

# Tale-Spin by Al Donman

## SIR ROY HARDY DOBSON,



WE WOULD LIKE TO SEE MORE OF SIR ROY BUT WE HEAR HE'S ON KNIGHT SHIFT

KNIGHT WATCHMAN



SIR ROY WORKED IN PRACTICALLY EVERY CAPACITY AT AVRO MANCHESTER, INCLUDING WORKS MANAGER, BEFORE BECOMING GENERAL MANAGER, AND AS A RESULT, THERE IS LITTLE THAT HE DOES NOT KNOW ABOUT AIRCRAFT, AND HOW TO BUILD THEM. IT WAS LARGELY THROUGH SIR ROY'S INITIATIVE THAT AVRO CANADA WAS FORMED, IN 1945, TO DO DEVELOPMENT WORK FOR THE R.C.A.F. AND THE CANADIAN GOVERNMENT. SIR ROY IS A FORMER PRESIDENT OF THE SOCIETY OF BRITISH AIRCRAFT CONSTRUCTORS, CHAIRMAN OF AIRCRAFT HYDRAULIC APPLIANCES LIMITED, AND A DIRECTOR OF HIGH DUTY ALLOYS LIMITED. BORN IN 1892, HE WAS KNIGHTED IN 1945.

IF Y'WANNA PRODUCE NIGHT FIGHTERS... THIS KNIGHT IS A "MUST!"

SWAMI DOBSON HEARS ALL SEES ALL KNOWS ALL (ABOUT AIRCRAFT)



TO SIT ON THE BENCH REGULARLY, ONE MUST BE EITHER A GOOD JUSTICE OF THE PEACE, OR A BAD FOOTBALL PLAYER



KNIGHTHOOD WAS CONFERRED UPON SIR ROY, PRIMARILY FOR PRODUCING AND ORGANIZING THE PRODUCTION OF THE LANCASTER BOMBER. IN SPITE OF HIS MANY DUTIES AS PRESIDENT OF THIS, CHAIRMAN OF THAT, GENERAL MANAGER OF THOSE AND MANAGING DIRECTOR OF THESE, SIR ROY STILL FINDS TIME FOR HOBBIES SUCH AS HUNTING AND FISHING. SOME TIME IS SPENT, TOO, FULFILLING THE DUTIES OF JUSTICE OF THE PEACE, WHICH NECESSITATES SITTING ON THE BENCH REGULARLY. A MAN OF ENERGY AND VITALITY, SIR ROY IS AN HONORARY AIR COMMODORE OF THE CITY OF MANCHESTER SQUADRON (613), ROYAL AIR FORCE, AND A FLYING MEMBER OF THE LANCASHIRE AERO CLUB. SIR ROY IS A VITAL AND INDUSTRIOUS MAN TO SAY THE LEAST, AND IF YOUR WIFE SHOULD HAPPEN TO READ THIS...YOU WILL NEVER AGAIN BE ABLE TO USE THAT TIME-HONORED EXCUSE "SORRY DEAR, I HAVEN'T GOT TIME."





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HAWKER SIDDELEY GROUP

ALL MATERIAL IN THIS MAGAZINE MAY BE  
REPRODUCED. ACKNOWLEDGEMENT OF  
THE SOURCE WOULD BE APPRECIATED.

PUBLISHED PHOTOGRAPHS AVAILABLE

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## AVRO VIEWS

Our magazine gets around, just how we're not too sure. We had a call from Drug Trading the other day asking for various advice. They're starting a magazine and want to model it on ours. Then a letter came in from the Ministère de la Voirie of Quebec, which if your French is a bit rusty means Department of Roads. A copy of "Avro News" was shown them "with pride" by the Quebec Board of Trade (how did they get it?). Our Quebec friends want to get copies in future and even want back copies. Another chance reader in England says he likes "Avro News" because the "lively mixture" of "blatant publicity" and "personal items" is refreshing.

The article by Boyd Ferris on the Orenda Lancaster was reprinted in the October "New Westonian," newspaper for No. 1 Supply Depot of the R.C.A.F. at Weston.

Arnold Richards, of Gas Turbine Production, has undertaken to weave the odd bits of plant information he wheedles out of our reporters, and others, into a readable column. Hope you all co-operate with him. By this we hope to get and carry more plant news. We've awarded this month's prize to Bill Mallendine.

## COVER

Squadron Leaders Paul Hartman and E.L. "Shan" Baudoux pose on our CF-100 which they have successfully test flown for the R.C.A.F. They also took it to Wright Field for U.S.A.F. tests and will possibly fly it abroad for the western air forces.

## PUBLIC RELATIONS

With the tremendous increase in the number of our employees and in the size of our plant, it is all the more important that we maintain Avro Canada's good name with the public. Particularly when a large part of our work is concerned with defence contracts and we are more or less directly responsible to the public for the way we spend their money.

Good public relations is, of course, essentially good personnel relations. We cannot expect other people to be happy with us if we are not happy among ourselves. Labor and management should continue to vie with each other in trying to please the other. A happy employee will work overtime to spread the Avro Canada gospel. Good external publicity will follow of itself.

In spite of our expansion, let us keep the friendliness of the plant when it was much smaller. Our aircraft are one means whereby the world is getting much smaller. This means that as individuals we should become bigger if we wish to promote peace and prosperity. Let us not forget that the individual is the basis of our way of life. Let's encourage worthwhile individualism rather than discourage it by unnecessary standardization, clock-punching and efficiency hunts, all seemingly companions of bigness.

Public relations never can be handled directly by one person or a few, whether by top executives or those specially assigned to the task, although normally some overall direction and inspiration is needed. Proper public relations should be pervasive throughout and genuinely carried out by the company as a whole. It's your responsibility in short and not someone else's.



THE GOOD RELATIONS BETWEEN MANAGEMENT AND EMPLOYEES AT AVRO CANADA WAS EVIDENT IN THE NEW UNION AGREEMENT HERE BEING SIGNED BY W.N. DEISHER, VICE PRESIDENT AND GENERAL MANAGER; COMPANY AND UNION OFFICIALS LOOK ON

## Looking Up the Road

by Sir Roy Dobson

Since the war in Korea and my last visit to Avro Canada, we have made considerable progress. Our orders for CF-100 fighters and Orenda engines have considerably increased, and soon these aircraft and their engines will be an important part of the defence of Canada and perhaps of other countries. There is no doubt they will be a very potent deterrent to aggression.

Looking back I see a rough, rocky, and twisting road stretching not much more than four years down the hill. I see it dotted with odd milestones which indicate our progress. There is the start of the Jetliner, its first flight, and as I turn my head and look up the hill I feel we won't have to go much farther before another milestone is necessary - our first production order.

Again looking backward we see the stone marking the first running of the Chinook. Somewhat higher, the running of the first Orenda. Then there is the first flight of the CF-100 fighter, then another stone marking the first flights of the Orenda in the Lancaster test bed, yet another marking the first flight of the second prototype CF-100

fighter, and next, just behind me, the first flight of the F-86 fighter, powered with the Orenda engine.

The far-sighted policy of the Canadian Government, and in particular of the Rt. Hon. C. D. Howe, together with the backing of his colleagues and the Royal Canadian Air Force itself, now seems fully justified, not only by the part we are able to play in producing equipment to help in the defence of Canada and of the right-thinking part of the world in general but by having aircraft and engines of sufficiently high quality to interest many other countries too.

Our CF-100 long-range, all-weather fighter is unique in the world of aviation. There is no aeroplane with anything like its speed and climbing capacity, with such a short and quick take-off, and such a short and easy landing, or with such manoeuvrability in so small a space.

The CF-100's ability to operate from very short runways is now recognized by both the British and American air forces. Both realize the great saving in money and man-power by avoiding the necessity for



SIR ROY DOBSON, OUR PRESIDENT, AND CHIEF OF THE R.C.A.F. STAFF CURTIS WELCOME SIR JOHN SLESSOR (RIGHT), HEAD OF THE R.A.F., ON HIS RECENT VISIT TO AVRO CANADA



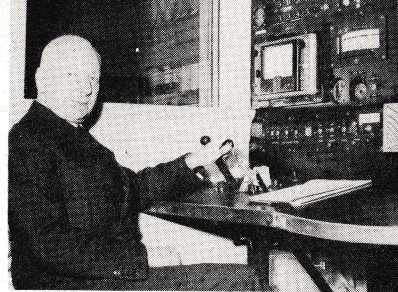
the long runways required by most other modern types of fighters.

Our Orenda engine has done well on the test bench and in the Lancaster flying test bed and quite recently was installed in one of the latest type American fighters, the F-86. This aircraft has shown a worthwhile improvement in performance over that with the previously-installed engine. So great is the Orenda's success that our ability to produce the engine in large quantities is our major problem. Like all other things worth having, this will take a little time, but as I understand that Avro Canada's motto is "the really difficult jobs will be done immediately, and the impossible ones will take just a little longer," I think we shall solve this problem.

Our C-102 civil transport, or Jetliner, has also done very well indeed and is truly a thoroughbred in its class. Here the path to ultimate success as reflected by the order book, is a little thorny, but we are continuing to develop the aircraft as quickly as possible and of its ultimate success we can be assured. Many airline operators have shown interest, particularly those in the United



SIR JOHN SLESSOR, G. H. ATKIN, OUR CHIEF ENGINEER, AND AIR MARSHAL CURTIS. SIR JOHN WAS QUOTED AS SAYING THERE WAS NO FIGHTER IN THE U. K. OF THE SAME CALIBRE AS THE CF-100. HE BELIEVED OUR FIGHTER COULD FILL THIS IMPORTANT GAP.



VICE ADMIRAL THE HON. D. C. MAXWELL, C.B., C.B.E., ENGINEER IN CHIEF OF THE ROYAL NAVY, AT THE CONTROLS OF THE ORENDA IN THE TEST HOUSE ON HIS RECENT VISIT

States. There is also a possibility it may be able to fill a purpose in the military field where its qualities of speed, load-carrying capacity and ease of maintenance could be used to advantage.

Of our three main products two have already passed the pure development stage and gone into production.

What of our capacity to produce? Here our mettle has still to be proved. New machinery, jigs, tools and equipment of all kinds are being provided and are in process of installation in our shops. They will soon be complete and ready for work. I have just as much faith in our capacity to produce the goods as I had in our designers when we began to plan both engines and aeroplanes. The road will be rough and uphill at the beginning, but - well that's what we are here for. It will be good, looking back down the hill in a year or so.

The fact that we are an integral part of the Hawker Siddeley Group, (and yet quite an independent operative company), gives us a background of experience gained by what is probably the largest aircraft company in the world, together

with free access to the vast store of scientific technical and practical knowledge which the Group has accumulated over the years. The free interchange of personnel, particularly on the technical and research sides is a valuable asset. We would be lacking in our duty if we did not take the fullest possible advantage of these facilities. They are well worth having; other people buy them; we get them for nothing.

As you all know, we are at present extending our existing factory space and also in process of building a brand new

engine factory just across the road. We will soon have both aircraft and engine experimental work separated from pure production activities, and probably we will have the aircraft and engine divisions completely separated and each of them self-contained. We shall then be on a sound basis for both production and development. These new facilities are the best evidence of our own faith and of that of your Government which is backing you.

Let us prove that we are worth backing.



Eleanor Davie informs us that Jack Miles gave up his job in the Tabulating Department to join the Canadian Special Force. Now a member of the Medical Corps, Jack is training in Calgary. Wouldn't mind the job ourselves - say as batman to a colonel with a yellow streak.

Malcolm Cameron, of Cost Accounting, decided to take a movie of his wife arriving at Malton via North Star. He shot a whole roll of film of said plane and passengers - but no wife. He had the wrong plane. Eleanor didn't tell us what

happened when the wife did arrive a few minutes later.

We hear that after much hard work, our Darts League is at last getting under way. Many ex-servicemen will want to take up the game they first learned in an English "pub." The teams are battling for the handsome silver cup that will be held by the winning team for one year. In addition, each member of the winning team will receive a replica of the cup and a silver medal, while each runner up will receive a silver medal.

All matches will be played on Thursday evenings commencing at 8:30 p.m. at the Ontario Darts Association Headquarters Club, 10 Wellesly Place, Wellesley Street, Toronto.



# MEN OF THE IRON RING



Across the world today there are about 25,000 Canadians who wear on the little finger of their working hand a wrought iron ring. They belong to a group bound together in a secret ceremony to carry out the highest traditions of the engineering profession. A considerable number of men of the iron ring work at Avro Canada, and typical of their class they occupy key positions in Canada's new jet aircraft and engine industry.

There is no other similar group of men in the world in the engineering profession although the solemn oath they take before admittance to the group is comparable to the Hippocratic oath of the medical profession. The group is extremely publicity-shy because they fear that their high ideals might suffer in the white glare of publicity.

Idea for the group probably originally belongs to Professor Emeritus H.E.T. Haultain, of the Faculty of Applied Science, of the University of Toronto, whose friend, the writer, Rudyard Kipling, wrote the words of the oath and suggested

the form the ceremony was to take.

Professor Haultain still takes a very active interest in the group forging by hand the wrought iron rings which are worn by the members.

Each spring before the final examinations the graduating class of engineers in various Canadian universities undergo the ritual of the calling of an engineer. From time to time there are other rituals for older engineers.

The initiates gather around an anvil clasp an incomplete wrought iron chain. With appropriate ceremony the chain is linked signifying that they are joined together in the oath which they pronounce aloud in unison. They are then given their iron rings:

The oath reads as follows:

"I,..... in the presence of these my betters and my equals in my Calling, bind myself upon my Honour and Cold Iron, that, to the best of my knowledge and power, I will not henceforward suffer or pass, or be privy to the passing of,

Bad Workmanship or Faulty Material in aught that concerns my works before men as an Engineer, or in my dealings with my own Soul before my Maker.

My Time I will not refuse; my Thought I will not grudge; my Care I will not deny towards the honour, use, stability and perfection of any works to which I may be called to set my hand.

My Fair Wages for that work I will openly take. My Reputation in my Calling I will honourably guard; but I will in no way go about to compass or wrest judgment or gratification from any one with whom I may

deal. And further, I will early and warily strive my uttermost against professional jealousy or the belittling of my working-brothers, in any field of their labour.

For my assured failures and derelictions, I ask pardon beforehand of my betters and my equals in my Calling here assembled; praying that in the hour of my temptations, weakness and weariness, the memory of this my Obligation and of the company before whom it was entered into, may return to me to aid, comfort and restrain."

Thus does our engineering profession get its high ideals.

## WORDS CANNOT EXPRESS

Inspired by the recent untimely death of Flight Lieutenant Hunt of the RAF, (a brother-in-law of Rid Dowding), these few stanzas are offered as a sincere contribution towards the ever-present need for safety in every phase of the aircraft industry. If a grim note is struck, that is the intention.

Accidents "happen" not.  
They are caused.  
By whom? By what?  
"He can't be dead. No, no, not he."  
"He is my dear  
Who flew so far, so high, so free."

Who let that faulty job get by?  
Who hid that flaw?  
Oh no, you didn't mean a man to die.  
And what of his wife and the one wee boy?  
"Words cannot express."  
A wrong-built plane is worse than a toy.

The days were long, our talk was light,  
We lived and laughed on into the night.  
Crash - one airman less,  
One husband lost, one father missing,  
One less - Oh what does it matter  
Let's stop this idle chatter

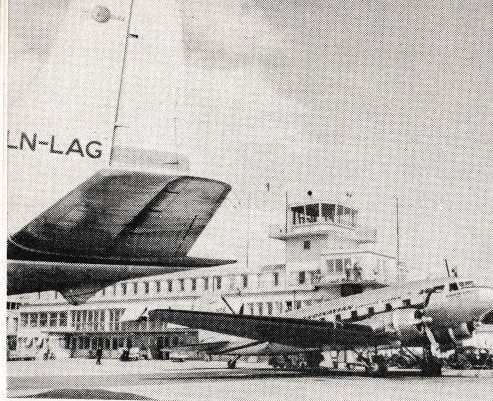
What does it matter?  
That a young man (his years were twenty-seven)  
Should finish life, and leave a son  
And a heart-broken wife?  
A stretch of sky and a plane were his heaven.

Did someone break a rule of flight?  
Did someone underestimate his height?  
Did a compass lie, or a gas gauge fail?  
Was a cable frayed on its way to the tail?  
A flag-draped casket and a service cap,  
A silent family, and an aching gap  
Unfilled forever. Oh, why is man so frail?

For God's sake remember at any time,  
That a hidden flaw is worse than a crime.  
At any time, in any season.  
For a faulty job there is no reason.  
Act safely yourself, and think of others,  
The life that you save may be your brother's.

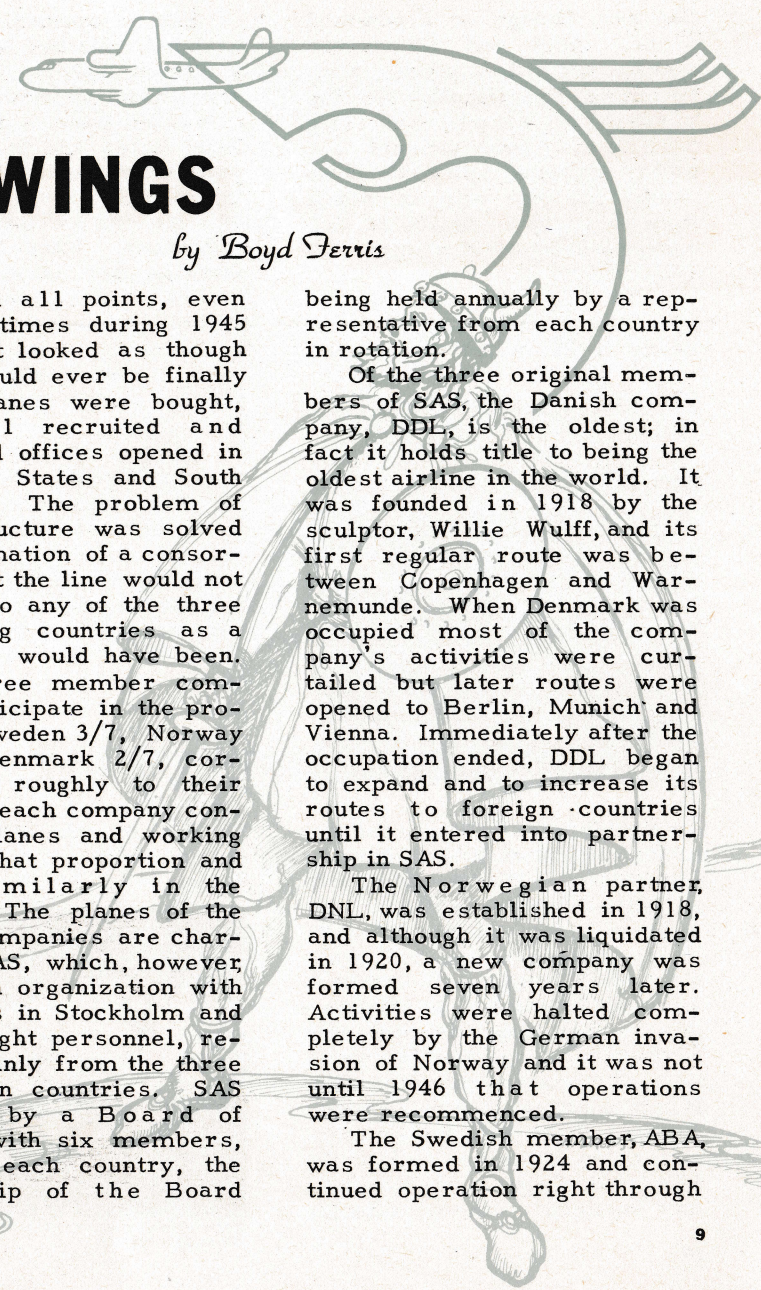
Rid Dowding





# THE DRAGON HAS WINGS

by *Boyd Ferris*



The Viking Dragon is a visitor to the new world of long standing. First carried across the Atlantic on the prow of Lief Eriksen's ships long before the time of Columbus, it is once more a familiar sight, this time on the side of planes of the Scandinavian Airlines System - a joint project of Denmark, Norway and Sweden.

International co-operation is a rare enough commodity these days - particularly in a business which is as keenly competitive as commercial aviation - and it's rather refreshing to see it working so smoothly in the case of SAS.

This line was originally conceived as an airline to serve North America on the North Atlantic run and negotiations had already been opened amongst the three countries when war broke out. The German invasion of Norway and Denmark put an end to these plans for a time although discussions were reopened while these countries were still under German oc-

cupation, negotiators being sent by underground channels to Sweden to help in laying the plans for post-war activity.

As early as November of 1943 a contract was signed with Douglas Aircraft for the first post-war Skymasters and an air agreement was actually signed between the Scandinavian countries and the U.S.A. so that when the war came to an end traffic could begin immediately. A number of Flying Fortresses which had been forced down in Sweden were placed at the disposal of the Swedes, and these were used during the transition period before new material could be delivered, for training crews on the Atlantic run.

Although the three countries were in vastly different economic conditions at the end of the war, they were all aware that only collaboration would enable Scandinavian aviation to hold its own in the field of international competition. It was characteristic of their loyalty to the idea of co-operation that arrangements for joint operation were pushed ahead as though complete agreement had been

reached on all points, even when sometimes during 1945 and 1946 it looked as though nothing would ever be finally settled: planes were bought, personnel recruited and trained, and offices opened in the United States and South America. The problem of formal structure was solved by the formation of a consortium so that the line would not be bound to any of the three participating countries as a corporation would have been.

The three member companies participate in the proportions Sweden 3/7, Norway 2/7 and Denmark 2/7, corresponding roughly to their resources, each company contributing planes and working capital in that proportion and sharing similarly in the revenues. The planes of the member companies are chartered to SAS, which, however, has its own organization with head offices in Stockholm and its own flight personnel, recruited mainly from the three Scandinavian countries. SAS is headed by a Board of Directors with six members, two from each country, the chairmanship of the Board

being held annually by a representative from each country in rotation.

Of the three original members of SAS, the Danish company, DDL, is the oldest; in fact it holds title to being the oldest airline in the world. It was founded in 1918 by the sculptor, Willie Wulff, and its first regular route was between Copenhagen and Warnemunde. When Denmark was occupied most of the company's activities were curtailed but later routes were opened to Berlin, Munich and Vienna. Immediately after the occupation ended, DDL began to expand and to increase its routes to foreign countries until it entered into partnership in SAS.

The Norwegian partner, DNL, was established in 1918, and although it was liquidated in 1920, a new company was formed seven years later. Activities were halted completely by the German invasion of Norway and it was not until 1946 that operations were recommenced.

The Swedish member, ABA, was formed in 1924 and continued operation right through



the war, though on a reduced scale. ABA and its sister company, SILA, which was formed specifically for the purpose of implementing Sweden's international air policy deserve particular credit for the way in which they bore the brunt of the early development program of SAS.

The formal inception of SAS dates from 1946 and already the line has established

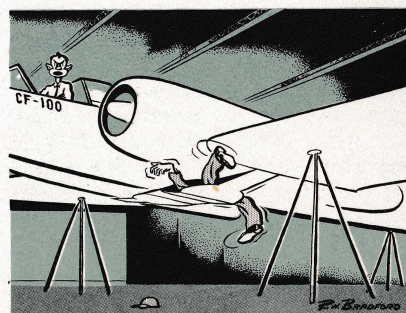


an enviable reputation, thanks to the quality of its equipment, regularity of its operation and excellence of its service. The original idea of operating a North Atlantic service was soon extended to include scheduled routes to Buenos Aires, Bangkok, Nairobi and Kirkenes, to name a few until now 27 countries on five different continents are served. Future plans call for further expansion of routes to include Montreal, Cape Town, Bombay and Shanghai among others.

The co-operation on international runs has been carried a step further to include co-ordination of services on the extensive European networks. Joint sales and technical organizations have been formed to avoid duplication of service and to provide greater efficiency. This European division has taken over control of all lines except the two Atlantic runs and the domestic Scandinavian runs and is concerned principally with the shorter range operations over land.

A part of SAS which deserves special mention is the Charter Central, located at Oslo, which handles the large volume of charter traffic. Its planes are sent to all parts of the world with all sorts of cargoes. For example one plane was sent to Tokyo recently. Others may touch many countries before returning home and may carry anything from wild animals and watch movements to pilgrims and D.P.'s.

Truly, the dragon has wings.



STOP MUMBLING, JOE—DID THE WHEELS GO UP OR DIDN'T THEY?



## JETLINER CLUB

Like us, you are probably very keen on tasting the delights of jetflight in the Jetliner. Very few plant personnel have had a ride as yet, but, we of course, fervently hope that scads of the public will be riding in Jetliners on the air routes in a couple of years. Very few people outside have had the thrill of a ride and most of these we hope are potential customers. Among these are various chief personnel of Trans-Canada, American, United, and National

Airlines, and British European Airways. With the Jetliner flying again we plan on flying officials from other airlines as well. In addition we have flown such dignitaries as the Hon. T. W. White, Minister of Civil Aviation in Australia and Sir Keith Park. We are making all these members of our new Jetliner Club and we are sending them a membership certificate similar to that pictured. Who knows, perhaps you might soon have the chance to join yourself.



# PENNY FOR YOUR THOUGHTS



by *H.C. Luttman*

PATENTS OFFICER

In our highly competitive business it is important that the company should establish a good stock of patents and, though most of our patents have to be assigned to the Government, we can always use them and benefit to some extent from their exploitation. Accordingly, to encourage invention, a scheme of awards has been drawn up and you can find full details in Leaflet No. 3-3 of the Policy and Procedures Manual, copies of which all foremen, section heads and senior members of the staff have available for reference. Briefly the scheme is as follows:-

(1) If you have an idea which you think may be patentable, submit it to the Patents Department.

(2) The Patents Department will investigate it and perhaps decide to apply for a patent, either in Canada or the United Kingdom or the United States.

(3) If a patent application is filed, it will be filed in your name. The Patents Department do all the formal work and all you will be required to do is to sign your name to the official papers. The application will be accompanied by an assignment whereby you assign your rights to the invention to the

company. In most cases the company, in turn, will have to sign an assignment transferring its rights to the Government. For your assignment the company will pay you \$10.00.

(4) The matter is then in the hands of the Patent Office. If they eventually grant a patent, the company will pay you another \$40.00.

That is the scheme in outline. For the details you must refer to the leaflet or come and talk to the Patents Department. There are, however, one or two points which would-be inventors should bear in mind:-

(a) The invention must be related to the company's business. That is to say it must refer to aircraft or gas turbine engines or methods of manufacture or anything with which you are associated in your work at the plant. If you have any doubts, come and discuss them with the Patents Department and if the Patents Department agrees that your invention does not fall within the scope of the "company's business" it will give you a note to that effect, so that you can go ahead on your own if you want to. However the point is that the Patents Department does not want to be inundated with in-

ventions for improving lawn mowers, nylons, babies' bottles and things like that.

(b) An invention to be patentable must be a thing or a bit of a thing. New ideas for improving the method of effecting drawing changes or the issue of tools from stores are not usually patentable. Suggestions for improving efficiency should generally be referred to your supervisor (and if he is any good as a supervisor he will see that you get the credit for them) and only inventions relating to physical things should be submitted to the Patents Department.

(c) In Canada only the inventor can apply for a patent and if it can be proved that a patent has been granted in the name of someone who is not the inventor, the patent

is automatically invalidated. So if you invent something, submit the invention as your own and don't include the name of a buddie as co-inventor, just because he is a good fellow or did the drawing for you or otherwise made no real inventive contribution. On the other hand don't omit his name if the invention really is a joint effort. It is often rather difficult to determine just who did the inventing and if you have any doubt come and talk to the Patents Department about it.

It might be added in closing that, whether an inventor qualifies for a money award or not, Personnel Records are notified so that his personal file may be endorsed to give him credit for the attempt.



SAM SOUTHERN (STANDING)

## Back to Blighty

BY BILL MALLENDINE

We are happy to welcome back in our midst, Sam Southern, of the Gas Turbine Production Tool Room, who has just returned from a three-month tour of the United Kingdom.

Arriving in Liverpool on the Empress of France, Sam's first glimpse of England was on a beautiful warm summer day.

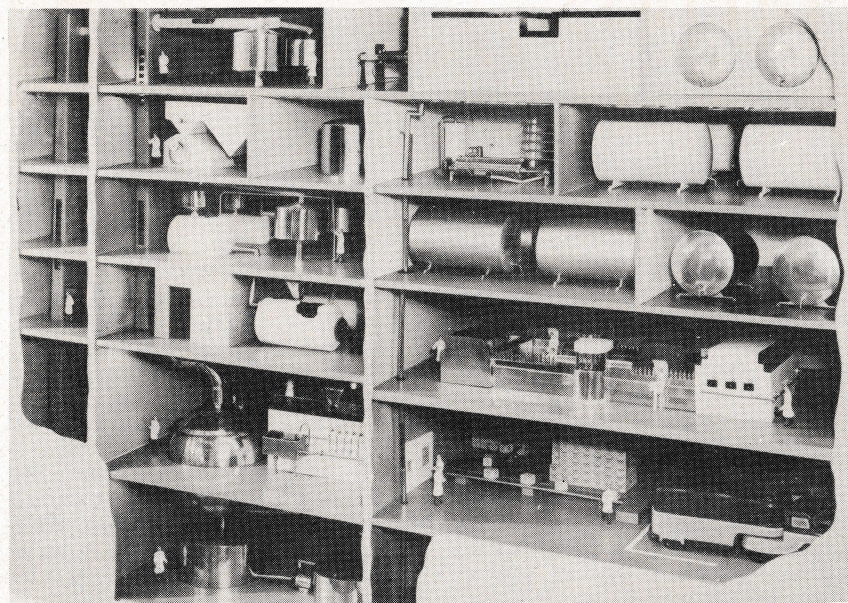
He arrived in London a week later where he visited such landmarks as the Tower of London, Hampton Court, Windsor Castle and Madam Tussaud's Wax Museum.

He then proceeded to Anglesey, North Wales, where he spent some time as a child. In Manchester, he visited A.V. Roe and toured both plants at Woodford and Green-gate where he saw the now much talked about A.V. Roe "Shackleton," a long range maritime reconnaissance aircraft soon to be handed over to the R.A.F.

Near Buxton he visited the well-known "pub," the Cat and Fiddle Inn, which is at the highest altitude in the British Isles. In the Derbyshire hills, he went down the famous Blue John Mine with its artistic spiral stone stairs 300 feet below sea level.



## Still Brewing



THIS MODEL OF A BREWERY WAS MADE BY BOB NORMAN, OF SALES AND SERVICE WHO IS NOW WORKING ON A MODEL OF THE JETLINER. EVERYTHING WORKS JUST AS IN THE REAL BREWERY EXCEPT THAT REAL BEER UNFORTUNATELY IS NOT PRODUCED

### PHOTOGRAPHS

Many employees perhaps do not know that they can purchase photographs of our aircraft and engines at cost. Miss Ann Ritchie, in Sales and Service, is the saleslady and the cost for 8 x 10 prints is 50 cents each.

### OUR FIRST CUSTOMER

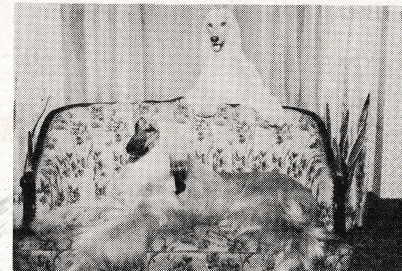
Gil Dunkin, our ever-hopeful salesman for the Jetliner, phoned us the other day to request aid in closing the windows so that a sparrow, our first customer, would not escape from Sales and Service. Sparrow---customer, we queried? Must be a cus-

tommer, Gil said, he just left a deposit on my desk...

### SUE FERGUSON

One of our ablest reporters, Sue Ferguson, has had to regretfully leave her job with Avro Canada on her doctor's orders. Sue started out as a critic of the magazine but when we challenged her to do something constructive about it she surprised us greatly by doing just that. She did not write so much herself but she persuaded many others to do so, among them Rid Dowding. We wish there were more like her. We are going to miss her greatly.

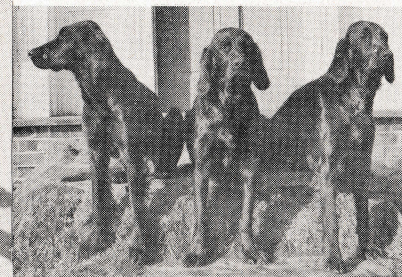
## CHAMPIONS *All*



PONCHO TAKES IT EASY. UNLIKE PATROLS ALI BAY



MOLLY O'DAY OF FAIRGLEN AND FAMILY. OWNER IS MAC CALLANOCH OF THE TOOL ROOM.



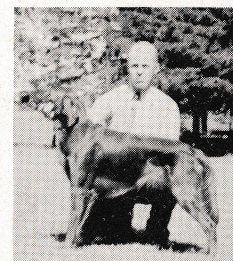
MORE OF MAC'S IRISH SETTERS: IRISH SHEILA OF DONEGAL, GERALDINE THE SECOND AND DONEGAL PRINCESS.



PATROLS ALI BAY, AFGHAN HOUND IMPORTED FROM ENGLAND BY ERNIE HOLLOWAY, IN THE HYDRAULIC DEPARTMENT



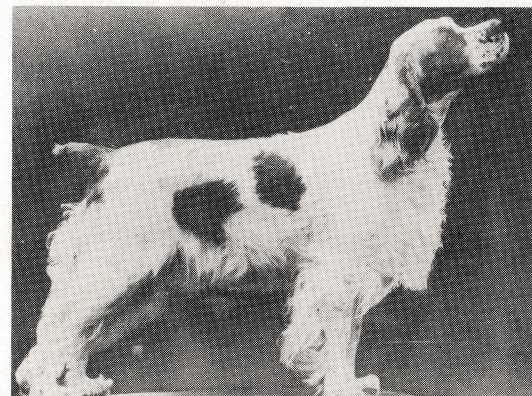
TOM MATHEWS, OF THE AIRFRAME DRAFTING OFFICE AND HIS CHOW, COLONEL LEE.



RUSTY OF EXCELSIOR WITH HIS MASTER, WALTER SMART OF THE SUPPLY DIVISION

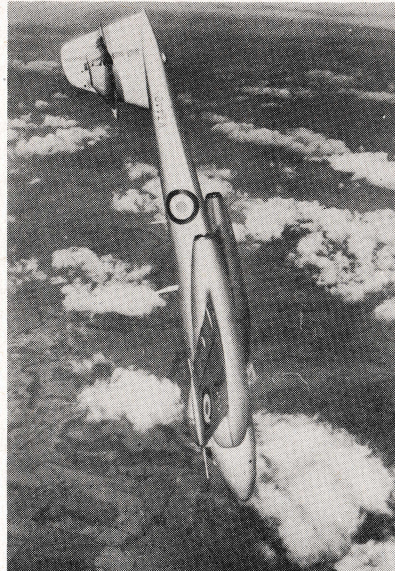


REX OF CANAID, GERMAN SHEPHERD OWNED BY ART SHIER OF PLANT ENGINEERING



GILHAVIN'S GLAMOUR GIRL, AMERICAN COCKER SPANIEL OWNED BY HUGH GILMOUR, OF PERSONNEL SCREENING





UPSIDE DOWN OR DOWNSIDE UP? ANYWAY IT'S A GROUP AIRCRAFT, A GLOSTER METEOR.

Today, in aviation, we are all pioneers once again. So rapidly have we advanced that once more we are adventuring into the unknown, standing on the brink of great new developments that will lead no one knows where.

What has brought this about? The rapid perfection of the turbo-jet... the approach to supersonic speeds... the operation of jet aircraft at altitudes which demand pressurization... these are but a few of the factors, factors which combine to present new problems which are changing almost daily.

To overcome these problems and ensure a line of successful aircraft for tomorrow, two things are needed - technical experience and resources. Experience, to make best use of the knowledge already gained and still

## The HAWKER SIDDELEY GROUP

being acquired by unceasing research; resources, to ripen the fruits of this experience into practical application.

It is on these two fundamentals that the Hawker Siddeley Group has been built. In the Group there are many of the best-known firms in the British aircraft industry, with records of achievement reaching back to the days of the pioneers. These companies are now teamed together to provide a pool of experience and resources that would be beyond the practicable scope of any individual firm.

Each of the companies is backed not only by its own experience, but by the wealth of knowledge that has been accumulated by all the others. Each has its own resources, but can freely call upon those of the entire Group. Thus, each separate company has the combined strength of the whole. Each is "multiplied by nine". Yet each manages its own affairs entirely.

The Group is the largest organization in the British Commonwealth - and probably

in the world - covering the design and construction of aircraft, aero engines and gas turbines, flying and aeronautical training, and a leavening of non-aviation activities.

Who, then, are the major members of this organization and what briefly are their stories? A. V. Roe formed in 1910, and one of the oldest aircraft firms in the world, produced the first British full-size aircraft to fly and the long line of R.A.F. trainers which started with the famous Avro 504. The deeds of their "Lancaster" need no introduction. Hawker Aircraft had its roots in the Sopwith Aviation Company, and the 1914-1918 achievements of Sopwith aircraft are only equalled by those of Hawker machines in the Second World War.

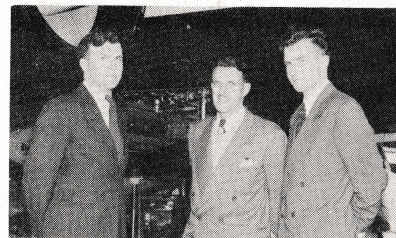
Gloster Aircraft, with a fine record in the manufacture of successful fighters, designed three of the series of Schneider Trophy machines. In 1941 with Sir Frank Whittle, they helped to change the whole face of aviation by producing the Gloster-Whittle E.28/39, the first jet aircraft successfully developed. Armstrong Siddeley, car pioneers at the beginning of the century, are today in the front rank of specialist car design and gas turbine development. Armstrong Whitworth Aircraft are chiefly remembered for the all-metal "Siskin" and for the "Atalanta" airliner - first all-metal plane to make civil

aviation pay. Air Service Training - Britain's air university - is the largest and best equipped aeronautical training establishment in the world. A. W. Hawksley, formed in 1941 to build the Armstrong Whitworth "Albemarle", have since provided factory-built houses for more than 20,000 families.

Other members are High Duty Alloys, pioneers in the development of strong, reliable light alloys; and the youngest, A. V. Roe Canada, whose "Jetliner" transport, CF-100 fighter and "Orenda" jet engine are already making headlines.

In the Second World War the Group produced no less than a third of the aircraft used by the Royal Air Force and built up an organization which proved itself capable of remarkable foresight, of rapid technical development and of immense production capacity, demonstrating the great advantages to be gained from the pooling of resources.

What are the benefits that follow from the unique Group method of working? Mutual aid from individual research is one. Without research, progress in aviation is impos-

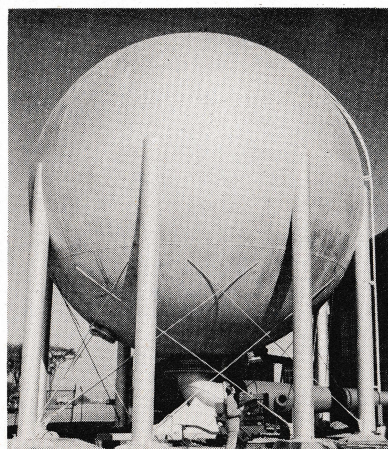


WHICH IS THE TONI, OUR CHIEF TEST PILOT, DON ROGERS MIGHT BE JUSTIFIED IN SAYING AS HE STANDS BETWEEN THE IDENTICAL WARREN TWINS. S/L DOUGLAS ON THE LEFT IS CHIEF ADMINISTRATION OFFICER AT THE R.C.A.F. STATION, CHATHAM, N.B., WHEREAS, F/L BRUCE, ON THE RIGHT, IS ONE OF DON'S TEST PILOTS.



sible. All companies pursue their individual research programmes and freely circulate their technical reports to all the others. But there is more to it than this. Wind tunnels, structural test apparatus and other items of research equipment are very costly. They may be beyond the financial resources of any one company. Only when viewed from the standpoint of the benefit they would bring to all Group companies do they take on a very different aspect. What is beyond the scope of one may easily be within the sphere of nine.

Another obvious instance is on the production side. One company with a big order may not have sufficient space to deal with it quickly, but other Group factories may be able to help - and will employ on the job workers as skilled and experienced in aircraft construction as those of the first firm. During the war, for instance, Gloster Aircraft built hundreds of "Hurricanes" for Hawker Aircraft. Since then many Group companies have



been helping to build Gloster "Meteors" and Armstrong Whitworth Aircraft have co-operated in the design of the "Meteor" night-fighter version and have undertaken its manufacture.

Sometimes a firm needs special and expensive machines and equipment to carry out a particular operation. As with research apparatus, such things may be quite uneconomical in view of the small percentage of time that one firm could keep the machine occupied with its own work alone. In the Group, however, it is often found after discussion that the equipment would be useful to the other firms and that their cumulative work would be sufficient to keep it in full and economical operation.

How, then, is all this co-ordinated so that every one of the members can take the fullest advantage of Group co-operation? First and foremost, the main principle of Group working can be put into two simple words. No centralization! Some 38,000 people are kept in steady employment by the Group, but at the Central Office there are less than 25 - from the Chairman to the hall porter. Thus anyone dealing with one of the operating companies is dealing with a company entirely free to make its own decisions and work its own way without having to refer everything of importance to some remote "head office" where his indi-

AVRO CANADA PERSONNEL ATTENDED THE OPENING OF THE U. OF T. INSTITUTE OF AEROPHYSICS AT DOWNSVIEW AIRPORT RECENTLY. FOR SUPERSONIC AIRCRAFT RESEARCH HERE IS THE INSTITUTE'S 33,500 CUBIC FOOT "LUNG" WHICH BLOWS A 3,000 M.P.H. WIND

vidual problems are unknown.

The Group functions by calling together from time to time the representatives of the individual companies to discuss their common problems. Great benefits derive, often in intangible ways, from the interplay of ideas that takes place, the exchange of experience and the many different viewpoints that are brought to bear on the consideration of any one subject. All the Group directors, for instance, regularly get together with the general managers of the operating companies. Naturally, they have a wide sphere of interest and are likely to discuss almost

## The Brotherhood of Bucket Bitchers

Recently our star contributor, Rid Dowding, was made an honorary member of the Brotherhood of Bucket Bitchers, an international group of gas turbine workers. A "bucket," in case you didn't know, is a gas turbine blade. We do not intend to explain the rest of the title.

Members wear a small turbine blade as a tie pin. If caught by other members without their membership card, members have to stand drinks all round.

The purpose of the group:

"To lift up the minds and lighten the hearts of bucketeers and nozzle nudgers.

"To alleviate the sufferings of those engaged in this field of lunacy.

"To add a touch of humor

anything from spreading one company's peak load among the others to the training of leaders for the future. The technical directors and chief designers of the companies also meet regularly, so do the sales managers and those who are responsible for factory production.

But, make no mistake about it, the Group is not too committee-minded. All who need powers to make decisions, have them. And such powers are made infinitely more powerful because they are backed at every stage by the unequalled experience and resources of the entire Hawker Siddeley Group.

and supply mental as well as physical stimulant to your fellow members."

Rid's contribution to gas turbine knowledge, "Introducing the Orenda," which we published some months ago, was copied by the official organ of the group, "Bucket Bitchings," in its September issue.

Rid became a member at the same time Capt. "Chuck" Yeager, of the U.S.A.F., the first man to fly faster than sound, did. Other notables belong.

The best way of joining apparently is to submit contributions of Rid's calibre to "Avro Canada News." Or you might get in touch with Fred Roberts, of Austenal Laboratories, Inc., 224 E. 39th Street, New York 16, N.Y.