

# BRISTOL 170



## IN AUSTRALIA

by G. Goodall

The Bristol 170 Freighter was originally conceived as a private venture in 1944. Initially it was regarded as something of a Bombay replacement for the RAF, but with the end of the war imminent the design was reappraised for the civil market. The original Perseus engines were replaced with the readily available, and more powerful, Hercules engines, enabling the gross weight to be increased from 30,000lb to 35,000 lb, and giving better operating economics. Its all-metal rugged construction was designed for low initial cost and minimum operating costs. For similar reasons a fixed undercarriage was fitted. Two versions were planned for production: the Series I Freighter, capable of carrying 4½ tons of cargo, loaded through large clamshell nose doors and a large door in the rear fuselage; and the Series II Wayfarer passenger model, without nose doors, but with extra windows and capable of carrying up to 36 passengers.

When the prototype Bristol 170, G-AGPV, first flew at the Bristol Aeroplane Company Ltd's plant at Filton on 2 December 1945, it became the first new civil transport of the post war era. Flight testing proceeded quickly, and after lowering of the tailplane and increasing its span to achieve design aims with respect to longitudinal trim, a full Certificate of Airworthiness was awarded on 7 May of the following year.

During 1946 Bristol sent early production Freighters on sales demonstration tours throughout Europe, the Middle East, Canada and South America. The next year a second series of demonstration tours were undertaken to Africa and Australasia. Freighter Mk.IA, G-AIMC,

named *Merchant Venturer*, departed Filton for Australia on 20 March 1947, only six days after receiving its British CofA. The company pilots and sales team on board had flown the previous year's tour to South America. After extensive demonstrations en route and in Australia, they flew on to New Zealand in July for a two week tour during which the Bristol carried two tons of wire and a complete house removal across the Cook Strait between the North and South Islands. This New Zealand visit was to lead to the purchase of Bristol Freighters by Straits Air Freight Express (SAFE Ltd) when that company commenced operations in 1951 on a freight ferry service between the North and South Islands for the New Zealand Railways. Their fleet later grew to become one of the largest Bristol Freighter fleets in the world, and as SAFE-Air Ltd, still currently have 11 Freighters in full service alongside turboprop Armstrong Whitworth Argosies.

The Australian agent for the sales tour was Overseas Corporation (Australia) Ltd, Melbourne. Their Aviation Division was formed in September, 1946 under Aviation Manager Wing Commander G.D. Nicholl, DFC to represent large British companies including Bristol. G-AIMC returned to Australia from New Zealand in August 1947 and in October was leased to Qantas Empire Airways Ltd for evaluation for freight work on their internal services in New Guinea. G-AIMC was flown from Sydney to Lae early in October by the Bristol demonstration pilots, accompanied by QEA Senior Captain R.O. Mant. The Bristol was put into service on a series of freight runs into the notorious sloping airstrip at Wau, and was written off here shortly after on 23

October 1947. The pilots found that the slope of the airstrip caused the fuselage to distort due to the tilt of the ground when they parked sideways at the top, and they experienced great difficulty opening and closing the nose doors. So on later landings at Wau they taxied at higher power to the top of the strip and then stopped facing straight ahead with the wheels carefully chocked. On 23 October while stationary with the engines shut off, the park-brakes failed and the Bristol moved back, jumped its wheel chocks, then rolled backwards down the 1 in 12 gradient. It came to rest wrecked at the bottom of the airfield on a road, where its fuselage still rests today used by natives as a boi house. The aircraft had logged a total of only 250 hours.

Australian National Airways Pty Ltd were very interested in the Bristol 170 for their freight operations, particularly across Bass Strait from Melbourne to Tasmania. Through Overseas Corporation (Australia) Ltd, ANA arranged for an initial 3 month lease of a Freighter with view to purchase if it proved satisfactory. A brand new Freighter Mk.21E G-AICL departed Filton in November 1948 on delivery to Melbourne by an ANA crew under Captain F.T. Patterson. The aircraft was ferried out in ANA markings but retained its British registration markings, and upon arrival at Essendon entered ANA service on the Melbourne-Tasmania freight run.

The Bristol was an immediate success, and as ANA were anxious to take advantage of the current freight boom, they purchased G-AICL and placed orders for two second-hand Freighter Mk.21Es for delivery in 1949. ANA's greatly increased freight capacity would affect rival Ansett



**OPPOSITE PAGE.**

Australian National Airways Pty Ltd's first Bristol 170, a Freighter Mk.21E, thunders into the sky on yet another freight hauling trip across Bass Strait.

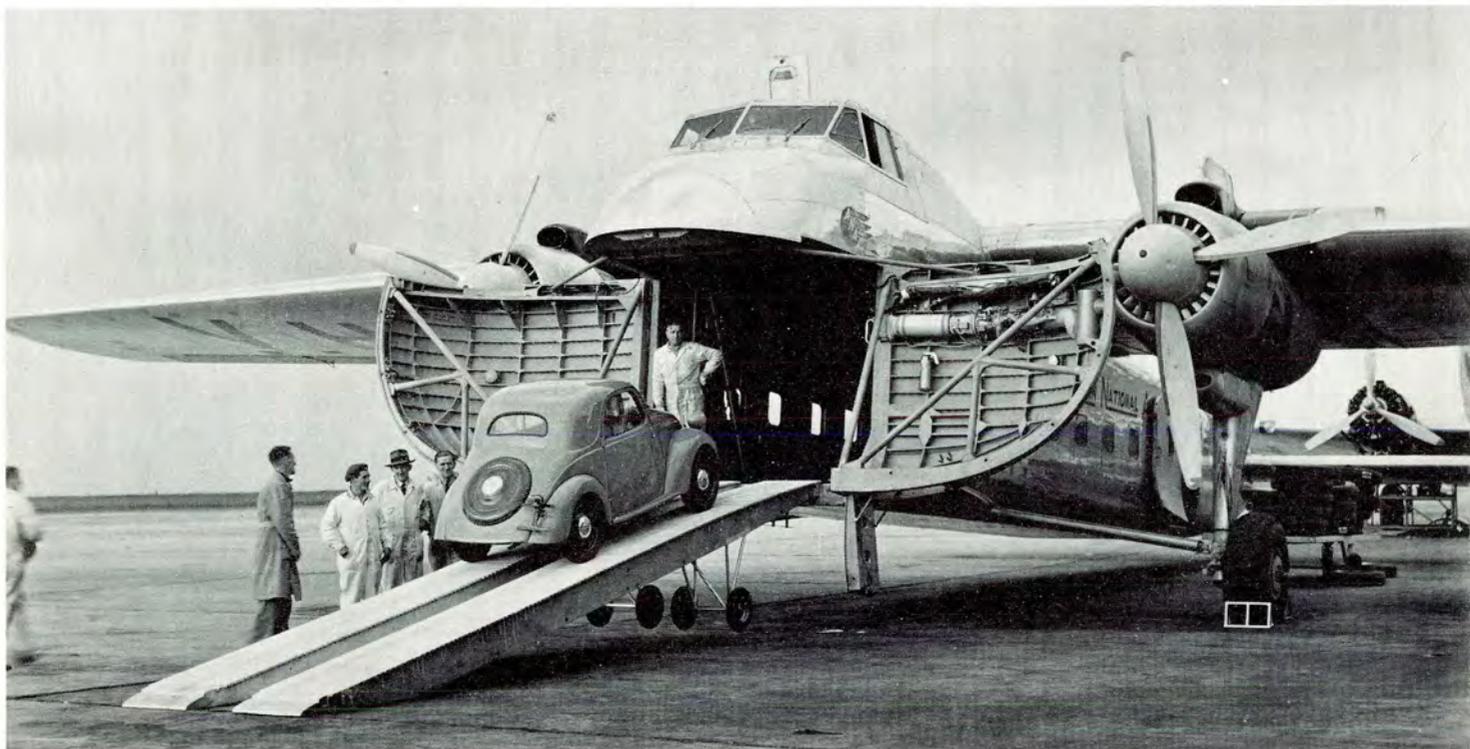
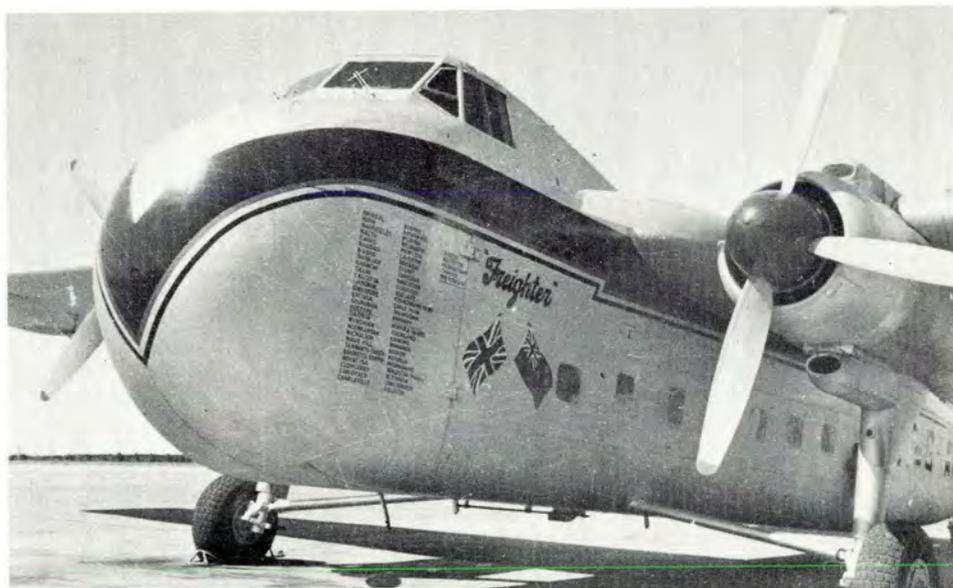
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**TOP:** The first Bristol 170 in Australia was Bristol's demonstrator, G-AIMC, which undertook a sales tour of Australia and New Zealand in 1947. It was destroyed at Wau, New Guinea, in October when the brakes failed and it rolled backwards down the notorious 1-in-12 gradient airstrip.

**CENTER:** The nose of G-AIMC adorned with the names of places visited on its sales tour.

**BOTTOM:** An innovative design feature of the Bristol Freighter was its large clamshell doors which allowed freight to be loaded straight in the nose and permitted the fuselage cross-section to be fully utilised. This Fiat Coupe is being flown to a Hobart buyer who grew impatient with one of the strikes that brought Bass Strait shipping to a standstill.

(All photos Hopton Collection)





Airways who were enjoying excellent loadings by daily removing passenger seats from their DC-3s for night freight services. TAA however was unconvinced in the profit value of specialist freight operations and concentrated on passenger services with freight mainly being carried in the holds of their scheduled passenger aircraft services. ANA repainted G-AICL as VH-INJ at Essendon in April, 1949 and the aircraft was named *Pokana* (Aboriginal for heron). It continued to fly on its British CofA until 23 November that year when the Australian CofA was issued. Shortly afterwards it was to be the first aircraft to land at Melbourne's new Moorabbin aerodrome when the Bristol suffered engine trouble soon after departure from Essendon for Tasmania. A safe precautionary landing was made at Morabbin, which was still under construction at the time.

ANA's other two Freighters arrived in Melbourne

late 1949 after ferry flights from England, to become VH-INK *Kiopana* (depart quickly) and VH-INL *Mannana* (above the earth). Both had very active backgrounds:

VH-INK had flown a 1946 demonstration tour of Europe and Middle East as a Wayfarer Mk.IIA, G-AHJC, followed by a spirited display at the 1946 SBAC Air Show at Radlett. It then returned to Filton for conversion to Freighter Mk.I standard and was flown by the manufacturer for over a year on engine development trials. In July 1948, G-AHJC was leased to Silver City Airways for the Berlin Airlift, during which it carried 141 tons of freight to Germany in 38 sorties. It then returned to Bristols again in September, 1949 for sale to ANA and conversion at Filton to Mk.21E standard.

VH-INL had operated for two years under ex-

treme climatic conditions in Ecuador as HC-SBM as one of a pair of Freighter Mk.IAs owned by Shell (Ecuador) Ltd. They were fitted for supply-dropping and had extra low-pressure tyres for landing on unprepared airstrips at Shell Mera, the Shell Company's high altitude oilfield. The project was abruptly ended early in 1949 by a severe earthquake and HC-SBM returned to Filton 9 March 1949 for conversion to Mk.21E and sale to ANA.

The three ANA Bristol Freighters flew scheduled cargo services from Essendon to Sydney, Launceston, Hobart and Devonport. One early incident occurred on 21 March 1950 when VH-INL, under the command of Captain I. Rushworth, swung off a taxiway at Launceston and struck a taxiway light which damaged the underside of the fuselage. It was ferried back to Essendon five days later after repairs.



## RAAF FREIGHTERS

The final Australian Bristol 170 order negotiated through Overseas Corporation (Australia) Ltd. was for three new Freighter Mk.21E's for the RAAF. The first aircraft, A81-1, arrived at Laver-ton RAAF Station on 14 April 1949 for initial evaluation by ARDU (Aircraft Development & Research Unit). It was used to transport troops to the NSW coalfields in July and August of that year during the major coal strike, then issued to No.34 (Communications) Squadron at Mallala RAAF Station near Adelaide, where it joined A81-2 & -3 which had arrived there together on 5 May after being ferried from England by an RAAF crew. Their main task was providing support for the Long Range Weapons Research Establishment in the north of South Australia. As Woomera became more established, increasing transport demands led to a fourth Bristol being obtained two years later.

This last RAAF Freighter Mk.21E,A81-4, was a second-hand machine, having been originally completed as a Wayfarer Mk.IIA at Filton in November 1946 and delivered to Bharat Airways, Calcutta as VT-CGX. It flew passenger and cargo services in India until October 1950, when it returned to Filton, to be converted to Freighter Mk.21E standard, under British Class B markings G-18-13. The aircraft was then sold to the British Ministry of Supply for issue to the RAAF for the Woomera supply run. Like the previous three RAAF Bristols, this aircraft was issued with a British military serial for administrative purposes, becoming WW378 on 28 August, 1951. It immediately departed Filton for Australia, carrying as cargo the first RAAF Bristol 171 Sycamore helicopter, A91-1, which was to be based at Woomera. On arrival at Mallala on 10 September, the Freighter entered RAAF service as A81-4 (named for a time *Rudolph*) although the British serial WW378 was still under its wing three years later.

A81-2 was lost on 25 November, 1953 when it crashed near Mallala and its 3 crew were killed. The aircraft had been on an instrument flight training exercise and was returning to Mallala when the port wing broke away in flight; the Bristol crashing into a wheatfield two miles from the base and being burnt out. The crash set the field alight, and the RAAF firecrew from Mallala had to extinguish the wheat fire to get to the main wreckage. The port wing was found a half mile away. Sections of the crashed aircraft were sent to the Aeronautical Research Laboratories in Melbourne for investigation into the cause of the structural failure, which was believed to have resulted from earlier overstressing during unauthorised aerobatic manoeuvres.

The remaining three RAAF Freighters maintained a regular courier service to the Woomera Rocket Range alongside Avro 19, Percival Prince, Vickers Viking and Dakota aircraft of the Range Air Taxi Service. When No.34 Squadron was moved from Mallala to Canberra in 1955 to become the

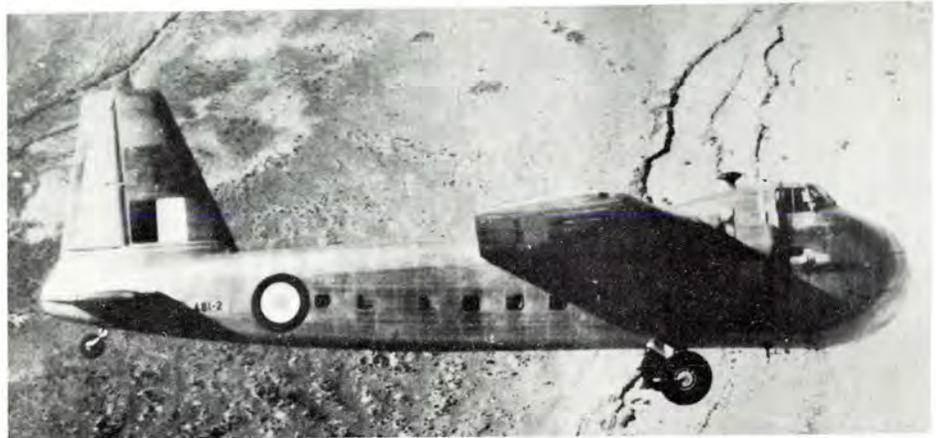
### OPPOSITE PAGE

TOP: A fine shot of ANA's first Bristol Freighter (Bristol Aeroplane Co.)

BOTTOM: The RAAF's third Bristol 170 served from 1949 to 1967. After being withdrawn from service it languished briefly before being registered as VH-SJQ for Jetair Australia, with whom it served before going to Air Express on 10 May 1975 when it crashed into Bass Strait. (RAAF Official)

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The RAAF's four Bristol Freighters. The type saw nearly twenty years of service with the RAAF. (Photos Goodall and Hopton Colls)



RAAF's VIP Squadron, the Bristols were attached to the Air Trials Unit, Detachment A, at Mallala until 1958, when the base was closed down and they were transferred to No.2 Air Trials Unit at nearby Edinburgh RAAF Base. They continued their courier service from Edinburgh to Woomera for the next nine years, although they were occasionally allotted other transport duties. A81-1 carried an aircraft engine from Laverton to Richmond on 5 August 1964 and on 28 October that year flew personnel of the RAAF Staff College from Point Cook to Canberra. A81-3 was operated for a period by No.86 Transport Wing at Canberra, in a scheme of blue fuselage band, red nacelles and white tail; and A81-4 made a rare visit to Essendon on 23 March 1964 to pick up a freight consignment.

Early in 1967 A81-4 was damaged on the ground at Woomera during a savage wind storm. The aircraft was violently rocked on its undercarriage, and the mainplane warped. The Bristol was dismantled and trucked back to Edinburgh where it was found to be beyond economical repair. In May, 1967 No.2 ATU withdrew A81-1 and A81 3 from service on the Woomera supply run, and two months later the type was officially retired by the RAAF and placed for disposal through the Department of Supply. They were both held at Edinburgh awaiting sale, along with the dismantled A81-4.

### AIR BEEF SCHEME

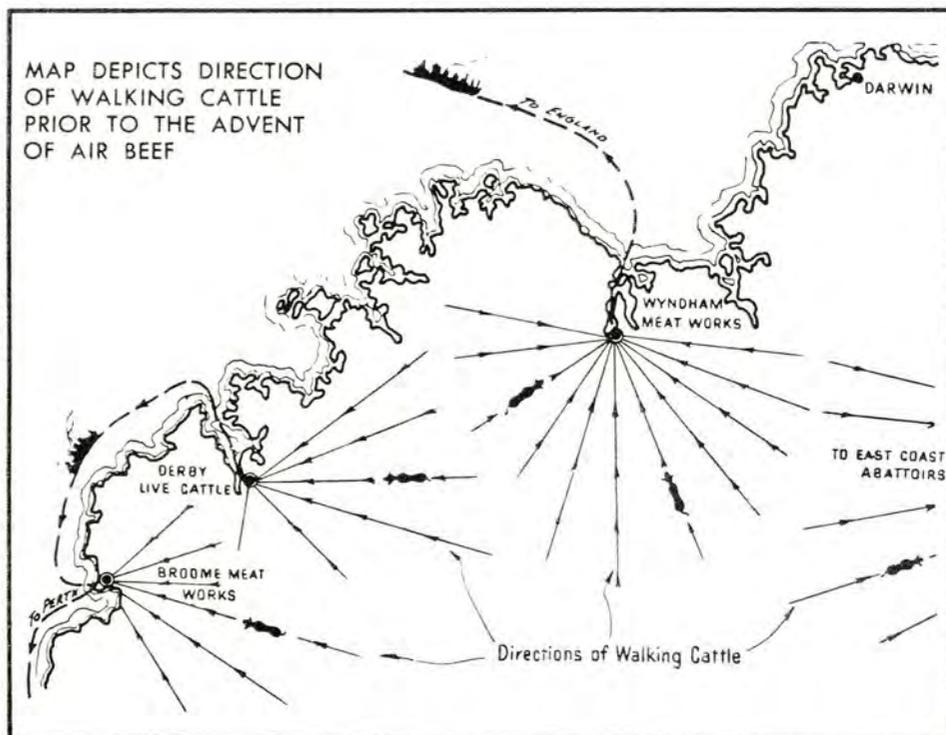
Perhaps one of the best known roles of the Bristol Freighter in Australia was its use on the Air Beef Scheme in northern Western Australia. This scheme for the aerial transporting of freshly killed beef from inland abattoirs to coastal shipping ports was the fruition of a dream of ANA's Planning & Development Manager Ian H. Grabowsky. He had come to Australia in 1919 after a distinguished RAF record during World War One, and had become Chief Pilot of Guinea Airways Ltd before joining ANA. Guinea Airways had pioneered large scale aerial freighting in the early 1930s long before it was considered practical anywhere else in the world, and it was in the New Guinea Highlands that Grabowsky first experimented with the aerial transport of beef.

Soon after joining ANA in Melbourne he put forward a plan to the Australian Government for air-freighting beef in the remote northern areas of Australia. The proposal included a detailed report on estimated costs which he had investigated personally on large cattle stations in the Northern Territory, and the Kimberley district of northern WA which covered 130,000 square miles (1½ times the size of the State of Victoria) of desolate country dotted with cattle stations with huge grazing land holdings. Although widespread support was gained from pastoralists for the proposal, the Government could not be convinced of its economic viability and nothing eventuated at that time.

At the end of World War Two Grabowsky again proposed the scheme, and during 1945 he sent two questionnaires to all Kimberley cattle stations. The replies confirmed his beliefs, and with the support of the WA State Government he developed detailed plans for the operation of the scheme. Air Beef Pty Ltd was formed in November 1948 with an initial capital of 15,000 subscribed jointly by ANA, a group of Kimberley pastoralists, and the WA airline, MacRobertson Miller Aviation Co. Pty Ltd who operated through the area on their Perth-Darwin DC-3 airline service. The WA Government made an interest-free loan of 10,000 to help establish the inland meatworks, and 'Glenroy' Station located in the heart of the Kimberleys was



ANA's second and third Bristol Freighters were VH-INK and VH-INL, seen in their early austere colour scheme, which was probably rather appropriate for their unglamorous duties on the Air Beef run, and their regular freighting duties. (Hopton Collection)



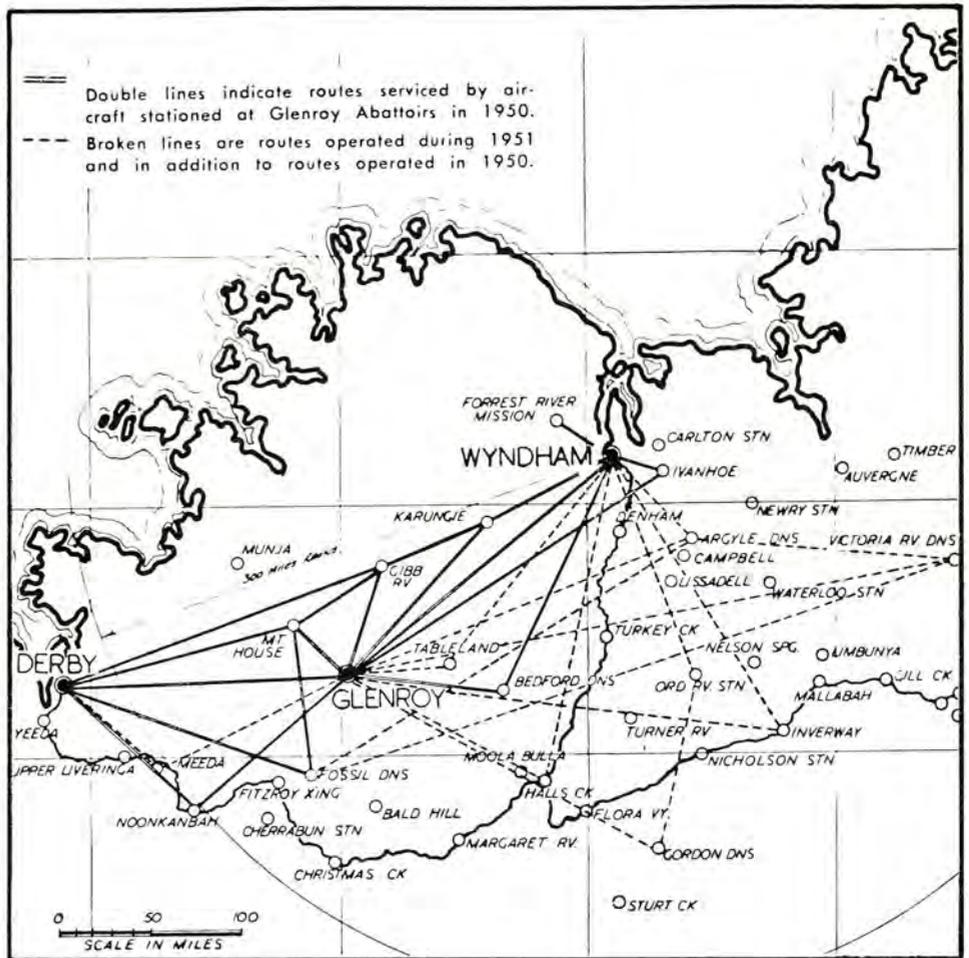
chosen as the site. Until then Glenroy and its neighbouring cattle stations had had to drive their stock on a gruelling month long 300 mile overland journey to the meatworks and port at Wyndham, with the inevitable losses of stock en route and drastic reduction in quality of the beef.

Parts of the Glenroy abattoir were shipped from Perth to Derby, then flown to Glenroy Station by an ANA DC-3 freighter, especially brought from Melbourne. Cement, steel girders, iron, chilling plant and machinery were all flown in, and hand-picked workmen flown from Perth, commenced building the meatworks on 2 January 1949. A bore was sunk to 135 feet to provide water, and cement bricks were made on the site, some 4 miles from the Glenroy Homestead. Construction proceeded to schedule through difficult conditions during the summer wet, with high temperatures and 25 inches of rain. Grabowsky and the owner of Glenroy Station, Mr. Gordon Blyth, who was also Managing Director of Air Beef Pty Ltd, personally supervised and helped in the construction of the meatworks.

Meanwhile MMA, who had agreed to provide the first aircraft for the Air Beef Scheme, had purchased a RAAF Dakota, A65-41, from disposals at RAAF Station Tocumwal, NSW and it departed, on delivery to Perth, on 4 February 1949. After civil conversion it became DC-3 freighter VH-MMF. In May the DC-3 was flown to Glenroy to commence the initial 3 month trial season, and on 13 May 1949 VH-MMF flew the first Air Beef sortie from Glenroy to Wyndham. The aircraft quickly settled into regular operation, flying 7,000 lb of chilled and quartered, freshly-killed beef to Wyndham in 90 minutes; two trips daily for five days a week. At Wyndham the meat was taken in trucks to the local abattoir for grading before being shipped to overseas markets. Various loads of stock food, fencing wire, machinery etc. were carried to station properties on the return flights south from Wyndham as back-loading.

The 1949 Season was considered a success. It was the first commercial aerial transport of meat anywhere in the world, apart from Venezuela where Bristol Freighters had been used to carry freshly killed beef for local consumption on a 40 minute flight in low temperatures over 10,000 feet mountains. Improvements costing 16,000 had been made to the Glenroy abattoir with the aim of processing 5,000 head of cattle during the 1950 Season. With their larger capacity, the ANA Bristol Freighters were the ideal choice, and VH-INL was positioned from Essendon to Perth, then departed Perth for Glenroy on 29 April 1950 carrying 7 crew, a spare engine and parts, and several beds. Also carried were 40 pigs which the ANA Managing Director, Captain I.N. Holyman, had purchased to establish a new stock industry in the Kimberleys to be fed by-products of the abattoir. The Bristol commenced flying the 1950 Air Beef Season in May, and operated two return flights to Wyndham daily, 7 days a week, as well as many extra flights. The nose-opening doors were a great advantage in loading the carcasses, which were run out of the station abattoirs on adjustable rails positioned up to the nose of the aircraft. Over the of Bristol Freighter operations VH-INL flew 588 hours, uplifting 2,877,235 lb of beef. An example of the high utilization achieved by the Bristol is given in Air Beef Pty. Ltd. records which show one Saturday's operations:

Glenroy-Derby:	11,000 lb hides
Derby-Glenroy:	6 tons stores, wire, horse feed, timber
Glenroy-Wyndham:	11,000 lb beef
Wyndham-Glenroy:	4,000 lb back-loading



Glenroy-Derby:	6 tons hides
Derby-Nookanbah:	10,000 lb stores, including 21 drums petrol

This single day's operation flew 986 nautical miles, carrying 61,683 lb freight. After over-nighting at Nookanbah Station, the Bristol departed at dawn next morning for Glenroy with 104 live sheep for the Glenroy abattoir.

The 1950 Season ended in October and was again a success. Air Beef Pty Ltd had more than doubled the numbers of cattle marketed from Glenroy and its neighbouring properties. Without the drastic effects of overland driving, the cattle were killed at an average weight 80 lb higher per head, and in the first Season of Beef Air 50% of beef was passed as first class export quality compared with less than 25% as in the past. ANA's Captain Ivan Holyman wrote in early 1951: "The results have proved our faith in the scheme beyond question. Already benefits accruing from air transport in the Kimberley region of North West Australia have become clear. Pastoralists have secured an effective market for their beef; they are being given incentive for the improvement of their properties; new amenities of living have been introduced."

Bristol Freighters VH-INJ & INL flew the 1951 Air Beef Season which commenced on 7 May 1951. Increased back-loadings and charters were arranged for the Bristols to many far flung properties in the Kimberleys and the Northern Territory, including Bedford Downs, Karungje, Argyle Downs, Gordon Downs, Moola Bulla, Victoria River Downs, Ord River, Tableland, Meeda, Gibb River, Ivanhoe, Inverway. One important charter was to carry 20 live, wild herd bulls from Fossil Downs Station to Mount House Station, the 30 minute flight avoiding a 3 week overland trek.

All 3 ANA Bristol Freighters were licenced for operation by Air Beef Pty Ltd during the next two seasons. From 1954 MMA took over again with a specially converted windowless DC-3 freighter, VH-MML, purchased in England (ex G-ANMA) and the Bristols were not used again. The quantity of beef carried gradually decreased as the Australian Government built the first of the network of Beef Development Roads throughout the Kimberleys and the Northern Territory to finally allow road transport of live stock from the properties to Wyndham. The economics of road-trains were naturally much better than aerial freighting, and Air Beef Pty Ltd was finally wound up in 1960.

ANA Pty Ltd was bought by Ansett Airways Pty Ltd on 3 October 1957, becoming Ansett-ANA. The 3 Bristols continued on their freight services from Essendon still in all-over metallic scheme. However, air freight loadings had dropped dramatically, particularly to Tasmania where shipping services had finally provided adequate freight capacity across Bass Strait. VH-INL & -INK were retired at Essendon by early 1959, and in August that year VH-INJ had a major overhaul there and was repainted into Ansett-ANA's red, white and blue colour scheme to continue in service as their sole Bristol. Finally VH-INJ was also retired on 26 June 1961 at the end of its last trip from Hobart to Essendon. It had logged the highest total airframe time of any Bristol 170 in the world at that time — 26,000 hours. Its wings and engines were removed the following month, and it joined its two similarly stripped sisters VH-INK & INL in the Essendon graveyard. Ansett-ANA had by now purchased much younger Pakistan Airforce Bristol Freighter Mk.31Ms to replace these aircraft, and the original trio were scrapped at Essendon during September, 1961.



**TOP:** Aerial Agriculture's VH-AAH loading superphosphate at Cootamundra in 1958.

(B. Dannecker)

**CENTER:** VH-AAH painted in Patair markings in anticipation of a leasing arrangement to Papan Air Transport Ltd of Port Moresby. The deal fell through and the aircraft never operated with this company. (Hopton Collection)

**BOTTOM:** "The Cornflakes Express". VH-AAH now owned by Pacific Aviation Ltd. at Llanherne, Tas., in September 1961. (Hopton Collection)

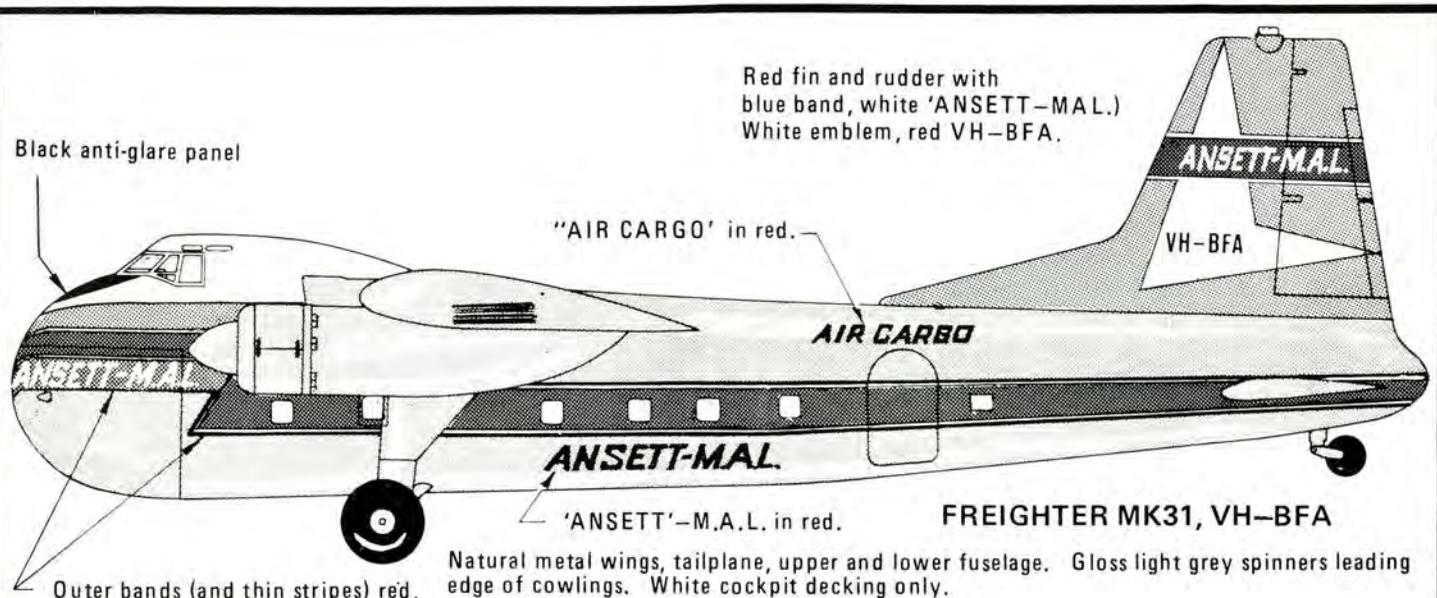
## CROPDUSTING BRISTOL

Another unusual operation undertaken by the Bristol Freighter in Australia was cropdusting. In 1957 Aerial Agriculture Pty Ltd at Bankstown Aerodrome, Sydney had a fleet of Tiger Moths engaged on agricultural work throughout NSW, and three new DHC.2 Beavers had been ordered from Canada for delivery later that year. However the company was convinced that a heavy transport aircraft could spread superphosphate much more economically because its much greater capacity would reduce the number of landings to reload. After considering types such as the DC-3, Aerial Agriculture Pty Ltd chose the Bristol 170 as its preferred aircraft as it would offer better payload and performance. A bold decision was made to purchase a Bristol for agricultural trials.

The concept of a heavy aircraft such as the Freighter being used for agricultural work was not entirely new; Bristol had converted one of their early prototype aircraft, G-AGVC, during 1950 for experimental aerial fertilising in Wales and it was demonstrated at that year's Farnborough Air Show with three internal hoppers of 6 tons capacity. Nothing came of this venture however, and the aircraft was converted back to a standard Mk.21 Freighter for Silver City Airways. In New Zealand a Freighter Mk.31M, ZK-BEV, on loan to SAFE Ltd from the RNZAF had flown cropdressing trials for three months from March 1954. Fitted with various designs of hoppers of up to 6½ ton capacity, the Bristol's trials were considered a success, dropping up to 60 tons of fertiliser in a single day. A new firm, Industrial Flying Ltd, had been formed to conduct these trials, but the company was not able to obtain a licence from the NZ Department of Civil Aviation to commence commercial operations, and the project lapsed. However DC-3s were soon introduced in NZ by existing agricultural operators and are still in widespread use in that country today for topdressing. A later agricultural use of the Freighter was in Pakistan during 1961 when five Pakistan Airforce Freighter 31Ms were fitted with 700 gallon tanks of insecticide and spray bars under the wings to combat a locust plague. Using Hawker Fury fighters to locate the huge swarms of migrating locusts, the Freighters sprayed an area of up to 2,000 acres each sortie. The operation achieved considerable success in exterminating the pests which had threatened wide-spread famine.

Aerial Agriculture Pty Ltd purchased a Freighter Mk.21, F-VNAK, from Air Vietnam in July, 1957, and it was ferried to Bankstown for conversion to cropdusting configuration as VH-AAH. This aircraft was built as a Freighter Mk.21, G-AIFN, at Filton in July 1948 and that same month departed on a demonstration tour to Italy especially named *Giovanni Caboto*. In August the next year it was sold to C'ie Air Transport, Paris as F-BENC for operation by Societe Indochinoise de Transports Aeriens, in Indo China. Sita had three Bristol Freighters, and these civil aircraft were commandeered for service as supply aircraft during 1950/51 when French Government forces were engaged in war against the Viet-Minh rebels. In January 1952, it was transferred to Air Vietnam, Saigon, as F-VNAK.

VH-AAH was fitted with a removable steel hopper designed by Luigi Pellarini, and a dumping chute was cut into the floor. Australian CofA was issued in the special Agricultural Category with an all-up weight increase to 42,000lb from the normal 40,000lb. Early in 1958 VH-AAH commenced agricultural flying in NSW, initially in the Cootamundra area. The aircraft was always flown by the colourful Sydney pilot Lionel Van Praag, and the company reported that the Bristol was



Red fin and rudder with blue band, white 'ANSETT-MAL.' White emblem, red VH-BFA.

Black anti-glare panel

"AIR CARGO" in red.

AIR CARGO

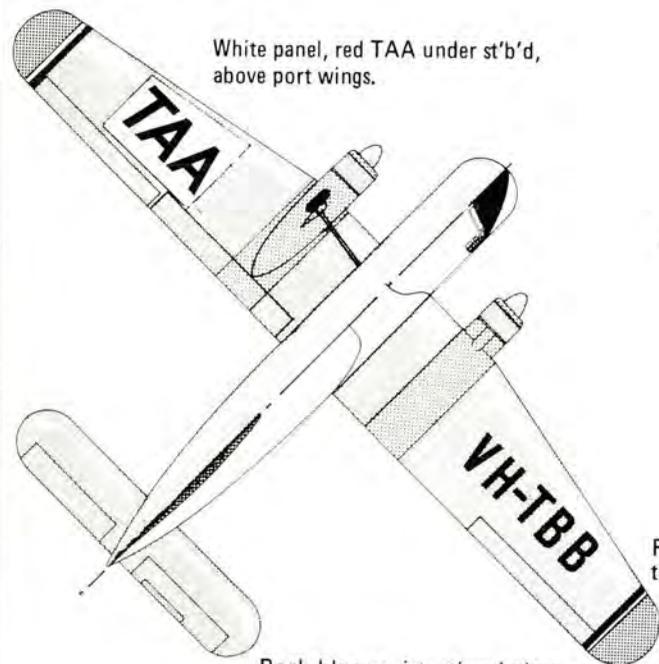
ANSETT-MAL.

'ANSETT'-M.A.L. in red.

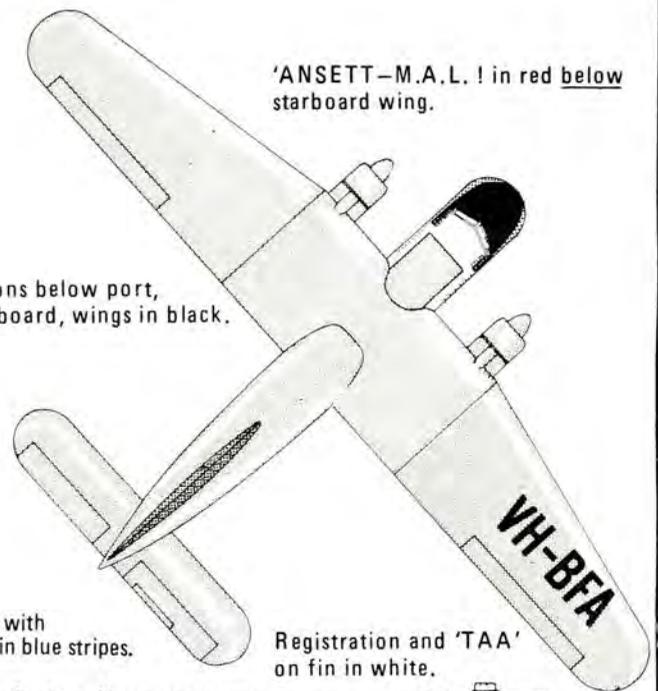
FREIGHTER MK31, VH-BFA

Natural metal wings, tailplane, upper and lower fuselage. Gloss light grey spinners leading edge of cowlings. White cockpit decking only.

Outer bands (and thin stripes) red, inner band blue separated by thin white stripes. 'ANSETT-M.A.L.' in white.



White panel, red TAA under st'b'd, above port wings.



'ANSETT-M.A.L.' in red below starboard wing.

Registrations below port, above starboard, wings in black.

Red wing tips with thin white, thin blue stripes.

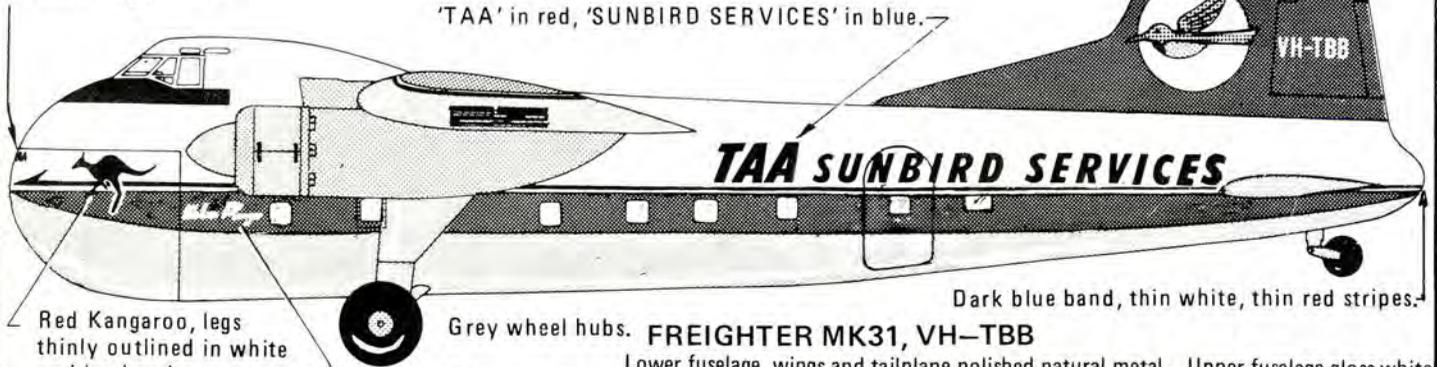
Registration and 'TAA' on fin in white.

Dark blue registration below, port, above starboard wings.

Sunbird: Yellow beak and belly, blue back, dark grey breast. Yellow eye with black dot, black outline and details. White background disc.

'TAA' in red on front of both cargo doors.

'TAA' in red, 'SUNBIRD SERVICES' in blue.



Dark blue band, thin white, thin red stripes.

Red Kangaroo, legs thinly outlined in white on blue band.

Grey wheel hubs. FREIGHTER MK31, VH-TBB

"William M<sup>c</sup>Gregor", white script, both sides.

Lower fuselage, wings and tailplane polished natural metal. Upper fuselage gloss white gloss white. Engine nacelle and leading edge of cowling semi-gloss light grey. Under-carriage legs, cowlings and spinners natural metal. Dark blue fin and rudder.

highly successful in large scale super-spreading operations. One amusing incident recalled by a co-pilot on this aircraft occurred in northern N S W when a farmer's children were taken for a ride by Van Praag with Aerial Agriculture's chief pilot occupying the right hand seat. As the Bristol lumbered down the strip the children clutched the emergency dump cable that ran along the fuselage interior — as the wheels left the ground the dump chute opened unexpectedly and 7 tons of fertiliser was dropped causing the aircraft to leap almost vertically 2000 feet into the air! The chief pilot never flew in the Bristol again.

After nearly a year, Aerial Agriculture withdrew the Freighter from agricultural operations. The main reason was reportedly the excessive wear on the tyres on the rough runways — the special low pressure tyres were made in England at high cost and could not be retreaded. During 1959 the Freighter was advertised for sale, but as a buyer could not be found the aircraft was put to work on ad-hoc freight charter work around Australia with Van Praag as Captain and various part-time radio operators. In August that year it was leased to Ansett-ANA for several months while their VH-INJ underwent a major overhaul at Essendon. Aerial Agriculture advertised VH-AAH for sale again in early 1960, but no suitable buyer could be found again. The aircraft continued on freight charter work, flying regularly between Tasmania and the mainland carrying live sheep. A removable double deck set of sheep pens was installed, carrying 120 sheep each trip. On one occasion a truck load of sheep was backed up to the open front doors at Launceston. However the back fuselage door was left open as well, and as the sheep were herded inside the nose they ran through the aircraft and out the back door to scatter across the aerodrome!

While flying the Bristol, Lionel Van Praag drew up plans for a scheduled passenger service with the aircraft between Sydney and Coolangatta to carry tourists at low cost to the Queensland Gold Coast. DCA would not approve the proposal on the grounds that it was an inter-state airline service, however they were no doubt less than enthusiastic about a Bristol Freighter being used for full passenger work in view of its notoriously poor single-engined performance at high load.

Papuan Air Transport Ltd, Port Moresby, announced on February 1961 that their freighter DC-3, VH-PAT, would shortly be ferried to Bankstown for overhaul by Bristol Aviation Services, and would be replaced by a Bristol Freighter leased through that company. VH-AAH had Patair markings painted on at Bankstown, but before it departed for New Guinea the DC-3 was lost in a crash at Bereina, NG, on April 8, and the deal was cancelled. Aerial Agriculture Pty Ltd immediately sold the Bristol to a new company,

Pacific Aviation Ltd, Brisbane, who based it at Mascot flying mainly to Tasmania carrying foodstuffs down and fresh fish back to the mainland. The Freighter was referred to as "The Cornflakes Express" because it carried large consignments of breakfast cereals regularly. The company predicted increased loadings and purchased a second Freighter, VH-ADL, from the Pakistan Airforce. This second aircraft arrived at Bankstown in August 1961 and was still there under overhaul, prior to entering service, when VH-AAH was lost in a crash near Wollongong.

The Bristol departed Mascot at 9.48am on 18 December 1961 bound for Launceston direct, carrying a load of cartons of cornflakes. The flight was under the command of Captain Van Praag with First Officer R. Garrick, and First Officer L. Jaycock under instruction. When near Wollongong an engine failure simulation was carried out on the starboard engine for training, but although the propeller was successfully unfeathered, power could not be regained. They turned back to Sydney, but the aircraft was losing altitude, so Van Praag diverted to Albion Park aerodrome, south of Wollongong. Losing height rapidly, Van Praag was unable to reach the airfield, so at 10.15am he attempted a forced landing near the Princes Highway just short of Albion Park. The port wing struck trees and was torn off, the aircraft then crashing heavily to the ground. Although the Bristol was a complete write-off, the three crew and their one passenger escaped injury. VH-AAH had logged 10,500 hours during its adventurous career.

## THE SECOND PHASE — PAKISTANI BRISTOLS

Pacific Aviation Ltd's replacement aircraft was one of eight Bristol Freighter Mk.31Ms ferried to Australia from the Pakistan Air Force during 1961, after they had placed 48 Freighters up for sale. Although the Bristol 170 had initially been designed as a military transport, it was not at first adopted by the RAF. The largest military customer for the type was the Pakistan Air Force which operated a total of 73 Freighter Mk.21 and Mk.31Ms. Their final order for 38 Freighter 31Ms placed in 1953 was the largest single Freighter contract placed, and because Britannia productions was under way at Filton, these were built at Bristol's plant at Weston-super-Mare in Somerset, with serials S4401 to S4438. The aircraft destined for Pacific Aviation was in fact the very last Freighter delivered to the Pakistan Air Force, S4438 being handed over on 29 June 1955, in a ceremony before the Pakistan High Commissioner in London, His Excellency Mohammed Ikramullah.

The PAF Bristols were used on a wide variety of roles, from tactical transports, parachuting, to

VIP Aircraft. A formation of 3 camouflaged PAF Freighter 31Ms visited Australia during December, 1957 on a long range navigation training exercise. The disposal of the PAF Bristols caused considerable interest as the Mk.31M's in particular would provide airline Freighters in good condition at low initial cost. During 1961 seven were purchased by SAFE Ltd in NZ, one was ferried to England to provide spares for the British United Airways Fleet, and eight were purchased in Australia — three by Ansett-ANA, four by TAA, and one by Pacific Aviation.

In mid 1961, carrying ferry registration, AP-AMD, S4438 was flown to Bankstown for Pacific Aviation. It was under major overhaul for Australian CofA by Bristol Aviation Services by September, when it was seen at their hangar with camouflage removed and registration incorrectly painted on fuselage sides as AP-ADM. It was completed in January 1962 as VH-ADL and entered service on the Sydney - Tasmania freight run the following month. However after only a year in service, mounting financial losses caused Pacific Aviation Ltd to retire the Bristol and the company ceased operations.

## TAA INTRODUCES BRISTOLS

In April 1960 Trans Australia Airlines took over the internal New Guinea services of Qantas Empire Airways including their quite extensive air freight operations. DCA restrictions, placed on DC-3s in the Territory at that time, in the interests of safety, reduced their capacity by nearly a ton, and this led TAA to look for larger freight aircraft for their New Guinea *Sunbird Service*, and the Bristol 170 was chosen as the most suitable type.

The Pakistan Air Force Bristols were available, but TAA also negotiated for two Burmese Air Force Freighter Mk.31M's UB721 & UB722. These two were the only Bristols used by the Burmese Air Force and were offered for sale in March 1961 at Mingaladon, Rangoon. Although no sale was finalised, these Burmese Freighters are reported to have been allocated TAA registrations VH-TBC and TBD, however neither DCA or TAA records can confirm this, and it appears quite doubtful in retrospect. Instead four PAF Freighter Mk.31Ms were purchased, and the first TAA ferry crew arrived at Karachi 29 April 1961 to accept the aircraft. This party consisted of Captains R. Black and T. Bennett, a Ground Engineer A. Bonnyface, and a company supply officer. Lionel Van Praag

**LEFT:** Ex Pakistan Air Force Freighter Mk.31M, AP-AMD, at Bankstown in 1961 undergoing major overhaul for Australian CofA. Note the incorrect registration, AP-ADM, on the fuselage.

**RIGHT:** The same aircraft, now registered VH-ADL, in service with Pacific Aviation in 1962. (Photos, Hopton Collection)





Two of the ex-Pakistan Air Force Bristol Freighter Mk.31Ms purchased by TAA were AP-AME (left) which became VH-TBA and AP-AMF (right) which became VH-TBB. The latter is shown with Australian registration applied over its faded camouflage when it was used for pilot training. (Photos, Hopton Coll)

was also engaged by TAA to assist in the ferrying of these aircraft because of his experience on the type. The Bristols were stored at Drigh Road Air Base, Karachi and were all in very weathered camouflage finish. The ferry crew collected S4427 and with ferry registration AP-AME painted in black over the camouflage they departed Karachi on 7 May on the delivery flight to Australia. After an overnight stop at Delhi, they proceeded next day to Calcutta where they were delayed by a cyclone for two days. They then continued to Bangkok and Singapore, where the aircraft was given urgent maintenance at Changi air base by RNZAF engineers based there with a detachment of RNZAF Bristol Freighter Mk.31Ms. Leaving Singapore on 16 May they flew via Djakarta, Darwin and Brisbane to Bankstown where they arrived three days later. The total time for the ferry flight was 46 hours 40 minutes.

The second aircraft, S4432/AP-AMF, was ferried from Pakistan by TAA Captains, J.Betts and P.Mclaughlin, accompanied by Lionel Van Praag. They arrived at Bankstown on 26 May, a week after the first aircraft. Both aircraft were to have their Australian CofA overhauls by Bristol Aviation Services, but the second aircraft was immediately registered VH-TBB on 29 May to be used for crew training pending commencement of its overhaul. It was flown at Bankstown in PAF camouflage, with the registration, VH-TBB, painted in a white panel on the tail.

While the first two Freighters were undergoing overhaul at Bankstown, TAA was preparing their other two for ferrying to Australia, where both would be stripped for spares. They departed

Karachi in formation on 17 July, S4434/AP-AML flown by Captain I.Neal, and S4437/AP-AMK under the command of Captains J.A.P.Boyd and K.Galloway. After overnight stops at Delhi, Calcutta, Bangkok, Singapore and Den Pasar the pair reached Darwin on 23 July. Next day they continued on to Sydney direct, AP-AMK landing at Mascot while AP-AML landed at Bankstown after a 9 hour 40 minute leg from Darwin. These aircraft were then stripped for spare parts in the TAA maintenance hangar at Mascot and the Bristol Aviation Services hanger at Bankstown respectively. Although they were allocated registrations VH-TBC and -TBD, these markings were not taken up and the aircraft were eventually carted away for scrap metal.

The TAA *Sunbird Service* Bristols completed their overhauls at Bankstown in August 1961. First to leave for New Guinea was VH-TBA named "Leahy Brothers" which departed Sydney on 2 August, flown by Captains R.Black and A.Thomson. Flying via Brisbane, Mackay, Cairns and Port Moresby, they reached their new base at Lae on 5 August and entered TAA service the next day. VH-TBB "William McGregor" left Bankstown on 1 September for Lae, and officially entered TAA service there on 21 September 1961.

### ANSETT'S NEW FREIGHTERS

Ansett-ANA's first two Pakistani Freighters, S4412 & S4416, arrived together at Essendon on 29 July 1961. They had ferry registrations AP-AMM & -AMN painted over their military camouflage. The latter went into the company's maintenance hangars at Essendon for overhaul for Australian CofA, while the other was stripped for spares and left parked outside at Essendon for a number of years. Their third aircraft, S4436/AP-AMN, flew into Essendon from Karachi on 17 September for overhaul for Ansett-MAL in New Guinea. Later in September, AP-AMN emerged from the hangar for testflying as VH-BFA, painted in the full Ansett-ANA colour scheme,

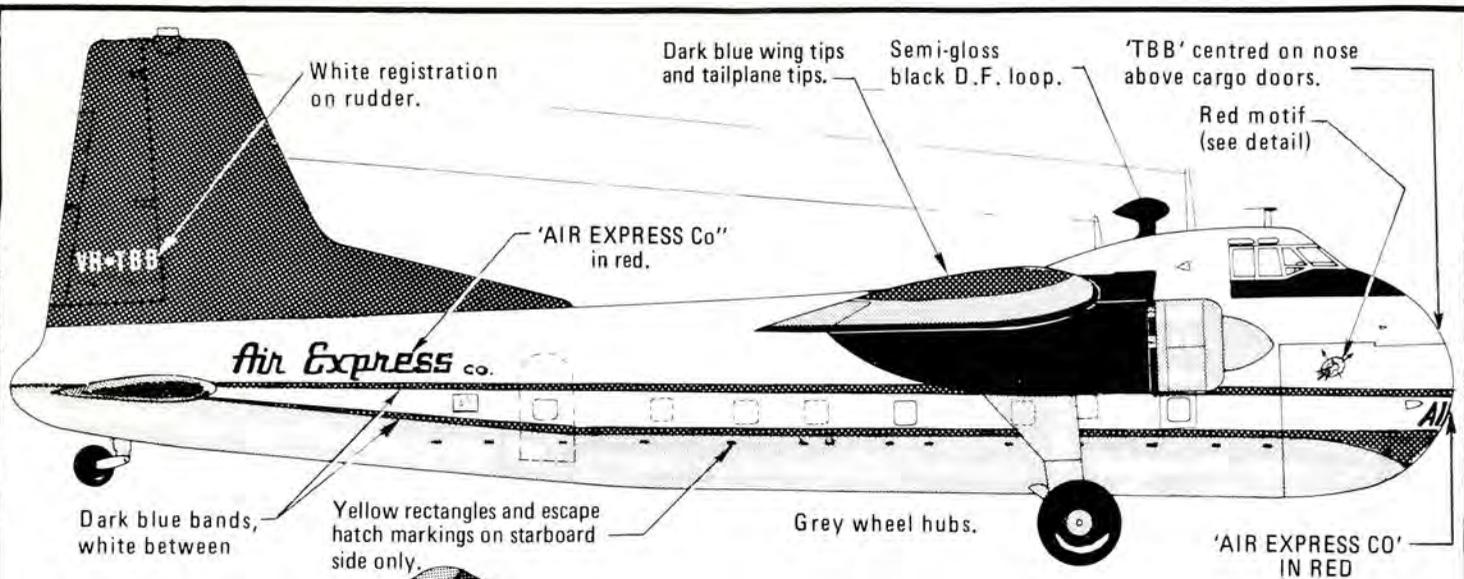
and it entered service the following month flying scheduled daily freight services from Melbourne to Tasmania and Adelaide. The second aircraft completed its CofA inspection in January 1962 as VH-BFB, painted in Ansett-MAL scheme, and was ferried to New Guinea to be based at Madang.

Ansett-ANA replaced VH-BFA with a cargo DC-4 in May in 1964 and the Bristol flew its last scheduled mainland cargo services early that month. After overhaul at Essendon it emerged repainted in Ansett-MAL colours and departed on delivery to New Guinea on 26 May carrying a spare Bristol Hercules engine as cargo.

Ansett-MAL and TAA now each had two Bristol Freighters in operation on their New Guinea routes. The aircraft gave excellent service in the demanding conditions of both climate and terrain in the Territory. In November 1966 both airlines jointly announced that they would be retiring their Bristols because of reduced demand for air freight. This followed improved road freight services as new roads were constructed to areas previously only serviced by air, particularly the new road to Goroka from the coast. In January 1967 TAA withdrew VH-TBA & TBB from service at Lae and painted over their airline markings pending disposal. Ansett-MAL retired VH-BFA & BFB at the same time but they returned to service later in January due to some unexpected freight work, before being finally grounded at Goroka in April 1967. The Ansett Bristols were effectively at the end of their flying lives, both having run out of landings allowed before major rebuilding. Both had their flaps, ailerons and rudders removed and were left in the open at Goroka awaiting disposal.

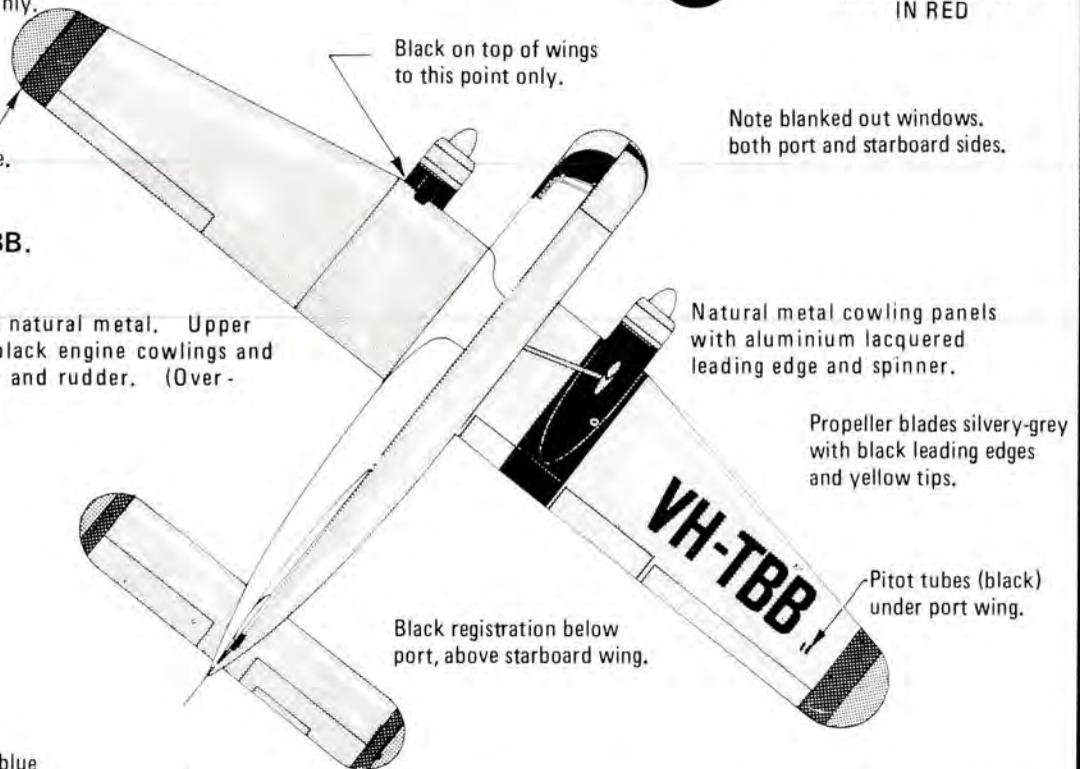
Ansett-MAL's Freighters were sold to SAFE-Air Ltd for use as spares for their large fleet of Bristols operating in New Zealand. Both aircraft were made airworthy for their final ferry flight, VH-BFB being first to leave Goroka, still in Ansett-MAL colour scheme, but with titles painted over and the registration ZK-CVL painted on the tail.



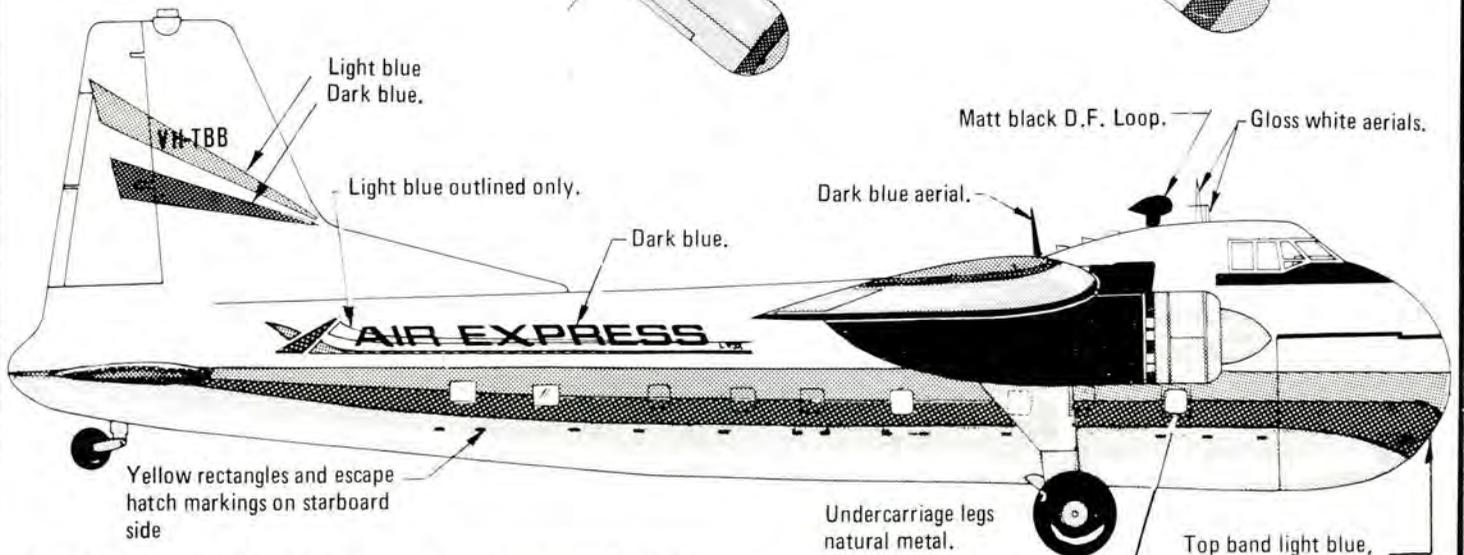


**FREIGHTER MK31, VH-TBB.  
AIR EXPRESS, SEPT., 1968**

Lower fuselage and tailplane, dull natural metal. Upper fuselage gloss white. Semi-gloss black engine cowlings and band below wings. Dark blue fin and rudder. (Over-painted TAA markings)



AIR EXPRESS MOTIF



**FREIGHTER MK31, VH-TBB. AIR EXPRESS, 1972**

Lower fuselage, wings and tailplane, dull natural metal. Top of fuselage, fin and rudder dulled gloss white. Semi-gloss black engine nacelles and band below wing only.

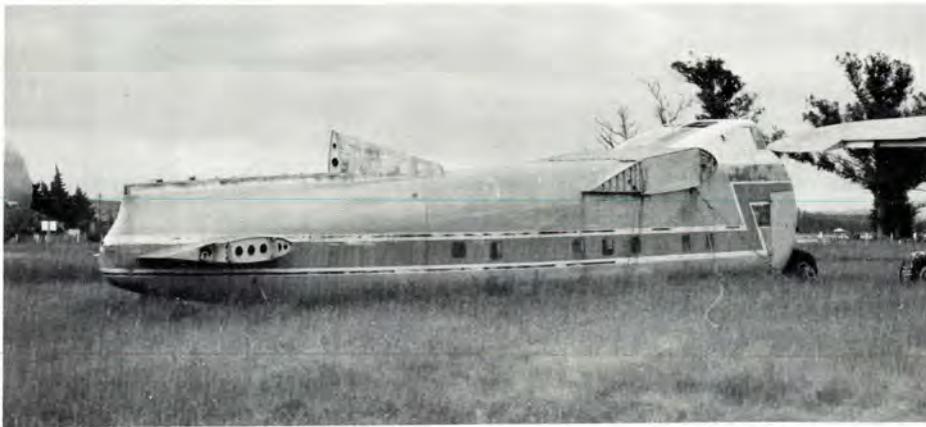


Flown by SAFE Captains C.G. Fantham and D.A. Williams, it overnighted at Brisbane on 3 November, 1967 and arrived at SAFE's maintenance base at Woodbourne two days later. VH-BFA flown by SAFE Captains V.L.A. Powell and G.T. Stuart, followed a fortnight later as ZK-CVK, passing through Brisbane on 16 November. The two Freighters were parked together at Woodbourne, ZK-CVK having its props and other components stripped, while ZK-CVL was immediately dismantled to provide its mainplane for a major rebuild project. Its wing and centre-section was joined to the fuselage of SAFE Freighter Mk.31E ZK-BMA, *Marlborough*. The composite aircraft was completed as ZK-CVY, *Merchant Porter*, and entered SAFE service on 18 December that year. The stripped fuselage of ZK-CVL still lies alongside ZK-CVK at Woodbourne today, both still in faded Ansett-MAL colour scheme.



**TOP:** 'A little powder, a little paint.....' VH-BFA, one of Ansett-ANA's second generation Bristol Freighters resplendent in the company's new livery. (Hopton Collection)  
**ABOVE RIGHT:** VH-BFB in Ansett-Mal markings for New Guinea service, at Mascot in January 1967. (Hopton Collection)  
**RIGHT:** VH-BFA carrying the ferry registration, ZK-CVK, passing through Brisbane in November 1967 on its way to SAFE-Air at Woodbourne, New Zealand. (D. Thollar)  
**BELOW:** AP-AMN (left) at Essendon in August 1961 shortly before being overhauled to become VH-BFA. AP-AMP (right) became VH-BFB. (Hopton Collection)





Meanwhile the TAA pair were still standing at Lae. During January 1968 they were inspected by Mr Lamb of the Canadian airline Lambair but because their wings required major work to continue in service no sale resulted. Lambair was later to obtain several Freighters in England, and they were flown to Canada for oilfield support work in the Arctic. In May 1968, VH-TBA and TBB were sold to Australian Aircraft Sales (ACT) Pty Ltd, Sydney who immediately brokered their sale to Air Express Ltd, Brisbane.

## AIR EXPRESS

This pioneer Australian heavy freight charter operator was originally formed by A.L. McLachlan as Air Express Co., commencing operations in March, 1953 from Archerfield Aerodrome, Brisbane with a Dragon, VH-AOR. The following year two Avro Ansons, VH-BBI & BEV, were introduced, flying freight charters to inland Queensland centres for four years until the pair were sold to Gillham Airways at Mackay, Qld, and Air Express then concentrated on maintenance work at their Archerfield hangar. The firm handled a wide variety of light aircraft, becoming specialists in complete rebuilding projects and modifications.

When Pacific Aviation retired their Bristol Freighter, VH-ADL, in 1963, it was parked at Archerfield in the care of Air Express. After two years standing idle, sale of the Bristol was negotiated to SAFE Ltd and in May 1965 Air Express took the aircraft into their hangar for overhaul prior to its ferry flight to NZ. However, while on a test flight from Archerfield on 26 June the aircraft crash landed in a paddock at Pimpana, Qld. The test flight involved shutting down each engine in turn, but rough running and power losses were experienced in both engines, and a forced landing was made in a field. The aircraft ran through two fences and a drainage channel, coming to rest, badly damaged, on its belly. The crew, Captain D. Biggs and copilot, Air Express Managing Director A.L. McLachlan, escaped unhurt, but the sale to NZ was cancelled and the Freighter was trucked back to Archerfield.

While Air Express slowly rebuilt VH-ADL, a major political storm had broken as IPEC, (Interstate Parcel Express Co.), attempted to enter the scheduled air freight business with proposed overnight services to all Australian capital cities. DCA refused to grant a licence to avoid contravening the Two Airline Policy, and IPEC took legal appeals as far as the privy Council in Britain. Approval to operate was eventually won, but political intervention resulted in Government refusal to issue an import licence for the DC-4 IPEC had purchased in England.

As a compromise, IPEC negotiated a contract with Air Express to charter VH-ADL for a nightly freight service from Brisbane to Melbourne. Licence restrictions prevented the aircraft flying into Victoria, so it was to be flown to Cowra in southern NSW, where its cargo would be unloaded on to IPEC trucks for road carriage on to Melbourne. The Bristol completed its rebuild in June 1966, and departed on the first trial IPEC-Air service on 22 June carrying 4½ tons of

The two ex Ansett-Mal aircraft VH-BFA and VH-BFB derelict at Woodbourne, New Zealand, in November 1975. (N.K. Daw)  
Air Express', VH-ADL, at Essendon in November 1966, not long after its rebuild. (Hopton Collection)

VH-ADL at Essendon in March 1969 shortly after Air Express signed their freight contract with Mayne Nickless. (Hopton Collection)

Queensland bananas. After two weeks of proving trials, the service was officially opened on 11 July in a ceremony at Archerfield, and VH-ADL commenced a scheduled run to Cowra four evenings a week returning to Archerfield each following morning. Meanwhile IPEC-Air continued its battle to create its own freight airline, but by early 1967 the company was forced to abandon its immediate plans due to Government resistance, and the charter contract to Air Express was terminated. By May 1967 VH-ADL was again idle at Archerfield.

Early in 1968 the Bristol flew several freight charters, being seen at Sydney on several occasions during January, and on 23 February it carried a consignment of food to Mount Isa, Qld when local roads were closed by heavy rains. However work for the aircraft was unpredictable, and VH-ADL was again parked outside the Air Express hangar at Archerfield waiting for a firm contract. This came shortly afterwards when the Mayne Nickless transport group approached Air Express with a proposal for a nightly Brisbane-Sydney-Melbourne and return freight service. During the IPEC controversy Mayne Nickless Ltd had been among several other road transport companies who had made unsuccessful applications to commence air freight operations.

Another aircraft was needed to operate this new contract, so Air Express negotiated with the brokers Australian Aircraft Sales to purchase the pair of TAA Bristol Freighters retired in New Guinea. Both were prepared for ferry flights to Archerfield, where VH-TBA would be stripped for spares as it had reached its fatigue life limit and would be uneconomical to rebuild for continued service. VH-TBB was the first to be ferried down, arriving at Archerfield on 14 June, 1968 in weather-beaten TAA Sunbird Service colours. It immediately went into the hangar for major overhaul to ready it for the new freight contract. VH-TBA arrived at Archerfield on 10 September, and the following year was broken up there for components. The sad old Freighter was part of the Archerfield scene for the next few years, and its stripped fuselage still lies on the northern boundary of the aerodrome. VH-ADL was testflown on 20 June after several months of inactivity, and on 1 July it departed on the first run of the Mayne Nickless charter to Sydney and Melbourne. Later that month it was joined by VH-TBB which flew into Essendon on its first service on 31 July freshly repainted in a new blue and white colour scheme.

The pair of Freighters now settled down to their new contract, operating five nights a week in each direction. They usually landed at Sydney but sometimes flew Brisbane direct to Essendon, these direct trips taking up to 11 hours flying time. The aircraft had large Mayne Nickless titles painted down the fuselage sides in January 1969 but these were soon removed by order of DCA, only to later re-appear again! The contract was a great success, carrying over 7,500 tons of cargo in its first year.

In September 1969 Air Express branched into a new operation to increase the utilisation of their two Bristols. A subsidiary, Air Express Foods Pty Ltd, was formed, and that month commenced fly-

**Air Express' third Bristol Freighter was VH-TBA, the ex-TAA aircraft. Archerfield 10 September 1968. (D. Thollar)**

**It was later broken up for spares at Archerfield in 1969. (Hopton Collection)**

**Air Express' second Bristol, VH-TBB, September 1968. (G. Goodall)**

**VH-TBB at work on the Mayne Nickless contract. Essendon, June 1969. (Hopton Coll)**





ing fruit and vegetables from Cairns, Qld to Port Moresby. Fresh food had always been in demand in Port Moresby, and for the previous year Queensland Pacific Trading Pty Ltd had been operating their DC-3 freighter, VH-PWN, on this run with some success, bringing back New Guinea fish and prawns as back-loading. Air Express rotated VH-ADL and -TBB between the Mayne Nickless run to Melbourne and the Cairns base, and quickly established a market for its food produce in Port Moresby. Early the next year the company announced it would be introducing a freighter DC-4 on a 2 year lease from TAA for the New Guinea service, however these plans were not finalised and in March 1970 Air Express Foods Pty Ltd went into liquidation and the Bristols were withdrawn from the run. A contemporary report stated: "The Freighters' squealing and spluttering approach on to the apron at Port Moresby caused many people to stop and stare at these monsters from previous decades."

VH-ADL and -TBB now returned to Queensland, one being permanently based at Cairns on lease first to Queensland Pacific Trading Co., then Bush Pilots Airways for the next three years. It continued the fresh food run to Port Moresby as well as carrying cars and general cargo. Air Express flew other freight charter work from Brisbane at this time, including regular trips to Groote Eylandt, NT for BHP.

### JETAIR AUSTRALIA

During 1968 a group of Sydney businessmen embarked on a bold concept to create a new Australian passenger airline. The futility of legal challenge to the Two Airline Policy had been shown by the events of the previous few years as a series of companies made unsuccessful bids to establish new freight and passenger airlines. A new strategy was thus decided upon: airline type aircraft would be obtained within Australia to avoid the necessity for import licences, and services would commence on commuter (Air Navigation Regulation 203) airline services, gradually building up a secondary route network covering the entire Eastern seaboard. When well established they would bring full political pressure to bear to improve their fleet by importing modern airline aircraft, and then launch into open competition on all trunk routes with the protected TAA and Ansett Airlines. The optimistic name, Jetair Australia Ltd, was registered, and a total of six DC-3 aircraft obtained from various sources within Australia. The new company commenced operations on 21 September 1969 on a commuter route Swan Hill-Echuca-Melbourne, and quickly took over the uneconomical routes of commuter airlines in South Australia, Victoria, NSW. and Queensland. Carrying an average of only 3 or 4 passengers each trip, the Jetair DC-3s flew country routes, over which previous firms had been unable to make a profit with small Cessnas.

The Bristols were now fully utilised again on the Mayne Nickless service, which, in April 1970, was extended from Melbourne to Tasmania with new nightly runs to Launceston. In November that year Mayne Nickless terminated the contract even though good loadings were still being carried. An Air Express report to shareholders in December stated that the company had enjoyed a good year but now that the Mayne Nickless contract to Melbourne was completed they planned to concentrate on freight operations in Queensland and to New Guinea. Government approval had been received to import two Carvair aircraft, however it was subject to disposal of the two Bristol Freighters and the company was appealing against this requirement. However this appeal was to become bogged down in unresolved legal and political argument.

The Directors were anxious to establish cargo operations as well, and the only large cargo type aircraft available within Australia were the ex-RAAF Bristol Freighter Mk.21Es. A81-1 and -3 plus the dismantled A81-4 had been purchased in July 1968 by a syndicate comprising K. Dayal Singh and P.R. Wieland of Tamworth, NSW. The three Bristols had been stored at Edinburgh RAAF Base, Adelaide for the past year. The fuselage of A81-4 was now packed with spare parts, moved off the base, and left on a property on the airfield boundary with its wings lying alongside, where it was first seen on 10 August 1968. On that day the other two Freighters were having their engines run up at Edinburgh in preparation for ferrying to Orange, NSW, where they were to be stored awaiting sale overseas, as a requirement of their sale by the Department of Supply was that they must be sold outside Australia. Crews from Air Express Co were engaged to deliver them to Orange, where the pair sat in the open for the next year while being offered to overseas operators along with a huge spares collection. However, Jetair purchased the Freighters, and A81-1 and -3 were ferried from Orange to Archerfield in August, 1969 for major overhaul by Air Express for civil CofA. Later records showed that Jetair paid \$40,000 for the two Bristols plus spares, and that the total overhaul cost was \$145,559. Both aircraft were parked outside the Air Express hangar part way through their overhaul when a windstorm passed through Archerfield on 7 December and the two Bristols were blown into each other causing substantial damage. VH-TBB parked nearby was blown some distance into parked light aircraft and received minor damage.

A81-1 was completed as VH-SJG in February 1970, and A81-3 as VH-SJQ the following month. DCA gave these converted military aircraft the new designation Freighter Mk.21/A1. Both entered Jetair service on freight charter work in all-over metallic finish with no company titles, initially based at Sydney for ad-hoc freight work. VH-SJQ made its first visit to Essendon on 10 April on a TAA charter. Jetair then based a freighter at Cairns where they planned to build up the business of flying food produce from the Atherton Tableland to New Guinea. During August 1970, VH-SJQ commenced flying bulk quantities of Milanda Milk from Cairns to Port Morseby, four trips a week, carrying cars as back-loading. However the operation was not a financial success and was discontinued after several weeks.

By November 1970 Jetair had achieved its aim of operating a route network from Adelaide to Brisbane via a large number of country centres. They had obtained the two RAAF VIP Viscounts which were waiting for civil conversion, and had options on aircraft overseas, such as Nord 262s. However there was no improvement in Government attitude towards a third national airline, and because of the huge financial loss incurred so far, the Directors suddenly announced on 27 November that Jetair was ceasing operations immediately and all services from the next morning were cancelled. The two Bristol Freighters were used the next day to collect all the company office furniture and equipment from their terminal buildings around the country, VH-SJQ collecting in Victoria and VH-SJG covering Queensland. When they returned to Sydney late in the day both Bristols were lined up with the DC-3s at Mascot awaiting sale.

The disposal of the Jetair DC-3 fleet during 1971 by the Department of External Affairs as overseas aid to Laos, Nepal and Khmer Republic later became a major political scandal which contributed to the fall of the McMahon Government.



However the two Freighters escaped all the furore when they were quietly sold earlier in the year in April to Air Express Ltd.

### AIR EXPRESS EXPANDS

A new major contract was negotiated by Air Express early in 1971 with Comet Overnite Transport to carry freight across Bass Strait from Melbourne to Tasmania. The Queensland operations were financially sound so extra aircraft were needed. The import of the planned Carvairs was still tied up in complex argument with the Government, so aircraft had to be obtained from within Australia and the Jetair Bristol Freighters available for sale in Sydney were the obvious choice. Air Express

*OPPOSITE PAGE.*

A81-1 at Orange in September 1968 after purchase from the RAAF. (G. Goodall)

A81-3 also at Orange, Sep. 1968. (G. Goodall)  
VH-SJG, ex A81-1, in Jetair Service at Mascot, Sep. 1970. (Hopton Collection)

VH-SJQ, ex A81-3, at Essendon on 28 Nov. 1970, the day Jetair ceased operations. (G. Reid)

VH-SJQ in service with Air Express, March 1971. (Hopton Collection)

*ABOVE:* VH-SJG and SJQ in service with Air Express in 1971. The latter carries Comet markings for use on this contract. (G. Reid)

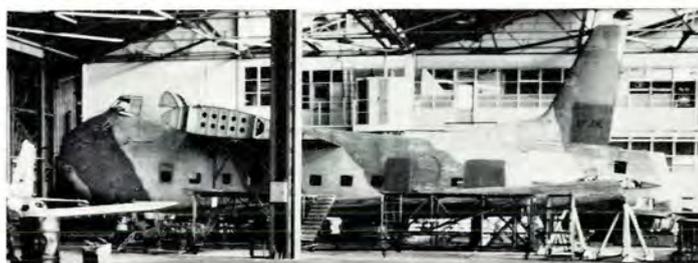
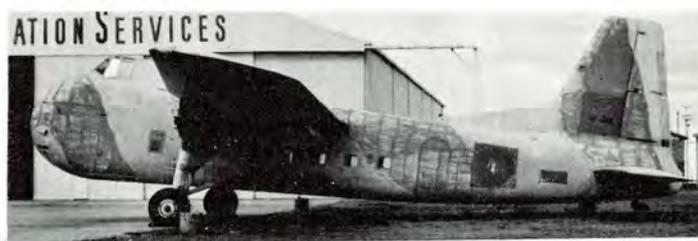
*BELOW:* The other two aircraft of the Air Express fleet, VH-ADL and VH-TBB. (Hopton Collection)



# AUSTRALIAN OPERATED BRISTOL 170 FREIGHTERS

C/N	REG'N	DATE	HISTORY	C/N	REG'N	DATE	HISTORY				
12735	VH-INK	6. 7.46	G-AHJC.Mk.IIA Bristol Aeroplane Co. Ltd. CofA issued.	12805	A81-2	7.67	Withdrawn from service				
		7. 7.46	Leased British American Air Services, London.			8.68	Struck off RAAF Charge. Sold.				
		9.46	Returned to Bristols for demonstration tour of Europe, North Africa, Middle East.			8. 2.70	VH-SJG. Mk.21/A1 Jetair Australia Ltd Sydney				
		9.47	Conv to Mk.I, engine development trials until 5.48			13. 8.71	Air Express Ltd, Brisbane				
		7.48	Leased to Silver City Airways for Berlin Airlift			14. 7.78	M. Long, Melbourne				
		23. 6.49	Returned to Bristols, conv to Mk.21E			3.12.46	G-AIMO. Mk.21E Ministry of Civil Aviation. Registered.				
		23. 9.49	VH-INK. Australian National Airways Pty Ltd. <i>Kiopana</i>			24. 1.49	Struck off British Register, no CofA.				
		4.10.57	Ansett-AND			14. 2.49	WB483. Ministry of Supply				
		3.10.60	Struck off Register, wfs Essendon.			14. 4.49	A81-2, RAAF. Brought on charge				
		9.61	Scrapped Essendon			25.11.53	Crashed near Mallala, SA				
12746	A81-4	26.11.46	G-AHJN.Mk.IIA Bristol Aeroplane Co. Ltd. CofA issued.	12807	A81-3/VH-SJQ	28.10.55	Struck off RAAF charge				
		5.12.46	VT-CGX, Bharat Airways, Calcutta, India			3.12.46	G-AIMR. Mk.21E Ministry of Civil Aviation, Registered.				
		10.50	G-18-13. Bristol Aeroplane Co. Ltd. Conv to Mk.21E			24. 1.49	Struck off British Register, no CofA.				
		28. 8.51	WW378, Ministry of Supply.			14. 2.49	WB484. Ministry of Supply				
		23. 9.51	A81-4.RAAF Taken on charge			14. 4.49	A81-3, RAAF. Brought on charge				
		67	Damaged on ground Woomera by windstorm. Dismantled.			7.67	Withdrawn from service				
12755	VH-INJ	11.11.48	G-AICL. Mk.21E Bristol Aeroplane Co. Ltd. CofA issued.	13175	AP-AMM	8.68	Struck off RAAF charge. Sold K. Dayal-Singh, Tamworth for parts				
		23.11.48	Leased ANA Pty Ltd			54	G-18-167. Mk.31M Bristol Aeroplane Co. Ltd.				
		6. 4.49	VH-INJ.ANA Pty Ltd <i>Pokana</i>			1. 6.54	S4412. Pakistan Air Force				
		4.10.57	Ansett-ANA			7.61	AP-AMM. for ferry to Ansett-ANA				
		26. 6.61	Wfs Essendon			29. 7.61	Arrived Essendon, stripped for spares				
		9.61	Scrapped Essendon			5.64	Broken up for scrap Essendon				
		12761	VH-INL			4. 3.47	G-AICR.Mk.1A Bristol Aeroplane Co Ltd. CofA issued.	13176	VH-TBA	55	G-18-168. Mk.31M Bristol Aeroplane Co. Ltd.
						13. 3.47	HC-SBM. Shell (Ecuador) Ltd			11. 2.55	S4427. Pakistan Air Force
						9. 3.49	Returned Filton for conv to Mk.21E			4.61	AP-AME. For ferry to TAA
						16.11.49	VH-INL.ANA Pty Ltd <i>Mannana</i>			2. 8.61	VH-TBA. Trans Australia Airlines <i>Leahy Brothers</i>
4.10.57	Ansett-ANA			1.67	Wfs Lae, NG						
3.10.60	Struck off Register, wfs Essendon.			14. 5.68	Australian Aircraft Sales (ACT) Pty Ltd, Sydney						
12774	VH-AAH	11.10.46	G-AIFN.Mk.II Ministry of Civil Aviation. Registered.	13179	VH-BFA	20. 7.68	Struck off Register				
		6. 7.48	British CofA issued, completed as Mk.21. Bristol Aeroplane Co. Ltd.			10. 9.68	Arrived Archerfield for Air Express Ltd.				
		7.48	Demonstration tour to Italy, <i>Giovanni Caboto</i>			69	Stripped for spares Archerfield, broken up 1972				
		25.8.48	F-BENC.C'ie Air Transport, operated by SITA, Saigon			54	G-18-171. Mk.31M Bristol Aeroplane Co. Ltd.				
		1.52	F-VNAK. Air Vietnam, Saigon			26. 9.54	S4416, Pakistan Air Force				
		8. 8.57	VH-AAH. Aerial Agriculture Pty Ltd, Sydney			7.61	AP-AMN. for ferry to Ansett-ANA				
		4.61	Pacific Aviation Ltd., Brisbane			10.10.61	VH-BFA, Ansett-ANA, Melbourne				
		18.12.61	Crashed Albion Park, NSW			22. 5.64	Ansett-MAL, Lae, NG				
		12793	G-AIMC			14. 3.47	G-AIMC.Mk.IA Bristol Aeroplane Co. Ltd. CofA issued	13187	VH-TBB	4.67	Wfs Goroke, NG
						3.47	Demonstration tour to Australasia <i>Merchant Venturer</i>			10.10.67	Struck off Register
*28.10.47	Damaged Wau, NG when rolled down airstrip.			11.67	ZK-CVK. For ferry to SAFE-Air Ltd, Woodbourne, NZ						
18.12.47	Struck off British Register			68	Stripped for spares, Woodbourne, NZ.						
12799	A81-1/VH-SJG	3.12.46	G-AIMI. Mk.21 Ministry of Civil Aviation. Registered.			55	G-18-179. Mk.31M Bristol Aeroplane Co. Ltd.				
		24. 1.49	Struck off British Register, no CofA.			1. 3.55	S4432. Pakistan Air Force				
		30. 3.49	WB482. Mk.21E Ministry of Supply			5.61	AP-AMF. For ferry for TAA				
		14. 4.49	A81-1. RAAF. Brought on charge			30. 5.61	VH-TBB. Trans Australia Airlines <i>William MacGregor</i>				
						1.67	Wfs Lae, NG				

C/N	REG'N	DATE	HISTORY
13188	(VH-TBC) ntu	55	G-18-180. Mk.31M Bristol Aeroplane Co. Ltd
		2. 4.55	S4434. Pakistan Air Force
		7.61	AP-AML. For ferry to TAA
		24. 7.61	Arrived Mascot, used for spares by TAA
		7.61	VH-TBC. Not taken up
		64	Broken up for scrap, Mascot
13191	(VH-TBD) ntu	55	G-18-183. Mk.31M Bristol Aeroplane Co. Ltd
		2. 4.55	S4437. Pakistan Air Force.
		7.61	AP-AMK. For ferry to TAA
		24. 7.61	Arrived Bankstown, used for spares by TAA
		7.61	VH-TBD. Not taken up
		4.68	Broken up for scrap, Bankstown
13192	VH-BFB	55	G-18-184. Mk.31M Bristol Aeroplane Co. Ltd
		29. 6.55	S4436. Pakistan Air Force
		9.61	AP-AMP. For ferry to Ansett-ANA
		22. 1.62	VH-BFB. Ansett-MAL, Lae, NG
		4.67	Wfs Goroka, NG
		5.11.67	ZK-CVL. Arrived Woodbourne on ferry SAFE-Air Ltd
		6.11.67	Struck off Australian Register
		11.67	Wings & centre section in rebuild of ZK-BMA as ZK-CVY.
		18.12.67	ZK-CVY. entered SAFE-Air service. <i>Merchant Porter</i> . Fuselage ZK-CVL still lays at Woodbourne, NZ
13193	VH-ADL	55	G-18-185. Mk.31M Bristol Aeroplane Co. Ltd
		29. 6.55	S4438. Pakistan Air Force
		6.61	AP-AMD. For ferry to Australia
		16. 2.62	VH-ADL. Pacific Aviation Ltd, Brisbane later Sydney
		6. 5.64	Struck off Register, wfs Archerfield
		26. 6.65	Crashed Pimpana, Qld on testflight
		11. 6.66	VH-ADL. Air Express (Holdings) Ltd, Brisbane
		75	Air Express Ltd, Melbourne <i>Tasmanian Devil</i>
		25. 2.80	Sold to Dwen Airmotive Pty Ltd, Auckland, NZ.



#### Notes:

- 1) All the above aircraft were constructed at Filton, Bristol except for the Pakistan Air Force Freighter Mk.31Ms which were built at Old Mixon, Weston-super-Mare, Somerset.
- 2) Published information from various sources contains discrepancies in the identities of the Pakistani Bristols. The above listing is based on detailed research and is believed to be correct.
- 3) Abbreviations: wfs Withdrawn From Service  
Conv Converted  
ntu Not Taken Up

\* The date G-AIMC was written off at Wau is also quoted as 21.10.47 and 23.11.47 by various sources. It has not been possible to confirm which date is correct.

#### TOP TO BOTTOM

VH-INJ. Essendon, 29 November 1959.  
 VH-INL. Being broken up. Essendon, 28 January 1959.  
 VH-BFB. Awaiting sale. Madang, 31 December 1959.  
 A81-4. Packed with spares. Edinburgh, December 1968.  
 AP-AMK. Broken up for spares. Bankstown, circa 1968.  
 AP-AMM. Broken up for spares. Essendon, May 1962.  
 AP-AML. Broken up for spares. Mascot, May 1963.

announced on 2 April 1971 that they had purchased the two Jetair Bristols with 12 spare engines and several tons of spare components for \$98,000. Air Express re-established an Essendon base for the new Comet contract and VH-SJQ was ferried to Essendon from Mascot on 5 August 1971, followed by VH-SJG the following day. They then commenced the contract with nightly flights to Launceston. In November VH-TBB returned to Essendon from Queensland to join the Freighter Mk.21s, leaving VH-ADL at Cairns.

The company's annual report for the year ended June 1973 revealed a net profit of \$71,354 with three Bristols based at Essendon and one at Cairns. The Mk.31s, VH-TBB and -ADL, were being rotated to Cairns on the Bush Pilots Airways lease, and on 23 October 1973 VH-TBB diverted to Cooktown for a precautionary landing inbound to Cairns from Port Moresby, with the port engine feathered and starboard engine overheating badly. During 1974 Air Express took over this Cairns operation in their own right, flying food, general freight and cars between Queensland and New Guinea, with the Bristols regularly flying as far as Mount Hagen in the New Guinea Highlands. The engineering hangar at Archerfield was handling increasing light aircraft servicing work, while its specialist facilities for Bristol 170 maintenance had resulted in contracts to overhaul Bristol components for Canadian and other overseas operators.

Tragedy struck in the early hours of 10 May 1975 when VH-SJQ was lost at sea in Bass Strait on the nightly run to Launceston. Under the command of Captain L. Barnes, the Bristol departed Essendon at 12.58am and an hour later the port engine failed and was shut down. The aircraft was unable to maintain height and turned back to the Victorian coastline but at 2.20am ditched three miles off Cape Patterson, 17 miles south of Wonthaggi. The crew of two were drowned and a large aerial search found some floating debris. The main part of the Freighter was located six days later at 25 fathoms but was not salvaged. The aircraft's total airframe time prior to this last flight was 9,535 hrs, with a total of 6,790 landings logged during its life.

DoT made a lengthy investigation into the accident, and VH-SJG was flight tested at Essendon to check performance at high loadings. It was by now the last remaining Freighter Mk.21 flying anywhere in the world, but was cleared to continue in Air Express service with some weight restrictions. The accident caused Air Express to cease their long overwater flights to New Guinea and close down the Cairns Base. All Bristols were now based at Essendon, flying the regular contract to Tasmania as well as general charter as far afield as Perth and Darwin.

During November 1976 the latest of a series of changes of controlling interest in the company over the previous few years resulted in both Air Express Ltd and another Essendon based operator, BBA Air Cargo, coming under the ownership of Mr W.H. Astling. He announced that he had applied to DoT to import 3 Carvairs for Air Express, and to sell BBA Cargo's Argosy, VH-BBA. Ansett Airlines immediately commenced legal action to prevent the import of the Carvairs, and after months of complex debate, Astling accepted a DoT proposal that Air Express purchase Qantas DC-4s, VH-EDA and -EDB, just retired in Sydney from their Norfolk Island passenger service. Although preferring Carvairs, Astling stated that they had to accept whatever they could in the circumstances and the DC-4s were delivered to Essendon in August 1977. They were painted into blue and white Air Express

scheme, soon having Kwikasair titles added after a contract was gained from that road transport firm. The Argosy was sold to IPEC-Air, who had just won their ten year battle to commence air cargo operations and were about to start up their base at Essendon with two other imported Argosies on the lucrative freight run to Tasmania.

DoT Airworthiness requirements for the Bristol Freighter dictated a wing spar life of 9,000 landings. VH-TBB was retired at Essendon in February 1977 as it approached this limit, as the cost of replacing the wingspar would not have been economically viable. VH-TBB flew its last cargo flight from Launceston to Essendon on 8 February and was then grounded, having logged a total of 12,204 hours with 8,996 landings (4 landings mandatory reserve). The Bristol was then stripped for spares for several months at the Air Express hangar before being towed around to Essendon's "graveyard" area and left parked there in the weather in September that year.

VH-SJG and ADL continued flying regularly to Tasmania along with the two DC-4s and the remaining DC-3, VH-BBA. By June 1978, the old Freighter Mk.21, VH-SJG, was rapidly approaching a major overhaul and Air Express advertised it for sale as the last Airworthy Freighter Mk.21 in the world, also offering VH-TBB for sale as a static museum exhibit. VH-SJG flew its last cargo trip from King Island to Essendon on 1 July 1978 and was then retired with a total time of 11,616 hours in 7,928 landings. In a surprise move, Melbourne historical aircraft collector Malcom Long then purchased VH-SJG, and the veteran Freighter was ferried from Essendon to Point Cook RAAF Base on 14 July. At Point Cook the Freighter was repainted into its former RAAF colour scheme as A81-1: aluminium and white with blue trim and large areas of bright orange on the nose doors and tailplane.

The final Bristol Freighter remaining in service in Australia was now Air Express' VH-ADL. During June, 1978 at Essendon it was repainted into an attractive new blue and white scheme similar to the DC-4s, and named *Tasmanian Devil*. The Bristol had now become almost as rare as its marsupial namesake!

1979 was a year of upheaval for the Melbourne air freight companies, due to increased competition and spiralling operating costs for piston-engined aircraft. Forrestair and Fleetair suspended their DC-3 freighter operations to Tasmania, and finally in August, Air Express Ltd announced that they were forced to cease all operations. Their DC-4, VH-EDA, *Tasmanian Enterprise*, was retired on 4 August, and on 17 August 1979 Air Express flew its very last cargo service. That afternoon VH-EDB, *Tasmanian Tiger*, flew its last run up to Essendon from Launceston, followed several hours later by the Bristol Freighter VH-ADL, from King Island. *Tasmanian Devil* had appropriately flown the very last Air Express operation, after serving the company so well for so long. The Bristol was now parked in the Essendon graveyard awaiting sale, having logged a grand total of 14,878 hours with 7,635 landings. The stripped VH-TBB was moved from the graveyard to the Essendon Airport Fire Service area on 18 September that year, and still sits there forlornly awaiting its destruction in a fire practice exercise.

The two Express DC-4s were sold in January 1980 to Basler Flight Service Inc in the USA, while the Bristol, VH-ADL, was finally sold by auction at Essendon on 25 February to Dwen Airmotive Pty Ltd of Auckland, NZ. It is due to be ferried shortly to Ardmore Airport, Auckland to join six RNZAF Bristol Freighter Mk.31Ms purchased in

1978 by the same dealer. The prospects of resale of these aging Bristols seem uncertain in the present world fuel climate.

When VH-ADL departs for New Zealand, the only complete Bristol Freighter left in Australia will be Malcolm Long's VH-SJG, resplendent in its new RAAF colour scheme as A81-1. During January, 1980 the base of the Malcolm Long Collection was shifted from Point Cook to Chewing Gum Field Air Museum near Coolangatta at Queensland's Surfers Paradise. The big Bristol was ferried out of Point Cook on 14 January by former Air Express Captain, Jack MacDonald, and after two days on the ground at Essendon, continued the delivery flight north to Coolangatta. The smaller aircraft of the Long Collection Tiger Moth, Auster AOP.3, Fairchild Argus, Stinson L-5, Wirraway, etc. were flown into the airstrip at Chewing Gum Field. However the Bristol and DC-3, VH-BAB, were flown to Coolangatta Airport for dismantling and final trucking the short distance to the museum site, where they will be placed on static display to the public.

The Bristol Freighter era in Australian aviation has ended — Essendon will sadly no longer reverberate to the distinctive shattering roar of their nightly departures to Tasmania.

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