilots—get together and in no time they'll be swapping their favourite New Guinea flying reminiscences. Take a quiet seat in the background and you'll be regaled with yarns ranging from the pathetic to the preposterous ; from the humorous to the heroic.

Such stories as that of the Qantas skipper who opened the ubiquitous " cold collation " box lunch, voiced his usual imprecations against such fare, then reached out a hard-boiled egg and cracked it on the control column ; this egg was raw.

Or, at the other end of the scale, stories of the fine work done by Qantas crews in rescuing and succoring victims of the disastrous Mt. Lamington eruption in 1951. One Qantas pilot flying nearby saw the mountain blow up, at dangerously close range.

Another was decorated for his part in the rescue work. Another flew an aircraft around the crater of the still smoking volcano to allow a Government vulcanologist examine it at close range.

Of countless emergency medical flights, for some of which the normal ban on night flying in the Territory has been waived and pilots have found their way through the mountains in the dark and landed in a " flarepath " of car headlights.

Of searches for missing seacraft and of the open-sea landing by a Catalina in the Gulf of Papua in 1956 to rescue a distressed yachtsman.

Stories of emergency improvisations when trouble has struck in places far remote from well-equipped base workshops — such as the time a Beaver float-plane landed with engine trouble on the Turama River in water too deep to anchor safely, and far from workshops help.

A Catalina flew to its rescue with two large out-

The Otter float plane makes virtually an open-sea landing at Samarai, a small island port off the easternmost tip of Papua.

board boat engines which were lashed to the Beaver's floats. With this novel means of propulsion the Beaver taxied upstream for seven hours to an oil exploration camp where the engine could be overhauled.

Stories, too, of odd cargoes carried and hazards induced thereby. Such as the huge and delectable mud crabs which are picked up sometimes as live cargo in the Solomons. They are lashed-up with twine but have been known to get loose and menace the crew.

Then there was the Catalina which returned to Moresby one day with an unexpected passenger, leading the pilot to fill out his maintenance report form with an unusual request under " remarks " to mechanics : " Please remove crocodile from forward bilge."

And there was an occasion a DH84 flying from somewhere in the Highlands down to the coast might have been thought by the observer on the ground to be progressing more like a roller-coaster than an aircraft in straight and level flight. A glimpse inside would have revealed a pilot struggling to maintain trim while the other half of the crew rattled about in the cabin trying to round-up a small herd of escaped pigs.

Sometimes it has been a problem to fit odd cargoes into aircraft and sometimes also a problem to deliver them. How, for instance, to deliver (alive) a flock of poultry included in the charter load of supplies and equipment being air-dropped to a newly-established post.

The successful solution proved to be to enclose each fowl fore and aft in a couple of aircraft " sick bags " the lot festooned in turn in a length of toilet

OUR COVER

This Qantas DC3 flying through a mountain gap close to a towering, cloud-capped jungle ridge typifies Qantas' flying work in New Guinea. Our cover photograph, along with others in this issue, was taken by Qantas cameraman Warren Clarke.

"AIRWAYS"

Vol. 26 OCTOBER, 1960 No. 10

Published monthly by Qantas Empire Airways Ltd. Editorial Group, Qantas House, 70 Hunter Street, Sydney, New South Wales. Printed in Australia by Stampers & Gilders Pty. Ltd., 36-38 Regent Street, Redfern, N.S.W.

A typical assortment of cargo landed by a Qantas DC3 at Mt. Hagen in the New Guinea Highlands. This was the strip originally pounded solid by the feet of swarms of native tribesmen in a monster sing-sing organised by a Qantas pilot to enable aerial evacuation of war-time refugees.

Coals to Newcastle surely, to fly a bunch of hibiscus plants from anywhere to anywhere else in New Guinea, with its tropical wealth of flora. Still, this Qantas purser is no longer surprised by anything that turns up among air cargo in New Guinea.

paper ; it stayed on the bird long enough to protect him from the slipstream and came free in time to let it flutter safely to roost.

One could go on indefinitely. It all adds up to a brand of commercial flying which justifies the term " unique."

The story of Qantas association with New Guinea had a clear-cut ending when Qantas handed over operation of its New Guinea Internal services to Trans-Australia Airlines on September 1 this year ; T.A.A. and the other major Australian domestic line, Ansett-A.N.A. had already for some weeks been sharing operation of the former Qantas " Bird of Paradise " service linking Papua and New Guinea with the Australian mainland.

This was done at Government direction to enable Qantas to concentrate on its international operations.

World War II first brought Qantas in contact with New Guinea and the aftermath of war led to the beginnings of the Qantas " New Guinea Internal " services.

When the war began Qantas had been flying for nearly 20 years within Australia and for five years as an overseas operator in partnership with Imperial Airways (now B.O.A.C.) on the Australia-England route, using latterly the famous " C "-Class Empire flying boats.

Immediately on the outbreak of war in September, 1939, a number of these Qantas flying boats and crews were seconded to the Royal Australian Air Force to form the nucleus of a Maritime Reconnaissance Squadron based on Port Moresby, the Administrative capital of the Territory. This Squadron, which was to do a magnificent job of surveying the islands and waters forming the northern approaches to Australia, gave Qantas its first link with New Guinea.

The next was an incident which has become a Qantas legend.

In May, 1942, in the early, bitter, terrifying days of the Pacific War, the Mission Station of Mt. Hagen, 7,000 ft. above sea level in the New Guinea Highlands, had become a rendezvous for refugees fleeing before the invading Japanese, and some 90 white civilians had collected there from remote villages, camps and plantations.

A party of Qantas ground crew and pilots were sent in to evacuate these refugees in two DH86 aircraft. Commanding this expedition was Qantas Captain Orme Denny who had flown in New Guinea in the earliest aerial pioneering days with Guinea Airways and who was henceforth to be closely associated with much of the Qantas New Guinea story.

Denny found that the 1,000 ft. grass airstrip was too soft and soggy to permit take-off of heavily laden aircraft.

Resorting to the on-the-spot improvisation which was so often to be a feature of flying operations in New Guinea, he forthwith organised a monster sing-sing.

The New Guinea native will drop everything for a good sing-sing. News of the festivity sped from mouth to mouth, from drum to drum and by bush telegraph through the mountains.

Before long over 2,000 natives streamed in from their villages to the airstrip and the sing-sing was under way. Stamping up and down, the villagers chanted to a primitive rhythm, urged on by throbbing drums.

When they finally reached the limits of sheer human endurance the job was done. The turf was pounded into a hard level airstrip and from it the evacuation was completed without mishap in eighteen flights.

From then on the armed forces called increasingly on Qantas. In August the same year Qantas began a service from Townsville on the Australian north-eastern coast to Port Moresby using two flying boats to carry frontline troops and equipment north to the battle areas and evacuating casualties on the return trips. In 564 trips these services carried close to 13,000 passengers.

Through the remainder of the war years Qantas links with New Guinea strengthened as the company's unarmed aircraft took part in the Buna-Gona "Bully Beef Bombings," carried troops to battle stations, evacuated casualties, operated courier services from Australia to New Guinea forward areas, and flew special flying boat charters to island outposts.

Early in 1945 as the war neared an end, civil

New Guinea is a land of stone-age versus atomic-age contrasts, and this native chief in full regalia attracts no unusual attention as he waits to board his plane at Goroka airstrip. The brass badge in the centre of his turban-like headdress denotes that he is a Luluai, or Headman, officially appointed by the Administration.

authorities prepared to resume administration of the Territory and pre-war residents of the territory who had taken refuge in Australia began to seek means of returning to salvage and re-establish their homes, plantations and businesses.

Qantas, having taken over some of the assets and routes of W. R. Carpenter Airlines, a pre-war New Guinea operator, on the 2nd April, 1945, introduced a weekly Sydney-Lae service which was to develop into the famous " Bird of Paradise " service.

The aircraft employed were military C47s which had been converted to civil DC3s at the Qantas Brisbane workshops on behalf of the Australian Civil Aviation Department.

The route from Sydney included calls at Brisbane, Rockhampton, Townsville and Cairns on the Australian east coast, thence to Port Moresby and Lae ; there was an overnight stop at Townsville on the north-bound trip. Commencing with a weekly service, it was within a couple of months operating a thrice weekly frequency.

In the first twelve months these early " Bird of Paradise " services flew more than 650,000 miles, carried 7,000 passengers, 43 tons of mail and a like weight of freight.

Institution of this link with the Australian mainland was the first step in the Qantas contribution to the postwar rehabilitation of the civil life, agriculture and commerce of the Territory.

The second came a short time later when Qantas was asked to carry out flights within New Guinea for the Administration to assist in the work of rehabilitation.

In response, early in 1946 a DH84 " Dragon " aircraft was flown to New Guinea by Qantas Captain Len McNeil who until then had been flying the Qantas-operated Flying Doctor aircraft based in the central Queensland township of Charleville.

Captain McNeil and his DH84 were intended primarily to fly the Administrator, enabling that official to move quickly between the scattered townships and Administrative District Centres of his 183,600-square miles Territory.

Accordingly the DH84 was fitted out as a 1946-version V.I.P. aircraft and was possibly one of the most elegantly appointed " Dragons " ever to take the air, replete with fancy lining, plush seats and carpets, window curtains, washbasins and other de-luxe features.

Waiting to meet him at Moresby, McNeil found another Qantas Captain, Dick Mant, who had pre-war flying experience in New Guinea and was detailed to show McNeil the route from Moresby across New Guinea to Lae and later from Lae into the mountain gold mining centre, Bulolo.

Captain Mant was duly impressed by the DH84's elegant interior but rather less impressed by its performance from a New Guinea viewpoint, as it clawed its way towards the minimum altitude necessary to allow it to thread its way through the mountains to Lae.

At Lae, Captain McNeil found a Qantas staff consisting of Manager Harold Hindwood, a Traffic Officer, two ground Engineers and a cook. The airport " Terminal " he found to consist mainly of the area of ground around the foot of a lamp-post on the edge of the field—within the pool of light cast by the overhead light standard, for when the staff had to " work back at night."

He found also that while flights for the Administrator were likely to be at scattered intervals, there was an immediate crying demand for aircraft space to fly anything anywhere and everything everywhere. So out came all the V.I.P. aircraft's fancy fittings.

Every year Qantas New Guinea Internal aircraft have carried scores of emergency medical cases from isolated outposts to town hospitals. This native being transferred from an Otter float plane to a waiting ambulance at Port Moresby had been picked up only an hour earlier from a canoe in midstream in the Papuan Gulf delta country, suffering a deep axe wound.

Omkali is one of the more fantastic of many fantastic airstrips carved in the mountains of New Guinea. Perched on the edge of a ravine with a near sheer drop of 1,200ft. to the river below, Omkali strip slopes steeply uphill with a 13 per cent. gradient.

The Dragon was stripped down to its original naked state as an aerial workhorse and put to work doing charter flights to anywhere and everywhere on a poundage basis.

First customers were Missionaries for whom the Dragon flew several charters into a Mission Station strip at Bena Bena.

There was far more work than the DH84 could handle—far more than a squadron of DH84s could have handled. McNeil was joined by Captain F. S. Furniss with another DH84, and the two aircraft were in the air every minute that operational regulations permitted.

They flew charters for missionaries, for the Bulolo Gold Dredging Company, for plantation owners and for the administration. They did food drops to isolated prospectors and to Administration patrols penetrating into unexplored areas peopled by head-hunters. They reopened old airstrips and inaugurated new strips, often on their own initiative.

As an example, one day shortly before Christmas, 1946, a Qantas pilot was map-reading his way through the mountains of the highlands and had just pinpointed beneath him a spot named Chimbu, site of a mission and patrol post. He was carrying supplies for Chimbu which would normally have been landed at a strip some miles distant and carried to Chimbu in a long overland haul by native porters.

Thinking that the people on the post might like to have their supplies before Christmas, the pilot sighted a nice clear, level-looking stretch of landing strip and put his plane down right in their backyard as it were. And he was able to tell the delighted inhabitants that if they cared to get to work, cut the kunai grass, clear and mark the strip he could and would land there whenever they liked.

The DH84s flew cargo ranging from pre-fabricated houses (most of the homes in Lae were flown section by section from the timber mills at Bulolo) to whole airfields. This latter came about when the steel Marsden Matting used to surface many wartime airstrips throughout New Guinea was sold as metal scrap to contractors. For weeks Qantas planes flew countless tons of the stuff out from the isolated strips, and today you see it put to a myriad uses everywhere in the Territory.

They flew cargo into the settlers of the Highlands and there was always plenty of backloading in the shape of fresh fruit and vegetables to be flown back to the coastal towns.

The going rate of exchange among highland natives at this time, incidentally, was three corn-sacks of beautiful potatoes for one copy of the Sydney Morning Herald, the large and inky pages of which were regarded by the natives as the paper par excellence for rolling their foot-or-so-long cigarettes.

These early days, operating without benefit of schedules on a day-to-day, trip-to-trip basis, may sound a fairly casual, happy-go-lucky period and mode of flying. But in these operations the future was taking shape. From them emerged the pattern. The pattern of service. The pattern of co-operation with the people of the Territory. And the pattern of present-day New Guinea flying, operationally speaking.

To say that some of the early flying over this terribly tough country was anything but hazardous would be glossing over the obvious. It often was

hazardous. There were virtually no radio, navigational aids, or air traffic control.

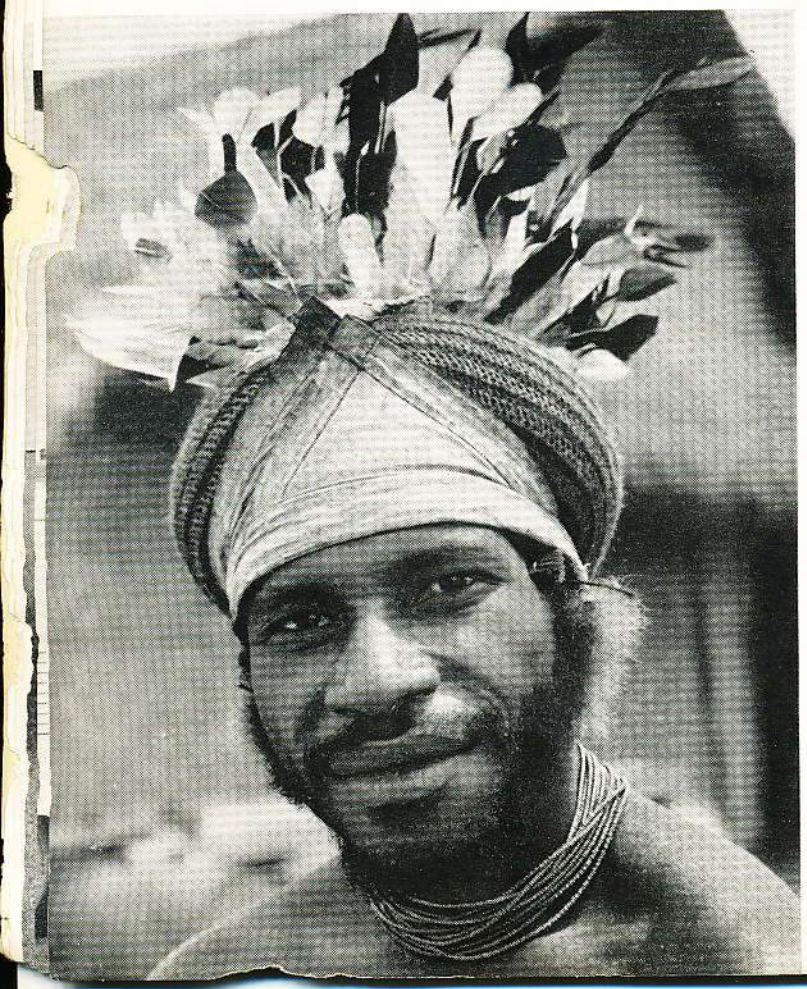
Pilots were feeling their way to little strips they had never, or seldom before, visited, by map-reading from incomplete and unreliable maps. They were themselves unfamiliar with the complexities and pitfalls of local flying conditions and their aircraft had barely the minimum performance requirements for the area.

Many of the early pilots had minor " prangs " before they had been very long in New Guinea. One of the first Qantas pilots up there has said that the only thing that saw him safely through his first few months in New Guinea was his long and thorough familiarity with the DH84 aircraft and his knowing intimately just what it would and would not do.

He was able to pass on the benefit and experience of those early days to many later pilots and from this basis has been built a safety-first flying procedure and thorough pilot-training for local conditions that make New Guinea flying today as safe or safer than anywhere in the world.

Flying freelance charter flights as a sideline to the basic job of meeting the Administration's requirements was all very well as a stopgap measure in the confused period immediately after the war, but it was soon obvious that the fleet of two DH84s were doing neither one thing nor the other adequately. They could not cope with the tremendous and urgent job of rehabilitation.

Feathers as usual are the main ingredient, but this Highland native has introduced a modern touch in the tasteful inclusion of a "white fella" handkerchief as part of his head-dress.



So, with demands from the Administration and others for a proper airline in the Territory, Qantas set out to establish a thorough internal service to serve both the administration and private enterprise.

In 1948 Qantas formed an entirely separate organisation in New Guinea, known within the company as " New Guinea Internal."

A fleet of DC3s were put into service and the " light aircraft " fleet built up to a total of 11 DH84s, plus Fox Moths used for light charters.

In the north, in New Guinea, air services were supplemented by one of the few roads in the Territory—the Lae-Bulolo road built by Australian military engineers during the war. But south in Papua, roads were virtually non-existent and there was a demand for a different type of aircraft to serve small islands, settlements and plantations strung along the southern coastal region and the vast swampy delta country of the Gulf of Papua.

So Qantas set out also to build up coastal services for these regions, employing flying-boats. At first they tried the Sandringham flying-boats but these were too big and generally impractical for this work.

They were replaced by Catalinas which proceeded to write an operational chapter all of their own. The " Cats " gave wonderful service to the east and western coasts of Papua until they were finally retired as obsolete in 1958.

The fleet of DC3s grew to a total of seven. The DH84 "Dragons" were replaced by Australian-built "Drovers" and these in turn were replaced by Canadian-built " Beavers " which gave excellent maid-of-all-work service.

Three of them flew as land planes serving the small strips in the Highlands, and a fourth was fitted with floats and operated in the delta area of Papua, particularly as an indispensable aid to oil exploration units.

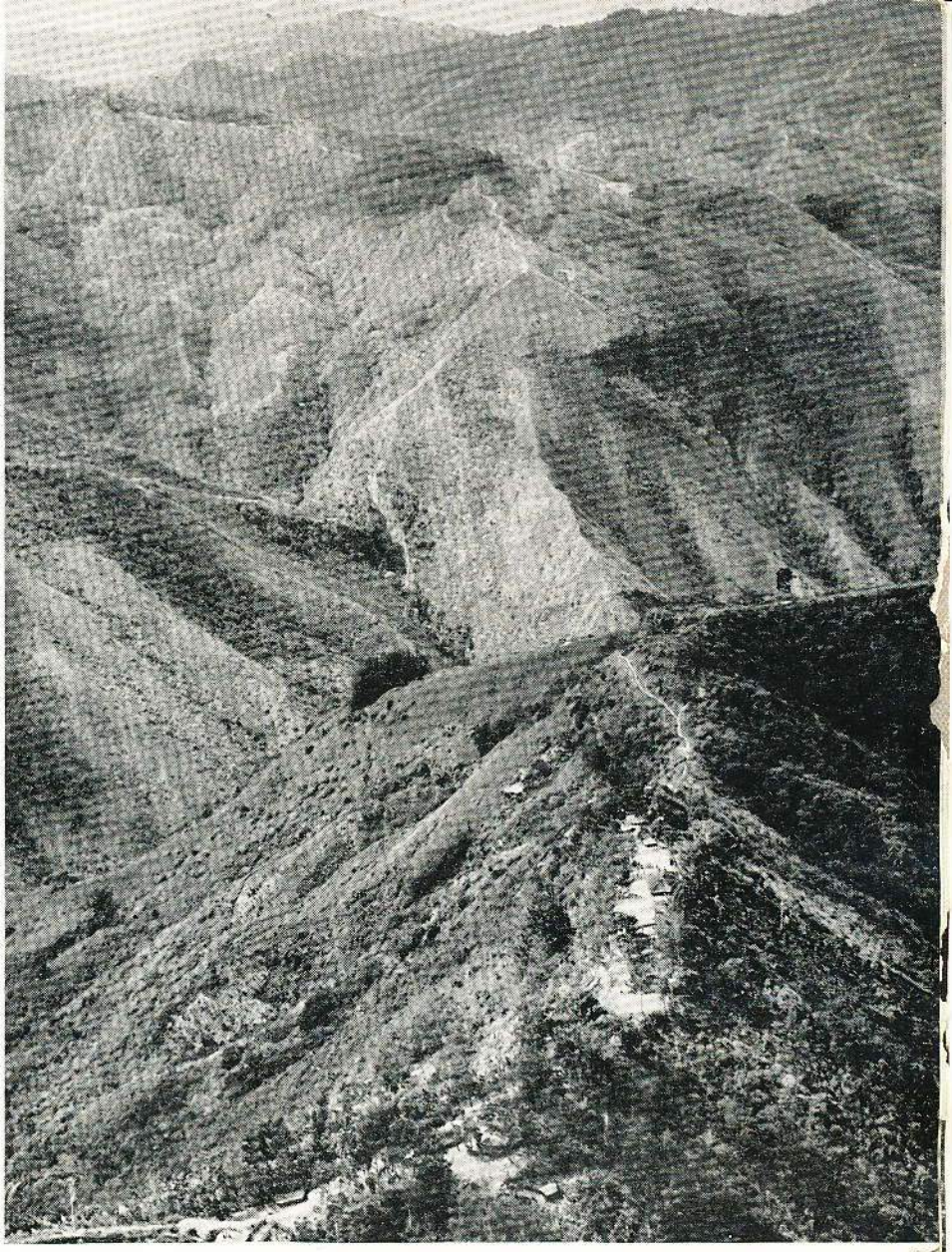
By 1956 Qantas " New Guinea Internal " had grown to a £A500,000 investment. It had a fleet of 13 aircraft—seven DC3s, two Catalinas and four Beavers—flying mostly from its Lae base, and an overall staff of 570.

While it acted in effect as an agency of the Administration working for the progressive development of the Territory, at the same time it operated on a commercial basis and was financially self-supporting, drawing its revenue from passengers, cargo, mail and charter flights. It was flying 1,000 passengers, 229,000 lb. of freight and 8,700 lb. of mail per week, and revenue had trebled since " New Guinea Internal " had begun operations in 1948.

Meanwhile the Qantas link between Australia and the Territory—the " Bird of Paradise " service—had been advancing in step with other progress.

In 1947 the " B.O.P." service extended to Rabaul and in 1948 to Madang. On March 13, 1950, there was a big step forward for travellers when DC4 aircraft replaced DC3s on the Sydney-Lae link. Then in January, 1959, on completion of modernisation of the Port Moresby airstrip, Qantas introduced Super Constellations between Sydney and Port Moresby with a DC4 connection to Lae.

By September that year frequencies had worked up almost to a daily mail service from Sydney and Brisbane. Finally in December, 1959, Electra Inter-



New Guinea as the air traveller sees it. Native paths winding from village to village along the crests of knife-edge ridges as can be seen here offer the only alternate means of getting from place to place in most of this country. The administration has mapped some 30,000 miles of these footpaths.

national turbo-props passing through Port Moresby on the Qantas Far East service from Sydney established a new express link, flying the 1593 miles in 5½ hours.

Qantas' Far East service still calls at Port Moresby twice a week, providing a link between New Guinea and Manila and Hong Kong.

Over the years ground support facilities of course kept pace with the growth of the airline's fleet and services.

Since 1956 the most noteworthy change in the "New Guinea Internal" set-up apart from the general steady expansion was the replacement of the "Beavers" by bigger "Otter" aircraft, bringing the total investment to £A750,000.

At the helm of New Guinea Internal as Area Manager, New Guinea, through the major part of its growth until he retired last year was Captain Orme Denny—the same Orme Denny who organised the monster Sing-Sing to create an airstrip back in 1942.

A great deal of water has flowed down the Territory's myriad rivers since that day—and since Captain McNeil flew in the first little DH84 that was the beginnings of New Guinea Internal.

The New Guinea Internal network which Qantas now hands over to TAA includes 43 ports of call over some 6,500 route miles, employs more than 600 staff and is operated by eight DC3 aircraft and four DH Otters including one amphibian float-plane.

In 1946 Qantas flew 565,162 miles in New Guinea and carried 5,260 passengers. In 1959 a total of 1,278,000 miles were flown and 47,400 passengers carried. New Guinea Internal and Bird of Paradise services combined last year flew close to two-and-a half million miles and carried 81,500 passengers.

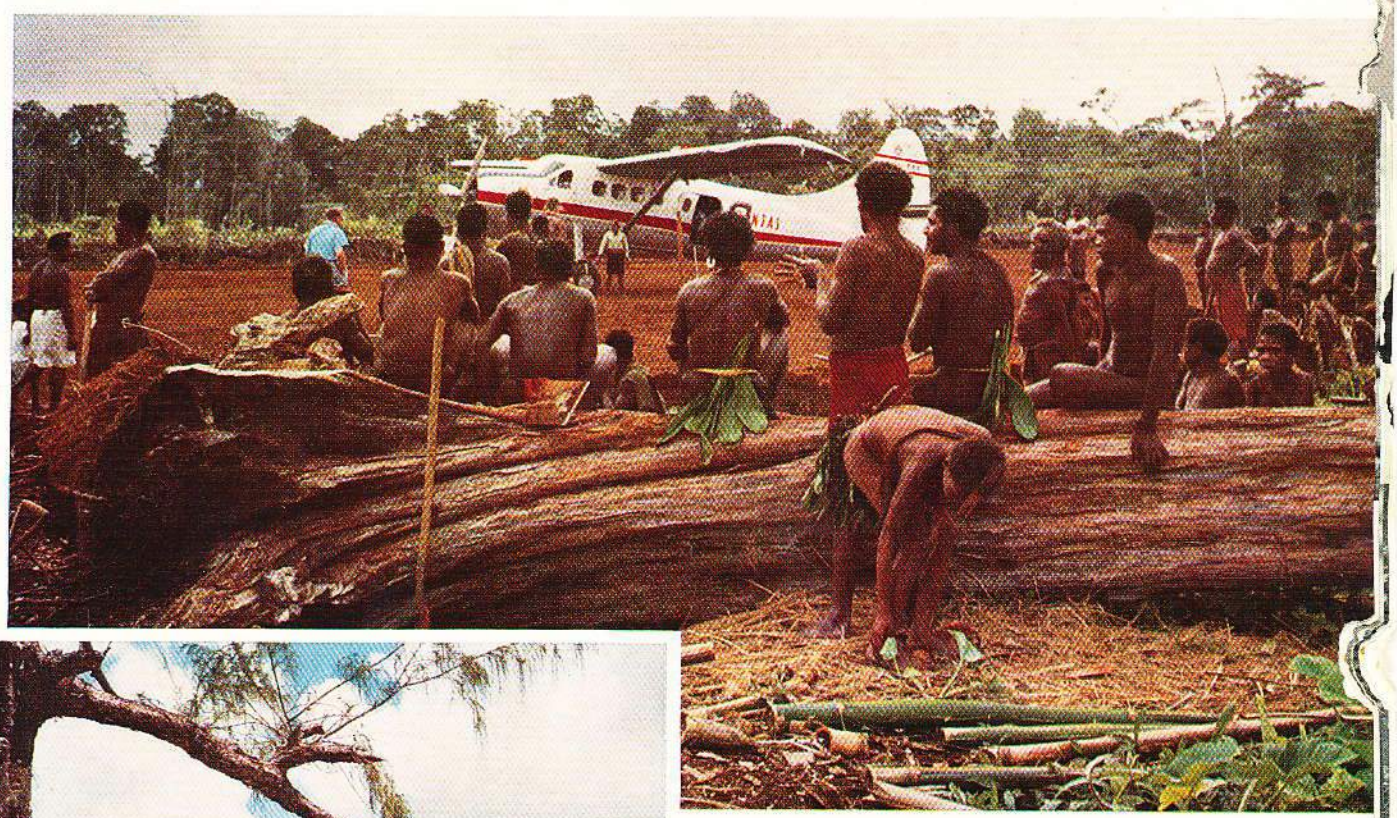
The development of these services and achievement of this growth has entailed a lot of hard work, a reasonable leavening of fun and excitement, and above all it has all been eminently worthwhile. The development of such a community and national service as is represented by Qantas New Guinea operations is something to reflect upon with great satisfaction.

And now, "Qantas 'im gone finish along New Guinea."

The Highland natives' love of self-adornment finds its most colourful and individualistic expression in head-dresses such as sported by this Western Highlands tribesman snapped as he tramped along a bush path near Minj on his way to a ceremonial sing-sing. These head-dresses often feature the gorgeous plumes of birds of paradise and often, too, the whole plumage of a bird such as a hawk, with the wings outspread to give a startlingly Viking effect.

This is the last remaining bucket dredge of what was a fleet of eight operated at the peak of the goldmining boom by the Bulolo Gold Dredging Company in the Bulolo Valley. New Guinea aviation had its beginning thirty years ago in flying supplies to the Bulolo goldfields and the flying-in piece by piece of these great dredges was the first big air-lift in the history of aviation.

When an Administration Patrol led by Patrol Officer R. B. Aitken established a new Patrol Post at Karimui in the New Guinea Eastern Highlands a few months ago, it was supplied at first with food and equipment airdropped from this Qantas Otter. This continued while an airstrip was carved from the jungle with the help of natives recruited in the district. Then came the great day —the first Otter landing on the new strip. Natives who are only now being dissuaded from such customs as eating their dead relatives, clustered round for their first close-up look at an aeroplane.



With due respect to Omar Kyam, what could be closer to most folks' idea of paradise than relaxing in the sun 'neath this particular tropic bough. No need for book of verse, loaf of bread, jug of wine, or even "Thou". Just loaf, period. Scene is Samarai, an idyllic little island miles from anyplace, on the coast of Papua.

From Gold Dust to

THE story of air transport in New Guinea is a romantic one and it had a matchingly romantic origin. It began with a rich gold strike made more than 30 years ago, in little-known country inhabited by fiercely hostile stone-age headhunters.

Gold was discovered in 1925 in the mountainous area of Bulolo about 50 air miles from Lae but probably at least three times that distance by the route over which the early gold seekers scrambled their way, fighting the jungle and the climate and bartering with the headhunting cannibals.

The journey from the coast to the goldfields took porters at least a week—*if* they were lucky enough to make the distance.

Obviously the answer was air transport, but air transport in the mid-1920s was very much in its infancy, and certainly hadn't been put to the test of New Guinea's uniquely unattractive flying conditions.

Nevertheless, a former Government patrol officer named C. E. Levien took the plunge and founded the Guinea Gold No-Liability Company to fly supplies and equipment from the coast to the mountain goldfields.

On April 18, 1927, Captain A. E. Mustar made the first successful flight to the goldfields using a single-engined DH37. It was a noteworthy achievement. The Bulolo strip at an elevation of 2,300 ft. was fairly level, but the Wau strip was 3,500 ft. above sea level and built up a slope with a gradient of 8 per cent.

In 1928 two single-engined Junkers-W34s were introduced and by this time the name of the operating company had been changed to Guinea Airways Ltd.

The gold in the Bulolo Valley was alluvial gold. Individual prospectors panning along the steep, racing little creeks that fed the Bulolo River found their share of nuggets and slugs of gold.

But the main bulk of the gold was in the form of a fine dust scattered through a tremendous thickness of rich alluvial soil washed down from wherever the gold originated in the surrounding mountains and deposited by centuries of flooding waters in the Valley.

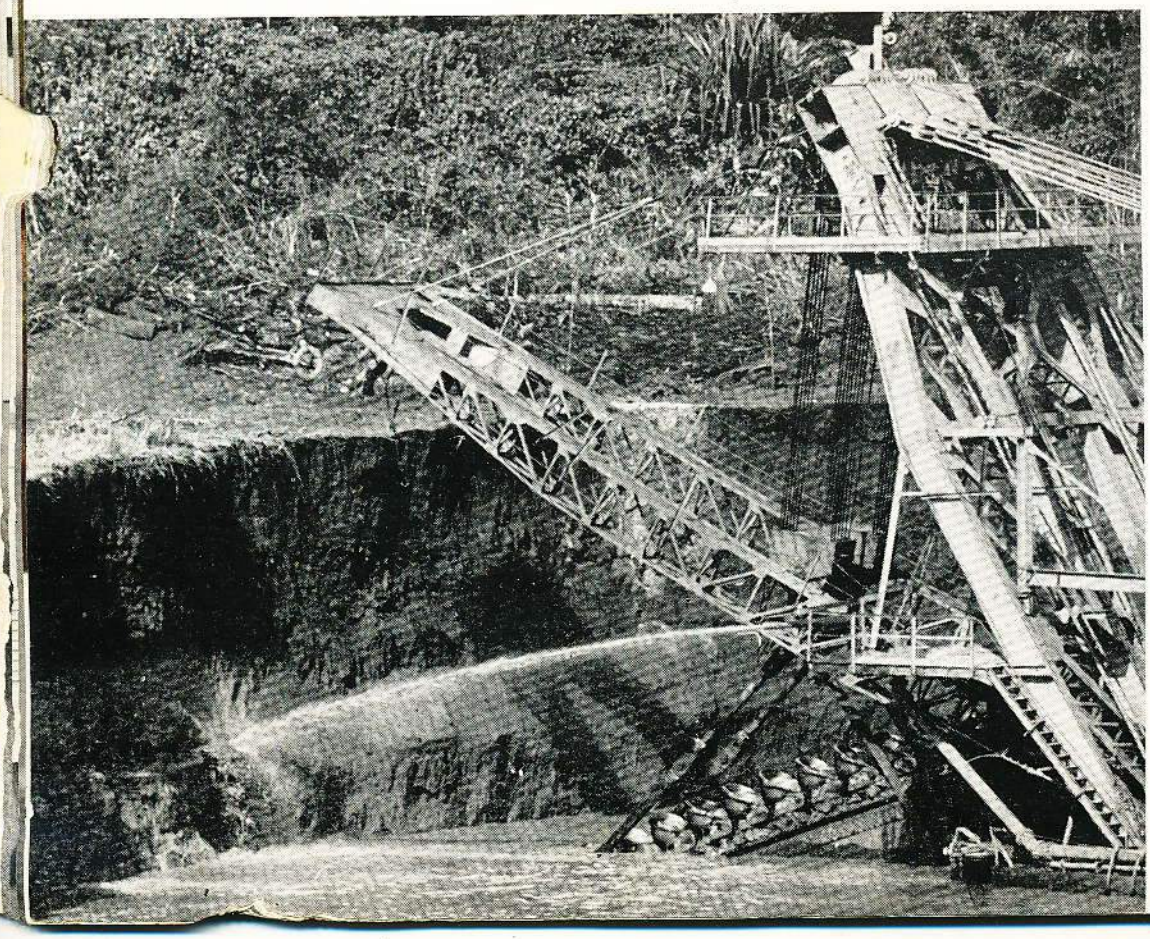
Winning this gold was not a job for the small operator. It called for large scale mass-production methods. There was a lot of gold, but it was mixed up with an infinitely greater amount of dirt.

The answer was dredging operations, with endless chains of great, one-ton buckets dredging up the soil, cubic yards at a time and washing the gold out of it. Basically, exactly the same principle as a lone prospector washing gold with his miner's pan—but on a vast scale.

During 1929 Bulolo Gold Dredging Ltd. took up the dredging areas and immediately faced the problem of getting their huge bucket dredges, plus a hydro-electric plant to power the dredges, from the coast to the goldfields.

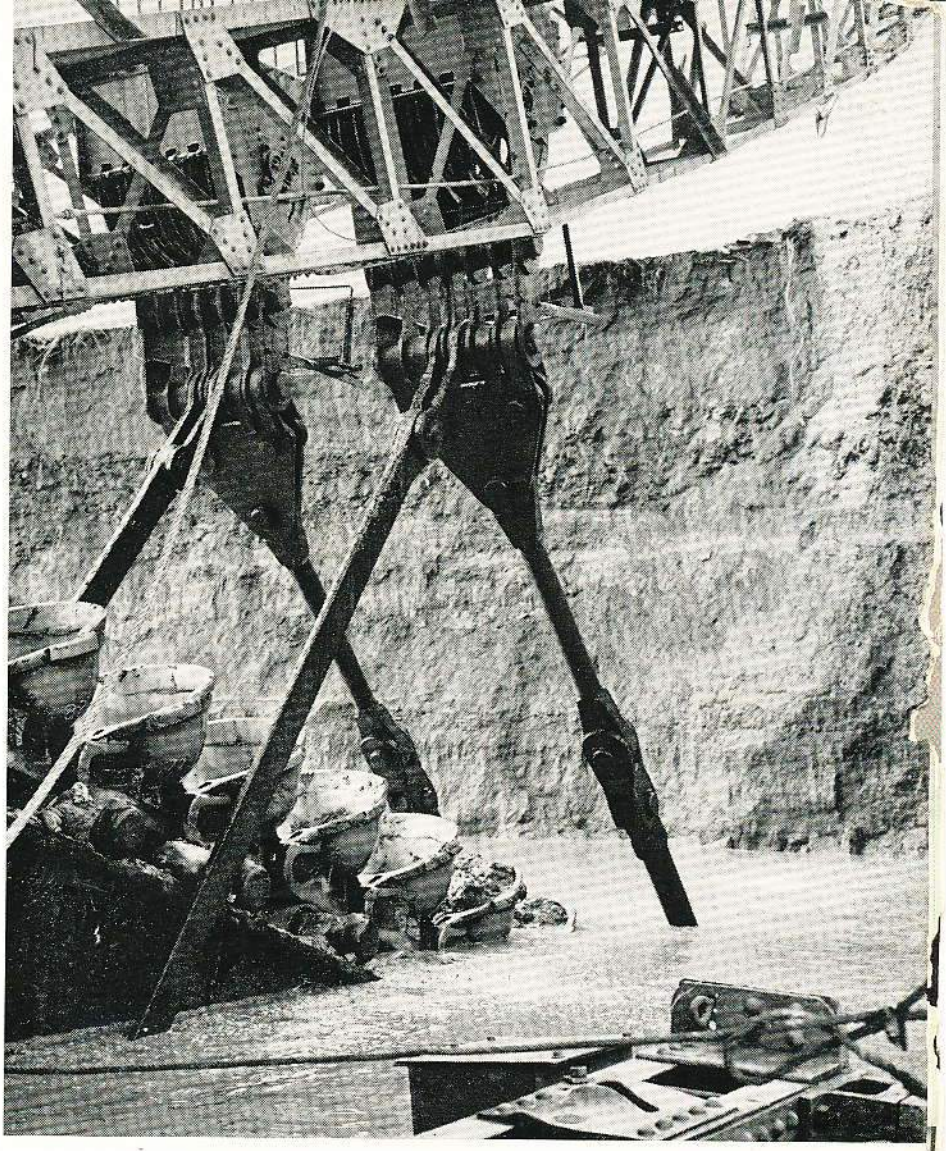
Junkers three-engined G-31 monoplanes were modified to carry 7,100 lb., and loading hatches, more like lids, were cut in the top of the fuselage—12 ft. long by five feet.

The dredges themselves were pre-fabricated so that they would break down into components making acceptable loads for these aircraft. The



It is almost incredible that this 400ft. long, 1,500 ton gold mining dredge could have been lifted into the remote Bulolo Valley entirely by air, and in the comparatively primitive aircraft of thirty years ago. Altogether eight such dredges were airlifted from coastal Lae to Bulolo.

Sawdust



Gold panning on a gigantic scale. Dredging involves exactly the same principles as a prospector panning for gold, but each bucket on the dredge's "ladder" weighs a ton, holds 10 cubic feet of gold-bearing soil at a bite, and there are 114 buckets on the ladder. About one shilling's worth of gold dust is extracted from each cubic yard of soil.

largest single components, impossible to break into anything smaller, were the dredges' main drive shafts, solid cylinders of machined steel each weighing more than three tons.

Between April, 1931, and March, 1932, the Junkers carried 2,500 tons into Bulolo and during this time Guinea Airways were carrying more air cargo in a single month than the rest of the world's airlines combined carried in the whole year.

The air lift continued over the years and at the peak of their operations Bulolo Gold Dredging Ltd. had eight dredges working in this gold-lined valley from which more than sixty-five million dollars have been won.

Today as the gold gradually peters out, only one dredge is still operating, and the company feels that there is at most only a couple of years work left for this one survivor.

However, long ago, the company foresaw the end of the gold and began looking round for another industry to take its place and prevent Bulolo from lapsing into yet another gold mining ghost town.

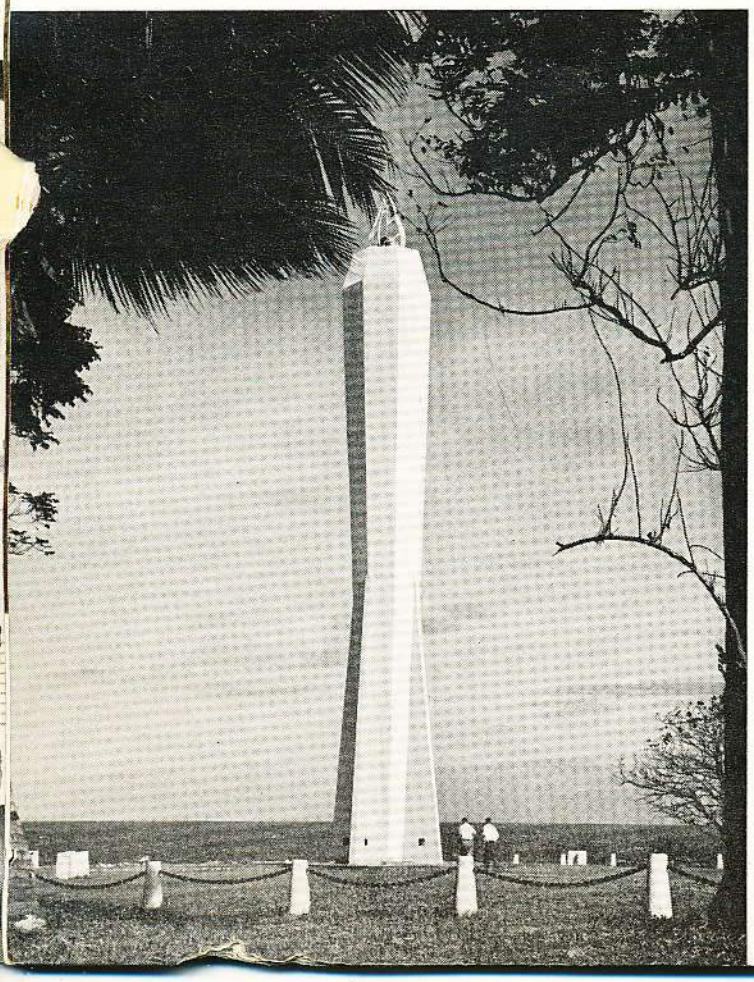
The answer was all around them—magnificent stands of towering, clean barrelled Klinkii and Hoop Pine trees, and a wealth of other fine timbers such as Cedar, Silkwood, Taun, Ash, Beech and Walnut.

In 1944 the work of post-war rehabilitation of Bulolo township and the gold dredging plant began and soon after a company was formed in which the Australian Commonwealth Government and the gold dredging company as equal partners set out to convert the valuable timber from the Klinkii and Hoop pine stands into high-grade plywood.

The new company was called Commonwealth-New Guinea Timbers Ltd. and its four-and-a-half-acres plywood mill was opened in January, 1954.

Logging operations are planned and supervised by Forestry Department experts, replanting of forests as they are cut ensures a perpetual timber supply, and Bulolo, the town that took inland New Guinea from stone age to air age almost overnight 30 years ago, doesn't look like becoming a ghost town for many a day yet.

Largest of the hundred-odd varieties of mammals found in New Guinea is the tree-climbing kangaroo, handsome in his rich coat of contrasting cream and chestnut fur. The tree-climbing kangaroo is distinguished by more powerful fore-legs and shorter hind-legs than his bounding Australian cousin.



The Coast Watchers' Light, near the entrance to Madang Harbour, is a memorial to the heroic Coast Watchers of World War II. Living a fugitive existence in jungle hideouts, the Coast Watchers spied on Japanese shipping movements and reported them by teleradio to Military Intelligence in the south. Many forfeited their lives.

Pick your

ONE of the "last frontiers" and certainly the most easily and comfortably accessible "last frontier," New Guinea has unlimited attractions for the tourist who prefers to stray from the beaten track.

The great main island of New Guinea and the hundreds of islands off its coasts all lie completely within the tropics. They offer any quantity of palm-studded isles and atolls, stretches of gleaming sand, coral reef and expanses of turquoise lagoons, all in the best South Seas Islands tradition.

There are small coastal ports with wonderfully "beachcombery" atmosphere and tough, tropical-looking characters in traditional tropical gear drinking long-cool or short-hard drinks in little bars that look to have been lifted straight from Somerset Maugham.

But there is an endless variety of other scene and climate more uniquely New Guinea's own.

You can take your climate in New Guinea as you best like it.

On the coast you can have it as hot as any salamander would wish. But an hour's flight inland opens up another world at altitudes of five or six thousand feet. Here the air is pure champagne and there is a uniformity of temperatures which range in the 60s and 70s and fall on cold nights into the 50s with even an occasional frost.

Higher up again, the lofty mountains can become bitterly cold as they rise in towering and broken peaks along the great central mountain spine.

By varying the altitude you can vary the weather to suit, and as New Guinea has more mountains than any similar sized area in the world it is not difficult to vary the altitude.

Scenically, the mountainous interior of New Guinea is magnificent. Most of it you will see only from the air. But if you intend to move around at all in New Guinea you will do so almost entirely by air—and from no other viewpoint can this inland scenery be so appreciated.

For in New Guinea flying you are not viewing the terrain from some jet airliner's 40,000 ft.; you are flying through and among the mountains and ridges.

The fauna of New Guinea is very rich and closely related to that of Australia with which the island was doubtless once connected. Bird-life is particularly rich, ranging from the great, ostrich-like cassowary with his glossy midnight-blue plumage, to the magnificent birds of paradise.

The flora, too, runs to thousands of species. In fact, there is probably no similar area in the world with more luxuriant vegetation and variety of species, ranging from such crops of economic value as sago, sugar-cane, sandalwood, coconut, high-grade timbers, nutmeg, tobacco, rattan cane, ginger,

own climate

bananas and bamboo to countless beautiful flowers and orchids.

But probably the greatest attraction and characteristic of the Territory are its native people. New Guinea offers an opportunity available nowhere else to see a whole race in the process of an accelerated transition from stone-age to machine-age, and as you move around the territory you can see people in every stage of this transition.

They are a wonderfully colourful people. They do, indeed, love colour. In the highlands you will see them at their colourful best, with ornaments of gleaming pearlshell or the polished tusks of wild boars, and magnificent headdresses of bird of paradise plumage.

But even the more sophisticated of them, behind a desk, driving a taxi, working in a factory in the coastal towns, will pay tribute to his native love of colour with a bright feather or a blazing hibiscus thrust in his hair.

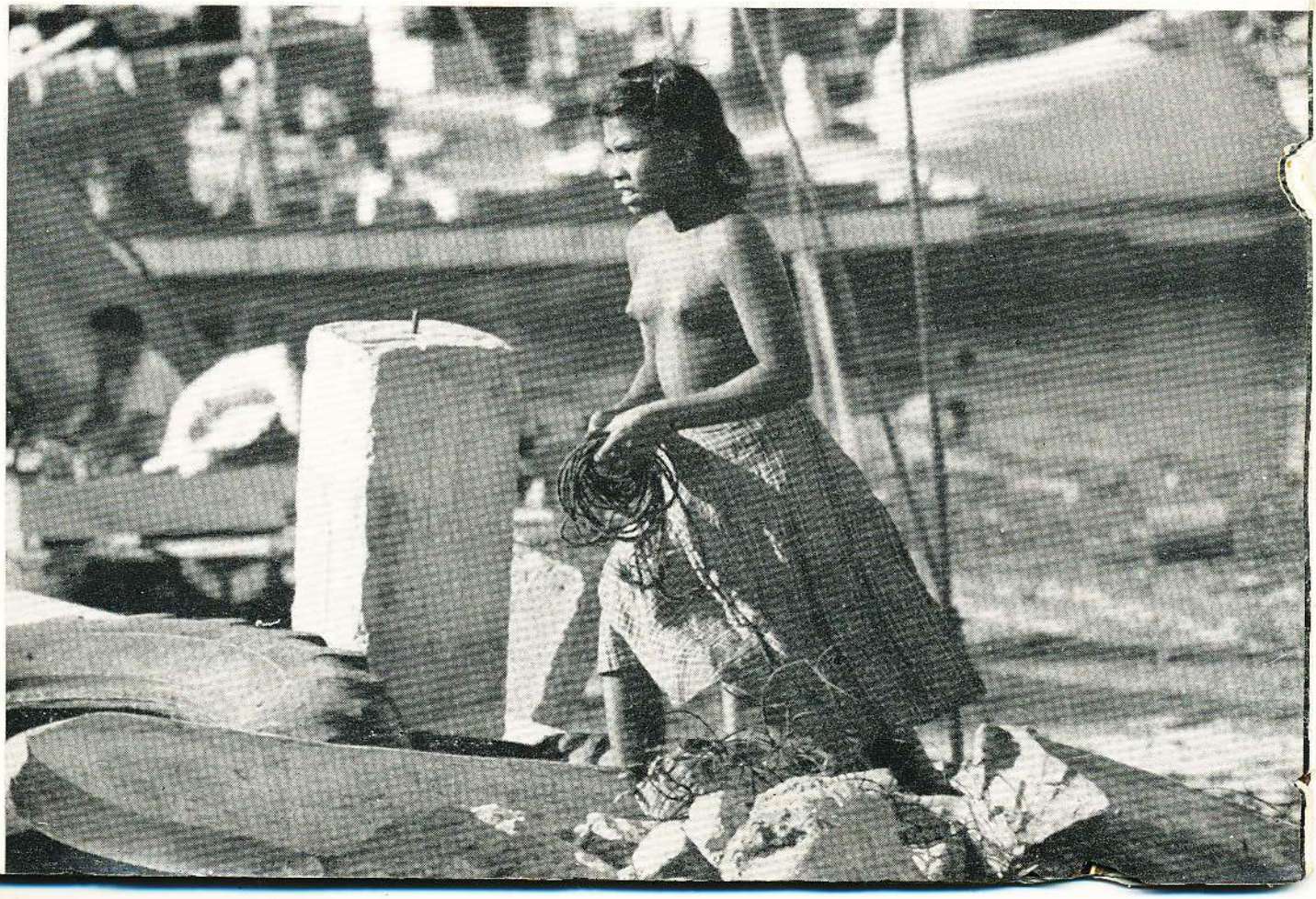
In general they are an unsophisticated people, capable of great loyalty, optimistic in their outlook, kind to their children and generous in their acknowledgment of merit in their fellows.

Their happy natures and love of colour find best expression in their ceremonial sing-sings, when hundreds of tribesmen from miles around gather to feast, sing and dance. Then, painted and bedaubed, bedecked in rare and brilliant plumage, they chant and stamp in traditional ritualistic dance to drums beating an ageless rhythm.

They are themselves as they have been for centuries.

Again that contrast—stone-age and machine-age. You see it everywhere in New Guinea and the two seem to co-exist side-by-side as harmoniously as they do in this picture snapped on the airstrip at Minj, in the Highlands between Goroka and Mt. Hagen.

At Koki near Port Moresby a floating village offers a strange form of community life. Each family lives in a hut-like cabin built across the twin hulls of a native catamaran canoe. At low tide the inhabitants can visit from canoe to canoe or fetch the family's supply of coconuts as this Papuan belle is doing.



. . . And so a patrol post

QANTAS first went to New Guinea to serve the Administration.

Over the years since then, while Qantas New Guinea Internal grew into a fully-fledged commercial airline, it continued to serve the Administration in countless ways.

Particularly interesting was the job of giving aerial support in the way of supply drops to the patrols which are constantly feeling their way into the remaining " uncontrolled " areas of the interior and supplying the Patrol Posts which they establish to open new areas.

One of the most remote, and the most recently opened of the Administration's Patrol Posts is Karimui in the Eastern Highlands.

Administration Press Advice No. 89, issued from the Administrator's Office in Port Moresby on June 16, 1960, gave the bald facts :

" A successful airdrop to a new Patrol Post at Karimui in the Eastern Highlands was made yesterday with 95% of the airdrop supplies being recovered.

" The Karimui Patrol Post is seven days walk from Lufa which is approximately 30 air miles south of Goroka and on the slopes of Mt. Michael. An airstrip suitable for C-class planes is being built at Karimui and it is expected that a Cessna will be able to land within three weeks. The new station is being built by Patrol Officer R. B. Aitken and Labour Supervisor H. W. Russell, and the Post will serve 6,000 primitive people. It is located at 3,000 ft. above sea level in an open valley which appears to have excellent agricultural prospects.

" The airdrop was made by a Qantas Otter flown by First Officer Williamson."

There was rather more to the story than conveyed by that bare recital, as we discovered when we had the good fortune to fly into Karimui in an Otter piloted by the same First Officer Williamson and making what was only the third landing to be made on the Karimui strip.

Probing patrols had visited the Karimui area a number of times. It was decided to establish a Patrol Post there, District Commissioner Seale explains, because the area presented something of a puzzle.

It is at the same altitude and among the same environs as beautiful Wau. It is fertile country and cocoa, coffee and other crops grow readily. Yet the area carries a very small native population.

The authorities wondered why.

They inspected natives carefully but saw no signs of the scars and wounds of tribal warfare that reduces population in some parts. So the Patrol Post has been established to investigate. A suspected reason is that it may be a very bad malarial area.

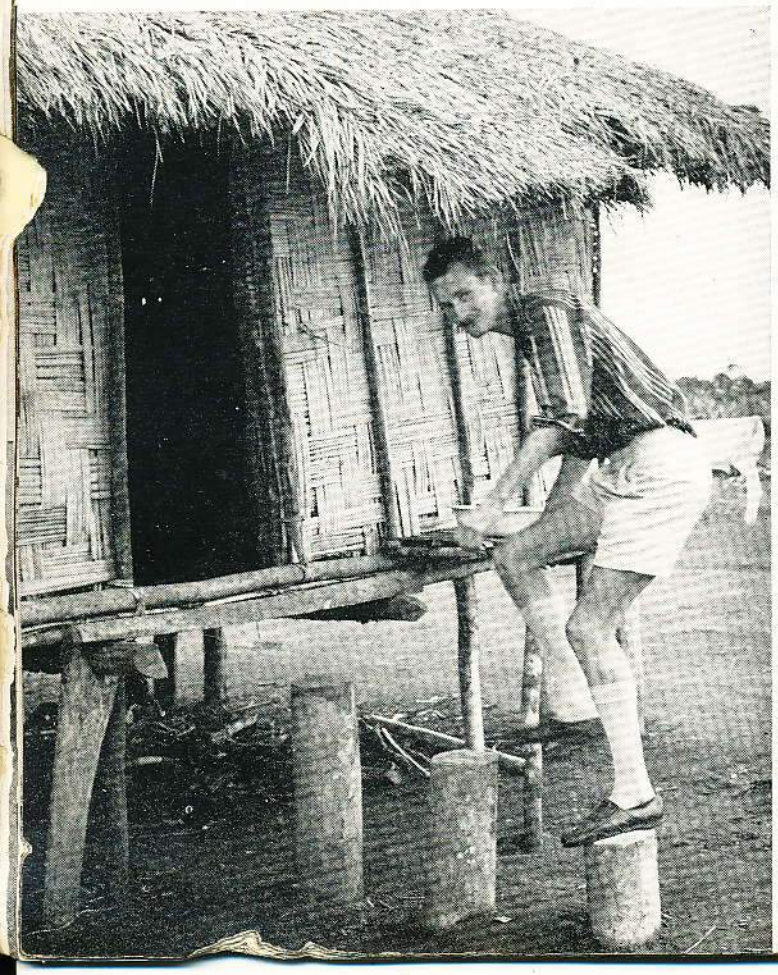
Native police " boys " were sent in to the site first to clear a compound and build the native-style huts which would be the Post's first home.

They were followed in by the main party of a dozen police boys, a European Patrol Officer and native medical assistants or " Doctor Boys," equipped with two or three weeks supplies, a short-wave radio, and a back-breaking load of silver coin to pay native recruits.

The walk-in took about 10 days and the term " walk " to describe getting around under one's own steam in this country is a classic understatement.

The flight followed a river through great ravines with cloud or mist above, below and on all sides. There was difficulty in finding the strip, but eventually a column of smoke from clearing and burning-off operations was sighted and soon after the strip came in sight—a gash of raw chocolate earth in the endless olive-green jungle, with a little cluster of huts in a small clearing on one side.

As the Otter landed and taxied to the edge of this clearing, seemingly hundreds of natives appeared from nowhere and trooped out to meet it. Towering among them were two white men. One, some six and a half feet tall, lean and wiry was Patrol Officer Aitken. The other, a burly piratical, red-bearded giant was " Blue " Russell who supervised construction of the strip.



Negotiating this native-style "stairway" comes easily to Patrol Officer Aitken, in charge of an Administration Patrol Post opened recently at Karimui in the Eastern Highlands. Patrol Officer Aitken and Construction Supervisor "Blue" Russell lived in this native hut for several weeks while the patrol post buildings and airstrip were being constructed.

is established

Only a few weeks at Karimui when we visited them, Aitken and Russell were living in native-style huts, built up three or four feet above the ground with walls and floor of woven split-cane and a Kunai grass thatched roof. The low doorway was gained via a flight of " steps " consisting of lengths of narrow-diameter timber, stuck upright in the ground. All furniture — beds, tables and chairs — were " built-in," their legs continuing down through the matting floor to a firm bedding in the earth beneath the hut.

An open fire burned in one corner of the hut in a shallow tray of sand ; there was no chimney, not even a hole in the roof, " Blue " Russell maintaining that the smoke kept the mosquitoes away.

Over cans of ice-cold beer from the refrigerator that had been one of the first things flown into Karimui, Aitken explained how the Post had been established and the work planned for the future.

Over on the other side of the strip, the timber framework of a very large European-style building was rising rapidly. (" I got a bit ambitious when I paced out the floor plan," Aitken says in laughing explanation of its size).

This will be the main Patrol Post building and home for the Europeans who will man the post. — the patrol officers ; a medical officer to study native health; agricultural experts to study the possibilities of growing various crops in the area.

Soon, Karimui will be a thriving little island of civilisation in the jungle—probably it is already.

But always—at least in the forseeable future—it will be one of the New Guinea outposts which owe their beginning and their continued existence to the aerial pack-horses which bring them virtually every item of their requirements.

Gold grows on trees . . .

NEW GUINEA'S rich soil, tropical climate and abundant rainfall combine to yield a treasure-box of valuable crops. Copra, rubber, tea, coffee, kapok and many spices are grown profitably. But more and more planters in suitable areas are pinning their hopes nowadays on cocoa.

Most of us think of cocoa only as the raw material for chocolate, but the cocoa butter produced from the cocoa beans has many important industrial uses ; much of it goes into the production of nitro-glycerine—an end far removed from chocolate making.

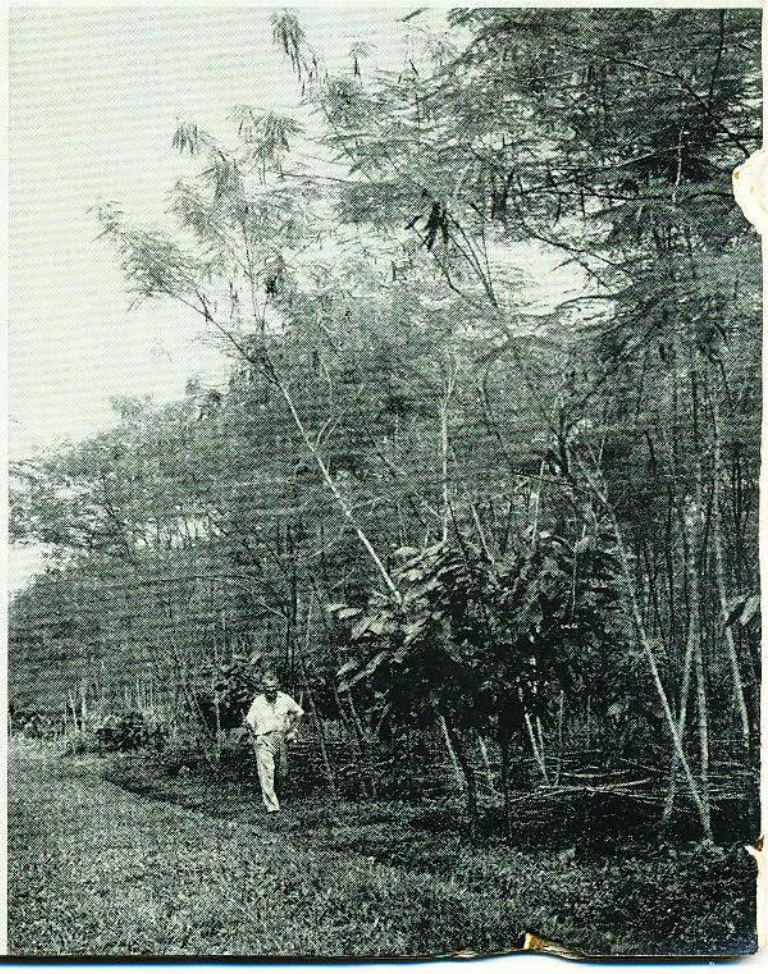
Typical of the new cocoa planters is big Tom Huxley, an Old New Guinea hand but a relative newcomer to the ranks of planters. Facing the open sea on the coast 30 miles from Madang, Huxley has carved his " Kailie " Plantation from the virgin bush and developed it into a model cocoa plantation in barely four years.

Tom gives unstinted praise to the Administration's Forestry and Agriculture experts for helping him to success. " I started from scratch and knew nothing," he says. " So I turned to the experts."

On a 700-acres plantation he has 200,000 cocoa trees at various stages of growth—some in production, some only a few months old. Already his consignments of cocoa beans have brought premium prices.

Keeping his fingers crossed, Tom Huxley says that if present market prices hold, each of his 200,000 trees will be returning him ten shillings a year when they reach full production in a few years time.

" Then I'll be ready to take a long trip round the world with Qantas," he says.



Planter Tom Huxley in a grove of the cocoa trees he has grown on a plantation carved from the coastal jungle near Madang. Cocoa trees relish heat, but not the burning rays of direct sunlight. So each cocoa tree has its own attendant shade tree which has to be grown before the cocoa seedling is planted.

Qantas crew members line up in front of Super Constellation "Southern Constellation" on the occasion of the last Qantas Bird of Paradise flight from Port Moresby to Sydney. Captain J. Morton (extreme left), who commanded "Southern Constellation" on the final flight, was a member of the crew of the DC3 which flew the first Bird of Paradise flight to New Guinea in 1945.

Friendly Farewell . . .

QANTAS is an old friend of mine. I think I first flew with Qantas in 1932, then occasionally until 1941.

During the war in the South-West Pacific area, actually in the war zone itself, I had a feeling of safety on the many occasions when I was carried by Qantas.

In all I have flown with them in some 16 different types of aircraft.

Since 1946 Qantas has helped the Administration to re-establish civil control and to pioneer this great but often inhospitable country.

Their air crews were often true explorers.

The Administration's patrols, penetrating into completely unexplored country, were supplied by air-drops, using and perfecting the "biscuit bombing" technique Qantas developed in supplying troops in this country in wartime.

On countless occasions they have flown in to meet emergencies, to collect the sick, even to flying inside the horribly destructive Mt. Lamington volcano so that our vulcanologist could predict its behaviour.

Qantas' association with the Administration has been close and friendly. There has been a friendly rivalry amongst the airline operators, and this, I believe, has helped to make for great efficiency so that the Territory of Papua and New Guinea must be one of the most air-minded countries in the world.

Reverting to the personal, it is a wrench to see Qantas go—the wrench one feels when losing a friend.

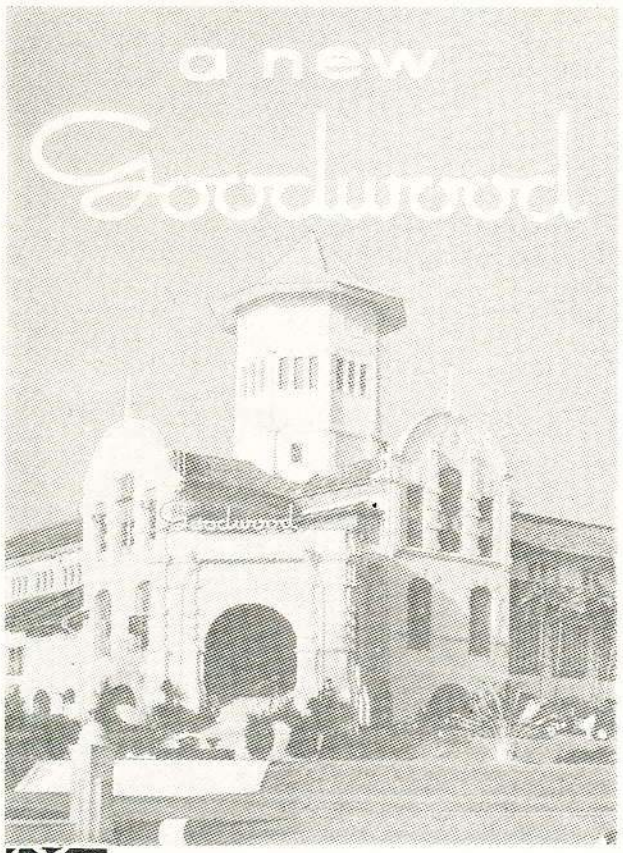
I have been flown many thousands of miles on many occasions, safely and without the loss or delayed delivery of one single piece of baggage.

My children were carried to and from school in Australia in vacation time with hundreds of others, with a smoothness of operation that in itself brought tremendous credit to an already much admired organisation.

Not only has the organisation seemed a friend but I have made a number of individual friends through it from its Western Queensland days and I know these friendships will endure.

When saying good-bye I can express, I am sure, the sincere thanks of the very great majority of the people of Papua and New Guinea for what Qantas has done for the territory and the way in which they did it.

—Dr. John Gunther, Assistant Administrator, Territory of Papua and New Guinea.



SINGAPORE'S LUXURY HOTEL

On an eleven acre site in the heart of Singapore's best district, near the smart clubs, Goodwood has been completely modernised and re-built. There is a magnificent tiled swimming pool and round-the-clock service. All rooms and suites are air-conditioned and in tasteful, contemporary design.

Visitors and guests can dine and dance nightly in Goodwood's luxurious, superbly equipped "Arundel Room". The food is the finest, and the wine list the most comprehensive, in Singapore.

GOODWOOD PARK HOTEL LTD.
SCOTTS ROAD, SINGAPORE, 9.
Telephone: 21-001 Cables: GOODPARK
IN SINGAPORE – IT'S NOW GOODWOOD

AFRICA

... today's must in every round-the-world itinerary!

Flying via South Africa costs

only £40* more

...takes in the length of the African Continent and Europe too!

In a round-world trip, an extra £40 is mighty little to pay to take in the world's most fascinating continent — Africa! Flying from Australia with South African Airways, you cover the length of the African Continent. Stopovers at route points and sightseeing trips are easily arranged in advance — see Kruger National Park, the fabulous diamond mines, native villages and modern cities, Victoria Falls — scenic wonders and high adventure you'll find nowhere else in the world. There are fresh business opportunities in prosperous South Africa, too! From Africa, S.A.A. offers you a choice of routes through Europe to London — no extra fare. See your travel agent or any Qantas office for full information and itineraries.

Weekly services, in association with Qantas, between Australia and South Africa.

SOUTH AFRICAN AIRWAYS

In association with Qantas, B.O.A.C. and C.A.A.

**There is a slight variation in fares from the various Australian Capital Cities.*

Contemplate as you Relax

Travelling in perfect comfort and relaxation in your Qantas plane, you are far away from the hustle and bustle of business affairs, and can turn your mind to more personal affairs.

Now is the time to think over your personal insurances, so take out a pen and mark off the different policies you have in the list shown below.

Perhaps you've missed out on the casual gardener, or overlooked adding that new jewellery purchase to your All Risks Insurance.

Whatever you have overlooked, make a note of it now and contact us on your return.

On all these insurances our advice is at your service.

Motor Vehicle
Camera All Risks
Traveller's Baggage
Personal Legal Liability
Householder's Comprehensive
All Risks (Jewellery and Furs)
Gun Insurance
Personal Accident
Golfer's Comprehensive
Houseowner's Comprehensive
Domestic Workers' Compensation
All Sickness, Disease & Accident

Marine Insurance on Yachts and Motor Boats

HARVEY TRINDER

(N.S.W.) PTY. LIMITED

Insurance Brokers

R. Keith Yorston, Chairman
H. R. Watson, Managing Director

267 George Street,
SYDNEY
B 0546

AND AT
NEWCASTLE, WOLLONGONG, DUBBO, BRISBANE, MELBOURNE
PERTH, ADELAIDE, HOBART, LAUNCESTON AND PORT MORESBY

Insurances at Lloyd's and Companies

THE FLIGHT QANTASTIC

A popular passenger game on Qantas flights is trying to find words to describe the superlative service and cuisine. A whole grab-bag of adjectives wouldn't suffice because they've been used before for lesser delights than the exhilaration of Qantas travel. In all the languages of the 5 continents and 26 countries enjoying Qantas service, there isn't a word to do justice to it. Let us just call it QANTAS-tic!

QANTAS

Australia's Round-World Airline

QANTAS, in association with Air India, B.O.A.C., S.A.A. and TEAL

Q8.94.70

CLEAR FOR TAKE-OFF ! Every five seconds throughout the world this short, sharp phrase signifies the ever-exciting departure of an aircraft on an international flight. One in every three of the aircraft is fuelled by the Shell world-wide Aviation Service, because operators know they can be sure of Shell, whether it be in New York or New Guinea. Shell Aviation services the almost endless chain of airfields that are linking and shrinking our modern world.

SHELL

AV 60/1

THE SHELL COMPANY OF AUSTRALIA LIMITED.