

# The De Havilland Drover

At the end of the war, the De Havilland Company in Australia put in hand design and development of an aircraft suitable for specialised local conditions.

Mr Ross Meehan organised a private search with light aircraft, which checked up at closer quarters than the big RAAF planes on any "hope" reports; and several land searches also delved deep into the snowlands.

The most promising report yet given was that of a RAAF Lincoln whose pilot said he saw the aircraft over Kosciusko at about 5 pm on the 26th. He gave positive identification.

An assessment of all known factors indicated that at that stage the pilot of the lost aircraft would have been in desperate peril, with his petrol supplies almost at the last gasp and a safe landing place a long way away.

On that report hope is still pinned that the Percival and its occupants will be found when the thaw sets in, possibly sometime in December.

The tragedy has a lesson to teach: the need for careful regard by private pilots of the DCA request that a flight plan be put in before any lengthy cross-country flight is made, and that that plan should be laid as far as possible over townships where their passage overhead can be noted and reported to the civil authorities.

## TAA Promotions

**F**OLLOWING the promotion of Mr John Ryland to the post of Assistant General Manager of TAA, have been a number of promotions inside the organisation. They include, on the operational side, the creation of the posts of Superintendent of Flying Operations, filled now by Captain John Chapman, and of Inspector of Safety (Captain Aubrey Koch).

Subsequent vacancies are filled as follows: Flight Superintendent (Captain O. Dowie); Senior Route Captain, Essendon (Captain C. C. Foreman); and Chief Pilot (Captain F. Cooper). Captain E. A. Dorward is airport manager at Essendon.

## New RAAF Pay

**A**FUNDAMENTAL feature of the new RAAF aircrew scheme (see Page 15) is that it involves a reduction in the number of war time aircrew categories and, consequently, a considerably wider range of skill and training is demanded in each new category. The daily rates of active pay of qualified aircrew will be as follows:—

Rank	Pilots & Navigators	Sign'lers Gunners & Engrs.
Grade IV	18/	17/6
Grade III	20/	19/6
Grade III, after 4 yrs.	20/6	20/
Grade II	22/6	22/
Grade II, after 2 yrs.	23/	22/6
Grade II, after 4 yrs.	23/6	23/
Grade I	24/	23/6
Grade I, after 2 yrs.	24/6	24/
Grade I, after 4 yrs.	25/	24/6
Grade I, after 6 yrs.	25/6	25/
Master	26/6	26/
Master, after 2 yrs.	27/	26/6
Master, after 4 yrs.	28/	27/

Direct entry aircrew, on commencing training, will be paid at the recruit's rate of pay, i.e., 8/6 per day if under 21, 10/ per day if 21 or over.

**W**HEN De Havillands stopped local production of the Dragon, which has performed a very useful service in developing outback services, it was natural that the Australian company should set to work on an improved replacement for this type.

The replacement aeroplane was not only required to operate under the same conditions as the Dragon, but to meet the many safety requirements introduced by recent legislation, of which the principal and most difficult is the maintenance of a satisfactory rate of climb with one engine inoperative. The necessary performance had to be obtained without undue elaboration, and careful thought had to be given to simplicity of maintenance, as the type must be capable of satisfactory continuous operation without extensive maintenance establishments.

A number of layouts were investigated and finally the present arrangement, using three Gipsy Major engines, was chosen for its simplicity and ruggedness of power plant. An examination was made of the problems which had previously been encountered in the operation of three engine aircraft, and it was decided that a satisfactory engine mount and cowling could be designed which would reduce to negligible proportions the disadvantages of vibration, noise and leakage of oil over such vital places as the windscreen and cabin door.

The Australian design team completed their preliminary investigations, including the full mock-up and general arrangement drawings. Mr Martin Warner, designer in charge of the project, then visited England for a personal discussion with Sir Geoffrey de Havilland, technical director of the De Havilland enterprise, and with other members of the England company's staff. Mr Warner was able to confirm and amend many points regarding the design, and as soon as he returned to Australia the

After six months' training, and subject to the required standard being reached, all aircrew trainees will be paid at the rate of 11/ per day. In addition, as from the commencement of flying training, they will be paid flying instructional pay at the rate of 2/ per day.

Serving airmen who are selected for aircrew training will be paid at the rate of pay appropriate to their rank or classification and group together with flying instructional pay as above.

work of building the prototype commenced.

The main structure of the prototype is now nearing completion, but it will be some months before flight tests commence.

As far as possible, the structural design has been based on the well established principles of the Drover. The Drover is metal stressed skin construction throughout. The normal passenger seating accommodates six with lavatory and ample luggage space, but this can be increased nine by the elimination of the lavatory and reduction of the luggage space. The undercarriage is non-retractable, and neither hydraulic nor pneumatic services are fitted, although the brakes are of hydraulic type without power actuation.

It was considered that the adoption of a nose wheel would reduce the pay load, and so this was discarded in favor of the conventional main undercarriage and tail wheel. A secondary advantage of the tail wheel layout is the increased propeller clearance obtained during taxiing, and consequent reduction of abrasion when using rough gravel runways. In order to allow operation from unsurfaced aerodromes, the wheel and tyre sizes have been selected approximately 30 per cent. in excess of requirements, and should be satisfactory under all reasonable conditions.

The following brief particulars indicate the capabilities of the type and should be treated as preliminary estimates only, as all performances will be confirmed by test flights:—

Span, 57 ft.; length, 38 ft.; wing area, 325 sq. ft.; wing loading, 20 lb. per sq. ft.; power plant, 3-140 hp Gipsy Major 10's; propellers, VP props. operated electrically from cockpit; no automatic governors will be fitted; wheel track, 14 ft.

### APPROXIMATE WEIGHTS:

One pilot	170 lb.
Crew equipment	20 lb.
Fuel—85 gallons	614 lb.
Oil—9 gallons	81 lb.
Pay load and radio	1235 lb.
Tare weight	4380 lb.
Weight full load	6500 lb.

### PERFORMANCE:

Cruising speed, 135 mph.  
 Fuel consumption, 22½ gallons per hr.  
 Air miles per gallon, 6.  
 Range in still air, 500 miles.  
 Rate of climb at 6500 lb., A.U.W., 800ft. per minute at sea level.  
 Rate of climb at 6500 lb. A.U.W. with one engine inoperative, more than 200 ft. per min. at sea level.

No price details are available pending completion of flight tests.