

# AUSTER NEWS

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Vol. 5 : No. 8

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### A Work Horse

WITH unflinching regularity, in fact with every issue of the *Auster News*, we are pleased to record still further tasks to which Austers are being put to all over the World. Readers will remember the most recent application in the form of the Autocar equipped with Hydro-skis for investigation into the possibility of using Hydro-ski undercarriages for jet fighters. Now, with this issue we describe another new role to which Austers are being applied, that of searching for uranium in the deserts and mountain areas of Australia. These are the more unusual uses of the type which has now reached a high degree of versatility.

When the Auster was first built its loaded weight was 1,200 lbs. and it was a 2-seater, today with the Autocar, this weight has risen to 2,450 lbs., it is a 4-seater and the basic configuration is still the same. This enormous rise in all-up weight is due mainly to continuous development of the type with an eye to it becoming a light aircraft with an unlimited number of uses. The practical value of this approach is being felt by Auster operators in many countries who regularly adapt their aircraft for crop spraying, ambulance duties, etc., without having to resort to expensive and extensive modifications to the airframe which result in the aircraft having a fixed role. The number of conversion kits and accessories available to increase the earning capacity of

Austers is considerable, but what is really important is that all these items are easily installed, and when the need for them is over the aircraft can quickly be converted to its original or an alternative role.

This brings us to a rather special Autocar which can quite easily be called one of the world's most versatile aircraft and will certainly be the most versatile Auster ever produced by the company. This aircraft has been ordered for use in Austria and will be the first new British aircraft imported into that country since the war. The extra equipment being exported with the aircraft give an idea of the numerous uses to which it will be put. These are crop spraying, crop dusting, glider towing, aerial photography and aerial ambulance duties; it will also have a long-range fuel tank, and will be used for pilot training, freighting, and mountain rescue work—truly a versatile work horse and a fitting climax to the years of development behind the Auster.

#### Cover Photo

This pleasant picture was taken in Sweden and shows an Auster Autocar floatplane operated by A/B Stockholms Aero. A Flight test report on this aircraft appeared in the last issue of the *Auster News*.

# Flying in the Southern Alps \*

QUEENSTOWN on Lake Wakatipu, in the south-west of New Zealand's South Island, is in the centre of some of the World's most magnificent scenery. Snow-capped mountains, including such famous peaks as Mounts Cook (12,349 ft.), Tasman (11,167 ft.), Sefton (10,350 ft.) Aspiring (9,975 ft.) Earnslaw (9,200 ft.), and Tutoko (9,042 ft.); the great southern blue lakes of Wakatipu, Wanaka and Hawea; the spectacular Franz Josef and Fox glaciers; majestic valleys and cascading waterfalls combine to provide unsurpassed scenic grandeur which fully justifies the appellation Southern Alps. The south-west coastline affords comparison with Norway, the many narrow fiords or sounds, of which Milford is the most famous, penetrating deeply into the largely unexplored forest-covered mountains.

Here is a holiday resort for all seasons. Walking, riding, climbing, swimming and boating are ideal in Summer while there is good hunting at any time of the year. The ski-ing in Winter is of the best in New Zealand and attracts enthusiasts from as far away as Melbourne, Australia, who can reach Queenstown in 14 hours—a quicker journey than that to the slopes in their own country.

It would be surprising, therefore, if an air service based at Queenstown did not devote a large part of its efforts to transporting tourists. Southern Scenic Air Services Ltd., formed in 1948 by a group of ex-servicemen, suggests by its title that its purpose is just this, and gives no hint of the more workaday duties which it also performs.

The tourist may make his first acquaintance with Southern Scenic when he boards the aircraft which maintains a feeder service between

Dunedin, on the New Zealand National Airways' route operating along the east coast, and Queenstown. This service, which maintains a high degree of reliability, is classed as non-scheduled but at least one flight is made daily, except on Sundays.

The airfield at Queenstown adjoins a golf course on the site of which was once a large racetrack established outside the town by gold prospectors nearly a century ago. Southern Scenic has provided two 1,200 yard landing strips and two shorter ones, all of which are available for public use. From here this company operates a series of aerial sight-seeing tours, lasting between one and four hours, these are carefully planned to take in some of the most striking and unforgettable scenery in New Zealand.

Two Percival Proctors are most often used for the tourist flights. Last year 3,400 passengers enjoyed these trips, and at least as many were disappointed—because Southern Scenic does not take off unless the weather is clear enough to justify the passengers' expectations. Often brilliant weather east of the Southern Alps is paralleled by dense clouds over the west coast where the rainfall can be as high as 300 inches in a year. Five ground radio sets at strategic points provide knowledge of weather conditions throughout the region before a flight is undertaken.

But tourist flights are only part of the work of Southern Scenic. The five ex-service pilots, backed by an engineer and five other ground staff, will tackle any task which is within the capabilities of the company's all-British fleet of four Austers, two Proctors and two Ansons. All these aircraft can operate from makeshift airfields, and the Austers, in particular, are suitable for operation in and out of the confined

\* *Reproduced by kind permission of the Editor of "Esso Air World."*



*The airfield adjoining the Franz Josef Hotel, near the foot of the glacier. This is a convenient point for refreshment at the northern limit of one of Southern Scenic's more extensive sight-seeing tours.*

landing spaces provided on hill farms.

The aerial services offered to these farms are many and varied and have become so generally accepted as to make the aeroplane an almost indispensable farm tool. Top-dressing or seed-sowing is not only accomplished more quickly from the air; it is often, in hilly districts, the only practical method of maintaining productivity where terrain is too steep for machine cultivation and too extensive for hand methods.

In these circumstances it is not surprising that aerial top-dressing and seed-sowing have grown to be one of the most important sections of New Zealand's aviation industry. More hours are now flown in New Zealand on

these missions than are flown by domestic commercial flights.

Southern Scenic pioneered grass-sowing from the air in the South Island. In half a morning they spread a ton of grass seed over 200 acres of a sheep station near Queenstown. A more recent and bigger task was the seeding of 6,000 acres on a high sheep station in the foothills of the Southern Alps, a region accessible only on foot or horseback. For this operation, believed to be the biggest of its kind in New Zealand, a runway was laid out on the flatter land of a nearby station, and two aircraft completed the sowing in a day and a half. The grass seed, carried 400 lb. at a time, was left uncleaned to give it a better anchor in the soil.

Another service to the stockman of the rough-and-tumble hill country is that of locating groups of sheep or

min. Oats, chopped carrots and prepared pellets, all loaded with poison, are distributed to control the pest.

But in many cases it is extremely costly to carry bait into the regions where it is most needed. Southern Scenic Air Services considered that an aeroplane could handle the distribution more efficiently and was the first to offer such a service in New Zealand.

The poison bait is distributed from the Auster's hopper at the rate of 10 lb. to a mile, and two to three tons a day. On one remote hill station, where the rabbits had become hopelessly out of control, the company dropped 900 lb. of pellets in one hour. It



*An Auster Aiglet of Southern Scenic Air Services dropping supplies by parachute to deer hunters high in the mountains.*

*One 30-lb. bundle has already been accurately placed.*

cattle during the round-up season. The musters work on horseback or on foot, and knowing where the animals are to be found saves an immense amount of time and energy. The pilot spots them from the air, notes their location and estimated number on his map of the station, and drops the marked map at the musters' camp.

New Zealand's rabbit problem has never achieved the notoriety of Australia's but it is just as serious. Since the war, Rabbit Boards have been established in most areas and residents are taxed for the control of ver-



*Fred Lucas, D.F.C. and bar, founder and Managing Director of Southern Scenic Air Services.*

would have taken a man on horseback at least two weeks to accomplish this, even if he could have reached the rough area.

New Zealand was once a country devoid of mammals. Early settlers imported familiar species, most of which adapted themselves to their new surroundings too well. Rabbits, wallabies, opossum and deer, as well as various domestic strays have become pests. Their constant foraging depletes forests and accelerates erosion so that, since 1931, the New Zealand Government has had to employ hunters to curb these wild populations.

Deer destruction parties must go into wild inhospitable country, far from roads and even beyond packhorse trails. Since the war, many parties have been supplied by air-lift, rather than waste time by back packing supplies. Bulk supplies are deposited at a main camp, where a landing field is available, be it beach or paddock.

Camps on high peaks above the timber line or at the head of a valley receive their stores by parachute. Southern Scenic pilots have become skilled at pin-pointing these drops, and few parachutes are lost. Some 300 drop flights are made each year, carrying 450 lb. each trip.

Southern Scenic also runs an air taxi service. As well as carrying passengers who are in a hurry, the air taxi is often used to deliver urgently required machine parts during shearing or harvesting operations. It has happened that a hill farmer, having walked some distance to the nearest telephone to request a machine part, has found it delivered by parachute in his backyard by the time he returned. Heavy freight deliveries, such as shearing stands, generators and building materials, have also been made to remote stations. On these journeys the aircraft some-

times carry out hides or bales of wool as return load.

The twin-engined Ansons are useful for this kind of operation and also are used regularly from August to December to carry large quantities of whitebait—a tiny fish that swarms in the west coast rivers. The company has developed a special whitebait fishery at Big Bay and Martin's Bay, carrying supplies to the fishermen and buying their entire catch which is flown, a ton at a time in four-gallon cans, direct to the Dunedin market.

The occasional use of one of its aircraft as an ambulance completes the truly varied duties which Southern Scenic performs.

Fred Lucas, one of New Zealand's outstanding war pilots and the company's managing director, has an eye to a further expansion of services. With the possibility of acquiring more and larger aircraft, he is exploring the possibility of opening an air service to the Chatham Islands, 460 miles off the east coast.

In the meantime he hopes for a development of the tourist flights and further extensions of his aerial farming activities. Government interest in afforestation of the treeless hills, to prevent flooding and to maintain a more constant hydro-electric supply, promises more work for the local air carrier. In all these various spheres Southern Scenic Air Services will undoubtedly continue to play a valuable part.

\* \* \*

IF A MAN does not change his method under new conditions he is not fit to do his job.—*Arthur Horner.*

\* \* \*

A MAN WRAPPED UP IN HIMSELF makes a very small parcel.

# AUSTERS NOW SEEK URANIUM

DURING recent years the demand for uranium—used in the manufacture of atomic weapons and power for more peaceful purposes—has reached enormous proportions. This is perhaps due mainly to many governments, in the free world, offering a guaranteed market and price for the valuable ore. This has resulted in prospectors utilizing every conceivable method of searching available—on foot, by car and jeep, and now with Auster lightplanes.

In Australia, geologists have suggested that there are over one million square miles of territory which possibly contains uranium deposits. This vast country to be prospected obviously called for searching techniques that produced much quicker results, hence the use of Austers. Complete reliability is essential in aircraft used for this task as it involves flying within 50 to 60 feet of the ground in order that sensitive instruments within the aircraft can indicate where deposits of uranium are located. One particular area covered by experts in an Auster from Mount Isa Mines Ltd., of Queensland, consisted of broad rocky ridges projecting twenty to fifty feet above valley floors and was generally hemmed in on all sides by steep quartzite ridges. To add to the hazards of low flying the Auster was heavily loaded, carrying a pilot, navigator and instrument observer.

For detecting Uranium deposits the Austers carry a scintillometer mounted on the rear seat fittings, this is an instrument sensitive to gamma rays (emitted from uranium). When the rays strike a sensitive crystal in the scintillometer minute points of light are created, these in turn are transformed into an electrical current which then, either through a buzz, or a flicker of a needle on a dial indicates to prospectors the presence of radio

active material. However, even when no uranium deposits are in the sensitive field of the scintillometer a constant "background" of readings is obtained—these come from the normal radio activity present in all rocks.

Areas selected for prospecting are chosen upon geological evidence, these are then subdivided into blocks approximately eight miles by four, which can be covered by an Auster in two to four hours, depending on the distance from base airfield. Royal Australian Air Force air photographs (scale  $1\frac{1}{4}$  inches to 1 mile) are used by some operators as plans, upon which parallel lines are drawn to a scale distance apart of 1,000 feet. The pilot then flies his aircraft along these lines aided by a navigator. The use of the latter crew member is necessitated through the pilot needing to concentrate on keeping the aircraft within 60 feet of the ground at around 60 to 80 m.p.h. Accurate flying along the tracks is essential for when the instrument observer calls any "anomalous"\* readings the navigator must mark them upon the photographs in the correct spot, or otherwise the charts which are eventually made from the photographs indicating possible deposits will be inaccurate.

The results of the airborne prospecting in chart form are made available to ground parties who then move in and cover the areas with Gieger counters and other ground borne detection equipment. If the ground search is successful the ore is bought by the only authorised purchasers,—The Atomic Energy Commission—who have guaranteed a price of £8 a ton for ore containing only  $\frac{1}{4}\%$  of uranium oxide.

(\*“Anomalous” readings are those which give a reading greater than the normal “background”.)

An interesting feature that comes to light regarding the installation of the scintillometer into Austers is that it has been found necessary to remove all the luminous paint from the instruments of the aircraft as it is sufficiently radio active to give a reading on the scintillometer. This suggests that the instrument is extremely sensitive.

A general indication of the amount of flying involved in aerial prospecting in Australia is given by the following figures obtained from Mount Isa Mines Ltd.,—only one of the many companies involved in the search.

Using Auster Autocrat and Aiglet aircraft (chartered from Somerset Airways of Queensland) at different periods in their 1954 search programme this company alone topped 413 hours

flying, 346 in actual survey flights and 67 on ferry and general flying. The survey took place in the winter months of 1954, April to September.

A Mines departmental official, who has flown in quite a wide variety of aircraft on this type of survey, stated rather bluntly perhaps when asked which aircraft he preferred, that the Auster was the only aircraft suitable for job and was most surprised that anyone should be so dumb to consider any other type.!

Soon Auster Autocars specially ordered for this job will be leaving the assembly lines to eventually skim the Australian deserts and play an even bigger part in the atomic age's quest for uranium.

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## BRITAIN'S AIR UNIVERSITY AND THE AUSTER

### Training the Maintenance Engineer



*An Air Service Training instructor supervises a wing incidence check on an Auster Mk. 6.*

AIR SERVICE TRAINING has been operating for twenty-four years. The School was born during the difficult days of 1931, and established at Hamble with a fleet of up-to-date aircraft, and a staff of specialist instructors. Its function was to provide aeronautical training facilities for home and overseas military and civil personnel. So impressed was the Duke of Gloucester when he opened the School, that he called it "Britain's University of the Air," and this title is now recognised throughout the world.

The war curtailed the operation of the School in 1939, and it was quickly reorganised to play a very large part in the training of Service personnel,

some 40,000 passing through the various courses provided on behalf of the Air Ministry. In 1946, civilian training was re-commenced, and in spite of post-war difficulties, by 1948, some 300 civilian students were in residence in addition to R.A.F.V.R. and National Service personnel.

About this time, the I.C.A.O. recommendations on aircraft maintenance were considered, and as a result, a specialist course in aircraft maintenance engineering was formulated. The syllabus was planned to provide adequate theoretical and practical training to A.R.B. standards, and approval of this training scheme was given by the then M.C.A. Thus Course A.E.1 has be-

come widely recognised as a means whereby within two years students may reach the necessary standard of competence to qualify for the examinations of the Board and so obtain Maintenance Engineers' Licences in categories "A", "C", and "X". The course has the distinction of being the first so approved, and is in great demand by students from all parts of the world.

The School of Aircraft Engineering is staffed and equipped to specialise in training of the aircraft and engine maintenance engineer. The two-year approved course is the foundation of the instruction, and the majority of students commence study at Hamble without prior aeronautical engineering experience. Originally, the Tiger Moth formed the basis of the airframe phases. However, in 1954, Auster Aiglet Trainers were purchased to supersede the Tiger, and basic-type instruction is built around these aircraft, coupled with the De Havilland Chipmunk, and their associated power plants. Both these aircraft are operated by the Flying School, so that practical experience of maintenance in all its aspects is a unique feature of the Course.

Two purely 'instructional hangars' form part of the School premises. The first is devoted in the main to basic workshop practice, and the assembly and overhaul of engines. Here, the Student is engaged in the complete overhaul of the Gipsy Major and Cheetah engines. After reaching a satisfactory standard of competence, he is transferred to the engine overhaul department of the Flying School for advanced experience on 'live' engines, and takes part in general maintenance work in the hangars under the supervision of the Chief Engineer's staff. This practical experience goes hand in hand with theoretical study of basic and advanced subjects.

The second instructional hangar is equipped to cover all phases of aircraft maintenance and overhaul, including doping, wood and fabric work, cable splicing and metal repairs. A number of airframes are available, including three Austers, so that erection, rigging and weighing procedures can be fully covered, and repair schemes carried out in conditions closely allied to the 'real thing'. This phase of training is also followed by time spent in the aircraft overhaul and maintenance departments of the Flying School.

Theoretical training is centered in a third department, where lecture rooms are provided to cover all aspects of the syllabus, and are furnished accordingly. These include a comprehensive materials laboratory, wind tunnel, aircraft and instruments test laboratory, basic gas turbine department and cinema.

Advanced instruction and practical experience are also available to cover the requirements of the "B" and "D" Licences, and it is possible to arrange individual short courses for applicants with previous experience to enable them to satisfy the requirements of the A.R.B.

The latest addition to A.S.T.'s facilities are Hillier 12.B helicopters, and in addition to pilot training, courses for the helicopter maintenance engineer's licence are to be made available.

Residential accommodation is available on the premises, and the very wide choice of amenities includes tennis, squash, hockey, cricket, with a fully equipped gymnasium and swimming pool. At the present time, A.S.T. students number some 300, and 32 different nationalities are represented.

\* \* \*

MANY A SAILOR has been wrecked by a permanent wave.—*Lord Dewar.*

# DOWN IN 60 YARDS!



*The Auster Mk. 9's ability to land in a short field is well demonstrated in this series of unretouched photographs. In the top picture the aircraft is brought over the hedge at 45 knots. Below, a perfect three pointer and the Mk. 9 settles firmly at 38 knots.*

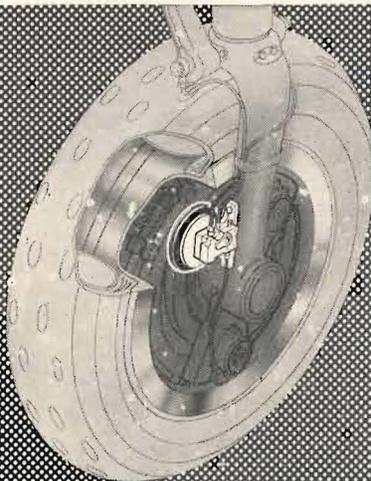


*Below, brakes fully applied, the aircraft is halted within 60 yards of the hedge.*



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# Learning to Fly\* *Contd. by "STUDENT PILOT"*

DURING a student's initial instruction—up to the stage of his first solo—the actual range of his flying from the home airport is very local. And in any case, however many twists and turns are performed during this flying, the instructor is always at hand to keep a check on the position of the aircraft and to direct a course for home. When therefore a pupil is reaching the stage when he will be allowed to fly without his instructor alongside, the time has come for him to give serious consideration to the "where" of an aircraft as well as the "why".

Finding one's way about in the sky is totally different from any other kind of direction finding. Turning right at the traffic lights and then sharp left at the Crown and Anchor, has no meaning in the air. This is not to say that there are no such pin-points by which a pilot can identify his position. In fact there are numerous visual features which can aid the flyer but they have taken on unfamiliar shapes and patterns. In other words instead of the Crown and Anchor, one must now be able to identify a particular clump of trees. The traffic lights could be a pond or a railway junction. Windmills, golf courses, rivers, gravel pits, bridges, churches, chimneys and many more features on the earth's surface are references by which a flyer finds his way about in the sky.

Navigation for the novice would be a comparatively simple matter if this good old countryside of ours was not quite so littered with such features. It's not at all difficult to pick out from the air a church or any other of the features mentioned. But to be able to identify this or that church with the

\* *With acknowledgments to the Editor of "Over to You."*

particular one shown on the map is not so easy.

My eyes are well accustomed to viewing the earth from above and of all the countries I have flown over England is by far the most difficult with which to get familiar. We count our rivers in their hundreds, golf courses stretch out to dot vast areas of the terrain with their sandy coloured bunkers, and although on some railway lines there may be only the occasional train puffing its way, the shiny metals criss-cross the hills and dales like a pattern left by thousands of snails. As for churches, flying by these is really a Steeple-chase. Stately homes, castles, college buildings, hospitals, headquarters of state-owned concerns, museums and many other larger than normal pieces of architecture abound and crowd in upon each other. Many of these edifices are similar in design and layout and not at all easy to identify.

Flying over parts of Australia, it would be a simple matter to be certain that a particular river was the one on the map reference. If it wasn't one would probably be a couple of hundred miles off course because that might be the distance from the nearest alternative river. It is the same with other countries which have experienced less of man's handiwork, or have been less abundantly endowed with prominent examples of Nature's handiwork. In areas the land-marks positively stand out and are easy to identify. As an example, an Australian in the central part of that vast continent once directed me: "Go on for about fifty miles and bear left at the tree."

But since you and I are not trying to find our way across the continent of Australia, or over the deserts of the Middle East, let us get to grips with

the problems of finding our way over the fields of Surrey or Sussex. We must learn to discriminate by getting a detailed knowledge of air maps. We must be able at a glance to tell whether a set of railway lines on the map are "main" or "local". We must also, while probably holding the map upside down—so that it is properly orientated in line with our direction—be able to compare the shape of a clump of trees on the ground with the same design on the map. We must be able to identify land-marks along every mile of our journey. We must check and cross check by looking ahead and to both left and right of our track.

Map reading is without doubt the most important navigational aid for private flyers. Radio and astro-navigational techniques are for the professional types, those who span the world at altitudes from which the whole of Surrey and Sussex would appear as one small field. From their very high perch a church steeple would merely conjure perhaps the thought that once they were innocent choir boys chasing the bats in the belfry. But as we private flyers are more down-to-earth types, we must concern ourselves with finding our way by map-mark and land mark.

I would advise all pupils to get to grips with this problem early on in their flying training. I actually began the study of air maps a few weeks after my first lesson. I got an air-map from a friend and set about reading it whenever I had the time. These maps need quite a bit of study if one is to be able to interpret the various symbols, tokens and references without undue delay. The map I borrowed did not cover the countryside over which I was flying for my training. It was in fact a section that took in Lancashire but, as the symbols, tokens and signs are standard and regulation, the area cover-

ed did not matter. My purpose so far has been to acquaint my mind with them and to practise forming mental pictures of the features on the map as they actually appear from the air.

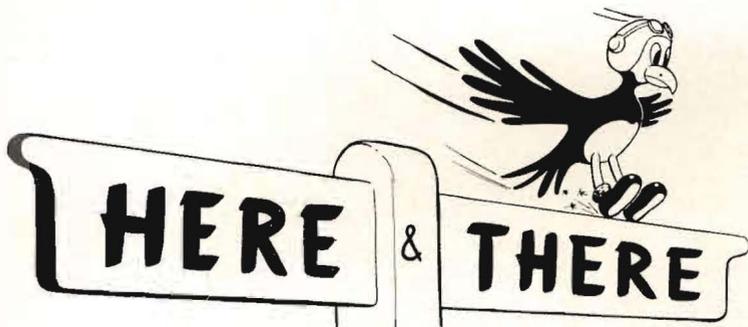
While I have said that the main navigational aid for the private flyer is the ability to map read, aids which can be used in conjunction with this ability are the compass and the direction indicator. The compass will of course give us a degree of direction and the direction indicator is a device which can be set to enable a pilot to steer any given course and is perhaps easier to watch than the compass needle. But these will only give the direction of flight and not the position of the aircraft over the ground. While it might be possible that one could fly a hundred miles or so away from base and turn round and get back merely by compass steering one would not have the faintest idea of the names of the areas flown over unless one could refer to the map. On the other hand, of course, one can map read quite efficiently while at the same time steering a rough compass course. A combination of both these aids to navigation obviously provides the best results.

As I have said, so far I have not had to concern myself with actual navigation in the air. But I have planned trips from the ground. I have selected a flight on paper and with the aid of my map I have set my compass and direction indicator for general direction. I have also worked out positions in relation to speeds, and I am now finding it interesting to take weather into consideration by getting the wind speed and direction from the 'met' and assessing what differences they will make. When I am a little more advanced I will delve into the mysteries of the working of slide rules and other aids by which a true and proper course can be worked out. At the moment I am

fascinated by the map. I find it easy to carry around with me in my pocket and can refer to it anywhere at anytime. In fact on the Underground going home the other evening I was slightly taken aback when studying my map. A nearby fellow traveller sensing I was having trouble finding my earth-bound way across London—because I was map-reading—offered his help and produced an up to date L.P.T.B.

map. He pointed to where the train was on the plan and said: "Here we are. Where did you want to get to?" I am afraid he thought I was definitely heading in the wrong direction when I told him I was actually flying between Blackpool and Lancaster. However, he merely asked at what height I was flying and then made a rush for the doors.

*(To be continued)*



#### **AIRWAYS AERO CLUB OBTAINS HIGH UTILISATION FROM AIGLETS**

FIGURES recently issued by the Airways Aero Club of Croydon show that during their past year's flying operations the average utilisation of their Auster Aiglet aircraft was 835 hours. One Aiglet in particular completed 956 hours—an excellent figure by any standards. Their Tiger Moths were not utilised to a great extent owing to high winds and the marked disinclination of pilots to fly them in preference to Aiglets.

#### **R.A.F. AUSTER PILOT DECORATED**

ATTACHED to the Middle East Air Force and operating against the Mau Mau, Flying Officer S. Brisk has been awarded the A.F.C. flying an Auster A.O.P. Mk. 6 equipped with loud speaker gear. Flying Officer Brisk totalled 300 flying hours—much of

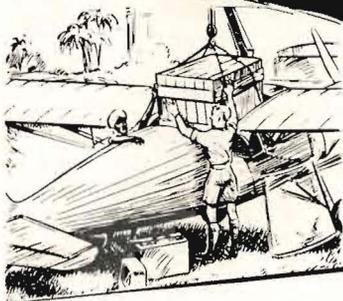
which was at high altitudes calling upon "terrorists" to surrender. This officer was one of the original pilots of No. 1340 Flight formed in March 1953 which has carried out over 6,000 sorties against terrorists. The squadron has also won 4 D.F.C.'s and 3 B.E.M.'s since the emergency began in early 1953.

#### **AUSTER SPRAYPLANE DEMONSTRATED TO DUKE OF EDINBURGH**

DURING a visit to Plant Protection's Fernhurst Research Station the Duke of Edinburgh watched an aerial spraying demonstration given by an Auster J1B Aiglet. The Duke, an experienced pilot, was greatly impressed by the accuracy with which the Aiglet was flown during its spraying runs over an orchard. The aircraft was loaned by Aerial Spraying Contractors, Boston, Lincs.

*(Continued on page 17)*

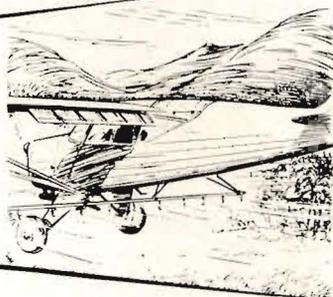
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**CIRRUS 155 H.P. ENGINE**

Auster Aircraft Ltd      Rearsby,      Leicester

# Accessories for Owners

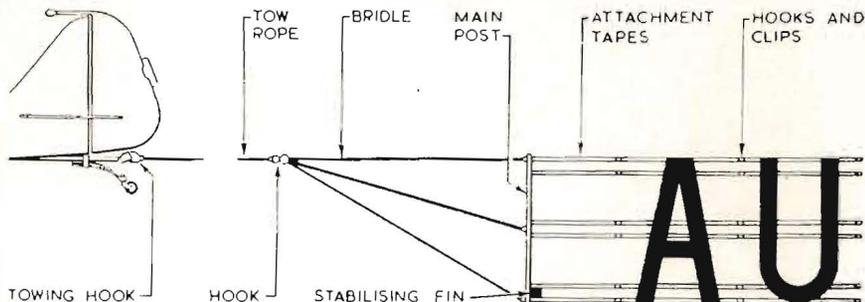
## THE GLIDER BANNER/TOWING HOOK

*Operators of Auster lightplanes are regularly enquiring after details of the equipment necessary to adapt their aircraft to Glider and/or Banner towing. We have, therefore, detailed below the latest information which is available on the subject.*

ANOTHER DUTY to which the Auster may be applied is Glider and/or Banner towing. The latter function provides a unique form of advertising especially in the regions of large cities and holiday resorts in the summer season. The only requirements

comprises a main post, to which a number of attachment tapes are secured. Silhouette letters are provided of about 6 feet in height with the leading edge of each "down stroke" reinforced with bamboo to spell the word(s) required.

The main post is weighted at the bottom and has a stabilising fin to keep the banner vertical in flight. From the forward side of this post a towing bridle of three ropes extends and the final attachment to the aircraft towing hook is made by a single tow-rope. At the trailing edge of the



*A Typical Towing Arrangement.*

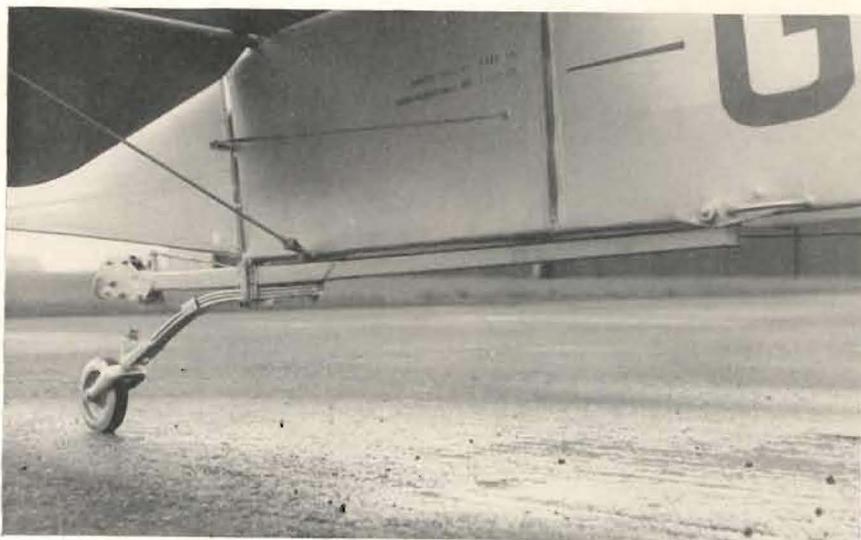
are a banner or a set of letters, a tow-rope, and the Auster towing hook. The latter item is approved for fitting to the Auster Autocrat, (J1) Auster Mk. 5 and Autocar 145 (J5P). All these Auster types are highly suitable for towing most single-seat gliders. We do not recommend however, the Autocrat for towing very large banners, i.e., over approximately 12 letters in length (with a 5 ft. (1.5 m.) letter height).

Some operators use the "solid" canvas type of banner, though it would appear that the most popular one in use is the silhouette letter type. This is illustrated here and

banner a heavy gauge netting helps to prevent oscillation in flight and subsequent damage to the banner.

So far as flying is concerned the same few limitations applicable to glider towing apply to banner towing and these concern the maximum breaking strain of the tow rope, the maximum speed of tow and engine cylinder temperature limitations.

As the photograph shows, the installation is very neat, and causes negligible drag. The whole modification weighs only 10 lbs., and when fitted to the Auster Autocrat does not increase the weight



*The Glider/Banner Towing Bar in position.*

of the aircraft because it replaces the 10 lb. tail ballast weight.

Despatch can be made within four

weeks of receipt of order. Further details may be obtained from: The Service Department, Auster Aircraft Limited, Rearsby, Leicester, England.

## **HERE AND THERE—Contd.**

### **BORNEO JUNGLE STRIPS SUIT AUTOCAR**

IN ADDITION to 3 Princes and 2 Sealands, the British Malayan Petroleum Co., operate an Auster J5B Autocar and are full of praise for its excellent performance. In their own words, "We find it extremely useful for operations into some of the more restricted jungle airstrips in the interior of Borneo, and much appreciate its simple maintenance in such remote areas as Brunei".

To increase its usefulness the Autocar is equipped with ambulance stretcher gear and a freight hatch.

### **LEAFLETS DROP IN ON TAIPING**

A SPECTACULAR opening to a road safety week was organised in Taiping Malaya, recently, when an Auster

dropped thousands of leaflets containing road safety hints. "Leaflet raids" it appears are becoming increasingly popular, as we have received several reports of Austers being used for this purpose. The biggest advantage for using Austers is the ability to fly the aircraft with one of the doors removed. Through the resulting large opening many leaflets can be dumped quickly and a good spread obtained over the chosen "target" a long line of thinly scattered leaflets is then avoided.

### **COURTING—20th CENTURY STYLE**

AUSTER AIGLETS were really designed for touring and pilot training but the latest role allotted to one of these aircraft in Australia is outside even this field of scope. The story involves a Mr. Peter Bryant who found himself courting a young lady situated 230 miles from his property. So in modern style

Peter Bryant wooed his lady every weekend for a year, flying the 230 miles in his Aiglet. They are now happily married and use the aircraft to do the weeks shopping—the nearest town to their home is 115 miles away.

### GUESS WHAT

THE primary job of the Auster A.O.P. Mk. 9 is of course to be used as a "spotter" aircraft for directing artillery

### 16,000 FT. PARACHUTE DROP IN NEW ZEALAND

WHAT is believed to be an Australian and New Zealand record parachute drop has been made over Rukuhia aerodrome in New Zealand. The parachutist involved is a 25-year old Hamilton bus driver, Denis Main. An Auster piloted by K. Fenwick—a Waikato Aero Club Instructor—was used to take Mr. Main to the desired



*Auster Mk. 6 aircraft, standard A.O.P. of the British Army continue to give excellent service. This "Flight" photograph shows one making a low level reconnaissance trip.*

gunfire. In this capacity the function of the aircraft is to provide excellent visibility for both pilot and observer. The view from the cabin is therefore of a high degree, after studying the photographs of the Mk. 9 on page 10 readers are invited to guess the total area of "perspex" provided (including the top canopy, windscreen, and side windows etc.). The answer is at the foot of page 19.

altitude. Whilst spectators on the ground sweltered in the heat Mr. Main clambered into a flying suit after putting on two jerseys, gloves and helmet to protect him from the inevitable cold at his baling out altitude. Oxygen was not used and an hour was required to reach 16,000 ft. When Mr. Main stepped out of the cabin he found the foot steps encrusted with ice but jumped clear of the aircraft and 16

minutes later landed on a farm a few miles from the aerodrome. It was his twenty-fourth jump.

This is possibly a record height for an Auster to reach in that part of the World, and if any Auster pilot has been higher we would be interested to hear from him.

### AUSTER MK. 9 TO UNDERGO FURTHER TRIALS

MORE extensive trials are to be carried out with the A.O.P. Mk. 9 shortly in the form of operational flying in both tropical and arctic climates. One Mk. 9 has already been despatched to the tropics by the R.A.F. and the other is, at the time of writing, awaiting collection at the Auster factory. This latter machine No. WZ 702 has been dismantled and packed into two specially built crates to ensure that it reaches its destination without damage from either the weather or handling on route. Pilots of the Climatic detachment, Experimental Proving Establishment, R.C.A.F. Station Edmonton, in Canada, will be responsible for the trials.

All military aircraft entering service with the R.A.F. are required to undergo climatic proving trials, owing to the vast areas covered in modern warfare.

### SOLO SHOWMAN AT DENHAM

DENHAM AERO CLUB hit the headlines recently when they were featured in a B.B.C. Television programme. First on the programme came a formation flight by the women members of the club which proved to be a smart piece of flying. Then quickly followed interviews with various guest pilots including Group Captain Cheshire, V.C., and

Group Captain Cunningham, D.S.O., who both took part in a neat formation take-off of vintage aircraft.

Hero of the programme however, was Bill Duncalf, a television producer, who completed his first solo flight in front of the cameras for the benefit of some 5 million viewers. He had already flown 10 hrs. dual with his instructor, "Wilbur" Wright, Denham's C.F.I., and showed no sign of "nerves" in front of the cameras. After a final check flight with "Wilbur" in an Auster Autocrat, he taxied out in the same aircraft to make his solo trip and also give a commentary on the flight. However, this was not to be as the portable radio he used sounded as though he was transmitting from the moon—a great pity—for considerable publicity had been given to this particular feature of the show which must have resulted in thousands of people being disappointed. Unaware of radio trouble Bill Duncalf made a perfect take-off and climb, then after his downwind leg made his approach and landed, two bumps and he was down, the C.F.I. uncrossed his fingers and Bill Duncalf stepped from the Autocrat looking very pleased with himself. After reassuring viewers that it really was his first solo, we imagine Bill was popular in the clubhouse bar, paying "solo" for drinks all round!

### AN AUTOCAR FOR HUNTINGS AERO SURVEYS

MR. G. E. C. ARCHER one of Hunting Aero Survey's pilots came to Rearsby on June 30th to collect a new Autocar purchased by that Company. The aircraft will be used for further research into the use of airborne radiation detection equipment. The division of Huntings that will operate the Autocar is the Hunting Geophysics section, who also use Percival Princes and are based at Elstree aerodrome.

---

### Answer to "Guess What".

The total area of perspex is 53 sq. ft.

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Anderson Levanti & Co., 471, Alsina 485, Buenos Aires.

### AUSTRALIA (Queensland, N.S.W., Victoria, Tasmania and New Guinea)

Kingsford Smith Aviation Services Pty., Ltd., P.O. Box 11, Bankstown, New South Wales.

### AUSTRALIA (Northern Territory and South Australia)

Aviation Services (S.A.) Ltd., Government Aerodrome, Parafield, South Australia.

### AUSTRIA

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R. K. Dundas, 29, Bury Street, St. James's, London, S.W.1.

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Scanaviation, Ltd., Hangar 104, Kobenhavns Luffthavn, Kastrup.

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### FINLAND

Mr. Achilles Sourander, Myntgat 3, Helsinki.

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Agence Aeronautique Legastelois, Immeuble Centravia, Cite Canrobert, 28 & 30 Rue Cambronne, Paris (15e), France.

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### IRAQ

The Iraq Aeroplane Society, The Airport, Baghdad.

Rafidain Developments Ltd., 97/84, King Faisal I Avenue, Baghdad.

(Agricultural Spraying and Dusting Aircraft and Equipment).

### JAPAN

The Sino-British Engineering Corp. Ltd., P.O. Box 172, Nihonbashi, Tokyo.

### LEBANON

Tanc Depolla, B.P. 214, Beirut.

### MADAGASCAR

M. Georges Genet, Aero Club de Tulear, Boulevard Branly, Tulear.

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### NORWAY

Air Services, Lille Grensegt 5 (VII), Oslo.

### PAKISTAN

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A. B. Stockholms Aero, Flyplatsinfarten 2, Bromma.

### SWITZERLAND

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### TURKEY

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### VENEZUELA

J. V. Monje Y Cia, Apartado 2070, Caracas.

### WEST INDIES

Light Aeroplane Club of Trinidad & Tobago, P.O. Box 507, Port of Spain, Trinidad.

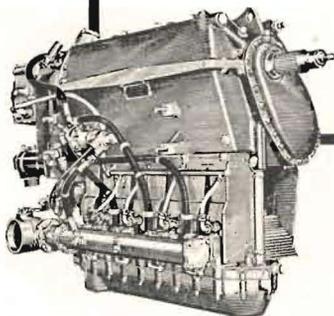


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