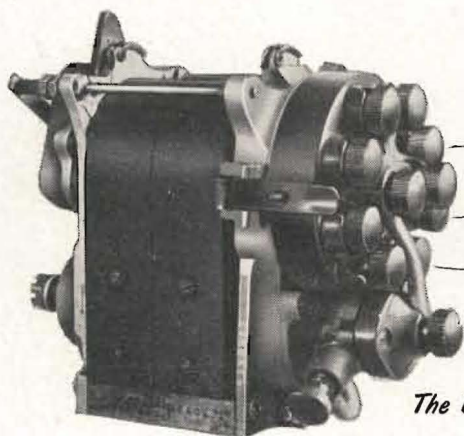


AUSTER NEWS

Published by AUSTER AIRCRAFT Limited
REARSBY AERODROME · LEICESTER · ENGLAND



Vol. 4 : No. 10

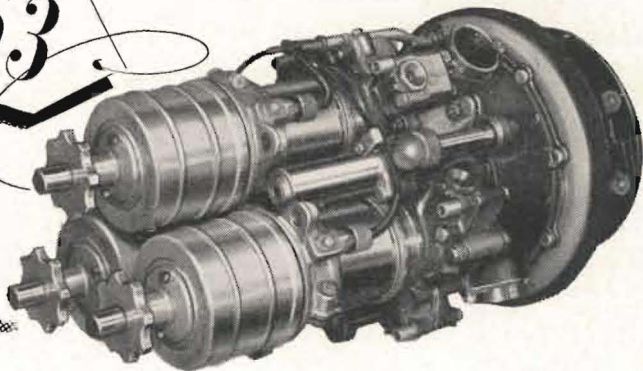


1915

*The **FIRST*** British-made,
10-cylinder aircraft magneto, as supplied
to the R.F.C.—manufactured by



1953



*The **LATEST*** Triple-shot turbo-starter
for jet aircraft, as supplied to
the R.A.F.—manufactured by



THE **BRITISH THOMSON-HOUSTON** CO. LTD · COVENTRY · ENGLAND

A 4702

Member of the AEI group of companies.



A Little goes a Long Way

MANY READERS WILL HAVE already heard that Mr. Hubert Showell of Clippesby near Yarmouth has successfully flown his Aiglet Trainer from a marshland airstrip near Yarmouth, England to Perth, Australia, in 26 days. So little fuss was made by Mr. Showell that only a few people at Rearsby knew that he had gone. He arrived in Australia on the 25th October, his average ground speed being 80 m.p.h. Anyone who has ever undertaken a private flight over a number of foreign countries will readily agree that the paperwork and form filling required is, to say the least, considerable, but England to Australia leaves us thankful that we only have the odd income tax form to deal with.

Commenting on his flight Mr. Showell said that there had been no mechanical difficulties whatever, and for most of the time he flew at 5,000 feet in fine weather. His

reason for the trip was to study the cold storage of fruit, and perhaps by the time this issue is printed he will be on his way back to England. We wish him the best of luck, a true adventurous Elizabethan.

Proven Reliability

SUCCESSFUL LONG-DISTANCE FLIGHTS form a good proportion of the various articles in this issue. The longest one of 12,000 miles by Mr. H. Showell, another of 6,000 by Miss R. M. Sharpe of Messrs Shackletons, London, and the "shortest" of 5,000 miles by three pilots of the Airways Aero Club. These trouble-free flights must give all those concerned with the construction and preparation of the aircraft immense satisfaction, and go a long way to prove the reliability of the latest Auster products.

Acknowledgments

IN PREPARING THIS ISSUE the publishers wish to thank, The Editor,

Once again the Christmas season is here, and we wish all our readers a very Happy Christmas. We hope that our efforts in the Auster News to interest you, have succeeded, and we also hope that those readers who have sent us stories and items of news will continue to do so. Many thanks, and a prosperous New Year to you all.



A little goes a long way. On route for Australia, Mr. Showell is pictured here upon arrival at Singapore. (See page 1).

“Over To You,” The Editor “Buzz,” Desert Locust Survey, Nairobi, and The Editor “Aero News,” Pakistan, for their co-operation.

The Front Cover

MR. R. I. L. CHISHOLM makes use of a road during a business trip. (See article “Indian Gadabout.”)

Indian Gadabout

AN INTERESTING LETTER received by the editor arrived from India recently, written by Mr. R. I. L. Chisholm, an Aiglet Trainer owner. It describes some interesting trips carried out in the course of both business and pleasure. In the unusual photograph of the aircraft on the road (see cover photograph), Mr. Chisholm is seen about to take off after he had flown to a nearby cement works to investigate some trouble with a large electric motor. A line of small trees (not visible in the

photograph) ran along the side of the road, and Mr. Chisholm remarked that the shorter wingspan of the Aiglet Trainer was a great deal of comfort when landing and taking off. Mr. Chisholm continued by saying that he has used his aircraft considerably, flying 200 hours in the first year, mostly during the cold weather. Perfect flying conditions persist throughout the cold weather period, and he takes advantage of this for visiting customers “up-country.” Although without radio,

Mr. Chisholm can return to Calcutta after dark in perfect safety without fear of bad weather.

During one trip he reached a jute press in an afternoon's flying, which would have taken more than two days by road or rail. He ran into trouble in the form of spectators, after landing in a paddy field near the press, and it was many hours before a take-off was possible, owing to curiosity of the local natives, because they had never seen an aircraft on the ground before, and they came from miles around to see it.

Referring to the photograph of the aircraft on the beach, Mr. Chisholm went on to say that the photograph was taken on Dalhousie island, which is 90 miles due south of Calcutta, and shows his passengers waiting for the tide to go down enough for a safe take-off to be made. The island is used for week-end holidays, and is uninhabited except for tiger, deer and large numbers of various pigs. The tigers swim, and their marks were

usually to be found on the beach when Mr. Chisholm and party arrived in the early morning. Commenting on the loneliness of the island, he states that the place is quite unique, as anywhere else in India it is impossible to picnic without being watched by a crowd of locals.

* * *

THERE IS LITTLE PLEASURE in the world that is true and sincere besides the pleasure of doing our duty.—*Tillotson*.

* * *

KNOWLEDGE IS NOT HAPPINESS and science but an exchange of ignorance for that which is another kind of ignorance.

* * *

THERE CAN BE NO evading the payment of death duties, even with the best will in the world.

* * *

THREE THINGS come unawares upon a man, sleep, sin and old age.—

George Borrow.



Mr. Chisholm's holiday group on Dalhousie Island.

Some Developments in the use of Aircraft against Flying Swarms

By R. C. Rainey and H. J. Sayer. (Desert Locust Survey)

STANDARD METHODS of Locust control against hoppers,* are applicable during only a small proportion of the total length of life of the locusts. The need for a method of attacking flying swarms has long been realised; experience in Pakistan was reported by Dr. Taskhir Ahmed at the F.A.O. Advisory Committee's meeting in November last; and laboratory and field research direct to this end has been in progress under the auspices of the Anti-Locust Research Centre for a number of years past.

By 1947, a 20% D.N.C.†-in-oil spray developed for this purpose had been found effective in operations with Anson aircraft against settled red locust swarms in Tanganyika; complete mortalities were obtained at a dosage of slightly over 1 gallon per acre of swarm.

During 1949 and 1950 the desert locust plague flared up again; and the mobility of the swarm of this species (which have not infrequently been known to breed more than a thousand miles from the area in which they had developed as hoppers) had been such, that opportunities for utilizing large ground machines against settled adults of this species, in the manner in which such machines are regularly and effectively used against red locust in its outbreak

areas have been rare indeed. Moreover, recent experience in India has further emphasized the inevitable limitations of techniques of aircraft operation dependent on ground parties for scouting and demarcation whether against hoppers or swarms.

Wind tunnel studies on spray pick-up by flying locusts under controlled conditions at the Chemical Defence Experimental Establishment, Porton, subsequently demonstrated that the locusts were still more susceptible to this spray in flight than when settled; and, following preliminary aircraft observations in 1951 on certain relevant aspects of swarm behaviour, airspray trials against flying swarms of the desert locust in Kenya were resumed on a small scale in 1952.

The scope of these trials was further limited by a shortage of swarms, but during February 7th-15th, 1952, some 890 gallons of insecticide were applied to four immature flying swarms in the Northern Frontier Province in 21 sorties by a single Auster "Aiglet" spraying aircraft (48-gallons spray load) without ground scouting or demarcation. One small swarm initially a mile long in flight and covering an area of 300-400 acres when densely settled, was almost completely destroyed by the application of 340 gallons of D.N.C. in nine operations.

Throughout the period of operations the swarms concerned travelled consistently downwind, on all four

* **HOPPERS.** Young locusts, which have no wings and cannot fly for several weeks of their life. The standard method of controlling them is to scatter bran mixed with poison (BHC. or Aldrin) on the ground for the hoppers to eat.

† **D.N.C.**—dinitro-ortho-cresol.

occasions on which both upper-wind observations and accurate successive swarm fixes were available, swarm-track was within 1° - 8° of directly down the corresponding vectorial mean wind between the ground and the level of the highest locusts. The down-wind movement previously shown to be a general characteristic

systematic air search, while still approaching base, giving ample opportunities for repeated spraying operations.

Such repeated attacks by highly manoeuvrable light spraying aircraft have several advantages over corresponding single operations by larger aircraft, particularly against



Taken from an Auster spraying aircraft this unique photograph shows a locust swarm as seen from the air. This particular swarm was sighted 40 miles away and covers some 300 acres; it was afterwards destroyed (and probably considerably over-dosed) by the application of 560 gallons of 20 per cent. D.N.C. chemicals.

of major long-distance swarm displacements was thus also true in detail for the hour-to-hour swarm movements recorded during these trials. It was accordingly found possible to use the local early-morning pilot-balloon observations to determine the sector to be searched for incoming swarms, and every swarm was in fact first located by

swarms of the complex structure seen in these trials. Wastage of spray, both by overdosing and by missing locusts altogether, is more easily avoided with light aircraft, with which the task of the spray pilot is simpler and expert direction accordingly less necessary. An important further advantage of the type of aircraft used was that the

cooling system of the inverted inline engine proved particularly well adapted to deal with incoming locusts, which accumulated harmlessly at the back of the air-scoop. Serious difficulties in this respect have been experienced in the past with, for example, radial engines. The carburettor air-intake and oil-cooler were adequately protected by specially fitted wire grilles.

The ground-speed of the swarms were very low (1-7 m.p.h.) as a result of the intermittent nature of the flight of the individual locusts, and were substantially less than the corresponding wind-speeds (7-21 m.p.h.) In such circumstances the original "aerial curtain" technique—making successive spray-runs between fixed air-positions across the heading of the locusts—was clearly inapplicable, since practically the whole of the spray applied in this manner would reach the ground far in advance of the swarm. The alternative "static curtain" produced by spray-runs applied between fixed ground-positions, initially ahead of the swarm—would clearly also waste most of the spray applied in the first few runs. Furthermore, with these low ground-speeds, a static curtain would need to be maintained for an excessively long time for the whole swarm to pass through it.

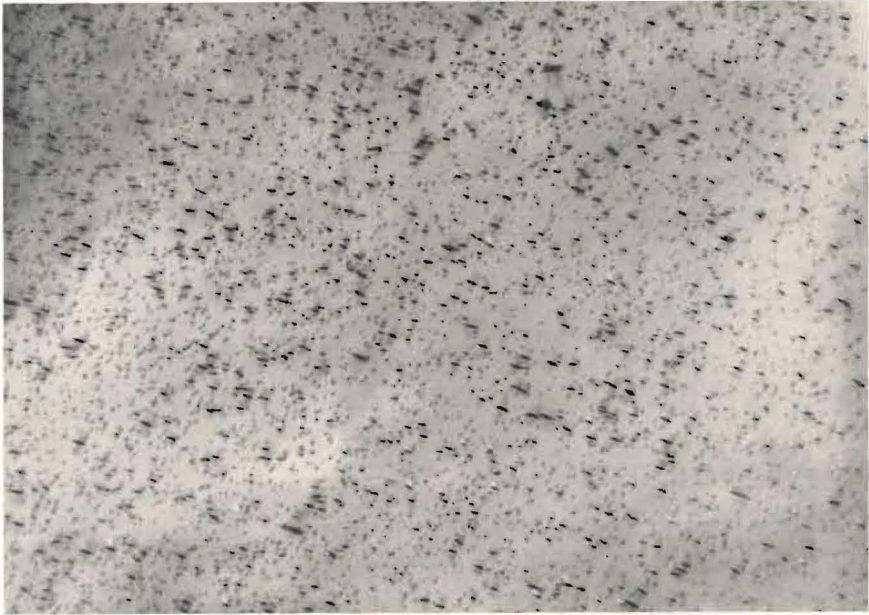
Fortunately, this type of swarm behaviour (movement down-wind at a ground-speed well below the wind-speed) had been encountered and studied during the preliminary aircraft observations in 1951, and it had been decided that such swarms should be attacked by drift-spraying, using the flying locusts for demarcation; but in fact treating the temporarily

settled locusts beneath, which probably represents the greater part of such swarms, as the primary target.

No rigorous assessment of mortality was possible, owing to the terrain (dry woodland with thorn bush) and to the distance covered by the swarm during these operations (49 miles), but there was reason to believe that the survivors which were in fact seen did not amount to 0.1% of the original swarm. A detailed analysis of the field result obtained in relation to laboratory data on the pick-up and toxicity of the spray to flying locusts, using recently-developed graphical methods of applying such data to field conditions indicated modifications in drop-spectrum and spraying tactics likely to considerably increase efficiency.

Further trials along these lines were undertaken the following season and between December 30th, 1952, and January 31st, 1953, 3,045 gallons of concentrated insecticide (2,995 gallons of 20% D.N.C. and 50 gallons 11% B.H.C.‡) were applied to 14 small immature and maturing swarms in flight during 93 sorties (totalling 97 hours flying) by two Auster J5G spraying aircraft, (70-gallon spray tank) operating from four successive bases extending over some 400 miles across Kenya with the assistance of a third Auster, an Autocrat, for observations and reconnaissance (representing a further 94 hours flying), but again without ground parties for scouting or demarcation. The total cost of the chartering the three aircraft (terminal charges, overheads and flying charges over the whole period December 1st, 1952, to February

‡ B.H.C.—benzene hexachloride.



Locusts by the million. This photograph taken from the ground illustrates the density of each swarm as seen in the first photograph.

14th, 1953, including 179 hours additional experimental, reconnaissance and communications flying) was £4,419 to which should be added £1,565 in respect of insecticide used, and £2,622 in respect of the total ground expenses of the unit over this period.

The results confirmed and amplified those of the previous season. Repeated air observations were made on four of the spray swarms, each initially covering 300-500 acres in flight and visible up to 40 miles away, and demonstrated the striking effects of spray-rates totalling about 1 gallon D.N.C. per acre of flying swarms; all four swarms were reduced to small groups of survivors, found only with considerable difficulty and no longer worth spraying. The net cost of destruction of each of these swarms (flying, in-

secticide and ground expenses over the period from the reconnaissance which first located the swarm until the final spraying sortie against it) ranged from £356 to £465; these figures provide an indication of the level to which total costs might have been expected to fall with continuous utilisation of the aircraft.

Circumstances exceptionally favourable for ground assessment on one occasion, made possible for the first time a direct assessment of the total kill resulting from a single spray operation of this nature. Thus, following the application of 50 gallons 11%-B.H.C. to a low-flying maturing swarm between 16.50 and 17.20 hours on January 27th, 1953, over open ranching country in the Kenya highlands, the swarm settled for the night only two-thirds of a mile beyond the

spray-site, and the survivors did not move off until shortly before noon the following day. Practically the entire kill resulting from this operation accordingly took place within the 200 acres of the roosting site, instead of being scattered along many miles of swarm track as in the case of all previous operations. Counts at 101 sampling points of one square yard each, located to provide a

valid composite sample of the whole roosting site, gave a mean and standard error of 38 ± 5.8 dead per square yard, corresponding to a total kill of 37 ± 6 million locusts. The net cost of this operation was £195; and, between 60 and 80 tons of locusts had thus been killed by 50 gallons of insecticide containing 75 pounds of active ingredient.

Stormy Passage for an Aiglet Trainer

A NEW AUSTER AIGLET TRAINER was recently flown to Dacca for delivery in East Pakistan. The weather was particularly hazardous at that time of the year owing to dust and thunderstorms and the approaching monsoon. It was remarkable that this light aircraft piloted by Pakistan's Director of Air Transport himself (Mr. J. K. Karanjia) did the 1,700 odd mile trip so easily. Its altitude was never greater than 3,500 feet. Visibility was extremely poor for long stretches, not only because of low cloud, but also very thick dust. The "last leg" from Dum Dum (Calcutta) to Dacca was flown entirely at altitudes from 500 to 800 feet.

The pilot's log makes interesting reading :

14th April, 1953. Karachi/Bhuj. 196 miles. Took off from Karachi Airport for Bhuj at 05.55 (P.S.T.) accompanied by a mechanic as sole passenger. Carried reserve fuel in loose cans owing to lack of fuel facilities at Bhuj and along this barren stretch of country. Soon ran into heavy weather. Visibility

very poor with low cloud down to 500 feet. Was forced to divert towards the sea coast. Made a forced landing near Sindhori, a small village on the Cutch Coast, in order to conserve fuel by pin-pointing position on the map. Took off again without mishap. Reached Bhuj in $2\frac{1}{2}$ hours flying time from Karachi. Bhuj being the first airstrip in Indian territory.

Bhuj/Ahmedabad. 192 miles. 11.20 (I.S.T.) departed Bhuj. 13.10 arrived Ahmedabad. 14.45 left Ahmedabad.

Ahmedabad/Indore. 202 miles. 16.45 arrived Indore. Bhuj to Indore was extremely bumpy, "and I really mean extremely" said Mr. Karanjia about this leg of the journey. "With the mechanic completely knocked out I had to help him and fly the plane at the same time."

15th April, 1953. Indore. Spent one day to check on lack of compression in one cylinder. Only a sticking valve.

16th April, 1953. Indore/Jubblepore. 06.30 took off, 09.10 landed Jubblepore. High winds up to

50 knots with dust and thunderstorms throughout Delhi Control Area. A.T.C. clearance withheld for two days, necessitating stay at Jubblepore airfield. Spent two uneasy nights sleeping out on charpoy, where a tiger had been mauling cattle grazing in the airfield at night.

18th April, 1953. Jubblepore/Allahabad. 190 miles. 06.30 took off from Jubblepore. 06.45 enveloped in very thick dust with horizontal visibility at times. Vertical visibility 1,000/1,500 feet. This part of the journey was made particularly dangerous by the presence of very high ground. Came very close to a mountain on one occasion flying through thick dust. A cross wind of 25/27 kts., was encountered on this leg. 08.50 arrived Allahabad. Owing to storm warnings around Gaya, spent the afternoon in Allahabad.

19th April, 1953. Allahabad/Gaya. 208 miles. 05.45 took off from Allahabad. 07.45 arrived Gaya.

08.30 took off from Gaya.

Gaya/Dum Dum. 268 miles. 11.30 arrived Dum Dum (Calcutta). Owing to thunder storm warning flying to Dacca impossible. Spent afternoon at Calcutta.

20th April, 1953. Dum Dum/Dacca. 148 miles. 09.00 took off from Dum Dum as soon as low cloud warning was lifted by Dacca. 10.30 landed at Dacca after flying all the way from Calcutta at between 500 and 800 ft. altitude.

Notes :—

- (1) Total flying time 17 hours 50 minutes.
- (2) Altitude probably averaged between 2,000 and 3,000 ft. for the journey.
- (3) Fuel consumption for whole journey 120 gallons and $3\frac{1}{4}$ gallons of oil.

Comment of pilot :— "Aircraft and engine behaved perfectly."



Mr. J. K. Karanjia, Director of Air Transport for Pakistan, with the Aiglet Trainer he delivered.

Twenty-Three Sheets in the Wind

By John Lobley

THIS ISSUE SEEMS TO CONTAIN nothing but accounts of successful long-distance flights, but the following story is a sequel to the article "Armed Autocars for Iraq," on page 6 in the Vol. 4, No. 8 issue of the *Auster News*.

London to Baghdad is a twice-weekly event in B.O.A.C., but for three small Austers in formation, it was an adventure. With Croydon behind our tails and Map Sheet No. 1 spread in front of us, our first short leg to Paris lay ahead. As a farewell gesture the sun shone upon us while the morning rain glistened on the green hills. It was not long before we were over the South Coast where the English meadows end so abruptly in the sheer white cliffs of Dover. A diversion to starboard would have taken us to Spithead and the Royal Naval Review, but we headed for Dover's counterpart, the white cliffs of Cape Gris Nez. Soon we were over Crecy looking down at its open fields and one saw in imagination the Black Prince leading his armoured knights against the French. Close by flowed the Somme, that quagmire of another battle. Looking up and forwards we skirted Beauvais with its unhappy memories of that great airship, the R.101. Then, suddenly, almost as if to surprise us, twenty miles or more away we saw the Eiffel Tower, a sharp spire piercing the horizon. The sun was setting when we landed at Le Bourget and with that first short flight completed we felt we were really on our way to the Middle East. Map Sheets 1, 2 and 3 were stowed away.

On the following morning we

were flying towards the Côte d'Azur. Nice was our next intended halt but the weather across the Rhone Valley defeated us. As we approached the lower ground between the Alps we saw that the sky was filled with heavy clouds whose forebears had flooded the valleys. Many villages were almost isolated by a siege of rivers. Bridges spanning the Rhone stood out against the floods as the grey water rushed their bastions. Tributary streams oozed and lapped over the countryside, floating loose crops from their fields and depositing corn sheaves like jet-sam round the taller trees which protruded from the leaden surface of the floods. On landing we splashed our way across the grass of the Airport and spent an unintended night in Lyons feeling almost marooned in that industrial city. Meanwhile, the rain storms were sweeping themselves away across France towards Switzerland.

In the air again on our third day and still flying down the Rhone Valley with Map Number 5 in front of us, the heavy clouds began breaking up. We could see the warm misty air currents as they swept round and up the mountains, almost blowing themselves into enormous white handkerchiefs of billowing cumulus. The heat of the rising sun soon gathered strength. We put on our dark glasses and later our straw hats. Then the first thin outlines of the Côte d'Azur came into sight. Leaving Marseilles on our starboard quarter we flew around the base of the Lure mountains and

glided down to a few feet over the Mediterranean where, flaps extended, we scrambled on to the almost sea-borne runway at Nice. The mid-day clock told us that we should press on, but our new control wires had been stretched to the point of being soggy. Our cylinder heads were loosening and their nuts needed tightening down. The three new aircraft were in need of their first 10-hour check after leaving their birthplace in Rearsby. While this overhaul was in progress we strolled along the sea front, visited the Casino and ate our last French dinner.

We took off for Italy early on the following day and as we followed the outline of the Riviera, our seventh map sheet was stowed away. Soon we were flying down the leg of Italy and using Sheet 10 we landed at Rome. Ciampino, busy as usual, sizzled in the sun and we felt like impudent sparrows as we took our turn in the queue to land among the approaching airliners. Onwards down Italy, and along the north shore of Sicily.

We landed at Palermo in the midst of an Air Club Rally, being hailed as competitors from England. Unfortunately, we spoke no Italian and they spoke no English. We were pressed for our autographs by an enthusiastic crowd and presented with medals by the Club President. Alas, we had to indicate to our new friends that we were not taking part in their rally. They almost decided ceremoniously to cut off our medals but that would have been undignified. Instead, we were elected part-timers and joined the Rally for that afternoon only.

Next morning we took out Map

Sheet No. 13 and tackled our first long water crossing. Our Sicilian friends having cleaned our plugs and our magneto contacts, our engines ran as smoothly as turbines. Making sure our life-jackets fitted, we leapt across the Mediterranean to Pantellera then leapt again to Cape Bon, that peninsula into which the Afrika Corps were forced by Field-Marshal Montgomery like a cork into a bottle.

We arrived in Tunis and were suddenly in a land of galabeahs and tarbooshes, sobered by the knowledge that the beauties and delights of Europe lay behind us and that the long hot drag of the North African coast stretched out ahead. We examined Sheet 15 and drew a line to Sfax, skirted the Gulf of Gabes; then, flying along the coast to Tripoli, we arrived at our old friend Castel Benito, now re-christened Idris. A B.O.A.C. bus carried us into Tripoli.

Now the Desert stretched out before us. Flying inland we followed the road to el Mac Asaf; then, meeting the sea once again at Sirte, we flew along a desolate stretch of coastline to Ras Um el Garanigh, better known as "Marble Arch."

We re-fuelled at the Arch, using as a landing strip the old decaying runways now abandoned. To meet us came an Arab and his son leading a small donkey, which in turn dragged a cart laden with 50 gallons of petrol sealed in drums and iol in gallon cans.

Soon we were flying over el Agheila and landed at Benina where Mitchel Cotts, Agents for B.E.A., took us in their car to Benghazi where we spent our eighth night and studied our 18th

(Continued on page 20)



A DISTINGUISHED VISITOR FROM EQUADOR

PAYING A PRIVATE VISIT TO Rearsby, Senior ingeniero Jorge Alzamora called in just before the Farnborough Show, and was amazed at the aerobatic capabilities of the Aiglet Trainer. Senior Alzamora is the Director-General of Civil Aviation in Equador.



Senior ingeniero Jorge Alzamora watching a low-level aerobatic demonstration by Randal Porteous in an Aiglet Trainer.

“NOTHING BUT PRAISE FOR THE AIGLET TRAINER.”

ANOTHER SUCCESSFUL DELIVERY flight completed earlier in the year is recalled in the following extract from a letter written to us by Miss R. M. Sharpe, M.B.E., a test pilot employed by W. S. Shackleton Ltd., London.

Dear Sirs,

The flight was undertaken unfortunately, at the worst possible season as the S. W. monsoon sets in round about May or early June, and from Dakar in French Senegal to Bata in Spanish Rio Muni the weather is really appalling at this time of year. Violent electric storms and line squalls were encountered as far as Freetown, and after that there was a monotonous sequence of very low cloud, heavy rain and very rough conditions, culminating in quite impossible weather around the Cameroons which kept me stuck at Douala for six days!

After Bata, the bad weather was left behind and the run to Libreville, Pointe Noire and Leopoldville was really enjoyable.

Despite the adverse conditions, I have nothing but praise for the Aiglet Trainer. Not once was I held up for mechanical trouble and apart from routine inspections and frequent



Miss Sharpe, in the cockpit of the Aiglet Trainer OO-CHT at Elstree, prior to the 6,000-mile delivery flight to Leopoldville in the Belgian Congo.

filter cleaning, the aircraft needed no attention. In the extremely turbulent conditions experienced, any aeroplane could be forgiven for giving its pilot a rough ride, but the Aiglet was steadier than many aircraft twice its size and weight, and I thoroughly appreciated its quite exceptional stability and total absence of any tendency to hunt.

The local agents for the manufacturers of Beechcraft and Piper aircraft were present when the Auster arrived at Leopoldville, also the local Press and many representatives of the Leopoldville Aero Club. There is no doubt that the Aiglet Trainer created a very favourable impression, particularly due to the fact that it had flown out from England and we are hoping that it will help to popularise Club aircraft of British manufacture in the Congo.

Yours sincerely, R.M.S.

SKIS AND A TAKE-OFF TROLLEY.

WE ALL HAVE OUR problems connected with flying, but a rather unique problem and the solution has been sent to us from an Auster Mk. 5 owner in France. He is M. F. Guiron of Mont-Blanc-Aviation, Le Fayet, a tourist/charter operator. M. Guiron's problem was how to take-off from a grass airfield and land on a snow-covered one. He tackled the job this way. A pair of skis were modified to take a sort of double chock arrangement; these hold the aircraft wheels, and the skis themselves rest upon two wheel trolleys. The procedure for becoming airborne is as follows:—The aircraft is placed with the wheels on the skis, and the skis on the trolleys, straps secure the skis to the wheels and a take-off is made. As the aircraft becomes airborne, the skis leave the trolleys behind, (a small vertical pin on each trolley locates in each ski, and stops the skis moving away without the trolley) the machine is then equipped to land upon the snow-covered airfield at its destination. Upon returning to the base



The combination landing gear as used by M. Guiron.

airfield a landing is made upon the grass using skis, which, we should imagine decrease the landing-run more effectively than a tail parachute! Editor's note:— Have any other owners similar devices to tell us about?

cloth which blessed the trade days. Shown statically, the Auster Ambulance/Freighter aroused considerable interest amongst overseas visitors to the show. The aircraft was displayed in the two-stretcher ambulance version.



As a finale to each aerobatic display at the S.B.A.C. Show, Ranald Porteous executed a neat one-wheel landing in the Aiglet Trainer.

S.B.A.C. SHOW REMINISCENCES

ONCE AGAIN and flown with brilliant style the Auster Aiglet Trainer amazed the crowds at Farnborough. Heralded by the Press as the most spectacular demonstration in the flying show, the combination of Ranald Porteous's technique, and the capabilities of the aircraft proved really remarkable to witness. Finished in a high-gloss red dope and flashed with silver, the Aiglet Trainer presented a pleasing sight whilst performing against the blue skies back-

FLYING CLUBS IN PAKISTAN

THE THREE CIVIL FLYING CLUBS in Pakistan recorded in all 2,702.55 flying hours during the months of January, February and March last. The clubs which are the Karachi Aero Club, the Northern India Flying Club of Lahore, and the Eastern Pakistan Flying Club undertook successfully their programme of training in flying to their respective members. The total number of trainer aircraft owned by the three flying clubs is 38, of which the Karachi

Aero Club owns 14, the Lahore club 14, and the Eastern Pakistan club 10. The number of trainer aircraft with the three flying clubs is expected to increase by the end of this year.

reconnaissance flight of the Australian Antarctic Expedition.

A R.A.A.F. technical N.C.O. has also been selected to service the aircraft between flights.

The pilot is Sergeant S. R. Seaver



Mr. Bruce pictured after landing near the Wells Cathedral.

“A FLYING DIRECTOR”

MR. R. A. P. BRUCE, A.F.C., A.C.A., a Director of the Clares organisation, manufacturers and distributors of industrial and dairy equipment sold throughout the ironmongery and hardware trade, considers a light aircraft essential in time-saving. In the above picture he has just landed near his head office, Wells, Somerset, with the Cathedral and Bishop's Palace in the background.

THE AUSTRALIAN ANTARCTIC EXPEDITION

A R.A.A.F. PILOT who returned to Australia two weeks ago from flying Meteor jets with No. 77 Squadron in Korea, has been selected to fly one of two Auster aircraft with the air

of Katoomba, New South Wales, and the technical ground staff man is Sergeant K. W. Duffel of Bankstown, New South Wales.

The special R.A.A.F. flight of three men will be led by Flight-Lieutenant D. Leckie of Melbourne, who will fly the other Auster. The two Austers are being serviced by No. 2 Aircraft Depot at Richmond, New South Wales, and will be test flown on September 4th, by F/Lt. Leckie.

After a satisfactory test at Richmond, the Austers will be flown to Point Cook and fitted with floats. They will be tested again and the two pilots will spend some time practising float-plane landings in the bay.

On the expedition, the two Austers

will be used by the main party to guide the Australian Antarctic Expedition ship through the ice surrounding the Antarctic continent. The Austers will also be used to help find a base on the continent and complete aerial reconnaissance of the Antarctic coastline.

Flight-Lieutenant Leckie is spending much of his time at present itemising articles of clothing and equipment the flight will need down south.

Sergeant Seaver was born in Forbes, New South Wales, in 1931, and was educated at Katoomba High School. He joined the R.A.A.F. in February, 1951, as a

pilot trainee, and was awarded his wings at Point Cook, Victoria, in January, 1952. He served six months with No. 77 Squadron in Korea from January this year and flew over 100 missions against the Communists. His new Commanding Officer was his instructor at Point Cook during his pilot training.

Sergeant Duffel was born in 1923 at Maroubra, New South Wales. He joined the R.A.A.F. in December, 1941, and served in the islands as a fitter with No. 76 Squadron and No. 36 Squadron. He was discharged in December, 1945, and re-enlisted in September, 1947.

Draughtsmen

With patience and skill they constantly seek
To minimise weight, resistance and leak;
Add friction where needed, reduce it where not;
Design a cool engine—yet keep a “hot spot.”
With slide rule and formula well to the fore
They sometimes make three do where six did before.
They learnedly talk on harmonica and whirl,
On period and peak and gaseous swirl;
On torsion and torque, on tension and twist—
Archimedes would pale before such a list.
And sometimes they draw in feverish haste
Two lines on their board—then seemingly waste
Whole hours in thinking without any pause,
As Rodin’s famed “Thinker” ponders lost cause;
But this difference is plain—our “Thinkers” wear clothes,
Altho’ these they’d not grudge if the mercury rose—
Then they’d turn up their sleeves and proceed with a sigh
To pile prints on tables already heaped high—
For oh what a sight when their window is “dressed”
(You never can tell who might be impressed).
They pout and they pore, and sometimes they . . . swear!
But ideas spring forth, so what do they care?
Their scheming’s succeeded, their problem is solved,
And soon it is drawn—and a “winner” evolved.
With satisfied smile they sit back to admire,
Not dreaming how soon it will end in the fire;
For a voice from behind says, “A point has been lost:
Though it’s all very nice, you’ve forgotten the COST!”

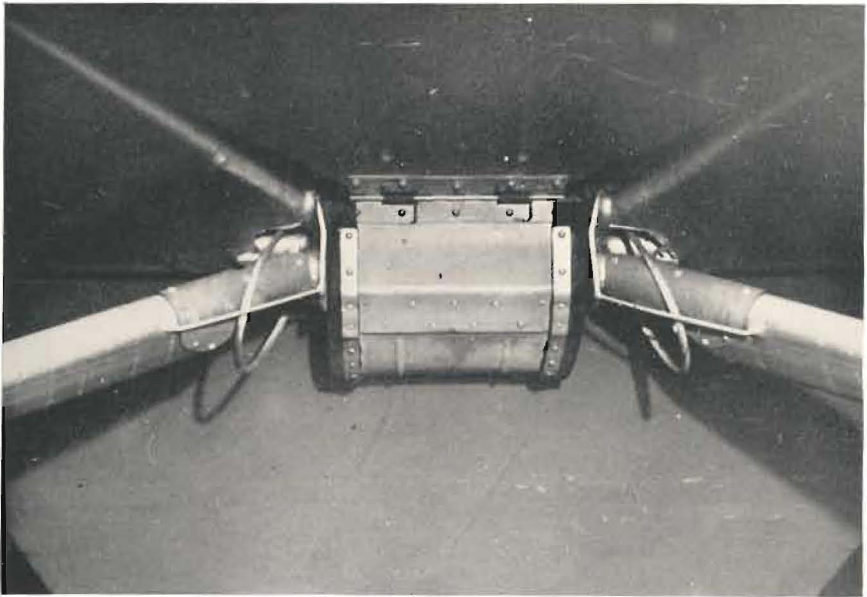
Accessories for Owners

SHOCK CORD COVER. (Mod. No. 2487)

WE WOULD LIKE to draw owners' attention to the above modification which we think will be most useful, and help considerably to save the replacement of shock cords. It is applicable to owners of the following Auster types :— J1, J1B, J2, J4, J5, J5B, J5F, J5G, J5H.

In brief terms the modification is a strongly made spring-loaded cover plate which entirely encloses the undercarriage shock cords and prevents them from becoming subject to oil, moisture, and mud splashes etc., hence prolonging their life.

The cover plate is very simply fitted to the triangular-shaped fairing located underneath the aircraft between the undercarriage legs. All the necessary parts and installation drawings are supplied with the modification kits, which will soon be available costing £5 12s. 0d. complete, unpacked ex-works. We shall be pleased to receive orders which will be dealt with in strict rotation. Further information can be obtained from the Service Dept., Auster Aircraft Limited, Rearsby, Leicestershire, England.



The Shock Cord Cover in Position.



DUNLOP RUBBER COMPANY LTD (AVIATION DIVISION) COVENTRY

3H/606

AUSTER SERVICE BULLETIN

Auster Aircraft Limited
Rearsby, Leicester, England

Issue No. 32

To all owners of Auster Aircraft

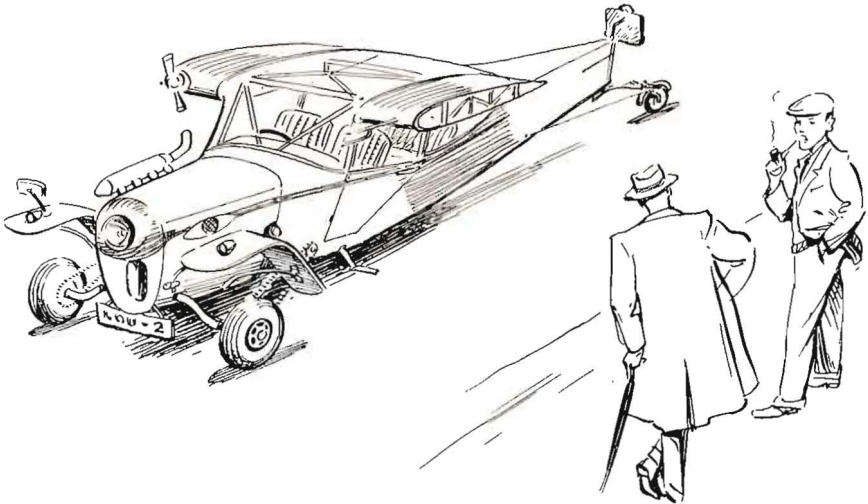
TAIL PLANE LEADING EDGE TUBE

IN CONNECTION with the recent examination of tail plane attachments to fuselage requested by our letter to owners dated the 5th June, a copy of which was repeated in Service Bulletin No. 30, the following additional examination should be carried out. This examination affects only those aircraft fitted with tail planes and elevators which are not of the horn balance type—that is, all types other than the Auster J5F, J5G, and J5H.

At the next convenient opportunity, for example at major overhaul or C. of A. renewal, an examination of the leading-edge tube of the tail plane, at a point about 1" outboard of the centre of the tail plane to

fuselage attachment bolt is to be made. In particular, signs of cracking are to be looked for close to the edge of the fillet of Sifbronze by means of which the attachment bolt saddle washer is brazed to the leading-edge tube. The firm is to be informed of any cracks which are found and the aircraft concerned may not, of course, be flown until an approved Repair Scheme or replacement has been incorporated.

In order to make a thorough examination of the area, it may be necessary to remove the fabric locally. Repairs to the fabric should be made using material to Specification DTD.575 or DTD.540 followed by a doping scheme to Specification DTD.752.



"I work at an aircraft factory, you know."

GENERAL SERVICING NOTE

Owners of the following types of Austers, J1, J1B, J2, J4, J5, J5B, J5G, are advised to change the Basil leather patches in the pitot system. These are situated on the bottom surface of the front spar where the pitot tube emerges from the wing fabric. Instead of this leather, AGS clips No. 1617/6 (two off) and wood screws AGS 894/38 (two off) are to be used. Empire tape should be applied below the clips.

The reason for this suggested change is due to the fact that corrosion may take place underneath the leather, necessitating in time the renewal of the pitot tubing.

The clips and tubing can be obtained from the Service Department, Auster Aircraft Limited, Rearsby, Leicester, England.

TWENTY-THREE SHEETS IN THE WIND—*Continued*

Map Sheet. On the following day we lunched with the Wing-Commander in the Officer's Mess at el Adem, that outpost in the Desert 15 miles from the sea at Tobruk. The R.A.F. assisted us in every possible way and showed us the best route to Cairo via Sollum, Sidi Barrani, Mersa Matruh and el Alamein, all small Arab villages made famous during the great advances and retreats of the North African campaign.

Leaving Alexandria on our port side we soon picked up the Alex-Cairo road running like a straight pencil line across the Desert. Landing at old Almaza Airport we imagined we saw the ghosts of wartime arrivals and departures, B.O.A.C. "Daks," Yorks and

"Lancs" from Africa, England and the Far East. Appropriately, we stayed at that grotesque Casino turned Hotel, the Heliopolis Palace.

An early morning start on our ninth day was hindered by low cloud and mist but once off the ground we set course for the Gulf of Suez. Later the northern point of Aqaba suddenly appeared behind the hills with its water filling the gulf as if some giant had spilled a bottle of deep blue ink. Realising that we were piloting Iraqi aircraft, we looked anxiously down at Israel and their patrolling fighters and so kept well to the eastwards of Wadi Araba which links the Gulf of Aqaba with the Dead Sea.

Once over that low-level biblical water, sparkling like the eyes of a peacock's tail flaunted in the sun, we were soon in sight of Jerusalem. Then it was time to turn to starboard for a landing at Amman. We had arrived in the land of the Ammanites and the site of the Roman City of Philadelphia. For us it was our 10th night stop. From Amman we followed the pipeline across Map Sheet No. 22 and later the main road led us past Lake Habbaniya to the Euphrates and the Tigris. Finally we landed into what felt like the draught from a blast furnace. We had arrived in Baghdad.

Ours had been no epic flight but a sedate delivery of three small aircraft destined for use by the Iraqi Customs. We had flown a planned itinerary all the way. For the record, we had flown 53 hours and about 5,000 miles through eight countries and across 23 Map Sheets. A night in the air with B.O.A.C. and once again we were back in England.

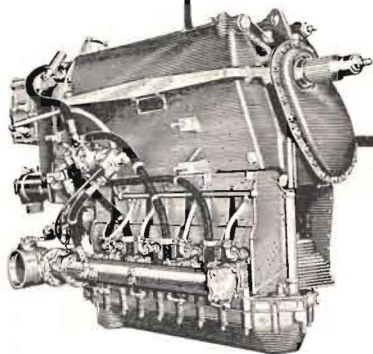


Saunders-Roe Skeeter

A long tradition of sound engineering behind it, a fine operating life ahead of it, the Cirrus BOMBARDIER 180 b.h.p. direct injection engine has gained the high approval of designers and users throughout the world of aviation. A reliable, high-performance engine with an above-average power/weight ratio, the "Bombardier" has shown itself the perfect choice for light aircraft. Its economic operation, rapid throttle response and freedom from icing are the outstanding characteristics.



Auster B.4



Cirrus

BOMBARDIER

Blackburn and General Aircraft Limited, Brough, E. Yorks

AUSTER AIRCRAFT LIMITED

supply 2, 3 or 4 SEATER AIRCRAFT FITTED WITH WHEELS, CROSS-WIND LANDING WHEELS, SKIS OR FLOATS and Aircraft equipped for

- * CROP SPRAYING
- * CROP DUSTING AND SEEDING
- * AERIAL PHOTOGRAPHY
- * AMBULANCE DUTIES
- * AERIAL MAIL PICK-UP
- * AIR OBSERVATION POSTS
- * CABLE LAYING
- * AERIAL PUBLIC ADDRESS
- * GLIDER AND BANNER TOWING
- * FREIGHTING
- * ELEMENTARY FLYING TRAINING
- * AERIAL ADVERTISING

Enquiries to **AUSTER AIRCRAFT LTD.**, REARSBY AERODROME, LEICESTER, ENGLAND
Telephone: Rearsby 276 Telegrams: Auster Leicester

AGENTS

ARGENTINE

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

AUSTRALIA, TASMANIA, NEW GUINEA

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

BELGIUM AND LUXEMBOURG

R. Heuvelmans, 99, Av. des Cerisiers, Brussels.

BRAZIL

Mesbala S/A. Rue do Posseio 48-54, Rio de Janeiro.

BURMA

Fairweather, Richards & Co. Ltd., Post Box No. 1053. 67-69, Lewis Street, Rangoon.

CHILE

Recabarren & Cia Lts., Casilla 1961, Santiago.

CEYLON, THE YEMEN

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

DENMARK

Scanaviation, Ltd., Hongar 104, Kobenhavns Lufthavn, Kastrup.

EGYPT AND SYRIA

T. G. Mapplebeck, 48, Sharia Abdel Khalik Sarwat Pasha, Cairo.

FRANCE, FRENCH WEST AFRICA, INDONESIA

Agence Aeronautique Legastelois, 84, Avenue de Neuilly, Neuilly-sur-Seine.

FRENCH EQUATORIAL AFRICA AND CAMEROONS

Transports Aeriens du Gabon, B.P. 161, Libreville.

GREECE

Electrotype Trading & Technical Co. Ltd., Kanigos St. No. 6, Athens.

HOLLAND

N.V. A.L.O.C., Bezuidenhoutsoweg 18, The Hague.

INDIA (North of Northern boundaries of Bombay, Hyderabad & Madras)

Indo-Overseas Corporation, Connaught Place, P.O. Box 409, New Delhi.

INDIA (South of the Northern boundaries of the States of Bombay, Hyderabad & Madras)

R. K. Dundas (Eastern) Ltd., P.O. Box 1520, Jehangir Buildings, Fort. Bombo.

INDONESIA

Dunlop & Kolfe, Djokorto.

IRAQ (Agricultural Spraying and Dusting Aircraft and Equipment)

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

JAPAN

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

LEBANON

Tanc Depalla, B.P. 214, Beirut.

MADAGASCAR

M. Georges Genet, Aero Club de Tulyear, Boulevard Branly, Tulcar.

MALAYA (including Singapore)

J. H. Vavasseur & Co. (Malaya) Ltd., Hong Kong Bank Chambers (P.O. Box 618), Singapore, 1.

NEW ZEALAND

British Aircraft Limited, G.P.O. Box 547, Wellington.

NORTH AFRICA

Gordon Woodroffe & Co. Ltd., 4, Crafton St., London W.1.

Gordon Woodroffe Morocco, Place Amiral Senes, Casablanca, Morocco.

Gordon Woodroffe Tangier S. a.r.l., 2, Rue du Statut, Tangier, Morocco.

NORWAY

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

PAKISTAN

R. K. Dundas (Pakistan) Ltd., Finlay House, P.O. Box 4912, McLeod Road, Karachi, 2.

PORTUGAL, ANGOLA, PORTUGESE WEST AFRICA, MOZAMBIQUE

Sociedade Mercantil de Automotives e Accessories Lda., Avenida Duque de Loule 101-107, Lisbon.

SOUTH AFRICA

Aviation Corporation of Africa (Pty.) Ltd., P.O. Box 8632, Johannesburg.

SPAIN

C. de Salamanca S.A., Av. Jose Antonia 61, Madrid.

SWITZERLAND

J. H. Keller, A.G. Automobile, Bahnpostfach, Neumuhlequai 30, Zurich 23.

TURKEY

J. W. Whittall & Co. Ltd., P.O. Box 62, Istanbul.

URUGUAY

S.U.N.E.Y. Sociedad Anonima, Casillo de Carrec No. 263. 25, de Maya 731-37, Montivideo.

VENEZUALA

J. V. Monji Y Cia, Apartado 2070, Coracas.

WEST INDIES

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