

# SNOWY MOUNTAINS AIRLINE



BY G. GOODALL

The Snowy Mountains Hydro-Electric Authority was established in August 1949 by the Commonwealth Government to construct the Snowy Mountains Scheme in the Australian Alps south of Canberra. The Scheme is the biggest single development project ever attempted in Australia and still ranks among the largest and most complex engineering feats in the world. The broad aim was to collect the waters of the Snowy River and its tributary the Ecumbe at high elevations, on the coastal side of the Great Dividing Range and divert them inland through tunnels into the Murray and Murrumbidgee Rivers to provide irrigation and hydro-electric power. The scheme covers 3,000 square miles of some of the most rugged terrain in Australia, including Mt. Kosciusko, Australia's highest point, and includes 17 large and several smaller dams, 100 miles of tunnels, 80 miles of aqueducts and 9 power stations. By 1967 an estimated \$600,000,000 had been spent on the Scheme.

The Authority created a unique workforce skilled in all facets of construction and planning which grew from 1,385 men in 1950 to a peak of 3,700 men in 1960; not including the various contractors' staffs, which numbered up to 2,600 at any one time. Under its popular Commissioner, Sir William Hudson, the Authority has taken part in construction projects in Cambodia, Sabah, Thailand, Malaysia, Samoa and New Guinea. This led to a major political issue as to whether the SMA should be disbanded when the Snowy Scheme was completed in 1975, or kept together to employ the expertise of the organisation in other capacities. The former has been the case, and with the major construction work of the Scheme now finished, the Authority has assumed a supervisory role with a minimum of staff.

Opening up previously inaccessible mountain country to make construction of the scheme possible proved to be one of the SMA's major tasks. An effective network of roads was established between the Headquarters at Cooma, NSW, and the outposts and construction sites scattered throughout the mountains. This penetration led to the much publicised discovery of the remains of the Avro Ten, VH-UMF, *Southern Cloud* in October 1958. It had lain undiscovered in rugged country near Deep Creek

in the Upper Tumut region since it crashed on 21 March 1931 while on a regular ANA service from Sydney to Melbourne.

By 1957 the Scheme had progressed to the stage where dispersal of activities presented the Authority with severe problems of transportation. Hundreds of miles of roads and tracks had been built but large distances, difficult terrain, and winter road closures due to snow falls, made road important to the Authority because of its contract to supply electricity at the planned completion dates of the various stages of the Scheme, or pay penalty rates on funds advanced by the Australian Treasury, if delayed.

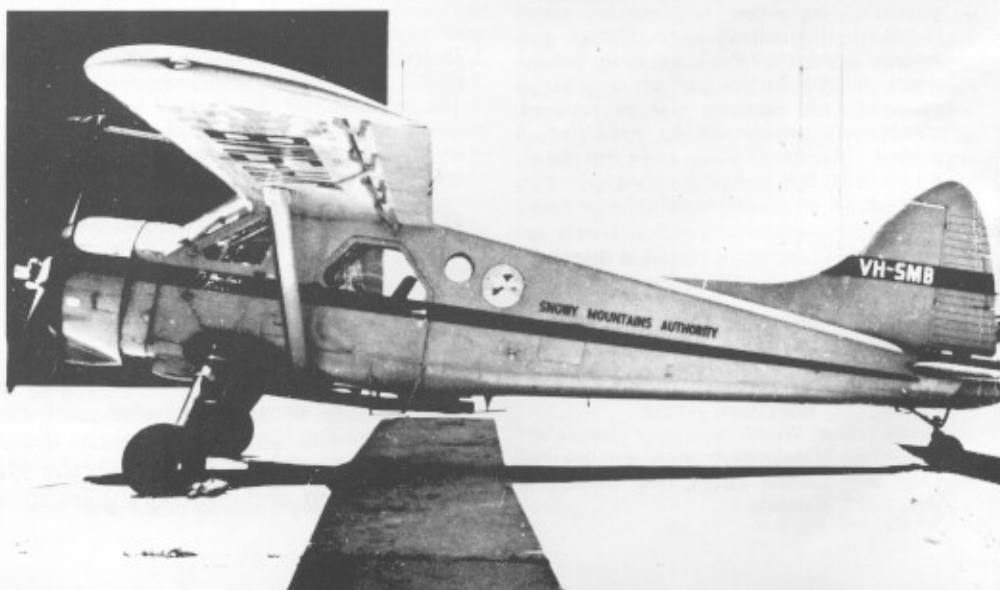
## FLYING UNIT REFORMED

In 1957 the SMA decided that privately-operated air services were necessary to supplement road transport, and began investigation for a suitable multipurpose aircraft which could operate from high altitude airfields, some of which, because of the terrain, would (of necessity) be quite short. The Canadian designed DHC-2 Beaver was chosen as the most suitable aircraft and an order was placed with de Havilland Aircraft Pty Ltd at Bankstown, NSW.

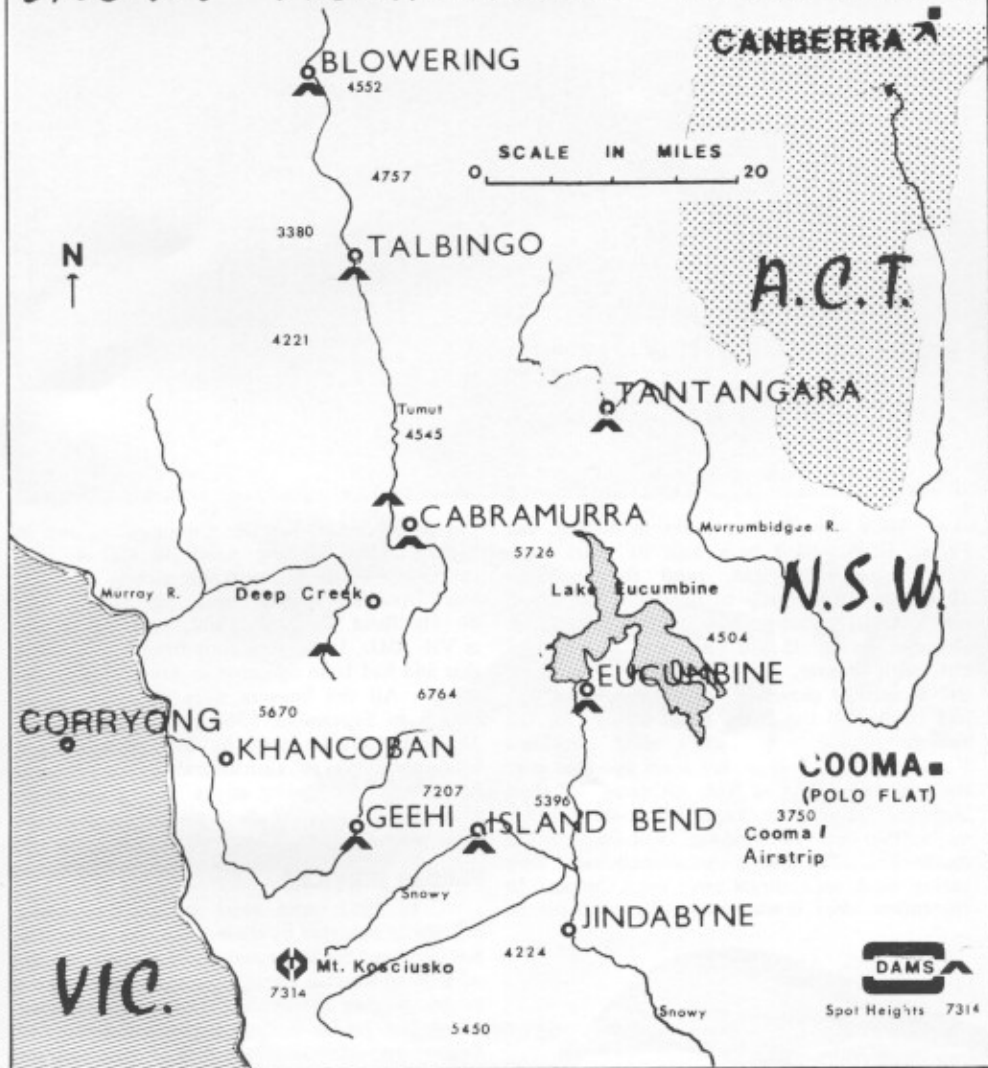
Work began immediately on construction of airstrips at a number of key outposts and a

Heading: Beaver VH-SMB taxis along the Geehi strip (SMA).

Right top: The Authority's first aircraft, Beaver VH-SMA "Snow Goose" at Mascot (I. McDonell). It was soon joined by a second Beaver VH-SMB "Snow Gander" (Below) (G.R. Bamfield).



# SNOWY MOUNTAINS AIRSTRIPS



base aerodrome was established on SMA land alongside their Headquarters, right on the edge of the Cooma township. This home airfield was named Polo Flat Airfield and was built as a private field for the SMA Flying Unit rather than using Cooma Airport which was situated ten miles from the town. Facilities installed, included a terminal building for passengers and freight and radio equipment for communication with aircraft in flight to supplement the established ground-to-ground HF network used throughout the Scheme.

Airstrips were built to service all the important projects of the Scheme, the major strips being:

Polo Flat, Cooma	Length	5,000 feet
Jindabyne	"	3,180/2,600 feet
Island Bend	"	2,100 feet
Geehi	"	2,000 feet
Blowering	"	3,000 feet
Khancoban	"	3,210 feet
Talbingo	"	1,700 feet
Cabramurra	"	2,610 feet
Eucumbine	"	1,200 feet

Cabramurra, situated on the top of a plateau, is the highest airfield in Australia, with an elevation of 5,300 feet AMSL and comprises a gravel runway with a 2,000 foot drop over the end! Other strips, such as Tantangara and Geehi were used for short periods only: Tantangara was flooded when its dam construction was

completed; Geehi, after its initial use, reverted to the status of an emergency strip only.

The new Beaver delivered in April 1958, and appropriately registered VH-SMA, carried the name *Snow Goose* and a motif of a flying Ibis painted on the fuselage sides. This motif was later to be used on all the Authority's aircraft. The Beaver was an immediate success, carrying 1,602 passengers in its first year of operation, and the Authority purchased a second Beaver in December of that year. This aircraft had been used by Qantas in New Guinea for three years until replaced by a DHC-3 Otter. It was re-registered VH-SMB and entered service at Cooma with the name *Snow Gander*.

The two Beavers were kept busy with daily flights carrying personnel, urgent freight, spare parts and mail between the strips around the mountains. In addition the aircraft were used for supply-dropping of food and supplies at the more remote campsites, road and powerline reconnaissance, and emergency evacuation of sick and injured men to the hospital at Cooma.

A major setback to the Flying Unit occurred 21 May, 1959 when the first Beaver was crashed at Geehi strip. The pilot had abandoned the take-off run, but the aircraft could not be stopped before it overran the strip and collided with a stockyard; it was completely burnt out in the ensuing fire. The pilot received

only minor injuries, but the only passenger was seriously hurt.

An order for a replacement Beaver for *Snow Goose* was placed with de Havilland in Sydney, but because of the urgent requirement for a replacement a search was made for an available second hand aircraft, rather than wait for delivery of a new machine. Malayan Airways had a fleet of five Beavers about to be retired and negotiations resulted in the purchase of one of these, 9M-ALT, late that year for the Authority. (The remaining four were purchased by Aerial Agriculture Pty. Ltd. in 1960). The Authority's aircraft was dismantled and flown



Above: SMB's "Snow Gander" emblem. (J. Hopton). Below: Beaver VH-SMC dropping supplies to an isolated camp site in rugged mountain country in the Snowies (SMA).





Beaver, VH-SMA making the first landing on the newly constructed Island Bend strip on 26 June, 1958 (SMA).

from Kuala Lumpur to RAAF Richmond aboard a RAAF Hercules in January 1960. After assembly it was ferried to Bankstown for Australian Certificate of Airworthiness inspection before delivery to Cooma as VH-SMC. This aircraft was not given an individual name like the first two which were to remain the only Authority aircraft to carry names, although in later years their Grand Commander was to carry a small white elephant emblem on the tail, a light hearted token of the Flying Unit's feelings towards their Commissioner's favourite aircraft.

With two Beavers again in service, the Flying Unit settled back into its short haul, mixed passenger/freight, local flying during 1960, operating mainly to fixed seasonal schedules. Aerial photographic survey work, at altitudes up to 25,000 feet, was also carried out with Beaver, VH-SMB, fitted with an RC-8 vertical camera. Adastra Aerial Surveys had conducted the initial aerial surveys for the Scheme in the early 1950's using Lockheed Hudsons, and this type was again operated over the Snowies when East West Airlines based their Hudson, VH-BPT at Wagga from March 1957, on a two-year rain-making contract for the Authority. The Beaver occasionally also flew survey work on contract away from Cooma. In November, 1961, it was based in Tasmania for the

Tasmanian Hydro-Electric Commission, and in August, 1966 it flew north to Cairns, Qld. to conduct a local photographic survey.

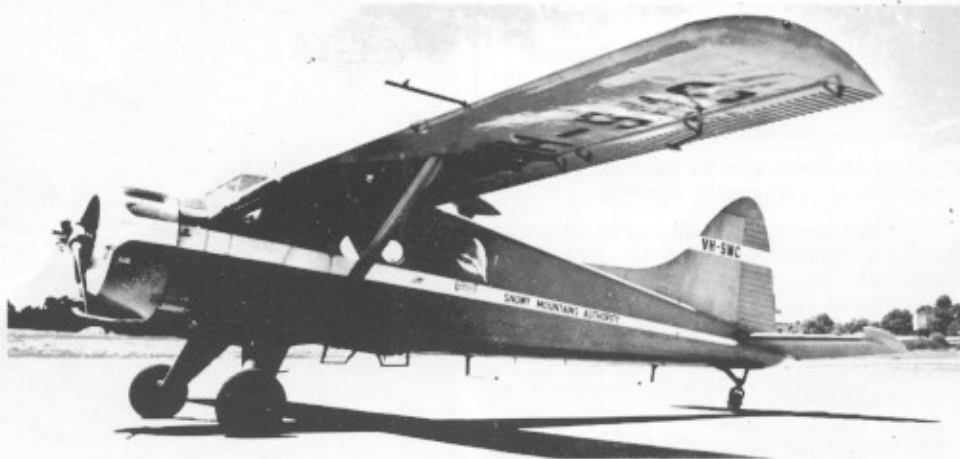
Another Beaver was purchased from de Havilland in June 1962, entering service as VH-SMD. It had previously been equipped with skis and had been operated in Antarctica by the RAAF. All the Beavers were grounded for a period in September 1963 and again in July 1964 following an order by DCA after separate fatal accidents to agricultural Beavers caused by failure of the wing struts. The Authority's aircraft had their struts replaced by modified ones before returning to service.

#### FEEDER SERVICES

In 1961, with local services now being efficiently operated by the Beavers, the Authority saw the need for larger and faster aircraft capable of IFR all-weather operation, to be operated on longer ranging services. These would be used mainly on feeder services between Cooma, and Sydney and Melbourne, as well as other centres on short notice requirements. A 1965 model Aero Commander 680, N6870S, was purchased in the United States, and ferried to Sydney in June 1961 for overhaul by Rex Aviation at Bankstown before entering service as VH-SMA. The Commander flew passengers and freight on feeder services as envisaged and in addition was used for some local flying to the larger airstrips in the mountains when weather conditions prevented the VFR limited Beavers from flying.

Two years later another new type was introduced when a brand new Piper Comanche 250, VH-SME, joined the fleet at Polo Flat. This aircraft arrived at Brisbane on its delivery flight from USA as N8307P on 23 June 1963 and was used by the Flying Unit for general duties, replacing the Beaver VH-SMC, which was sold to Aerial Agriculture Pty. Ltd. at Bankstown who converted it for its new role as a cropduster with their large Beaver fleet.

In August, 1963 the SMA announced that it had purchased a Piaggio P 166 in England, for delivery at the end of the year, to be used in ten seat configuration for flights between mountain



Left, top: VH-SMC, "Snow Goose" (via J. Hopton). Left: VH-SMD at Polo Flat, November, 1964 (N. Parnell).





strips and on feeder services to the capital cities. During the following month Piaggio, G-APVE, was repainted as VH-SMF, at Luton Airport, England, and left on its delivery flight to Australia on 12 September. It had been originally imported to England from Italy in 1959 by the aircraft brokers W.S.Shackelton Ltd. and received its British CofA on 4 August, 1959 before delivery to its new owner, The Earl of Derby, at Liverpool on 18 August. As the scheme reached the peak on construction activity, the larger capacity of the Piaggio proved most valuable and its performance with heavy loadings allowed it to operate regularly into the Khancoban strip. With increasing numbers of workers and freight to be transported another ten-seater was soon needed. On 13 July 1964 a factory-fresh Grand Commander 680FL was delivered to Essendon as N6316U for CofA inspection by Executive Air Services, before entering service as VH-SMC; it was the first of its type in Australia.

The SMA fleet was maintained in the hangers at Polo Flat by multi-licensed LAME employed by the Authority, although major servicing and modifications on the two Aero Commanders were carried out by DCA engineers at Parafield on several occasions. SMA pilots were a cross between airline and bush pilots, and by 1967 the Flying Unit had seven IFR rated pilots, flying full time, each with a minimum of 5,000 hours flying time. The senior pilots were approved by DCA to train and conduct licence ratings and renewals on SMA pilots at Cooma.

#### FLEET RATIONALISATION

In 1967 a rationalisation of the varied fleet of the SMA Flying Unit took place. The Snowy Mountains Scheme was now past the peak of its construction phases, and the feeder services were no longer so necessary. Flying operations would be concentrating on regular communications flights between Cooma and mountain strips. The early Beavers were becoming quite old and in need of replacement after their years of hard toil.

*Left, top: Aero Commander, VH-SMA at Essendon, Vic., 8 Oct. 1963 (J. Hopton).  
Left, centre: Comanche, VH-SME at Essendon, 21 Oct. 1967 (J. Hopton).  
Left: Piaggio, VH-SMF, Essendon, 3 Dec. 1963 (J. Hopton). Below: Winter scene at Polo Flat as an SMA Beaver sits out a snowstorm (SMA).*



The Helio Stallion was evaluated as a successor to the Beavers, but delivery delays caused the Authority to choose the well-proven Swiss Pilatus Turbo-Porter, and two were ordered through the Australian agents, Forrester Stephen Pty Ltd, Melbourne. The two Porters arrived at Essendon on 23 October, 1967 (in Swiss ferry markings HB-FDC and FDD) and after Australian certification became VH-SMA and SMB. In one of the last examples of registration juggling, before DCA banned changes of registration at the end of that year, the Aero Commander and Beaver which were about to be sold, were registered VH-SMG and VH-SMH, to clear the preferred letters. When the Porters entered service in November 1967, the planned rationalisation of the SMA aircraft fleet was effected and the Piaggio, Comanche and two remaining Beavers were sold to Aerial Agriculture Pty Ltd, who quickly resold the Piaggio to Executive Air Charter of Sydney and the Comanche to the Royal Aero Club of NSW. They retained the survey modified Beaver, VH-SMH, for use as a geological survey aircraft and fitted it with a magnetometer bomb, but shipped Beaver VH-SMD to the USA as the sales potential of a passenger Beaver in Australia was limited. Chartair Aviation Pty Ltd of Adelaide purchased the Aero Commander, VH-SMG, from the Authority.

*Right: The brand new Grand Commander, VH-SMC at Essendon on 1 August, 1964. (J. Hopton). Far right: The same aircraft at Rotorua, NZ, on 7 Jan. 1973 registered ZH-DHF with Geyserland Airways. (R.J. Deerness).*

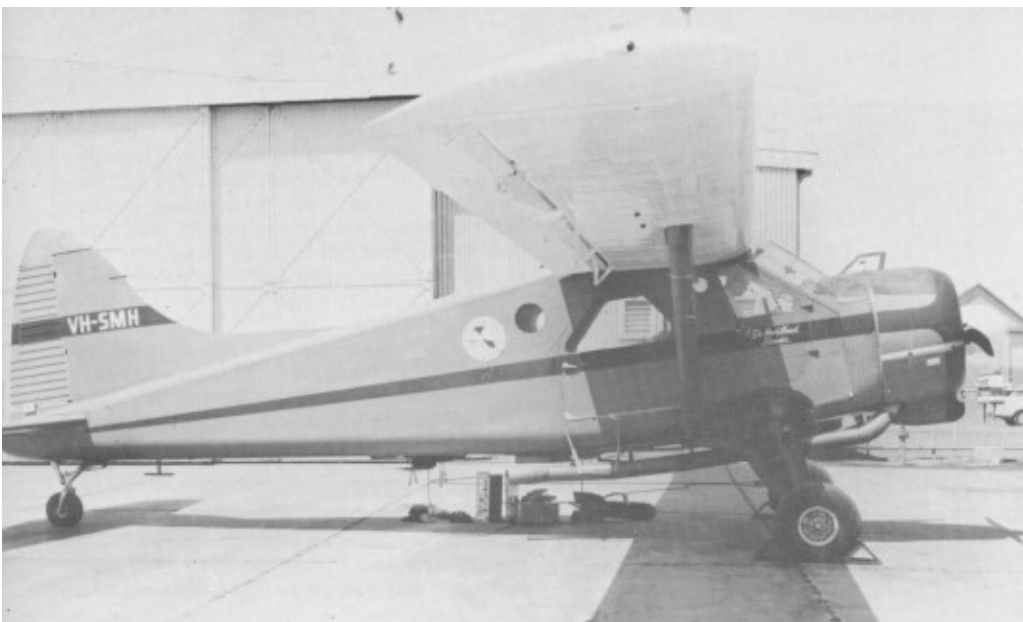
The Snowy Mountains Authority fleet assembled at Polo Flat in November 1967, just prior to the major fleet rationalisation that came about with the delivery of the two Turbo Porters. Note the Aero Commander has been re-registered from 'SMA to SMG' while the Beaver 'SMH' is missing, being away from base on survey work (SMA).

#### THE PORTER ERA

The SMA began 1968 with a fleet of two Turbo Porters and the Grand Commander. The Porters were the regional workhorses while the Commander flew feeder services. The Authority was pleased with the new Porters, which had been chosen because of their STOL

performance, rugged versatility, and the reliability of their PT6A-20 engine. The Time-Between-Overhaul of their engines and propellers was a very high 2,100 hours, which was increased to 2,400 hours in SMA service, and the Porters quickly proved themselves extremely well suited for the operation. Unlike the Beavers before them, the Porters were not equipped with skis





to New Caledonia later that year as F-OCQV; it was to return to Australia for resale three years later.

#### A TYPICAL FLIGHT

With the remaining Porter the Flying Unit continued on a much reduced schedule of communication flights in the Snowy Mountains. The author travelled on a typical flight on 17 March 1976 in the Porter, VH-SMB flown by Jack Howard. Initial impressions were of the roomy interior of the cabin, with its canvas utility seating and the large sliding door on the starboard side which enables bulky cargo to be easily loaded. The noise level when taxiing was markedly less than outside, but the level increased significantly during flight. Departing Polo Flat for Talbingo at exactly 1 pm, on the scheduled afternoon service, VH-SMB climbed out at 90 knots Indicated Air Speed, (with a climb rate of 1,100 feet per minute) to cruising level of 8,000 feet. After thirty minutes cruise at 115 knots, during which we overflew a Cessna 337 dropping incendiary flares amongst timber on the slopes of a mountain to burn off undergrowth, we commenced descent into the Talbingo Strip which serves two large dams and a power station. Landing uphill on the sloping grass strip, Jack Howard parked the Porter at the top for a brief two minutes stop

Left top: Beaver VH-SMH, ex SMB at Bankstown, late 1967. The "Snowy Mountains Authority" has been removed from the fuselage, although the individual emblem remains (N.M. Parnell). Left: SMH with Aerial Agriculture's Survey Division at Jandakot, WA in June 1968 (M.W. Prime). Below: Porter VH-SMA at Essendon after Australian certification Oct. 1967 (P. Kelly). Bottom: F-OCQV, ex SMA at Bankstown on 1 Oct. 1976 on return from New Caledonia for resale (M. Vincent).

during the winter months: instead 13 psi low-pressure tyres were fitted. By February 1969 the two Porters had logged a total of 1,400 hours flying and by 1971 their utilisation had risen to 1,300 hours per annum, per aircraft.

The last of the feeder aircraft was sold in March 1972 when the Grand Commander went to New Zealand's Geyserland Airways Ltd. It replaced the Grand Commander, VH-EXZ which had been leased from Australia to replace their own ZX-DBQ, damaged in an undercarriage collapse at Wellington Airport 16 January, 1972. VH-SMC arrived at Christchurch on 14 March, for New Zealand CofA inspection by NAC before entering service on tourist flights to Rotorua as ZK-DHF.

A year later, the winding down of the SMA's construction had reached the stage where two Porters were no longer required; VH-SMA was sold to Civil Flying Services Pty Ltd in Melbourne, in January 1973 before being sold







tragic end on 20 May, when the Authority's sole Porter, VH-SMB, crashed at Polo Flat on return from a scheduled trip to Khancoban and Talbingo. The aircraft had taken off from Polo Flat earlier in the morning in foggy conditions, and when it returned to base found that the fog was still lying in a bank across the airfield. After an unsuccessful attempted landing approach the aircraft held above the fog before making a second attempt. Unfortunately it struck a radio transmission tower near the field and crashed to the ground and burst into flames. Senior Pilot Jack Howard and his three passengers were killed and the aircraft totally destroyed.

The SMA had for some time been considering disbanding the flying unit, because of the general scaling down of construction activities, and with the loss of the Authority's sole aircraft and their Chief Pilot it appeared that after eighteen years this unique operation was to finally end.

#### THE CURRENT SCENE

Several months after the accident, however, the decision was made to continue with the Unit and private operation of aircraft on Authority work, rather than chartering other aircraft. The Britten-Norman Islander was enjoying widespread popularity around Australia on charter operations off rough strips, and this type was selected. VH-ISI was purchased in Sydney, in August, 1976 through Hawker de Havilland. It had previously spent three years flying prospective purchasers to inspect land sites in country NSW for the Sydney real estate firm, Newhouse and Cochrane Pty Ltd. The Islander now flies from Polo Flat carrying out the same duties as the varied SMA fleet before it.

Some brief statistics show the extent of the operations over the years. From the first year, when 1,602 passengers and 31 tons of freight were carried, the service grew such that by 1966 over 18,400 passengers and 460 tons of freight were carried. By the end of 1973 the Flying Unit had logged a total of 32,280 hours flying time; carried 193,700 passengers and uplifted 4,430 tons of freight.

*Left top: Aerial view of the Polo Flat aerodrome (B. Dannecker). Left: Piaggio SMF derelict at Bankstown, Jan. 1965 (M. Vincent). Below: Porter SMB at Cabramurra, Australia's highest airfield, Feb. 1969 (N. Parnell).*



to disembark one passenger and a consignment of parcels and SMA correspondence to a waiting van, before taking off down the strip for the return leg to Cooma. Flying over rugged and heavily timbered terrain, with steep ridges, and rocky outcrops and mountain peaks up to 6,000 feet, the Porter cruised smoothly through patchy light turbulence associated with the afternoon cumulus cloud build up. Passing lake Eucumbine the terrain became less rugged and gradually changed to the cleared pastoral land around Cooma. Forty minutes after leaving Talbingo we landed back at Polo Flat on the grass alongside the gravel strip, and taxied to the terminal building where the Porter had a brief rest before continuing on the next scheduled run later that afternoon.

#### DISASTER AT POLO FLAT

Only two months after this flight, the Flying Unit's operations came to an abrupt and



## REFERENCES

D. J. Hardman  
Snowy Scheme Management and Administration

A. J. Jackson  
British Civil Aircraft Since 1919

G. Reid  
Essendon Newsletter – various issues

AHSA Journals and Civil Register Supplements  
– various issues

## CREDITS

The author wishes to thank the following for their assistance in compiling this article: Dave Eyre, Mel Davis, Dave Prosser, Mike Vincent, Bob Starkey (SMA), and special thanks to Neville Parnell.

Islander VH-ISI at Bankstown, 4 January 1977 (P. Kelly).



*Australian Civil Aircraft Register details of the Snowy Mountains Hydro-electric Authority's fleet, listed in order of acquisition:*

VH-SMA	DHC-2 BEAVER (c/n 1089)	11.4.58 21.5.59	Added: SMA Crashed Geehi, NSW
VH-SMB/H	DHC-2 BEAVER (646) ex VH-EAU	9.12.58 27.9.67 13.11.67	Purchased ex Qantas Empire Airways Ltd, Sydney Reregistered VH-SMH Sold to Aerial Agriculture Pty Ltd, Sydney (To Canada 6.72 as CF-TCW)
VH-SMC	DHC-2 BEAVER (140) ex 9M-ALT, VR-RBT	31.12.59 27.8.63	Added: SMA Sold to Aerial Agriculture Pty Ltd, Sydney (To VH-AAL, crashed 20.5.64 Big Hill, NSW)
VH-SMA/G	AERO COMMANDER 680 (680-422-96) ex N6870S	22.5.61 27.9.67 13.11.67	Added: SMA Reregistered VH-SMG Sold to Chartair Aviation Pty Ltd, Adelaide (To VH-PSG, current based Adelaide)
VH-SMD	DHC-2 BEAVER (1125) ex VH-MKT, A 95-204, VH-DHJ	20.6.62 13.11.67	Purchased ex Hawker de Havilland Aircraft, Sydney Sold to Aerial Agriculture Pty Ltd, Sydney (To America 6.68 as N541R)
VH-SME	PA-24 COMANCHE 250 (24-3552) ex N8307P	10.7.63 13.11.63	Added: SMA Sold to Aerial Agriculture Pty Ltd, Sydney (Current, based Victoria)
VH-SMF	PIAGGIO P.166 (355) ex G-APVE	29.8.63 13.11.67	Added: SMA Sold to Aerial Agriculture Pty Ltd, Sydney (Struck off 15.9.75, derelict Bankstown)
VH-SMC	GRAND COMMANDER 680FL (1429-71) ex N6316U	30.7.64 17.3.72	Added: SMA Sold to Geyserland Airways Ltd, NZ as ZK-DHF
VH-SMA	PILATUS PC6B-H2 Porter (656) ex HB-FDC	30.10.67 19.1.73	Added: SMA Sold to Civil Flying Services Pty Ltd, Melbourne (To New Caledonia 10.73 as F-OCQV)
VH-SMB	PILATUS PC6B-H2 Porter (658) ex HB-FDD	30.10.67 20.5.76	Added: SMA Crashed Cooma, NSW
VH-ISI	BN-2A ISLANDER (329) ex G-BAUT	12.8.76	Purchased ex Hawker de Havilland (Australia) Pty Ltd, Sydney Currently in service.