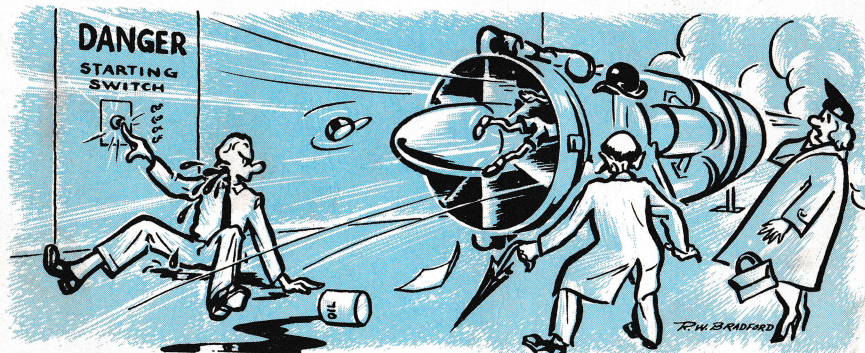


# ELMER & THE JET ENGINE



WITH APOLOGIES TO STANLEY HOLLOWAY, ALBERT AND THE LION

*Rid Dowding*

There's an infamous airport called Malton  
That's not noted for fresh air or fun  
And one day the Finkelsteins went there,  
And took with them Elmer, their son.

A queer little chap was young Elmer  
With a long nose and glittering eye.  
His motto was "Keep asking questions"  
And his favourite question "Why?"

They didn't think much of the aircraft  
The runways was middlin' and small,  
There were no crashes, or burnings,  
In fact nothing to laff at at all.

So seeking for further diversion  
They sneaked in the back gate of Roe's  
Where there's Turners and Testers and Draftsmen  
And a whole crowd of other Joe Schmoes.

There was one great big Tester named Pinhead,  
His face was all covered with grease,  
And he snoozed where he lay in the test cell  
A picture of contentment and peace.

Now Elmer had heard about Testers,  
How they were vindictive and wild,  
And to see this one sleeping so peaceful  
It didn't seem right to the child.

So straight way the daft little fellow,  
Not showing a morsel of fear  
Took a pint of graphited coal oil  
And pored it in Pinhead's ear.

You could see that the Tester didn't like it,  
For giving a kind of a twitch  
He rolled over, poisoning his finger,  
And stabbed at the Jet starting switch.

There was a grumbling and whining and swishing,  
The Jet started up with a roar,  
And Elmer was caught in the suction,  
And suddenly the lad was no more.

Ma Finkelstein saw what had happened,  
And not knowing what to do next,  
Said "Pop, yon Jet's sucked in our Elmer."  
And Pop said "EE. I am vexed".

They sent for the chief of the Test House,  
Who seemed quite a nice kind of chap,  
And told him what happened to Elmer  
And proved it by showing his cap.

The chief sent a boy for a big shot  
Who came without fuss or delay  
And said "How much to settle the business?"  
Pa said "What do you usually pay?"

But Ma who was listening closely,  
Pondering the fate of her son,  
Said "Hey. Just 'alf a mo' mister  
There's some legal work to be done."

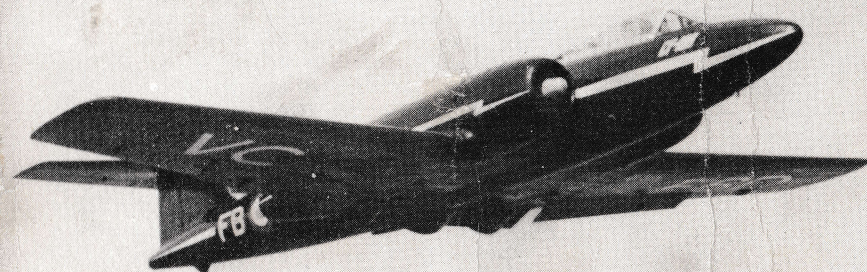
So down to the Magistrate's office  
They went with their sad tale of woe,  
And the big shot went along with them  
To defend any threat to his dough.

The Magistrate seemed interested,  
But said "Nobody's really to blame",  
And said that he hoped the Finkelsteins  
Would have further sons to their name.

At this Ma got proper blazing,  
She was fed up to the teeth, you could see,  
"I'm not spending my life raising children,  
To feed ruddy Jets. Not me."

AVRO  
**N**ews

JUNE 1950





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REPRODUCED, ACKNOWLEDGMENT OF THE  
SOURCE WOULD BE APPRECIATED.

EDITORIAL DIRECTOR - MURRAY WILLER  
EDITOR - ROSS WILLMOT  
ASSOCIATE EDITORS  
KAY LUFF BOYD FERRIS  
ART EDITOR - LEN THORNIQUIST

## REPORTERS

JOE BEST.....SECURITY  
ELEANOR DAVIE.....ACCOUNTING  
KAY LUFF.....SALES & SERVICE  
HARRY MACDOUGALL.....AIRCRAFT DESIGN  
MARGARET O'HEARN.....PURCHASING  
MURIEL CANNELL.....GAS TURBINE EXPERIMENTAL SHOP  
OLIVE WURM.....MATERIAL CONTROL, SHIPPING & RECEIVING  
DAISY PON & TED COLVILLE.....RECREATION  
PAUL NIELSON.....NOBEL  
ARNOLD RICHARDS.....GAS TURBINE PRODUCTION  
GEORGE TIMPSON.....CONVERSION & OVERHAUL  
GEORGE VALE.....GAS TURBINE DESIGN  
NORM WOOTTON.....AIRFRAME MANUFACTURING

## AVRO VIEWS

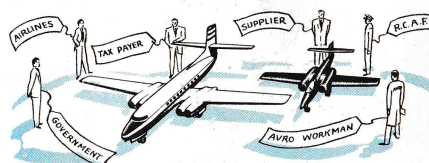
Our magazine has been attracting considerable outside attention. "Flight" and the "Canadian Air Line Pilot's Magazine" reprinted our article by W.A. Waterton on his first impressions of the CF-100. Columnists Margaret Aitken and Thomas Richard Henry, of "The Toronto Telegram," and James Hornick of "The Globe and Mail" used our material.

Miss H. Lambart, of the British Aviation Insurance Company, writes: "I just want to say that this impresses me as being one of the best little publications, of its type, that I have seen, and we certainly see lots of them. I like everything about it."

Our prize this month goes to reporter Sue Ferguson, of Gas Turbine, who was chiefly responsible for persuading Rid Dowding to give us such contributions as "Elmer and the Jet Engine".

## COVER

The Avro Canada CF-100 fighter is seen in this Acme photograph during its demonstration at Washington to the U.S.A.F. May 9. This picture alone was distributed to 600 newspapers and periodicals in the U.S. and to 400 abroad with the caption "most phoom."



## THE AVRO CANADA COMMUNITY

In a recent speech before the Canadian Manufacturers' Association our vice president and general manager noted that the Avro Canada community now included more than 300 Canadian suppliers and manufacturers for our jet products. More and more Canadians are also becoming shareholders in our enterprise as we enter the production phases of our work.

We have developed a very fine company esprit de corps which must be continued if we are going to fulfil our public responsibility. At the same time we must keep in mind that there are more people involved in our great venture than the workers in our plant alone. Because of the worldwide publicity we have received, our company achievement has become a national pride. The sale of our fighter, particularly, has become a matter of high international defence and monetary exchange concern. In short, we are growing up.

Now that we are entering the vital sales stage it is all the more important that we should enlarge our viewpoint. Your magazine is trying to write about larger issues to this end.

At the same time, we do not want to neglect the local and personal news so important to company morale. In striving to be more interesting and useful to Avro Canada workers we hope to be of interest and use to the growing number of our outside readers as well.

Not only in our company magazine but in all our activities do we believe we should develop a wider viewpoint and responsibility. Ultimately our future depends upon it.

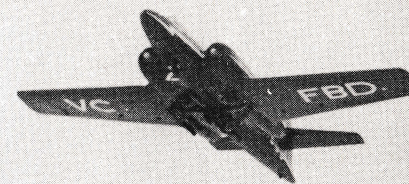
## THE CF 100 AT WASHINGTON

Our CF-100 fighter made its international debut at Andrews Field, Washington, May 9, by flying there from Toronto at an average speed of 570 m.p.h. After a very successful demonstration before high U.S. air force and government officials, and representatives of other air forces, our contribution to North American defence returned at the same average speed. In neither case did pilot W.A. Waterton, A.F.C. and Bar, attempt to fly the aircraft at its top speed. Navigator for the flights was Michael Cooper-Slipper, D.F.C.

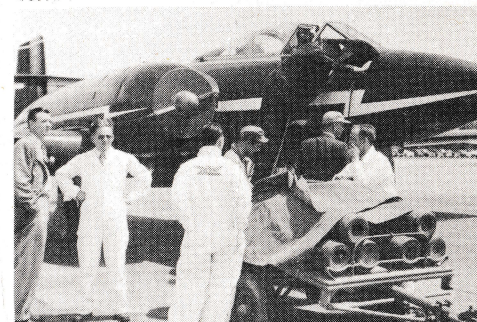
Charles Nicholls, Southam Newspapers correspondent in Washington, quoted Major Gen. F.F. Everest, assistant deputy chief of staff for operations of the U.S.A.F. on the demonstration. "From my standpoint, this is one of the most interesting new developments I have seen," he said.

Mr. Nicholls went on: "The Avro CF-100, prototype of a line of aircraft specifically designed for long-range interceptor work in guarding North American shores, was the first plane of its type seen on this U.S. Air Force base. (Andrews Field).

"Although still in an advanced development stage, it



BELOW: AVRO CANADA'S MAINTENANCE CREW AT WASHINGTON



BELOW: BILL WATERTON RECEIVES THE CONGRATULATIONS OF CANADIAN AMBASSADOR TO THE U.S. HUME WRONG. OTHERS ARE LEFT TO RIGHT: AIR MARSHALL W. A. CURTIS, CHIEF OF AIR STAFF, R.C.A.F.; MAJOR GENERAL FRANK F. EVEREST, MAJOR GENERAL CARL A. BRANDT, U.S.A.F.; AND VICE ADMIRAL JOHN H. CASSIDY, U.S.N.







AIR VICE MARSHALL D. SMITH, AIR MEMBER FOR TECHNICAL SERVICES OF THE R.C.A.F., RECENTLY PAID A VISIT TO OUR SISTER COMPANY AVRO MANCHESTER. LEFT TO RIGHT: S/L A. V. BRANSCOMBE, CHIEF TECHNICAL OFFICER, CANADIAN JOINT STAFF, LONDON; A/V/M SMITH; S/L E. C. SNIDER, D.F.C., EXECUTIVE ASSISTANT TO THE A/V/M; AND SIR ROY DOBSON, PRESIDENT OF AVRO CANADA AND MANAGING DIRECTOR OF AVRO MANCHESTER

was demonstrated to the American air officers to show them the characteristics which, Canada frankly hopes, will make it suitable for standardization for the air forces of both North American nations and those of other North Atlantic powers as well.

"The air attaches of Russia and other Iron Curtain countries were conspicuously absent from the group of officers 'of all friendly nations' who watched Squadron Leader Waterton climb, dive and roll the glistening black machine at speeds between 550 and 575 miles per hour.

"The test pilot said afterwards that he 'made no effort to push' the plane. He pointed out that the aircraft still required modification.

"Bill Waterton taxied the plane down the runway, turned at the end and began a run past the reviewing stand. As he reached the stand, he went into a swift climb of about 45 degrees and the plane became little more than a speck in the sky. He did a 'roll off the top' and came back low over the

heads of the crowd.

"As Waterton took the plane through its paces, he described what he was doing over his radio and his voice was often breathless after a swift climb.

"When he came back, after a slow run along the field with flaps down to demonstrate maneuverability, he emphasized that the aircraft was not fully powered although its 'rate of climb is better than anything in service today'. The craft eventually will be powered by Canadian-built Avro Orenda turbo-jet engines.

"After the flight, one engine was partially stripped for inspection. Canadian Ambassador Hume Wrong, General Everest, Major-Gen. K.P. McNaughton, director of training, U.S.A.F., and Canadian air officers chatted with the pilot and examined the two-seater cockpit.

"Everybody seemed impressed with the demonstration except one nine-year-old boy with a camera who piped up above the whistle of the engines as the plane swooped low overhead: 'Aw I seen 'em do a better trick than that in a P-80.' His Air Force officer father cut the commentary short."

#### AVRO CANADA FILM

Several copies of the Avro Canada black and white 16 mm. sound film on the Jetliner are now available for screening. We will be glad to loan out these copies to interested groups. The film takes about 10 minutes to run.

## CANADIANIZING OUR AIRCRAFT INDUSTRY

ADAPTED FROM AN ADDRESS BY WALTER N. DEISHER, VICE-PRESIDENT AND GENERAL MANAGER, TO THE CANADIAN MANUFACTURERS ASSOCIATION IN TORONTO MAY 27

Self sufficiency is the goal towards which the Canadian aircraft industry is striving; it is trying to develop supply lines which are less vulnerable to enemy attack than those of the last war. Consequently, there has been awakened interest in producing at home the diverse equipment necessary for making aircraft and their engines, and Avro Canada has led the way in pursuing this policy. Needless to say the engineering skills, the equipment and the personnel we have developed would be of invaluable service in a national emergency.

Little is known of the extent to which Canadian manufacturers and suppliers are contributing towards our achievements here at Avro. In all there are more than 300 of them and their number is increasing daily. To ensure that our work will go on uninterrupted it is our policy to have alternate sources of supply in our own country. Our three major projects, the Jetliner, the Orenda and the fighter are almost wholly Canadian-made and for defense reasons the government has decided to have these products made entirely on this side of the Atlantic. For the first time a proper basis has been provided for the Canadian aircraft industry.

In developing our sensational new aircraft we have also had to develop new machinery

and services which might eventually be of use to Canadian industry as a whole. Most of our patents have been taken out in the name of Canadian Patents and Development Limited for the Canadian government and so are the property of the people of Canada.

Many new manufacturing processes have also been introduced by Avro Canada to this country. The accuracies and finishes we require in our manufacturing operations at first were considered practically impossible, even by today's standards. Never before in any branch of manufacturing in this country has such an ambitious program of development and experimentation been undertaken in such a difficult field. The willingness of the Canadian workman to learn (and often to unlearn), his interest and his enthusiasm, have been extremely gratifying.

To quote a recent editorial in the "Engineering Journal": "Some excellent examples of the type of manufacturing processes new to Canada, and which have been developed by Avro and certain of its key contractors, include the fabrication of a number of large and intricate light alloy castings used in the main body of the engine. The crowning achievement is the fabrication by precision casting, machining



and forging to very close tolerances of large numbers of compressor and turbine blades in light alloy and heat resisting alloys. The compressor and turbine turn at a very high rotational speed and to achieve any reasonable performance, their efficiencies must be of the order of 80 to 90 per cent. Only engineers familiar with axial compressor and turbine performance can appreciate the refinements of design and fabrication required to achieve such results.

"Such refinements are being achieved at Malton and they are being achieved economically and efficiently. An eminent British authority has stated that Canada has received a better return for money invested in gas turbine development than any other country. An equally eminent Canadian engineer has said that he would not hesitate to turn over to Avro Canada's gas turbine engineering organization a multi-million dollar hydro-electric development or other engineering project with complete confidence that the results would equal the best that could be achieved anywhere.

"The Journal feels that the story of Avro Canada, and particularly its gas turbine engineering division should be given wide publicity. Perhaps it might induce buyers of engineering services to look around Canada before contacting that 'big name' organization in the United States."

Avro Canada has fostered a

great many Canadian industries. To give some examples: When the casting manufacturers were approached to manufacture the five large castings for the jet engines, considerable difficulty was met in getting a foundry to undertake the extensive development work which was necessary. Light Alloys at Renfrew undertook this work and have become proficient in producing magnesium castings of a very high standard which are comparable to anything that is now being produced in the world both in quality and dimensional accuracy. The Aluminum Company of Canada also have done notable work in producing these castings. Atlas Steels of Welland undertook to manufacture in Canada many high quality special steels which have not previously been manufactured here and in this they have been very successful. They are now able to produce such quantities as the industry requires from time to time.

Shawinigan Chemicals of Montreal were encouraged to undertake production of Crown Max type castings and they have succeeded in giving us excellent materials on time. The Deloro Smelting and Refining Company of Deloro was encouraged to produce inlet guide vanes by a "lost wax" process. They are now in a position to offer fast deliveries and their product is of very good quality. Acme Screw and Gear of Toronto have agreed to set up a precision gear department to manufacture

gears for our aircraft engines to production tolerances never before attempted either here or in the United States.

Avro Canada owes much to these suppliers of ours who have done so much in getting us going. Many co-operated on producing small quantities of various items we required with little or no prospect of ultimate profit. It is gratifying that we in turn are now able to help them with our orders.

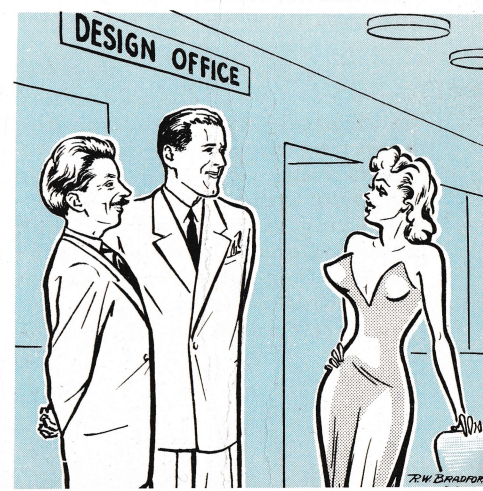
Another aspect is the new Canadian plants which have been established as a result of our operations. Because of our demand for cabin blowers for pressurizing and air conditioning in the Jetliner, the Sir George Godfrey company has established a plant in Montreal to manufacture this equipment. The Dowty Company also has established a plant at Ajax to manufacture undercarriages, hydraulic parts and systems and related parts for our two aircraft. The Dunlop Rubber Company is making arrangements to manufacture in Canada wheels and brakes of the type used by us; this is being done on a sub-contract basis by Dowty. The Rotax Company of Montreal is beginning operations in Canada by setting up an overhaul, repair, test and assembly plant for jet engine fuel and combustion systems and the company intends to begin manufacturing operations.

Active negotiations are also under way with other companies to open up plants in Canada to serve our new jet aircraft

industry and it is expected that concrete results will be seen before the end of this year. Avro Canada's objective is to "Canadianize" the industry. It is contemplated that the Orenda will shortly be 95 per cent Canadian-built, the Jetliner 80 per cent, and the CF-100 fighter 90 per cent. About 95 per cent of our staff at Malton are Canadians.

Needless to say, all this helps strengthen the Canadian economic structure and we hope to do more once we begin selling our products. Profitable employment has been found for Canadians and although we doubt if we will ever employ 25,000 at our plant, as one Toronto newspaper optimistically said, it is well within the bounds of belief that this number will soon be employed throughout Canada on this work. The technical status of engineering has been improved and specialized training has been provided for many who otherwise would never have had it.

"MISS EXPOZURE, WE FEEL THAT YOU MAY HAVE THE ANSWER TO OUR STRESS PROBLEMS"





Canada has her northern bushland, Australia has her outback areas, and to open them up both countries have had to take to the air. In the process, Australians have developed into one of the most air-minded peoples in the world, their airlines carrying an annual complement of passengers equal to one sixth of the country's population.

Trans-Australia Airlines, a comparative newcomer to the world's airlines, is a product of this vigorous attitude towards aviation. In its first three years of operation it is already setting records by having served well over one million paying passengers and established a domestic route mileage of 13,400 miles.

Organized much along the same lines as T.C.A., Trans-Australia is a national airline which operates under the supervision of a Commission responsible to the federal government. From the beginning its record has been an enviable one: five months after the

## IN THE AIR



Commission's first meeting in February 1946 a school for the training of personnel had been established, and another two months saw scheduled passenger service between Sydney and Melbourne in operation.

It has been a story of steady progress ever since, each move marked by careful thought and preparation. First step was the acquiring of additional crews and veterans of the R.A.A.F. provided the source for most of these. In fact, under a strict policy maintained by the company from the beginning, more than 85 per cent of its staff are ex-servicemen and women.

Booking offices and passenger terminals were opened in one city after another and a network of routes soon stretched across the continent. T.A.A. planes now wing their way from Melbourne in the south up to Adelaide and then take the long jump across the great arid planes to Perth on the west coast or pass northward to Darwin over the lake district, little more than salt-encrusted marshland in the dry season. Other routes lead to Canberra, Australia's beautiful capital, then on to Sydney and up the eastern coast or across to Darwin by an alternate route through stock-raising country. Southward, there is a service across Bass Strait to the attractive island of Tasmania

## DOWN UNDER

which lays claim to the most temperate climate in all Australia.

To match the demands of its expanding routes, T.A.A. has adopted a vigorous policy towards the purchasing of new aircraft for its fleet. It is scarcely surprising therefore, that they have shown considerable interest in the Avro Canada Jetliner, which would be well suited to their needs. Plans are being made to fly the Jetliner on T.A.A.'s routes in the future to see how the aircraft performs. For servicing and overhauling its aircraft, large maintenance bases are located at Sydney and Melbourne to insure their standard of efficiency and safety.

The popularity of commercial aviation in Australia has been given a fillip by the country's favorable year-round climate and the absence of high mountains on the main air routes, making it possible to achieve a high degree of regularity and comfort in airline service. (It is rare in Australia for flights to be cancelled because of weather conditions.) Moreover, rail travel in Australia is rendered difficult and uncomfortable because the gauge of the tracks varies from state to state so that a long interstate trip entails frequent changes. The huge area of the continent and the lack of suit-

able communications in some outback areas make air travel the logical means of transport, and it follows that air freighting also plays an important part in the company's operations.

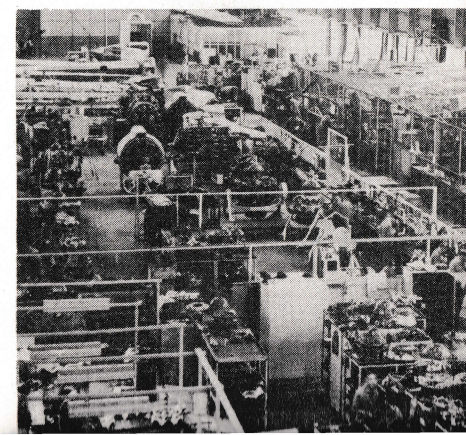
An interesting feature of the Australian air picture is the country-wide flying doctor service which, in the state of Queensland, is operated by T.A.A. Two of its planes are based at Charleville and Cloncurry, and when the isolated settlers inland require medical services they make use of pedal radio sets to communicate with the flying doctor centres.

Under its General Manager, L.J. Bain, T.A.A. is now well established and has the support of the Australian public. Its completely accident-free record and its policy of providing a service second to none have contributed largely to its phenomenal growth. The line has been living up to its slogan, "Fly T.A.A. - The Friendly Way."

TAA CARRIES VARIED CARGO THROUGHOUT AUSTRALIA. IN THIS CASE CATTLE



THIS MODERN ENGINEERING WORKSHOP IS PART OF THE REASON FOR TAA'S EFFICIENCY







## WINGS ACROSS THE ATLANTIC

THE AVRO JETLINER AND CF 100 FIGHTER BEING READIED FOR THEIR ATLANTIC HOPS THIS SUMMER

Some sunny day this summer the Avro Canada Jetliner will whoosh upwards from an east Canadian airport and then speed on across the North Atlantic to England. It possibly will be the first oceanic crossing by a jet transport and certainly will be the first by an inter-city jet airliner.

This sensational product of ours will thus contribute to the taming of the most hazardous air route in the world. A new page will be added to a colorful story which began in 1919 when Capt. John Alcock and Lieut. A. Whitten Brown, of the Royal Air Force, were the first men to make a non-stop crossing of the Atlantic in an airplane. Our sleek, propless Jetliner is a far cry from the small twin-engined biplane with box-like wings and tail - a British Vickers Vimy bomber - which they flew from Newfoundland to Ireland in 15 hours.

Thirty years ago a flight across the Atlantic was high adventure. Now, as the result of the regular ferrying of thousands of operational aircraft during the war over this route, in fair weather and foul, it is a routine trip for commercial pilots. Some 400 Lancaster

bombers manufactured in this plant during the war by our predecessor, Victory Aircraft, formed a small part of the large number of aircraft ferried across this "Atlantic Bridge." Seven Lancasters, civil versions of the bomber which were also converted here, formed the first Trans-Canada Airlines fleet, which started its trans-Atlantic operations in 1943.

Actually the history of the North Atlantic as the bridge between the Old World and the New is nearly a thousand years old. Between the voyages of the Vikings, venturing to the shores of America in their little dragon ships, and the coming of Cabot, there is a gap of 500 years. Thirty-seven years after Cabot, Jacques Cartier crossed the Atlantic and events began to happen more quickly. Three more centuries and the Royal William left Pictou for London with her seven passengers and her queer cargo of coal, stuffed birds, six spars and one harp, thus establishing the reign of steam over the great ocean. Eighty-six more years and Alcock and Brown made their epic flight. With so much achievement in

the next few intervening years, what can we expect in the Jet Age?

A decade ago, Canada was five days wide and the Atlantic slightly less for the regular traveller. Today it takes only a matter of hours to make the trips by scheduled flights of Trans-Canada Air Lines. If Jetliners are introduced to T.C.A.'s domestic routes this time will be cut in about half. Trans-oceanic jet transports will similarly halve the time taken to fly across the Atlantic.

T.C.A. alone has completed thousands of successful crossings of the Atlantic and each year flies over 20 million air miles - about 800 trips around the earth at the equator. The original "flights when possible" across the Atlantic have now become a daily schedule in both directions. By air, London may now be reached from Montreal in about 12 hours, whereas, because of the prevailing westerly winds, it takes about four more hours to fly in the opposite direction.

The story of the conquest of the North Atlantic air routes really began in 1940, when the British Ministry of Aircraft Production decided it was necessary to establish an organization for ferrying United States and Canadian military aircraft from Canada to the United Kingdom. Starting from scratch, with no aircraft, no mechanics, no radio officers, and just three pilots, an organization was built up at the desolate Gander Airport in Newfoundland. Pilots gathered

from all North America were trained there through a hard winter and finally 21 Hudson Lockheed bombers arrived for the first ferrying assignment.

The Atlantic had never before been flown in winter, and only a small number of operational flights across it had been made at any time. Some survey flights had been made in a flying boat in 1937 and during the summer of 1939 eight return flights had been made.

All that was known was that the North Atlantic weather was exceptionally severe, that there would be considerable icing and that only experience could show how these conditions could be dealt with. There also would be extreme cold, which proved to be the greatest problem of all. In such conditions, engine oil and the hydraulic fluids, which operate many vital items of aircraft equipment, congeal. The unequal contraction of various metals creates difficult problems. Controls were found to jam, instruments in many cases failed to function properly.

Because of the lack of experience among the pilots, the 21 bombers were divided into three groups of seven, each to be led by a seasoned man. One of these, D.C.T. Bennett, one of the leading air navigators of the world who led the vital R.A.F. Pathfinder Group during the war, was responsible for making the flight plans to be used for directing the aircraft.

A band on the airfield played, "There'll Always Be An England" as the 21 Hudsons



took off. Each pilot wore a Remembrance Day poppy, for it was expected they would land in England on November 11. Because of the murk and cloud over the Atlantic, the formation broke up, but following the flight plans, all the aircraft, except one which had to turn back because of engine icing, arrived safely at their destination within half an hour of each other. The aircraft which had to return was wrecked landing in the dark on a frozen lake. There was only one survivor.

After the one-way service was operating successfully, it was decided to make two-way trips both winter and summer, to save the time lost by ferry pilots returning by sea.

Despite the winter conditions encountered over the wildest ocean in the world, these merchant airmen were the first to show that, given the right equipment, there was nothing to stop a safe, all-the-year-round commercial air

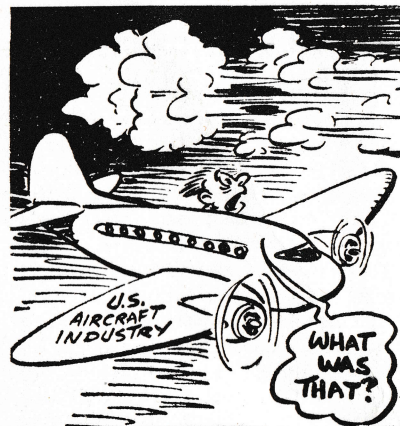
service over the North Atlantic. For several years they flew converted bombers never intended for the job.

The Canadian operation began in 1943 when T.C.A. undertook the speedy transmission of mails to and from the Canadian forces overseas and the carriage of urgently needed medical supplies and other equipment. With the end of the war, the service developed into a fully-fledged fare-paying passenger route.

As a result of these pioneer flights, the Atlantic Ocean has lost its old significance as a barrier between the Old World and the New. Europe lies just beyond the nearest airport and a new sense of Atlantic community is fostered. Air mail and air travel are linking the two hemispheres together as never before. New markets are being discovered by means of trans-oceanic air freight. In all this the Jetliner is destined to play a major role by making its historic flight.



"NOW DON'T YOU GO FLYING FASTER THAN SOUND—WE WANT TO TALK!"



CARTOON ON JETLINER IN DETROIT "FREE PRESS"

At the last incomplete count more than 500 newspaper clippings from United States newspapers alone had been received on the New York demonstration of our Jetliner in mid-April. In other words more than half the citizens of our great neighbour, subscribers of these same newspapers, were exposed to such front-page stories and editorials about our achievement as the following typical extracts:

"What happened was that the Canadian aircraft industry showed how badly we have fallen behind in the development of jet cargo and passenger planes. British jet plane development is even further advanced than the Canadian. And where are we? On the drawing boards.

"It is fairly evident from photographs and descriptions by aviation experts that the 60-passenger, four-engined

## As Others See Us

Avro jet transport is not a one-shot affair. The plane has been undergoing a series of test flights for more than a year and a good many of the bugs seem to have been worked out of it." (Syndicated editorial in many U.S. newspapers)

"It may be a considerable period before such planes are regularly used on any passenger run. When that does happen, we are being told, we shall be entering on a new transportation era in which every community in the United States will be less than six flying hours from any other, due to a network of jet-propelled transports and helicopters." (Norwich, N.Y., "Sun")

"News of the Jetliner's brisk whisk probably sent shivers up and down spines in all the American plants where airliners are built.

"For many years now, American-built commercial aircraft have dominated most of the world's airways. They have been almost as common under foreign flags as on our domestic airlines.

"The flight of the Avro Jetliner, driven by its four jet engines, is open to nomination as the harbinger of disaster to that market. Our builders have been left at the post by the British and the Canadians.

"We haven't anything remotely approaching this except perhaps some designs hurried-



ly laid down on drafting boards when the imminence of a sales department catastrophe got belated recognition among our builders.

"People who buy air transportation are primarily interested in speed. Nobody buys a ticket on a plane that takes 12 hours for a given trip when he can get aboard one that will do it just as safely in six.

"This can easily mean that American operators with overseas routes will have to buy foreign-built planes to keep their share of the traffic.

"It might go further than that. If an American domestic operator decided to make a bid for more business by buying the jets not available in this country, others would follow fast. When you're selling speed you can't let the other fellow get much of any m.p.h. edge." (Royce Howes - Detroit, Mich., "Free Press")

"The fact that a jet propelled craft actually is in being and awaits only certain modifications and improvements to

be ready for regular flights is worthy of attention on both sides of the international border. If further tests prove that jet propulsion can be applied economically and safely to regular mail and passenger planes, flight time will diminish rapidly and distances will shrink still further, not only in North America, but the world over. It seems indisputable that the new method of applying power to planes already has passed the stage of experimental development." (Rochester, N.Y., "Democrat and Chronicle")

"The next few years will bring surprising new facilities and speed in air transportation. 'Whoosh' seems to be the word to describe it." (Syracuse, N.Y., "Herald-Journal")

"Following the flight it was announced that the Avro Jetliner will haul 40 to 50 passengers at 400 miles per hour. The best a conventional U.S. transport can do is 300 miles per hour and some can't top more than 175 to 180 miles. The Canadian plane will cost

about \$800,000, while the 50 to 60 passenger Constellations cost more than \$1 million each." (Salt Lake City, Utah, "Times")

"British and Canadian passenger plane manufacturers are drumming up trade in this country today with a couple of items that hit American producers where it hurts.

"They are jet-propelled transports and small feeder-line planes. Neither type is in production here." (A widely quoted story by Charles Cordry, United Press)

"Flight of a Canadian jet airliner from Toronto to New York in a little less than an hour should be a sharp reminder that this nation has done nothing on its own to develop similar planes. This means that aircraft builders in the British Commonwealth will have at the very minimum a two-year lead on our own producers when the time comes for a switch over to jets. It is illogical to assume that the superiority of our industry would be sufficient to overcome that handicap or that we can depend upon overseas sources for the planes to carry our domestic air traffic." (Philadelphia "Inquirer")

"The Canadian-built Avro Jetliner is only on a neighbourly little demonstration run, but air men say it may eventually be the first jet ship to speed passengers regularly to and from U.S. cities." (Richard P. Cooke - "Wall Street Journal")

"Canada's most bullish

aeronautical project, the Avro Jetliner, which April 18 made its initial international flight from Canada to the United States has been received by an interested though bearish United States insofar as aeronautical opinion can be deduced.

"It isn't that the American aeronautical engineers fail to recognize that the jet transport age is here - they profoundly do. On this score they were twitted by their Canadian aeronautical brethren at a Canadian consular luncheon as having every technical advance in aviation 'except a jet airliner.'

"The note in American air transport thinking was sounded by Sigmund Janas, president of Colonial Airlines." (Albert D. Hughes - "Christian Science Monitor")

"When Sigmund Janas, president of Colonial Airlines, sounded off for aviation writers at La Guardia Field on the safety factor of jet transport flying, it sort of seemed like the farmer who saw a giraffe for the first time and exclaimed 'there ain't no sech animal.'

"To say that local airline men were impressed with the debut of the Canadian jet would be putting it mildly." (Roy Carlton, Jamaica, N.Y., "Long Island Press")

Some of the Canadian editorial reaction follows:

"From Malton Airport to New York in just an hour's flying time is a huge step forward in commercial aviation. The Avro Canada Jetliner which did it was on a demonstration visit.

THE CREW OF THE JETLINER WHO CARRIED THE FIRST OFFICIAL "JETMAIL" IN THE WORLD. AND OUR VICE-PRESIDENT AND GENERAL MANAGER WERE FEATURED ON THE C.B.C. STAMP CLUB. JUNE 4TH. LEFT TO RIGHT: STAMP CLUB PRESIDENT DOUG PATRICK; SECRETARY MARTHA PATTERSON; VICE-PRESIDENT JANE HUTTON; ANNOUNCER DEL MOTT; BILL BAKER; W. N. DEISHER; M. COOPER-SLIPPER; DON ROGERS; C. B. C. PRODUCER JACK CONWAY AND JACK BARCLAY





Its pilot made no attempt to show the full resources of his craft's power plant. This was an advance-of-sales demonstration heralding commercial developments and regular schedules which are expected when the tests are complete. To the trade it symbolized a new principle in travel just as did the Wright Brothers' Kitty Hawk in 1903.

"Under the circumstances, it was extraordinary that this happy meeting of United States and Canadian aviation interests should have met with the obviously ill-timed remarks which Mr. Sigmund Janas chose to make. In a speech - copies of which have been distributed across the nation - the president of Colonial Airlines of New York was openly skeptical of the safety of Jetliners and "suggested" that only American standards could insure production of a safe jet craft." (Toronto "Globe and Mail")

"One would have thought that the safe first flight to New York of this huge jet air liner would be recognized as something of an epoch-making character that would give satisfaction to everyone connected with the aviation business. But U.S.

#### PLANT PROTECTION CORPS

This is the title that the Security Department is now known by. Head of this department, is M. Syron, affectionately known to the majority of employees as "Big Mike". Prior to joining this organization,

air lines have been outstripped by Britain and Canada, and Colonial Airlines, which last year tried to break an air agreement made between the government of Canada and the United States, manifested no little ill-will when the Canadian jet air liner reached New York." (Toronto "Daily Star")

"Canadians may remember the fable of the fox and the grapes as they read the views of Sigmund Janas, president of Colonial Airlines." (Sudbury "Daily Star")

"The Avro plane which set this new record in condensing space and saving time is the pride of Canada's young jet aircraft industry and the fore-runner of faster and larger ships. Toronto to Manhattan in less than an hour is exhilarating, a proud record, but the logical speculation will be; how long will it take a jet aircraft to whizz from the Baltic to Toronto. Aerial condensation of space has its drawbacks, too." (London "Free Press")

"The American papers to hand, it is appropriate for a Canadian to feel a glint of pride in the reception given in New York to the Avro Jetliner." (Ottawa "Citizen")

"Big Mike" served 25 years with the R.C.M.P., and at the time of his discharge, held the rank of Detective Sergeant. Needless to say, with a name like Mike, he hails from Ireland and so comes by his "Blarney" quite naturally.

Incidentally, the Police Of-

fice inform us that they have a number of unclaimed articles awaiting identification. They would appreciate anyone dropping in to look the loot over if they have lost anything during the last few months.

#### THIS AIR AGE

Among our Walter N. Deisher's collection of aviation curios which occupies a special place on his office wall, is a one-page catalogue dated September 18, 1909, from the Graham White Company, Piccadilly, London, advertising early aeroplanes.

The catalogue uses the enticement of "A Guaranteed Flight of One Mile With Each Machine", which, compared to the present mile-long take-offs, is "quite" an offer.

#### SPEAKING OF FISHING

We hear Bill Yowart decided to take his son fishing, and demonstrate the skill of the sport. "That's right son, throw it right back, now a gentle swing, and in it goes - no, no, not that way you young so-and-so, the hook is caught in my pants." Right or wrong, the upshot of this story is: son - two fish; Dad - one old boot.

#### HIDDEN TALENT

Walter Smart's young son Billy is pretty proud of his Irish Setter "Rusty". Walter originally bought Rusty as a pet for Billy, but through the persuasion of friends, entered Rusty in a couple of dog shows, and the result was pleasantly surprising for all concerned.

Rusty, who is registered as "Rusty of Excelsior," made a splendid showing by receiving a first in his class, and being reserve winner of breed, all classes, in both the Kitchener-Waterloo Kennel Club Show, and the Hamilton Kennel Club International Show.

#### HOE DOWN

Should you happen to pass by one of the planners or tool designers of Gas Turbine Production Engineering, and hear them muttering about ... "fishing tackle, bed linen, and oh, the hot dogs ...." they are merely planning another of those wonderful week-ends in the beautiful Muskoka district. Most popular man in the department is Frank McGarry who has extended an open invitation to his colleagues and their wives to spend a week-end at his Club on Browning Island. "Club Colony" has seven spacious lodges, each having kitchen facilities and equipment for ten or twelve people. The Saturday night "Hoe Down" is a big favorite and every Monday morning brings forth some tall fish stories, when all the "Ike Waltons" get together and discuss the whopping lake trout they caught.

#### FOOTLIGHTS

Not only do we have a painter in Shipping and Receiving, but also a producer. Jack Proctor recently produced a very successful "Pride and Prejudice" presented by the Young People's dramatic group at the Calvary Baptist Church.



Department 5410 report that people interested in dramatics and living in the Weston district, should contact John "Shakespeare" Moreland. John's hobby is the promotion of the Weston Dramatic Group, and he has directed and participated in several productions.

#### AN OLD MASTER PAINTER

Anyone need a good painter for their spring housecleaning? Why not try Harry Asquith, our Chief Shipper and Receiver. Harry is president of the Malton Lion's Club, and from reports received, we gather he did a pretty neat job of painting the Lion's Head Dance Hall in Malton.

#### NEW TYPE

A reader writes to explain the aircraft he has been planning. "This aircraft has no wings - it has stability from a different source. It has no tailplane. The yawing, rolling and pitching are controlled from a different source. Speed 3500 m.p.h. Top speed 5000 m.p.h. Take-off clearance 350 feet. Landing clearance 500 feet." He adds: "This aircraft has many advantages in which aircraft now has none." To which we merely heartily agree. (We're keeping our writer's name secret for fear some rival company might get him.)

W. N. DEISHER, OUR VICE-PRESIDENT AND GENERAL MANAGER, AND W. A. WATERTON TEST PILOT ON THE CF 100, TALK IT OVER WITH GENERAL MCNAUGHTON. ON THE EXTREME LEFT IS DR. O. M. SOLANDT, HEAD OF THE DEFENCE RESEARCH BOARD, AND ON THE EXTREME RIGHT C. M. DRURY, DEPUTY MINISTER OF NATIONAL DEFENCE

## PERMANENT JOINT DEFENCE BOARD



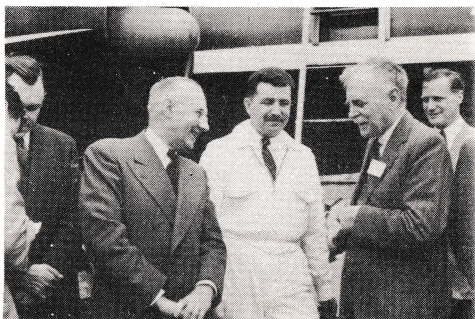
THE PERMANENT JOINT DEFENCE BOARD OF THE UNITED STATES AND CANADA TOURED AVRO CANADA MAY 27 AND SAW THE CF 100 IN A FLIGHT DEMONSTRATION. HERE OUR FIGHTER TAKES OFF IN A TYPICAL ZOOM FOR THEM



SOME OF THE MEMBERS OF THE BOARD ARE SHOWN HERE IN A GROUP PHOTOGRAPH. GEN. A. G. L. MCNAUGHTON, CHAIRMAN OF THE BOARD WAS QUOTED BY THE PRESS AS SAYING THAT IF WE HAD 700 CF100'S WE WOULD HAVE NO MORE TROUBLE WITH THE U.S.S.R.



EVIDENT HERE IS THE KEEN INTEREST SHOWN IN THE FIGHTER E. H. ATKIN, OUR CHIEF ENGINEER IS THE CENTRE OF THE FOREGROUND GROUP



LEFT: THIS HAPPY GROUP ARE THE PRIDE OF THEIR TEAMS, BEING THE SEASON'S HIGH AVERAGE SCORE BOWLERS. LEFT TO RIGHT: WILF PRENDERGAST, ERNIE CLARK, ELEANOR DAVIE, STU MOODY AND AL SPIERS. INSET: PAT MILLER. RIGHT, TOP OF THE LEAGUE "THE PUNCHERS". WINNING SMILES ARE, LEFT TO RIGHT: BILL BARNES, DOT COOK, ED. FINLEY, JUNE MOASE, BOB MARKS, MIKE KOWANIK. INSET: BRUCE FRENCH

## RECREATION

In the Toronto Mixed Bowling League, the "Punchers" captained by Mike Kowanik, and composed of Joe Kormondi, Ed Finley, Bill Barnes, Bob Marks, Bruce French, with June Moase and Dot Crook, as the feminine members are the champions, after winning their own league and beating the Brampton team, "Tryhards," captained by Harold Hornsey. However, the "Jets" led by Gerry Devries picked up first place money in the Toronto mixed playoffs.

In the Toronto Men's Bowling League, the "Jetliners" bowled a sensational six game total of 7214 successfully to climax a year of top notch bowling and earn the right to meet the Malton Men's team for the Men's Bowling Trophy. The "Jetliners," with Art Reers as captain, and Gord Lenehan, Lorne Sutton, Joe Griska, Basil Yandt, Stan McKittrick, Jim Japp as his team mates hope to continue their success against "Pinheads" who have Al James as captain

and Alf Perrier, Ralph Carter, Les Burton, Tommy Sills, Al Bond and Bob Fawcett, as team.

The rundown of the individual bowling leaders are as follows:-

Toronto Mixed - Joe Kormondi, men's high with 207; Eleanor Davie, women's high with 200 even.

Toronto Men's - Ernie Clark with 235, followed by Al Spiers with 234.

Malton Men's - Wilf Prendergast with 204.

Brampton Men's - S. Moody with 204.

Brampton Mixed - J. Asquith, men's high with 200, and Pat Miller, women's high with 191.

Softball and soccer are now in full swing, but most teams still have openings for any interested players. For details call Ron Graham at Local 146 for soccer, and Ted Colville at Local 84 for men's softball. Gals interested in softball should contact Elsie Swift at Local 159.