

RECREATION CLUB GIVES JACKETS TO TEAMS



SIX AVRO CANADA TEAMS, TWO EACH FOR HOCKEY, BASKETBALL AND BOWLING, ALL VICTORS IN THE PAST WINTER SEASON JUST OVER, POSE WITH THEIR NEW AVRO - CRESTED JACKETS AND TROPHIES



PLASTER PATTERN MAKER NORVAL THOMPSON, WITH HIS WIFE BETTY JOYCE, LOOKED PRETTY

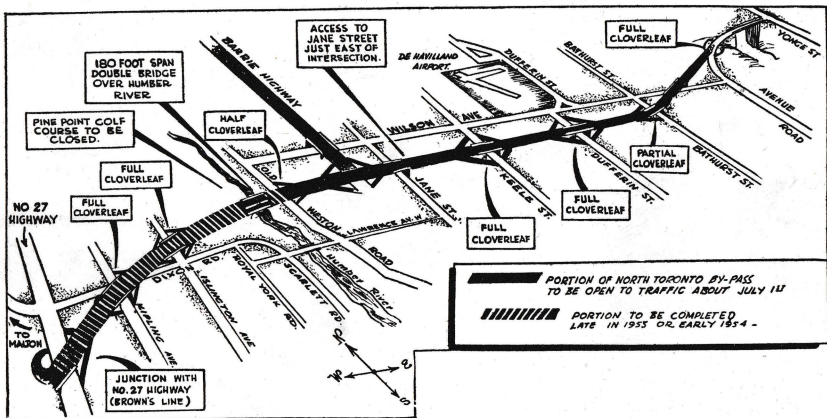


INDUSTRIAL HOCKEY TEAM CAPTAIN, JOHNNY IRONS GETS JACKET FROM CRAWFORD GORDON

AWARDS MADE AT PALACE PIER DANCE

RECREATION CLUB's "Pre-Vacation Dance" at the Palace Pier out over Lake Ontario (and at the present time, just on top of it), rocked with more than the waves a couple of weeks ago when some 650 made Summer official. Norm Harris' big band and Billy O'Connor's combo did their best to compete with a torrent of clamor. Big event of the night was the presentation of smart, Avro-crested jackets to four of Avro's league teams and trophies to two bowling teams. The awards formed a permanent souvenir of a victorious season for each of the groups. President and general manager, Crawford Gordon, Jr., made the presentations to each of the team captains. The Industrial hockey team of 21 men, captained by Johnny Irons, were given blue leather wind-breakers trimmed with scarlet. Thirteen men of the "Buzzers", House League hockey team, captained by George Zazichek, received green leather jackets with white trim. Another group of 13, the Industrial basketball team, led by John Brooks, were presented with blue corduroy sports jackets. The seven-man "Globesitters", House League basketball squad were awarded two-tone blue jackets. Ed Johnston's "King Pins" took away trophies as Mixed Bowling champs; Tommy Sills' "B.B.D.'s" were given similar trophies as Men's Bowling League champs.

Then they grouped for the photo above. The next Avro Recreation Club dance will be held sometime in October.



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TO AID TRAFFIC

SHORTEN DAILY TRIP

THE three-mile extension of the by-pass highway across northern Toronto will be completed late in '53 or early '54, according to a recent announcement by J.D. Millar, deputy minister of highways.

This extension is from Weston to No. 27 highway. The first section between Weston and Avenue Rd. will be opened soon. When the road is finished, it will mean Avro Canada people, living in north and northeast Toronto will make their daily trip in quick time.

RECIPE* FOR ROAST BEEF

Lay down your lighted blow torch where someone can back into it



*NOT RECOMMENDED

This Concern of Ours

CANADA'S EXPORT OF BRAINS

From an CBC Trans-Canada broadcast

BY JOHN FISHER

Crawford Gordon, Jr., president and general manager of Avro Canada, recently told Toronto's Canadian Club that he was disturbed by the numbers of Canadian-trained brains -- the scientists -- professional engineers, and technical men who felt the only opportunity for them was in the United States. He spoke of the drain of brainpower. But, he had a very cheerful note. He said that today the picture had changed considerably. He claimed it was a very significant change. Today, he reported, the opportunities in Canada are so big that a large number of professional people from Great Britain and the United States are coming to Canada looking for opportunity. The talent is coming our way at last. The waters are running uphill now. Never, except in our very early history has any person been able to report an influx of professional people.

This migration of brains to the United States has always been a major Canadian problem. The Financial Post reported recently that for every six immigrants brought to Canada, we lost five native born Canadians to the United States. The figures are tragic enough, but what they don't tell us that those who want to the States were in most cases the brain boys -- the talented doctors, professional engineers, scientists and skilled personnel. And they were educated here at the taxpayers expense.

I was thrilled to learn that the drain of brains has almost stopped. No, many talented Canadians still want to go. We can't stop them. We should never forbid this human right of travel. But now the rate has slowed. This spring the number of Canadian technical graduates from Universities going to the States dwindled. It has dwindled even though American corporations on the doorsteps of our universities dazzle before their eyes seemingly fabulous offers of free trips to find out.

Canada is aflame with promise. Canada since 1939 has grown up. The lights of the horizon have been seen. This is the nation of tomorrow. And in my travels of the States, through 42 of them as a lecturer on Canada last year, I am flattered and amazed at the compliments paid us by big American businessmen. Perhaps you have seen the countless American magazines which spend precious copy telling of the future of Canada. We are beginning to believe it ourselves. One of the peculiar characteristics of Canada is we have to hear it from others to believe it. From the UK and the US each day the feelers go out to Canada -- the land of promise. The brains of our schools are still subject to enticing and emigration -- but it is changing.

Industry and education could do a lot more to slow the drain. In fact they have been doing it. The outstanding organization in this respect is called the Technical Service Council. Since 1923, the Technical Service Council with headquarters in Toronto has been working on the project of "how to retain for Canada the twenty per cent or more of young Canadians educated at great expense to the taxpayer, who left the country as soon as they had obtained their degrees in engineering, science, architecture and other courses." I have seen the results of their efforts. It is thrilling to behold. They stand on the doorstep of the Universities and Technical Schools -- even go down to the States and bring back talented Canadians to work for the future of their own country. The Technical Service Council is a non-profit organization supported by many Canadian companies. To my knowledge it is the only non-profit outfit in the whole of Canada -- conceived, set-up and operating to lick one of the toughest problems we have -- the migration of brains. They have placed in business a staggering number of young Canadians. Their job is to bring graduates of universities and technical institutions into practical contact with Canadian industry. They know the possibilities. They are geared to help.

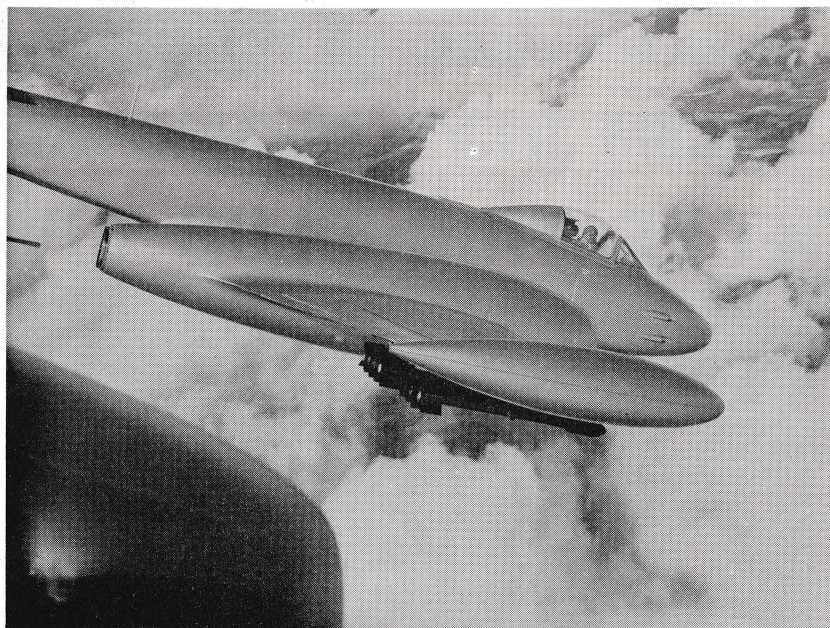
LANCASTERS PART OF BIG WAR GAMES

"EXERCISE CASTANETS", the code name given to the big air-sea NATO training operation, included a large group of four-engine Avro Canada and De Havilland-converted Lancaster aircraft. "Castanets" had for its exercise area, the waters of the North Sea, the English Channel and the North Atlantic.

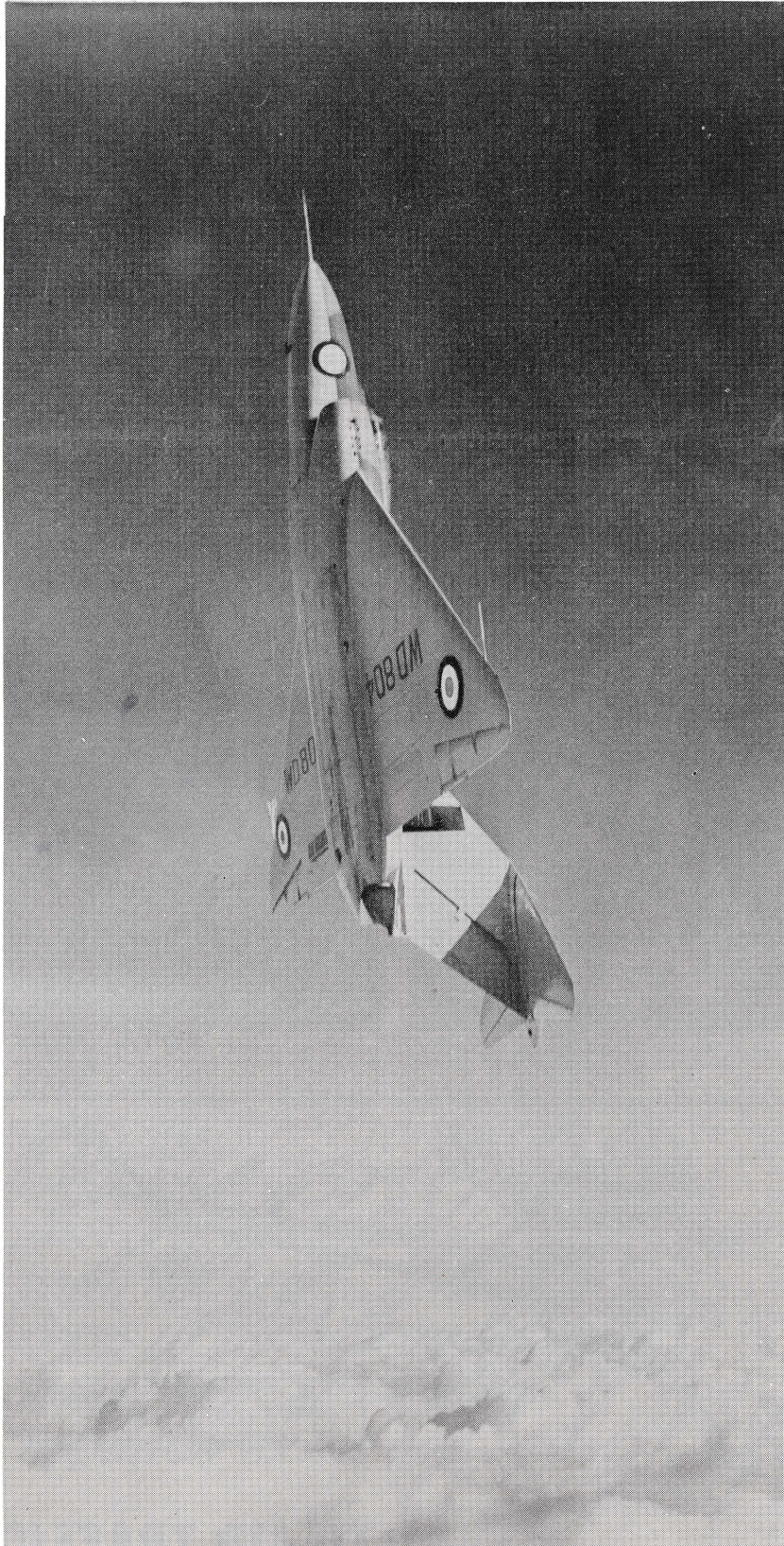
The Lancasters, part of the

RCAF's 404 and 405 Squadrons, flew non stop from Greenwood, N.S., to the RAF Station at St. Eval, Cornwall, for the games. They joined a group from their squadrons who arrived there the previous month.

More than 200 ships and some 400 aircraft took part, providing operational training for nine NATO nations.



ABOVE, GLOSTER METEOR, MK. 8, 24-ROCKET VERSION, AND BELOW, THE NEW GLOSTER GA-5 DELTA, ARE TWO EXAMPLES OF ADAMS' PHOTO WORK. ZURAKOWSKI FLEW THESE PLANES FOR CAMERA



HOW FAMOUS PHOTOS MADE

GLOSTER'S PHOTOGRAPHER, RUSSELL ADAMS, TELLS ALL

THE News is privileged to present this first person account of some of the background to the now-famous air-to-air photographs, like the samples, left, written by Russell Adams. Mr. Adams, through his superior camera work, is fast acquiring a world-wide reputation. Here he gives credit to Avro Canada test pilot, Zurakowski, for unique assistance.

SOME years ago when the Meteor Mk7 two-seater was introduced, both Bill Waterton and Jan Zurakowski were not slow in visualizing its possible use as a photographic machine to observe other Meteors during high-speed flight. Our test-pilots would often tell of what they had seen when flying alongside another aircraft but had no photographs to convey their story to the design staff.

Almost on bended knee I asked to be given the chance to use my camera to "bring back the answers", and Zura, always ready to co-operate, soon arranged my first assignment and piloted me while I photographed another Meteor at close quarters and at maximum speed. The results were very convincing and proved useful to the design staff. Zura shared my enthusiasm and a series of similar flights soon followed, the equally keen co-operation of chief production test-pilot, Jim Cooksey, making the scheme completely successful.

Technical air-to-air photography at Glosters was thus put on the map and of course we were in a position to turn out the "pretty" pictures too. This we did at regular intervals and thus ensured a constant flow of new photographs to the technical press. These pictures covered every phase of air activity at Glosters and showed the development of the Mk8 in almost every respect. In fact I think it is quite safe to say it was the most photographed type in this country and anyone who followed the technical press must have been well informed of its progress.

Credit for taking the lead in this work must go to Zura who, although hard-pressed with experimental and development flying (Bill Waterton was then in Canada) always made time for me to get the pictures. His very equable temperament and willingness to co-operate was a joy for me and made my job easy. Nothing was too much trouble for Zura who would never procrastinate and disliked red tape immensely.

No less enthusiastic to help was Jim Cooksey who always managed somehow to provide me with a Mk7 just at the right moment. If Jim could not do the flying himself one of his pilots would always happily fill the role and gradually we became a sort of air-to-air team turning out the pictures with the minimum of fuss and bother and enjoying every minute of it.

One day I asked Zura if we could do something a bit different and with a grin he said, "Of course, what about this?"

NEWS PHOTOS

DON'T forget the time-honored service still is in practice whereby Avro-ites can purchase prints of any photos to appear in the News. See Anne Coates, Public Relations.

And using his hands as subject and photographic aircraft I quickly gathered his proposal was a vertical dive!

I was thrilled at the idea and shortly a picture was secured at the very first attempt and "Flight" kindly gave it great prominence. Little did I realize the world-wide publicity which this picture was to receive; it was generally acclaimed as being unique, particularly in the U.S.A. where 198 periodicals published the photograph.

I am grateful to Zura for his forethought and imagination which gave me the chance to build up a reputation as an air-to-air photographer. I always called him "my friend Zura" because of his friendly nature and during his time with Glosters he certainly has been a friend indeed. He not only realised my enthusiasm for photography but also my love for flying and gave me the opportunity for both.

Aerobatic photography soon became a regular performance with our flying team and it was not long before the Mk8 carrying rockets, piloted by Zura, was depicted in a vertical climb and dive. On this occasion Brian Smith did a grand job of work, flying me around in very close formation in a Mk7. Once again "Flight" saw the potentialities of the pictures and gave them a good start to their world publicity.

Quite naturally I very much regret Zura is leaving us and I regard it as a great loss in many respects. Fortunately he remains within the Hawker Siddeley Group and there is no doubt the photographers in Avro Canada will find him a most co-operative and imaginative pilot.

To "my friend Zura" I offer my sincere thanks for his help and encouragement and the big contribution he has made to air-to-air photography. Good luck to him in his new venture.

Grandstand Quarterback

by Hugh Gilmour

AVRO CANADA'S softball entry in the Toronto Senior Industrial League got away to a good start on Friday, June 13, behind the one-hit pitching of Norm BAGNELL. They shut out Christie-Brown 5-0. Fred KENNEDY, Roy MURDEN and Bruce CUNNINGHAM (paging Harold COCHRANE, Bruce also starred on the McGill University senior basketball team) helped Normie in his shut-out effort. Al DOWDING and Jim McINTYRE are on the lookout for some more players of senior calibre, particularly the outfield type who can powder the pill at a 300 or better clip. The games are played every Friday night at Christie Pits and for the present, start at seven in the evening. We have a team that is a worthy representative of the company. Let's get behind them and give them the support they deserve.

The Avro Girl's softball team in the Weston Ladies League are not doing so well, having dropped four games in as many starts. Manager Jack FRIES advises they look better every time out and predicts they should soon hit the win column.

In House League baseball we find Murray GUNLACK's Combines and Mike CHEPEKA's Hawks out in front with six points each, closely followed by Mike DORE's Fighters and Bill PALMER's Orendas with five points.

Avro's Senior Football team are better than holding their own in the Toronto Senior loop. Sunday, June 22, they enter the second round of the Campbell Cup against the 7000 Club at Greenwood Park. Games time 1.45 p.m.

Malcolm MacLEAN's Saxons and Don MacKENZIE's Rangers are tied for League leadership in the House League Football group, with four points each.

See where Avro Canada's good cricket team brought more honour to the company by handing North Toronto's great team its first defeat in a good long while. Avro's team have now played three games without a defeat. Well done, gentlemen.

Blessed by perfect weather conditions, the Avro Recreation Golf Tournament held at the Pine Point Golf Club on Saturday, June 14, was adjudged by all and sundry a huge success. Some good golf was played and as an added attraction, the pitching contest proved popular, the proceeds to go the first Avro golfer to get a hole-in-one over the season. A lovely buffet luncheon closed out the gala day. Incidentally golfers are reminded to turn their cards into the Recreation Office for the Match Play. Results for the day were: 1st Flight - 1st Low Gross - R. WAECHTER; 1st Low Net - Mel WILKINS. 2nd Flight - 1st Low Gross - E. DAWSON; 1st Low Net - H. RICHARDS. 3rd Flight - 1st Low Gross - Jack NESBITT; 1st Low Net - J. REAVES. Ladies Low Net - Milda GRAINGER; Ladies Low Gross - Gladie WARD; Honest (and there are some) Golfer - Bob LISTER; Best Hole - Art CANNEL.

Payline Pin-Ups

BY BILL TOMLINSON



THE GUY WHO GOT HIS RAISE



THE GUY WHO DIDN'T



THE GUY WHO THINKS HE'S UNDERPAID



THE GUY WHO OWES IT ALL



THE GUY WHO DREW MORE THAN HE SHOULD



THE GUY WHO THINKS HE'S OVERPAID



A United Airlines statistician with nothing else to do, recently found that every 60 minutes, UAL stewardesses dispense these items: 470 meals, 227 napkins, 179 match packets, two cans of baby food, 5 kleenex packets, one diaper, 31 maps, 32 flight brochures, one deck of playing cards, 10 pencils, 116 mint packets and 365 gum packets. . . UAL must fly a smooth route. No mention was made of those handy-dandy, under-the-seat stirrup cups.

The Avro Flying Club was formed in 1946 to allow employees to fly for little cost. Completely member-financed, the company provides storage space for the club's Fleet Canuck. Annual dues are \$15. A government subsidy of \$100 is paid to members qualifying for certification as a private pilot. This subsidy allows

members to learn to fly and obtain a private license for around \$200. The club's present student membership is restricted since there is only one aircraft available for training and student flying at the present time. . . And in passing - a wave of the hand to Graham Ord who soloed June 19. Ord is a Flying Club member.

Everybody go to bed early to-night. Tomorrow's the Big Day. Union committees of 717 and 1922 have worked hard to provide the means to Fun. From here on you're on your own. The picnic (in case there are still some who don't know), begins at 10.30 A.M. at Brampton's Rosalea Park. With gir-r-rls in bathingsuits, too. . . Come Saturday the 19th, don't forget the Recreation Club picnic at the C.N.E. Life is just one big social whirl.

Hear about the laddie who phoned the Salvation Army to ask if they saved bad women. When told 'yes', he wanted one saved for Saturday night!?

THE SPARES LYNN

As ritten bi there informashun bureo

(Any relation of the below to my Department are the views of the writer and do not necessarily represent the view of the majority of my men.)

THE FOREMAN

WITH all this talk about jet-filters, ingines and soopersonic airplaines around thu plant, very littul is herd about thu spares dept.

So four peepal who don't no about us this littul artikul is espeshially ritten:

Our dept. is compused of sooperintendense, fourmen, sub-fourmen, leed hands, planners, horse-players, inspecktors, chasers and a couple of guys with no seeniority so they are wurkers.

Interesting peepal? Sure every won of them for eg-sample:- Very few folks no that Ray Teeter is our Sandy Clause at the Chrismus Party every yere. This is all fine and dandy until some sieve-head at the party goes up and sez "Hellow Ray" in front of all thu kids. So Roy Harper had to explane to his little gurl who overherd that "Ray" was Santa's middul name.

Then their's Helen Stephen-son who wus thu first governmut aproved gurl welder in Canada. And so claim jumpers are fond of sayin "I got paper to prove it." She also welded on thu first Muskitto Bomber turned out at De-Havilland (a small type aircraft plant.)

Rich peepul? Sure, Latest T.V. owner in the dept. is Ron Reed (a sub-fourman naturally).

Poor peepal? We got them too, thu hole dept. Monday morning.

Sportsmen? Were loaded,

we got boulders, dart players elbow-benders, crib players, lunch hour euchre tournaments and one crapshooter.

Inspecktors? A whole bunch, we got two Scotchmen, one Irishman and three Dart players. Of corse its a wel noen fact that nothing is in a repareable condishun until inspeckshun has handled it. (If Dooey reeds this, I'm only kiddin.)

Been mostly mechanics?, we have all sorts of presision tools layin around the flore like:-

Jigs: These are what we don't use for linin up cumpon-ents.

6" Scales: What we do use for linin up cumponents.

Tinsnips: Four cutting out paper dolls. This aaktivty is carried on mostly by planning.

Chisels: Four cutting our presision work.

6 lb. hammers: Four fitting same.

Welding Torches: Four disposel of planning kards wen we can't find the job they were ritten for.

Our Work: Well wen we kan find enough time between mend-ing holes inkettles and repare-ing broken kan openers were responsible four manufacktur-ing hundreds of tanks and repares to flaps, rudders, wing tips, alerons, elevators and just lots of stuff. If yew don't beeelieve me, drop around to the middul of the 3rd bay sumtime, but please be quiet as sum of us are tryin to ketch up on sum sleep. See yew next issue if this gets past the sensor.

HOW THE JET ENGINE WORKS

PART 5

WRITTEN BY NORM CURREY

JET TEMPERATURE

ILLUSTRATED BY D. FIELD & M. GARVE

If you will refer to Part 1 of this series you will find it stated that "air enters the engine and is compressed. The air passes into the combustion chambers where it mixes with fuel and burns. The compressed mixture, on burning, expands quickly and then shoots out of the only exit at the rear of the combustion chamber."

Heat is required, therefore, to increase the volume of the mixture. The greater the heat, the larger the increase in volume; the larger the increase in volume, the faster the air must shoot out the back. The faster the air shoots out the back, the more the thrust. The more the thrust the faster the airplane! The speed of the airplane depends on the heat in the engine.

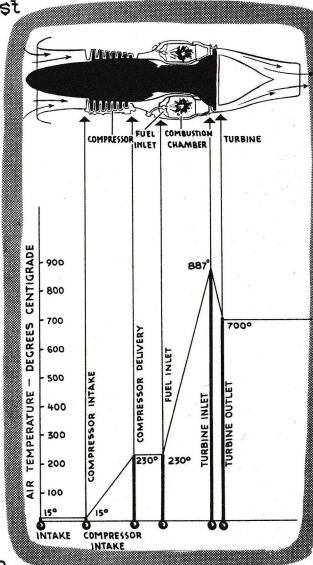
If it gets too hot the metals will become weak, and may melt, so the heat must be kept within definite limits.

The air temperatures in Avro Canada's Orenda jet engine are shown in the diagram. If the air enters the engine at 15° Centigrade, the temperature will rise to 230° C. on its way through the compressor. This increase is due to heat from friction between the air and the walls, and due to changes in air temperature and velocity.

The air enters the combustion chambers, is mixed with kerosene fuel and burned. The temperature shoots up to 887° C. - an increase of 657° C. It passes through the turbine, and in turning, it loses some heat, bringing the temperature down to 700° C. This is the air temperature as it passes into the atmosphere.

The temperature rise of 657° C. through the combustion chambers, expands the air so much that its velocity increases from 215 m.p.h. to 970 m.p.h.

SEE ISSUE OF AUGUST 1 FOR "HOW THE JET ENGINE WORKS" - PART 6 - TESTING THE JET ENGINE
NEXT ISSUE - AIRCRAFT WEIGHT



AVRO CANADA CHARACTERS : No2

MAC.HINIST

BY ALEX MACKAY

A SKILLED CRAFTSMAN WITH NEW TOOLS, FIX-TURES, AND A

INSPECTOR BREATHING DOWN HIS NECK...

KEEPS UP THE PRODUCTION FIGURE WITH AN ODD CONTRIBUTION TO HIS GIRL FRIEND!

