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7H/618



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Sept. /Oct. 1957



THE NEW ATLANTIC

WE MENTIONED in our previous issue that the S.B.A.C. Flying Display and Exhibition held at Farnborough in September would see the unveiling of an entirely new Auster type — the Atlantic.

This aircraft finished in a smart paint scheme of yellow, grey and black was shown on the Auster company's stand and delighted the many hundreds of visitors who called at the stand specially to see it.

The most favourable remarks were for the nosewheel undercarriage and its three oleo shock struts and the new larger cabin. This has been completely re-styled with a new instrument panel and dispenses with the old type control column.

On page 14 of this issue we have published the preliminary details of the Atlantic which we believe has a very bright future indeed in the field of light luxury air travel.

Cover Photo

AUSTER AIGLETS are used in many countries for a wide variety of duties — a more unusual one is shown here. Owned by the Mount Cook and Southern Lakes Tourist Company of Timaru the Aiglet in the picture has been used for re-stocking skiers' mountain huts and in connection with the training of members of the Commonwealth Antarctic Expedition.

The article "Commando Tactics Captured Export Sales" is reproduced from the June 1957 issue of "BUSINESS Journal of Management".

Commando Tactics Captured Export Sales

By John A. Ash

Polythene Ltd., processers and exporters of commercial grades of polythene, have only one salesman: managing director John Hayward. A really personal approach, linked with some novel methods and a 48-hour airborne consultancy service to anywhere on the Continent, has in six years enabled the company to establish markets all over Europe.

"WHEN IN ROME, do as the Romans do. Don't take British habits and a conservative sales approach to your export markets."

This is one of the maxims which has helped Polythene Ltd. to establish prosperous markets in all European countries west of the Iron Curtain.

Polythene Ltd. are a relatively small firm in a large industry, but they have big ideas. The main source of their ideas is their managing director, John Hayward. This is a sales story — and Mr. Hayward is the company's sole salesman. Consequently it is very much Mr. Hayward's story.

He founded the firm six years ago. As the name implies, their product is polythene which they obtain in non-commercial form and process into standard commercial grades. Present capacity is from 2,500 to 3,000 tons a year, *all of which is exported*.

The company's marketing set-up, as such, is non-existent. They do not believe in agents, but prefer to go straight to the consumer. With raw materials, this in itself is not unusual. It is the field tactics of Polythene Ltd. which make the difference.

John Hayward started his career as a regular soldier with the Commandos. After collecting several bullets in the Middle East campaign, he was discharged in 1942 and decided that his future lay in the plastics industry. He worked on the shop floor with plastic moulding and injection machines, and worked his way up to works manager in charge of an injection machine development project.

Then a diversion due to ill-health — selling gravestones to farmers in the Fen District. On his own admission, he "learned the art of diplomacy and has been a 'Smoothy' ever since".

Next came a job with a firm of plastics importers and exporters where he learned the commercial side of the business.

Subsequently he earned himself a small fortune in commission by selling plastics on a 'penny-a-pound-sold' basis. It was with this sum (£10,000, believe it or not) that he founded Polythene Ltd.

At that time. Mr. Hayward says, he was swayed by the Government's appeal to export more. "I liked travelling anyway, so I thought I could do my country and myself a bit of good. I decided to do nothing but export."

He feels that, to a certain extent, academic qualifications are of little use to salesmen of products such as polythene. When entering the field, he noted carefully that many of his potential competitors' salesmen fell into the academic category. In theory they were excellent —but few could take off their jackets and show a customer how to use the materials. Therefore he decided to base his own sales policy on one-man Commando tactics which would take the sales battle into his prospects' camps.

In previous jobs he had made several useful contacts on the Continent. He had also stored away a comprehensive knowledge of Continental markets. He says: "You cannot sell to a market until you know it inside out. It is necessary to know the various countries' commercial set-ups, their financing systems and their marketing methods. You must know what you are up against."

Mr. Hayward was not at all keen on agents. He feels that money spent on agents' commissions would be better spent on a salesman's travelling expenses. So to start with, he went straight to the largest firm of moulders in each country, quoting the lowest possible prices, depending on a large turnover to offset the small profit margin.

He started to ship polythene to his first customers. Soon he began to recognise the strength of American competition. To compete on price, Polythene Ltd. had to concentrate on marginal savings. First came packaging. At the start, the company were shipping the polythene in five-ply paper bags, with a 'washed and repaired' hessian outer. Subsequent tests proved that three-ply bags (with the inner ply polythene-coated) with unwashed and unrepaired hessians were adequate. The original cost of packaging was $1\frac{1}{8}d$. per pound of material; now it is $\frac{1}{2}d$.—a saving of more than 50 per cent.

More Savings

An airline official told Mr. Hayward that many firms waste pounds by over-careful packing for air transport. As a test, the company sent some material samples to Australia, wrapped only in a transparent polythene bag sealed with an elastic band round the neck and with an ordinary case label. They reached their destination unscathed, and the 'packing' was returned by ordinary letter mail for $3\frac{1}{2}d$. With air freight, an extra half kilo can cost an extra 16s., so this was quite a consideration. And as the polythene bags were transparent and sealed with an elastic band, there could be no question of re-sealing fees after Customs inspection. Needless to say, Polythene Ltd. now send all their smaller samples this way.

Mr. Hayward also decided to make some savings on the actual loading of polythene on to ships. He had the material 'barged out'

where possible—a cheaper proposition than dockside handling, which as many exporters know to their cost, is not always of the highest standard.

He realised that it was on fractional savings of this sort that survival might depend if the market got really tough.

Having established one main customer in each country at a concession price, Mr. Hayward had plenty of excuses for visiting the Continent. On each visit to a customer, he took the opportunity to visit the local chambers of commerce to obtain lists of all plastic moulders in the country concerned. From his previous knowledge of the markets, he was able to sort the wheat from the chaff—then go harvesting on subsequent visits. New, smaller customers were charged at the normal market price, thus enabling Polythene Ltd. to start making larger profits. Then in some cases, the first large customer was cut out, or had his prices put up to match.

As his market widened, more and more Continental firms got to hear of the Englishman who gave a comprehensive personal sales service and (possibly out of sheer disbelief that such a phenomenon existed) hastened to contact him. Mr. Hayward began to make friends with his customers. At that time more than 80 per cent of the orders were made by word of mouth. His personal approach was backed up by the factory in England, and delivery promises were never broken. The goodwill *this* created was enormous.

As the number of customers increased, the problem of giving a personal service grew. So ex-Commando Hayward bought a light aircraft, took flying lessons and obtained his flying licence.

The aircraft, hangared at Denham, helped to put into force another sales belief. Mr. Hayward says that British manufacturers should remember that they are 3,500 miles nearer to the Continental market than the U.S.A., and if they cannot take advantage of that fact, then they don't deserve to be in the export business. By using an aircraft, Polythene Ltd. give a 48-hour on-the-spot consultancy service to all customers in Europe.

The aircraft is an Auster, and, Mr. Hayward says, "it can land on a sixpence". He makes no secret of the fact that he makes emergency unauthorised landings (for technical reasons of course) in fields or other open spaces which happen to be near the factory he is visiting. Naturally, the 'promotional' value of landing on a customer's doorstep is quite considerable.

"I should say the cost of running the Auster is comparable to running a 12 h.p. car," says Mr. Hayward. Hangarage costs £1 per week; maintenance, running repairs and official inspections about £50 a year. The landing fee at airports (when he uses them) is about 5s. Fuel consumption is about three and a half gallons an hour at 95 m.p.h., and fuel in this country costs about the same per gallon as ordinary car petrol, while overseas it is duty-free.

A successful method used by Polythene Ltd. to capture new custom

is based on simple psychology, confidence in the product, and an element of surprise. When a company write to Polythene Ltd., explaining their problem and asking for a 1 cwt. sample of polythene, three steps are taken:

- 1. The company's technical staff consider the problem, and decide whether their material is suitable for the job. If it is . . .
- 2. Half a ton of polythene is despatched (import restrictions permitting).
- 3. A letter is sent to the firm saying "We are sure our polythene is the material for the job. Make as many tests as you like with the half-ton which is on the way to you and don't pay for it until you are completely satisfied. If you cannot use it, our managing director will call on you personally at 48 hours' notice, and investigate the problem. If he too is unsuccessful, we will take the material back, and you won't have to pay a penny."

The approach has yet to fail and a large number of Polythene Ltd.'s existing customers were obtained in this way. Subsequent flying visits by Mr. Hayward strengthen the personal bonds between customer and supplier, and as a rule the customer does not hesitate to recommend Polythene Ltd. to his friends.

Similar treatment is given to existing customers. When they ask for advice on moulding, say, a bucket, Mr. Hayward flies out, inspects the job and the machinery, and gives his opinion. The polythene is

> Polythene's managing director, John Hayward, piloting an Auster gives a 48-hour on-the-spot technical consulting service to all his Continental customers. Taking customers and their families up for trips in the aircraft also helps to build friendly business relationships.



despatched on the understanding that if the customer has any difficulties at all with the job, then Polythene Ltd. will either send out a representative to show them how to do it or, if he fails, take the material back at no charge to the customer.

This policy is pursued in all countries. Mr. Hayward says: "On my trips to see customers, I don't 'push' the product at all costs. I try to give them an overall picture of the plastic moulding market and trends and developments outside their own country."

Where Polythene Ltd. score over some of their competitors is the fact that they will recommend the most suitable material—whether it is made by them or not. This is a long-term policy, for the firm know that these near-customers will not forget the help given, and when they have a job to which Polythene Ltd.'s material *is* suited, they will almost certainly call them in again.

Polythene Ltd.'s technical consultancy service may seem excessive in relation to their present volume of sales. But obviously it pays, for in seven years the annual turnover has increased from £20,000 to nearly half a million pounds. And within 18 months, because of the increasing availability of raw materials, the company hope to double this figure.

Polythene Ltd. have not placed all their eggs in one basket. A policy which they adhere to rigidly is that 50 per cent of production goes to the best available market, and the remainder is shared between all other markets. They have steadfastly refused to go only to the market paying the highest prices. Half the production goes regularly to less rewarding markets, to prepare for the time when *they* boom.

A great deal of goodwill has been created by the use of the aircraft. When business is finished, Mr. Hayward normally volunteers to take the customer and his family up for a flip. Thus the foundations of a personal friendship are laid. Now, Mr. Hayward rarely has to stay at a hotel during his Continental visits: usually the customer welcomes him as a guest.

Polythene Ltd. have succeeded where others have failed because they recognise the reasons behind the post-war sellers' slump, and have bothered to do something about them. Says Mr. Hayward: "Today, good salesmen are scarce. They do not know their markets, their customers or their products half well enough. And their companies don't help things much because of their apathetic attitude towards after-sales service.

"And another thing. Selling abroad has become too much of an endless round of pleasure and expense account bashing. Salesmen seem to put their own pleasure first and sales second—partly because of the high rate of surtax which is killing incentive. This country will never fully recover its pre-war prestige unless companies completely re-think their export sales policies and really get to know their markets. And to do that one must go there and meet people and make friends with them — businesswise!"— END.

A rose-tinted spectacle through dark glasses

Information about the Blackburn Strike Aircraft, the N.A.39, is shielded but its future is bright.

Ordered for the Royal Navy, it has a performance equally suitable for land-based operations.

BLACKBURN & GENERAL AIRCRAFT LIMITED, BROUGH, E. YORKS

NAMES and NUMBERS

In order to alleviate the confusion which surrounds the many various Auster types, a complete list has been prepared.

A RECENT REQUEST from an overseas client to our Service department read, "Dear Sir, would you please send me a nose cowl for my Auster . . . " Now clever as our service people are they cannot deal with such a request without further data about the aircraft in question. Another and more frequent request is for "a set of bungees for my aircraft". In many cases our own records show the type of aircraft owned by the enquirer but when an aircraft changes hands, especially in overseas countries, it is sometimes impossible to keep track on current owners.

In order to save any unnecessary waste of time in the supply of spare parts we would recommend that in all cases the type number, name and where applicable, the type of engine fitted, all be mentioned. Part numbers should also be quoted and these will be found stamped on the majority of components. In the case of major items a part number plate is attached to the part.

A similar procedure is advisable when technical publications are required for there are more than a score of various types of Auster aircraft in current operational use. If the aircraft name or type number is quoted with the enquiry, no mistakes will occur.

A list of all the Auster types is reproduced below which lists the type numbers with names and engines. Military types are only included for information.

We hope that this will be of use to owners and operators and if further copies are required they may be obtained free of charge from:

The Publicity Manager,

Auster Aircraft Ltd.,

Rearsby Aerodrome, Leicester.

AUSTER TYPES

					No. of				
Mode	Name or .	Mark .	No.	Date	Seats	Purpose		Engine	H.P.
C	Model C .			1939	2	Civil .		Lycoming 0-145-A2	55
C	Model C/2			1940	2	Civil .	*	Cirrus Minor 1	90
D	Model D .			1940	2	Civil .		Cirrus Minor 1 .	90
DI	Auster Mk.	1		1941	2	A.O.P.		Cirrus Minor 1 .	90
E	Auster Mk.	2		1942	2	A.O.P.		Lycoming 0-290-3 .	125

continued-

AUSTER TYPES—continued

				No. of			
Model	Name or Mark	No.	Date	Seats	Purpose	Engine	H.P.
F	Auster Mk. 3		1942	2	A.O.P.	Gipsy Major 1	130
Ĝ	Auster Mk 4		1943	2	A.O.P	Lycoming 0-290-3	130
й	Glider		1943	3	Trainer	None	
î	Auster Mk 5		1943	3	AOP	Lycoming 0-290-3/1	130
ĭ	Auster Mk 5		1944	3	Comm	Gipsy Major 1	130
ĭ	Auster Mk 5		1946	3	Civil	Lycoming 0-290-3/1	130
Ĭ	Auster Mk 5A		1950	Ã	Civil .	Lycoming 0-290-3/1	130
J T	Auster Mk 5C		1950	3	Civil .	Gipsy Major 1	130
J	Auster Mk. 5D		1050	31	Civil .	Gipsy Major I	130
J	Austor Mik. 51	1.50	1950	1	Advartising ,	Lycoming	130
J	Auster Mik. Jivi		1933	2	Civil	Cirrue Minor 2	100
JI	Autocrat .	•	1940	3	Civil .	Cirrus Minor 2	100
JIA	Autocrat .		1949	4	Civil	Cirrus Minor 2	100
JIR	Aiglet		1949	3-4	Civil	Gipsy Major I	130
JIN	Alpha .		1955	3-4	Civil	Gipsy Major I	130
J2	Arrow .		1946	2	Civil .	Continental C-75.	15
J3A	— .		1946	2	Civil	Continental C-65.	65
J4	,		1946	2	Civil	Cirrus Minor 1	90
J5	— .		1947	3	Civil .	Gipsy Major 1	130
J5	Adventurer		1947	4	Civil .	Gipsy Major 1	130
J5A	Adventurer		1947	3	Civil .	Gipsy Major 1	130
15B	Autocar		1949	4	Civil .	Gipsy Major 1	130
ISE	Autocar		1950	3	Racer	Cirrus Major 3	155
15E	Aiglet Trainer	•	1951	2-3	Trainer/Tourer	Gipsy Major 1	130
150	Autocar		1952	4	Civil	Cirrus Major 3	155
151	Autocar .		1052	4	Civil	Cirrus Major 2	150
151	Autocal .		1954	22	Trainer/Tourer	Cirrue Major 2	155
JON	Aiglet Trainer	•	1934	2-5	Trainer/Tourer	Cincus Major 3	155
JOL	Aiglet I rainer	•	1954	2-3	Trainer/Tourer	Gipsy Major 10/1	145
160	A		1054	4	Ciall	Cincu Maior 10	145
JSP	Autocar 145	•	1954	4	Civil	Gipsy Major 10 .	145
120	Alpine .	•	1955	3-4	Tourer .	Gipsy Major 1	130
JSR	Alpine .		1956	3-4	Tourer .	Gipsy Major 10 .	145
J8L	Aiglet Trainer		1954	2-3	Trainer/Tourer	Gipsy Major 10 .	145
K	Auster Mk. 6		1945	2	A.O.P	Gipsy Major 7 .	145
Μ	A2/45 .		1945	2	A.O.P	Gipsy Major 31 .	160
N	A2/45 .		1946	2	A.O.P	Gipsy Queen 32 .	250
P	Avis .		1947	4	Civil .	Gipsy Major 10 .	145
Р	Avis 2		1948	4	Ambulance .	Gipsy Major 10 .	145
0	Auster Mk. 7		1947	2-3	Military		
~					Trainer	Gipsy Major 7	145
S	Model S		1951	2	A.O.P	Bombardier 702	180
0				-	(Private Venture	()	
B 3			1951	None	Radio Con-	-,	
100		•	1751	1.0	trolled Target	ABC	6
R/	Ambulance		1951	4	Ambulance/	Bombardier 702	180
04	Ereighter		1751	-	Freighter	Bombardier 702	100
DE	ML		1054	2	AOP	Pambardian 202	172
B) D0	IVIK. 9 .		1954	2	A.O.F.	Gentinental	1/2
88	Agricola .		1933	3	Agricultural	Continental	240
C 1	10.7		1055	2	Aircrait .	0-470-IVI .	240
C4	МК, / .		1933	2	Antarctic	C' Main	140
			105-		Survey	Gipsy Major .	145
C6	Atlantic .		1957	4	Executive	G	
					Tourer	Continental E185-10	205

NOTE TO SERVICE ENGINEERS:

There is no Service Bulletin with this issue of the Auster News. The last bulletin, No. 43, was published in the Auster News, Vol. 6, No. 6 issue.

Introducing THE ATLANTIC for 1958

At the recent S.B.A.C. flying display and exhibition held at Farnborough an entirely new civil aircraft was unveiled on the Auster stand. It proved to be one of the sensations of the show and provoked a large amount of favourable comment from both the Press and visitors to the show. The aircraft was the Atlantic, an entirely new type designed for four-seat luxurious air travel.

C OMPLETELY NEW from the adventurous cabin styling to the ultrastable triple oil-cushion landing gear, the Atlantic is the most exciting new light plane for years. Ample power, a brilliant performance and exceptional comfort are only a few of the features which this aircraft has to offer.

The Atlantic is to be produced in two versions — initially the Windsor de luxe, breathtakingly styled and a performance to get you anywhere — on time. 'Extras' are out — they're in!

Alternative colour schemes may be chosen to blend with tripletone cabin upholstery.

To appear shortly is the thrift budget Winchester. Lower in initial cost than the Windsor de luxe, the Winchester will have fewer luxury items but will retain the high performance and ample cabin capacity.

Expert stylists have created an interior that is both practical and magnificent . . . new washable materials can be kept at springtime freshness to give a lifelong service only matched by the new plastic-based finishes used on the Atlantic's sleek fuselage and wings.

Just a glimpse into the cabin of the Windsor de luxe is needed to assure you that everything for your comfort and convenience is there. Step inside and feel the thickly-carpeted floor . . . relax into the foam-filled seats and at once you notice the panoramic visibility over the low flat nose. If your seating position isn't quite right, press-button adjustment will correct it. Measure the space available in the cabin you'll find it the roomiest ever!

The instrument panel is both functional and attractive. Easy to read, it is styled to suit the cabin in both colour and shape. The cabin is fully equipped and will meet your every need . . . heating and ventilation . . . two glove compartments . . . cigar lighter . . . ash trays.



Completely re-styled cabin interior

The entirely new layout of the Atlantic's cabin is clearly shown in this photograph of the prototype. Engine instruments and car-type ignition switch are situated on the left of the instrument panel. Cabin heating and ventilation controls are just forward of the left hand window winder. The throttle, mixture and pitch controls are centrally mounted below the blind flying panel.

Essential equipment includes: key-operated ignition . . . shockmounted full blind flying panel . . . provision for radios . . . 'fly-off' brake lever . . . all at your finger tips.

For Business. The Atlantic is ideal for the high-speed transportation of business executives. Airline schedules can be forgotten by companies operating an Atlantic which is always ready to go, whenever and wherever you wish. Big deals at big distances can be settled by executives arriving fresh and alert on the spot within hours — long travelling delays having been eliminated. The Atlantic's remarkably quiet air-conditioned cabin will always be a temptation to travel in — to extend your business, and increase your profits.

Fully equipped for go-anywhere flying, the Windsor de luxe model with its easy-to-fly characteristics is a must for progressive business

ALL CLIMATE CABIN CONDITIONING



In any weather or climate the cabin temperature can be kept just as you like it. Adequate heating and cooling can be selected to suit all conditions. It is introduced into the cabin at points which ensure perfect circulation to benefit all occupants.

men. Its simple long life, steel tube structure and abundant access panels ensure low maintenance costs—and maximum serviceability. This, and its sparkling four-seat performance makes it the finest light plane available today.

For Pleasure. The Atlantic—key to the world's playgrounds. There's no finer way to relax when a few spare hours are available. You can speed with your friends in search of fun and sun in one of the easiest planes you will ever fly. Smooth harmonised controls glide on ball bearings . . . adjustable luxury seats . . . panoramic visibility . . . and the new nose wheel landing gear combine to put the Atlantic at the top of its class.

Ample power from the smooth Continental motor gives big safety margins. Small airfields and strips at high altitudes give the fleet-winged Atlantic no trouble. Distances

LUXURY TRIM

RELAX THE MILES AWAY

Smooth, quiet travel is yours in the Atlantic's cabin. Formfashioned float-on-foam seats, abundant sound-proofing and space to stretch combine to provide the ultimate in luxury travel. Both front seats are instantly and independently adjustable. For freighting extra space is quickly made available by removing any of the seats. Full use can be made of the resulting space as the floor is free from obstructions.



disappear at well over two miles a minute. It's a pleasure to fly in, and is the ultimate in luxury travel.

In addition to adequate instrumentation and flight aids, your comfort has been studied and provided for . . . cabin temperature can be varied to suit your wish — an additional fan gives controlled circulation — you can enjoy your favourite cigarette in a fresh cabin, a cigar lighter and ash trays are in easy reach. There is plenty of room for your gloves and maps, etc. — two deep compartments are blended into the instrument panel. Tailored luggage to fit snugly behind the rear bench seat is provided and is ample for all normal needs. Extra space is available if required in the forward part of the two front seats.

These are only a few of the features of the exciting new Atlantic. Development of the aircraft is progressing and it is hoped that first deliveries of the Atlantic will be made late in the coming year.



The Atlantic at the S.B.A.C. Show

Many thousands of visitors to the S.B.A.C. show at Farnborough saw the Atlantic displayed on the Auster stand. The fuselage shown was not a mock-up but the actual prototype which will be used for test flying and development work.

The Atlantic BRIEF SPECIFICATION

PRELIMINARY ESTIMATES - PERFORMANCE, ETC.

(Continental E185-10 engine, 205 h.p. for take-off, 185 h.p. normal) 754 lb. Maximum payload (short range=1 hr. approx.) in addition to pilot 610 lb. Normal payload (440 miles range at 124 m.p.h.) (Note : This corresponds to pilot plus three passengers, plus 100 lb. of luggage, etc.) Cruising speeds up to 135 m.p.h. 135-225 yds. according to load Take-off distance (still air) Landing distance (still air) 130 vds. Landing speed 50-55 true m.p.h. 800-1,150 ft. per min. according to load Initial rate of climb Air miles per gallon 14.4 m.p.g. at 130 m.p.h. Fuel cost (at 5s. per gallon) one and one-tenth pence per occupant/mile



MAN-MADE FIBRE CORDAGE & CLOTH DIVISION :- LEITH, EDINBURGH 6.

The A.A. Alpine... ...in operation

A RUN DOWN TO BRIGHTON by car on a sunny summer Sunday these days is unlikely to be the pleasant, carefree outing it was in the days when horseless carriages were in their prime.

Whatever holiday-mood thoughts about 'the open road' and 'the freedom of the Queen's highway' may dance in your mind as you take the car out of the garage, a few miles of nose-to-tail driving soon puts a stop to that kind of fandango with a sharp and fume-laden reminder that the Queen's highway is also free to another five million motorists and motor-cyclists. And it seems that they are all going to Brighton along the same open road.

As it happens, however, the entire five million are simultaneously stopping, starting and crawling on the road to Southend, the road to Blackpool, the road to Scarborough and the roads to dozens of other popular resorts — or at least, so it appears to the optimists who incautiously permitted themselves a mental light fantastic as they set out for Southend, Blackpool, etc.

The universal get-me-out-of-here prayer for a pair of wings which goes up from the driving seats of countless cars at times like these is likely to get a sort of proxy answer nowadays in the shape of a trim little Auster Alpine aircraft painted in the yellow and black livery of the Automobile Association.

It is no doubt a matter of regret to the A.A. that an aerial 'Getyou-out-of-here' service, as a companion to its incomparable radiodirected breakdown service, is not at present a practical proposition. But it has done the next best thing in putting its Alpine spotter plane into operation, in conjunction with its road patrol fleet, to help sort out traffic tangles.

The modern use of aircraft to assist in traffic control is still very much in the experimental stage, and the A.A. does not claim to have achieved spectacular results. It is clear, however, that light aircraft can play a very useful role by enabling a much more rapid assessment of traffic build-up to be made than is possible on the ground, and so giving time for remedial action to be taken before the situation gets out of hand.

A good example was provided at Easter this year when fine weather and the (happily correct) anticipation of the ending of petrol rationing brought out motorists in large numbers. Cars were pouring into Brighton at the rate of one a second, most of them travelling by the A23 main road from London. The A.A. Auster, which was patrolling in the area, reported by radio to road patrol officials stationed at strategic points along the route that a big build-up of traffic was developing and that cars had been reduced to a snail's pace in a queue six miles long. With a traffic flow of 3,000 vehicles per hour, a jam of these dimensions can develop in a matter of minutes. The information from the aircraft was immediately passed to police on traffic control duty, who directed cars through link-roads on to a parallel alternative route. Within a short time, this road had also become clogged with Brighton-bound vehicles, but warning messages flashed from the aircraft enabled a second alternative route to be brought into use and in a matter of only half an hour, traffic was back to normal. Only the early warning given from the Auster prevented a hold-up which might well have lasted three times as long and cumulatively have affected crossing roads miles from the point where the congestion started.

In the newly-developing technique of aerial traffic control which is emerging, the extensive radio network operated by the Automobile Association plays an essential part. This network, which is expanding year by year, already covers over 36,000 square miles from 22 control centres, and more than 350 A.A. road service vehicles are radioequipped. The ultimate aim is a complete radio umbrella over the entire country.

One of the major difficulties experienced by the A.A. in operating the Auster, however, is due to the fact that the Association has only one pair of radio frequencies allocated to it. While this presents no problem in the operation of the regional centres because of the limited ground-range, altitude gives the aircraft transmitter a greatly magnified area of reception and a very strict observance of radio procedure is required to reduce interference with ground-to-ground calls. 'Fanum A.A.', the callsign of the aircraft, has to keep chatter on the air to the absolute minimum in order to avoid blotting out messages over a wide area between ground stations and mobile units under their control.

Neither is the problem of developing an effective system of aerial traffic control made any easier of solution by the multitude of restrictions and limitations on flying which have been increasing steadily since the war in pace with the rapid expansion of commercial aviation. Restrictions on minimum flying altitudes over built-up areas and control by air traffic centres in the honeycomb of air lanes, and control zones, make it impossible to maintain ideal heights for road traffic observation and virtually draw an Iron Curtain round large areas near big air centres.

One important aspect of aircraft operation envisaged by the A.A. there has not yet been an opportunity to test it in action — is the use of the Alpine as a relay station to extend the range of ground transmitters to areas not at present covered by ground installations, in case of emergency. Experiments have shown that 'flying squads' of A.A. patrol service vehicles can be directed individually from the air outside the range of their controlling station. Thus a local incident, such as an extensive heath fire which calls for roads to be sealed off from traffic and diversionary routes to be brought into operation, can be brought under control much more quickly and effectively. Radio-equipped patrols rushed to the scene, whether it is within range of ground centres or not, can be controlled either direct from the Alpine or by the nearest regional control station, using the aircraft as a radio link.

What might be called a by-product of the A.A.'s incursion into the field of aviation is the installation of 'aerial signposts' at A.A. telephone boxes — there are over 800 of them scattered around the country, most of them on main roads. These take the form of the telephone box number, marked out in letters six feet long nearby, and provide useful navigational aids for light aircraft on cross-country flights. Originally designed to enable the A.A. pilots to pinpoint their exact position more easily (since existing aircraft maps were not designed for rapid road-identification), the aerial signposts are being listed in a key leaflet compiled by the Association and made available to private flyers who wish to use them.

When the Auster Alpine was added to the A.A. road patrol organisation last year (the aircraft is regarded as just another unit in the range of vehicles used to bring assistance to motorists), the Association tried hard to persuade the authorities to allocate the registration letters G-AAAA. This was not only for the obvious alliterative reason, but in order to perpetuate a history of aviation activity which goes back to the year 1909, only four years after the A.A. was founded. In September of that year, with remarkable farsightedness, the motoring pioneers who had banded together to combat the speed-trapping persecution of police authorities in many parts of the country, registered the title 'Aerial Association', and some years later, when an A.A. Aviation Section was formed, owned an aircraft which bore the serial letters G-AAAA.

Baulked by an obdurate Government department, however, the A.A. has had to content itself with the registration letters G-APAA, a label which fortunately is readily translatable as 'Air Patrol, A.A.'

While any cynic will claim that there is nothing new under the sun, the Automobile Association takes a pardonable pride in the fact that its present use of aircraft to assist in traffic control is *not* the novelty which many might imagine. As long ago as 1921, the A.A. began to blaze this particular trail by using flying machines to control traffic at the Derby.

Two A.A. representatives, Mr. Edward Fryer and a Major Fox, took observations of traffic congestion from the air, Mr. Fryer from an aeroplane of now unknown vintage and Major Fox from the airship R.33. The traffic control plan which was worked out as a result was accounted a great success, and indeed is still the basic system of traffic regulation in use for important outdoor events today.

The between-the-wars popularity of private flying was responsible



Auster Aircraft have specialised in the design and production of aircraft for military 'spotting' duties for many years. Seen here is a civil executive type that carries on the tradition in a more peaceable role. It is the Auster Alpine aircraft owned by the Automobile Association of Great Britain and is used for road traffic patrol duties.

for the setting up of the Aviation Section of the Association in 1929. Its object was principally to provide members with flying maps, which were then virtually non-existent, foreign touring services and information, including schedules of airfields.

The resuscitation of the A.A. Air Arm last year followed logically on the post-war expansion of the Association's almost country-wide communications system, which provides the flexibility essential to meet modern motoring conditions.

Britain holds two unenviable records in the motoring field. There are more vehicles per mile of road and more roads per square mile of the country than anywhere else in the world. Seven million motor vehicles of all kinds — 37 to every mile of road — present problems of traffic control which become more and more complex as the years go by. New methods must be worked out if complete stagnation is to be avoided. One A.A. aircraft obviously cannot provide the answer, but the lessons which are being learned may well set the pattern for revolutionary new thinking in the years to come. — END.

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