



December 5, 1958

Vol. 4, No. 17

# *Avro* **NEWSMAGAZINE**

PUBLISHED TWICE MONTHLY BY AVRO AIRCRAFT LIMITED

**Honor Zura For  
Contribution To  
Canadian Aviation**



**On Schedule—  
To The Day Planned  
Four Years Ago!**

## Sees Arrow Obvious Choice For Canada

Last week, in response to many press calls for comments on reports from press representatives on the NORAD tour which had been sponsored by the RCAF and approved by the Defence Department, Crawford Gordon, President of A. V. Roe Canada Ltd., made the following statement:

"We are very glad, of course, but not surprised at what Air Marshal Slemon said, and also Mr. Pearkes. Right from the beginning we have maintained and said so publicly that there was a continuing need for the manned interceptor, and the Arrow was the best available and would be ordered into production.

"This is not to say there is not also a need for a Bomarc-type missile. It is not one or the other. The missile complements the manned interceptor by providing defence in depth. This has been and still is the established policy of NORAD. It has been stated and restated by most responsible military authorities—General White, who is Chief of the United States Air Force, Mr. Quarles, Assistant Secretary of Defence for the U.S., and even their Director of Guided Missiles.

"Once this factor is recognized, the Arrow becomes the obvious choice for Canada. It was designed specifically to meet the RCAF special requirements. It was designed and is being built right now at Malton—by Canadians. And taking into account this important factor—that it gives jobs to thousands of people in some 600 companies in Malton and elsewhere—it is far cheaper than any substitute we could buy or build."

### FRONT COVER

*The last CF-100 to come out of Avro's production bays is shown on the front cover as it was being assembled for the ceremonial roll-out of yesterday. In the foreground is Rupert Cashmore, Assistant Production Shops Manager, Avro Aircraft and Earle Redfern, Production Manager, Orenda Engines.*



Published twice-monthly for employees  
of Avro Aircraft Limited  
by the Public Relations Department.

Editor \_\_\_\_\_ Jim McLean

Address all Communications to:

Avro Newsmagazine,  
Public Relations Department,  
Box 4004, Terminal A, Toronto, Ont.  
Phone: BUTler 6-4411; Locals: 2273, 2696

## THE WORLD AROUND US

**FRENCH COLEOPTER**—Latest configuration of the French Snecma Flying Atar VTOL based on von Zborowski Coleopter concepts. Scheduled to make the first flight in September only one prototype of this man-carrying Coleopter exists which has a Snecma Atar E turbojet installed in body built by Nord Aviation. (Aviation Week July 7/58).

**NEW JAVELIN**—All-weather, delta-wing Gloster Javelin to appear soon in new version armed with DeHavilland Firestreak air-to-air guided missiles. Tagged Javelin FAW8, it will be in the 700-mph class using twin Armstrong-Siddeley Saphires with afterburners. (Canadian Aviation: June 1958).

**B-70 WINGS CONTRACT**—Boeing Airplane Co. expected to bid on contract to manufacture wings for North American's B-70 supersonic chemical bomber. Seattle Div. reported by looking for subcontract work following phase-out of B-52 assemblies there. (Aviation Daily, Aug. 19, 1958.)

**B-58 SYSTEM SUCCESSFUL**—Completion of highly successful in-flight tests of B-58 Hustler's bomb-navigation system reported jointly by Convair and Sperry Gyroscope Div. Hustler's doppler-inertial primary navigation system—ASQ 42—automatically and precisely navigates B-58 and automatically controls pinpoint release of plane's 50-foot disposable pod. Prime source of navigation and altitude data for the plane, ASQ 42 also supplies precise information to nearly dozen other B-58 sub-systems. New system reported 10 times as accurate as presently operational systems, requiring 37% less space and weighing 20% less than other systems having less reliability and versatility. (Aviation Daily, Aug. 19, 1958.)

**SOVIET NUCLEAR AIRCRAFT**—Soviets have a large nuclear turbojet engine and a large land-based aircraft to which it could be mated, leading some U.S. observers to believe a nuclear powered aircraft may still be flown before the end of the year. (Aviation Week, Oct. 13/58).

**U.S. NUCLEAR ENGINE**—Defense Department is considering merging efforts of General Electric and Pratt & Whitney in development of nuclear engines as an economy measure. Combined funding by Air Force and Atomic Energy Commission on development of GE nuclear engine, X211, runs to approximately \$100 million each year. After Soviet launching of Sputnik I earth satellite, development of nuclear powerplants was put on a crash basis only to be again de-emphasized. (Aviation Week, Oct. 13/58).

**DEFENCE PROBLEM**—Problem of detecting and tracking an enemy ballistic missile nose cone in the arctic region may be even more difficult than previously thought because of reflection of radar signals by auroral disturbances. These ion clouds also cause Doppler shift of received signals which further complicates problem of discriminating between moving nose cone and false targets. (Aviation Week, Oct. 20/58).

**CHINESE AIRCRAFT INDUSTRY**—Communist China's new and growing aviation industry recently turned out its first jet trainer, first seaplane and a new eight-passenger, twin-piston engine transport. Jet trainer, now being flight tested, reportedly has a top speed of about 620 mph and ceiling of over 45,900 ft. The four-place, single-engine seaplane, designated the Feiloon-1, is scheduled to go into quantity production next year. The transport, tagged Peking No. 1, was reportedly designed and built in 100 days. (Aviation Week, Oct. 13/58).

**CANADAIR TRAINER ROLLOUT**—Canadair's CL-41 pure jet basic trainer is scheduled to roll out of company's Montreal plant about middle of next month (Nov. 14 is specific date on Canadair's production program). Company is building initial two aircraft as a private venture. They are to be powered by a Fairchild J-83-R-1 lightweight turbojet engine, a power plant which has seen service in target drones but is getting its first aircraft installation in the Canadair ab-initio trainer. (Aviation Week, Oct. 13/58).

**SOVIET POLAR AIR FORCE**—Russians now are landing four-engine aircraft on Arctic ice. While this fact has long been suspected, Soviet photographs released to the West never have shown anything larger than IL-2 (similar to DC-3) or IL-12 (small-size imitation Convair 240). This year, in reporting how they are supplying some of their permanent ice stations in the Arctic, Russians say they used "four heavy, four-engined aircraft, five IL-12s and IL-14s, seven LI-2s and one MI-4 helicopter" to bring in supplies for North Pole 6 and 7, two stations they have established on the ice. "For the first time this year," the Russians declare, "aircraft and ships will have radiophoto and television equipment, on an experiment basis to facilitate bringing vessels through the ice pack. In addition, the polar air force will soon receive powerful IL-18 and AN-10 turboprop aircraft." (Air Force, October/58).

# Climaxing 11 Years Of Achievement, Last CF-100 Rolls Off Assembly Line

A CF-100 interceptor rolling off the assembly line at Malton yesterday, closed the most significant chapter completed so far in the fifty year history of Canadian aviation.

In a brief ceremony at the South end of Bay 3, the 692nd and last CF-100 moved out of the production bay to the flight line—on schedule to the very day planned four years previously. It was an event that climaxed an eleven-year program of Canadian achievements in the previously unattempted fields of jet aircraft and engine design, development and production.

Because most of the 13,000 Avro and Orenda Engines employees are now fully engaged on the supersonic Arrow and Iroquois engine programs, only a few hundred selected personnel could be released from their jobs to represent their fellow workers who also created and built the CF-100 and its Orenda engines. The last Orenda engine (the 3,794th) was produced a few weeks ago; and last week, the Orenda passed the one million hour mark in total flying time.

## Suppliers Present

Representatives of some 600 Canadian supply and subcontract companies who have been engaged on CF-100 work were also present for the rollout. Most of these companies are also working on the Arrow and Iroquois programs for which the government has authorized funds covering 37 Arrows and an equivalent number of Iroquois engines.

President and General Manager J. L. Plant addressed the gathering at the ceremony. Also present were representatives of the management of the parent company, A. V. Roe Canada Ltd., and of Orenda Engines Ltd.

Mr. Plant said the CF-100-Orenda era began in 1947 when detailed design on both projects was started. They were born out of bitter World War II experience and a determination by Canada that never again would the RCAF be completely dependent upon her allies for aircraft and equipment. There was also the conviction that Canada — a growing nation — had or could acquire the necessary technical skills and facilities to do its own aviation design and development.

"Both these objectives have been achieved", said Mr. Plant. "Canada has attained a high degree of military independence in air defence and this has contributed substantially to her increased stature in world councils. The evidence of technical capability is the performance of the CF-100 and the Orenda, and now the Arrow and the Iroquois, and more advanced projects about which nothing may be said at this time.

"These two products represent a magnificent technical and production achievement, of which everyone who had anything to do with them can be proud. Moreover, the effort that has gone into them has had a significant and beneficial effect on the Canadian economy. Through the CF-100 and Orenda engine, whole new industries have been born. This has created thousands of new jobs and added new technical and production skills and capacity. As a result, Canadian industrial capacity has been increased and diversified from the hundreds of millions of dollars worth of production shared among the prime contractors, and the hundreds of subcontractors and suppliers," Mr. Plant added.

## Industrial Growth

Besides pioneering for Canada in the aircraft and engine field, the CF-100-Orenda program was the first major effort to really Canadianize the products of the aircraft industry. From research to the production shop, the policy of "buy Canadian" was pursued aggressively.

Both Avro and Orenda helped establish a network of subcontractors and suppliers that now stretches from coast-to-coast. They helped set up new facilities, designed and even built special tooling for them; trained personnel in the new and exacting processes, techniques and in quality control.

Many new companies were brought into being in Canada as a direct result of the Avro and Orenda programs, while many others got their start in aviation and have since greatly expanded their operations.

The results of this "buy Canadian" policy are evident today. From a large U.S. content at the beginning, the CF-100 became 90% Canadian. The same principle was applied to the Orenda engine with similar success. The first Orenda engine was 95% American content. The last were better than 95% Canadian content. To support the prime contract, Orenda helped organize and establish a whole new industry. Many of its components were new to Canada. Their products, such as fuel systems and axial-flow compressors had never before been made in Canada.

In addition, the vigorously growing Canadian industry not only proved that it could do the job—but also that it could do it cheaper. CF-100 unit cost delivered to the RCAF is approximately \$100,000 below the cost of a comparable U.S. interceptor. Orenda engine unit delivery cost is approximately 30% lower than a comparable British engine and 10% lower than a comparable U.S. engine.

(Continued on Page 10, Col. 3)

## Design To Production Progress Highlighted

More will be reported in the next issue of **News magazine** on this CF-100 rollout; meanwhile this thumbnail review of the airplane's progress should remind all Avroites of the satisfaction of achievements gained through teamwork on the CF-100 project.

August, 1946—Preliminary plans and estimated performance for three versions of a jet fighter submitted to Air Force.

October, 1946 — Firm Requirements drawn up by RCAF for long-range, all-weather jet fighter. This fighter differed from Company submission of August, 1946.

October, 1946—Design study submitted of three twin jet fighters all powered with 2 jet engines to meet RCAF all-weather fighter requirements.

October 1946—RCAF selected one version and contract issued for two prototypes and one static test airframe. Aircraft powered with Rolls-Royce engines.

May, 1947—Detail design started.

January, 1948—Tooling and manufacturing started on prototypes.

August, 1948—Search radar equipment changed from British Mk. 9A. 1. to American AN-APS 19A.

May, 1949—Contract issued for 10 pre-production fighters to be delivered at rate of one per month with tooling and facilities for 5 per month.

July, 1949—RCAF specifications issued for Mk. 2 aircraft powered with Orenda Mk. 1 engines.

July, 1949—Design, tooling and manufacture of 10 pre-production aircraft commenced.

January, 1950 — FIRST FLIGHT OF PROTOTYPE CF-100 Mk. 1.

September, 1950 — RCAF requirement for a Mk. 4 incorporating APG 36 in place of APG 33 and rocket armament replacing guns.

September, 1950—Contract issued for an additional 124 CF-100 at a production rate of 5 per month.

February, 1951 — Production Contract amended from 124 aircraft to 720 aircraft at a production rate of 25 per month.

October, 1951—First Mk. 2 aircraft delivered.

January, 1952—Target price agreement for 330 Mk. 4 aircraft confirmed.

April, 1952—Production tooling agreement verified and Mk. 4 production rate set at one per day.

December, 1952 — Revised CF-100 De-

(Continued on Page 4, Col. 3)

# Toronto's Mayor and Press Club Pay Tribute To Zura At Functions

The City of Toronto and the Toronto Men's Press Club last week honored Jan Zurakowski, Staff Engineer, Technical Design, on his retirement as Avro's Chief Development Pilot, for his contributions to the development of Canadian aviation.

The Mayor has wanted for some time to meet Zura officially in his office, as Mayor of the City of Toronto to thank him for his contributions to Canadian development. The date was kept tentative in view of the pressure of the Arrow development program, and only last week was it possible for Zura to break off and keep the appointment.

## Arrange Reception

When the Toronto Men's Press Club heard of the arrangement made at City Hall, they, through the joint efforts of the immediate past-president, Fred McClement of the Toronto Daily Star, and the incumbent president, Jack Marks of the Globe & Mail, arranged for a reception in honour of Zura, to immediately follow the City Hall ceremony.

The ceremony at City Hall, was very informal, with Zura accompanied only by Avro's Public Relations Manager, Arthur H. Stewart and Spud Potocki, who is successor to Zura in the development work of the Arrow. The press was fully represented when the Mayor presented Zura with gold cuff links with the official City of Toronto crest engraved on them, and he also had Zura sign his own personal visitors' book as well as the official visitors' book of the City of Toronto.

Later, at the Toronto Men's Press Club reception, Zura was also asked to sign their book for Special Guests. The Press Club was crowded to capacity. Zura was asked to give a few remarks and he brought down the house when asked by the Press Club President: "How in the world do you feel travelling in the Arrow at such terrific speeds?"—Zura replied, "It's this way. It's like driving slow. Only faster". Spud Potocki and Chief of Flight Operations Don Rogers responded to requests for a few words by thanking the Club for inviting them.

## Pays Tribute

At City Hall the Mayor said: "It is a very great honor for me as Mayor of Toronto to receive you, Zura, and pay this tribute to you as a great Canadian.

"You have made Canada your home by choice not by birth and we are honored that you have done so. You have brought fame to this nation through your contributions to the advancement of Canadian aviation and we are all very proud of you—Canada and the City of Toronto. I hope you will continue to



AT CITY HALL, where he was warmly greeted by Mayor Phillips, Zura signs the official City of Toronto Visitors' Book. "Be sure and put down 'Zura' too," said the Mayor, "everyone knows you better by that."

remain one of our distinguished citizens.

"I am very sincere when I say I am proud to be Mayor at this time and to have the opportunity of extending this tribute. I have been wanting to have you in my office a long time and this is a big day for me."



AT THE TORONTO MEN'S PRESS CLUB, where he was made an Honorary Member, Zura was invited to sign the Club's official Guest Book. Left to right, Jack Marks, President of the Club; Zura; George Hardy, the Club's General Manager. Smiling over Mr. Hardy's shoulder is Don Rogers, Avro's Flight Operations Manager. He was also a guest at the reception. The Toronto Men's Press Club comprises all media of communications in the Metropolitan Toronto and suburban area—newspapers, wire services, radio, television and magazines.

## Press Terms Zura 'Canada's Greatest'

The following message was sent to all members of the Toronto Men's Press Club on November 25th from the Club's president Jack Marks of the Globe and Mail:

*"Dear Fellow Members:*

*"This Friday from 4.30 p.m. onwards your Press Club will hold a reception for Canada's greatest pilot Jan Zurakowski, who retired this week as Chief Test Pilot of Avro Aircraft, and on this date will be honoured prior to his Press Club visit by the City of Toronto at a ceremony at the City Hall.*

*"So plan to be on hand Friday, November 28th at 4.30 p.m. This is for Press Club Members and their wives or girl friends. It is expected that several 'faster than sound' pilots will be on hand to see Zura honoured."*

(Continued from Page 3, Col. 3)

development program submitted to RCAF proposing development in three stages, i.e. Mk. 5, 6, and 7.

February, 1953—Advance Model Spec. for CF-100 Mk. 6 submitted to RCAF, September, 1953 — 75th Aircraft delivered.

September, 1954 — 220th Aircraft delivered.

June, 1955 — 365th Aircraft delivered.

February, 1956—First Mk. 5 delivery.

December, 1958—Final production CF-100 Rolls off assembly line at Malton.

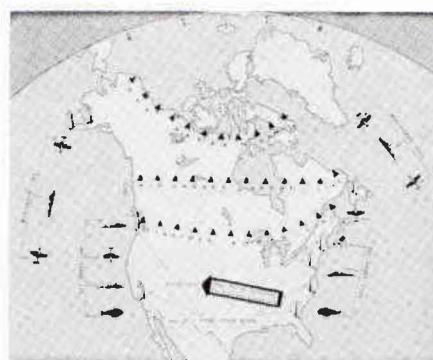
# Continuing Need For Manual Interceptors Explained To Press By NORAD Commanders



INFORMALLY CHATTING with Supreme Commander of NORAD, U.S.A.F. General Earle E. Partridge and Deputy Commander-in-Chief, Royal Canadian Air Force Air Marshal C. Roy Slemmon at Colorado Springs recently are seen, left to right: Sam Ross, Radio News Bureau; General Partridge; Tom Gould, Vancouver Sun; A/M Slemmon; Peter Worthington, Toronto Telegram; Ernie Hemphill, Canadian Aviation, Toronto.



WITH GENERAL PARTRIDGE are, left to right: Pat McNenly, Toronto Star; Hilary Brigstocke, London Times; Gen. Partridge; Oliver Clausen, Time (Ottawa); Bob Crichton, Globe and Mail.



NORAD DEFENCE AREA illustrated in above artist's sketch of current radar installations.

On the invitation of the RCAF, representatives of Canadian newspapers, radio news services, magazines and television networks united in a visit last week to NORAD—North American Air Defence Command—the integrated headquarters designed to control North America's air defence forces in wartime, with Canada and the U.S.A. participating as equal partners.

The observer-writers boarded an RCAF North Star at Ottawa and were transported to Colorado Springs, the home of NORAD to tour the facilities there and be brought up-to-date with the organization that is headed up by the joint team of USAF General Earle E. Partridge and RCAF Air Marshal C. Roy Slemmon, responsible and accountable to the joint chiefs of staff of both Canada and the United States. General Partridge was appointed supreme commander and Air Marshal Slemmon, deputy commander-in-chief of NORAD

on its formation in September of 1957.

In the event of an air attack on North America, Canada and the USA face the same peril. As a result, the combined air defence forces of both countries have been integrated to form a defence organization under one command.

The Press tour of NORAD last week was the result of nearly 12-month's planning by RCAF public relations' personnel who felt that Canadians were entitled to, and were interested in, a behind-the-scenes' look at the "who, what, where and why" of NORAD. The tour is regarded in newspaper, radio and television-news circles as one of the highlights of RCAF endeavours to acquaint the Public with its operations and objectives. Everyone concerned with the tour is receiving congratulations for its planning and administration.

Various reactions and comments came from the "Press" representatives

on the tour, who wrote objectively "as they saw it". All, so far as could be learned at press time by *Avro Newsmagazine*, agree on one fundamental point: The so-called issue of Manned Interceptors versus Missiles is not an issue at all. Aircraft and missiles are both part of the defence punch. One teams up with the other. Neither takes the place of the other. Manned interceptors are part of the NORAD defence program for years to come.

In Toronto, these were the headings over the stories filed by the Toronto newsmen who participated in the tour:

*Globe and Mail*: Avro Arrow Next To Indispensable.

*Toronto Star*: Arrow 5 Years Ahead Of U.S.—Slemmon.

*Toronto Telegram*: Buy Arrows If Costs Cut—Pearkes.

In Montreal, *The Gazette* ran this headline over its Page 1 story: Manned Interceptor, Vital Asset—Slemmon.

In accompanying columns of this issue of *Newsmagazine* are some of the photographs taken or distributed to the newsmen during the tour.

# Avro Aircraft Ten Year Club Admits 280 (1959) Members At Reception, Dinner

The Crystal Ballroom of the King Edward Hotel was the scene of last week's 1959 Avro Aircraft Ten Year Club dinner, when 280 Avroites were admitted to membership. Chairman of the Board F. T. Smye and President J. L. Plant addressed the Club. Shown on these pages are the new members.



First Row, Kneeling: E. N. Farr, A. Fishwick, J. B. Fowles, D. Franklin, K. T. Cooper, W. Fraser, F. C. Fry, L. Burdon, H. Bailey, F. J. Catherwood, H. I. Erstad. Second Row: I. W. Cowan, W. D. Callan, B. L. Clark, H. Childs, G. A. Clark, R. Clarridge, W. D. Constant, Mrs. M. J. Fraser, W. F. Cosford, R. J. Fennell, A. Fuller. Third Row: D. L. Burrows, W. J. Coyle, V. S. Crossman, C. M. Crozier, D. Cunningham, H. C. Dann, H. A. Darewski, A. E. Dashwood, G. A. Davis, E. A. Denman, D. E. Edwards, G. M. Comrie, H. R. Berney. Fourth Row: G. Divell, J. C. Dolinski, R. D. Drake, S. W. Dubnewych, E. Dudra, R. E. East, H. Eaton, R. B. Eatough, A. Eddy, H. S. Elliott, J. Gallacher, C. F. Bellamy.



First Row: F. C. Hallett, J. McGinn, M. T. McNamara, J. Craig, H. L. Seed. Second Row: J. M. McKinney, F. Arnott, J. Borland, J. N. McDade. Third Row: R. A. Bean, S. Chadwick, L. E. Poole, O. W. Griffith, D. A. McArthur.



First Row: R. E. Bracken, L. O. Rowe, S. Raffner, J. McGhee, Mrs. E. F. Norton, H. Quinn, J. A. Pignatelli, J. Whitton. Second Row: E. Reynolds, A. Rosendale, B. Rogers, R. F. Reid, G. A. Royer, N. C. Rodgers, C. Parton, A. W. Oke, W. S. McKeag. Third Row: R. D. Feldman, V. H. Phillips, J. G. Rutherford, J. A. Rice, W. W. Reynar, S. Russon, W. Preston, H. A. Osborne, D. W. Proctor, G. S. Proctor, W. A. Rouse.



First Row, Kneeling: J. A. Abernethy, G. B. Appleby, D. R. Albrecht, J. E. Ward, A. E. Armstrong, W. M. Allen. Second Row: W. W. Armstrong, J. H. Allen, A. Anderson, L. B. Burton, Miss H. M. Bennett, Mrs. G. I. Beauregard, S. A. Baker, C. K. Boon. Third Row: J. L. Bernard, G. W. Anderson, T. K. Burtch, L. Brown, M. L. Bermack, H. C. Brigley, E. J. Birnie. Fourth Row: H. F. Ball, E. H. Burrows, E. G. Anderson, J. P. Austin, G. Burrows, A. Bond, W. W. Barratt.



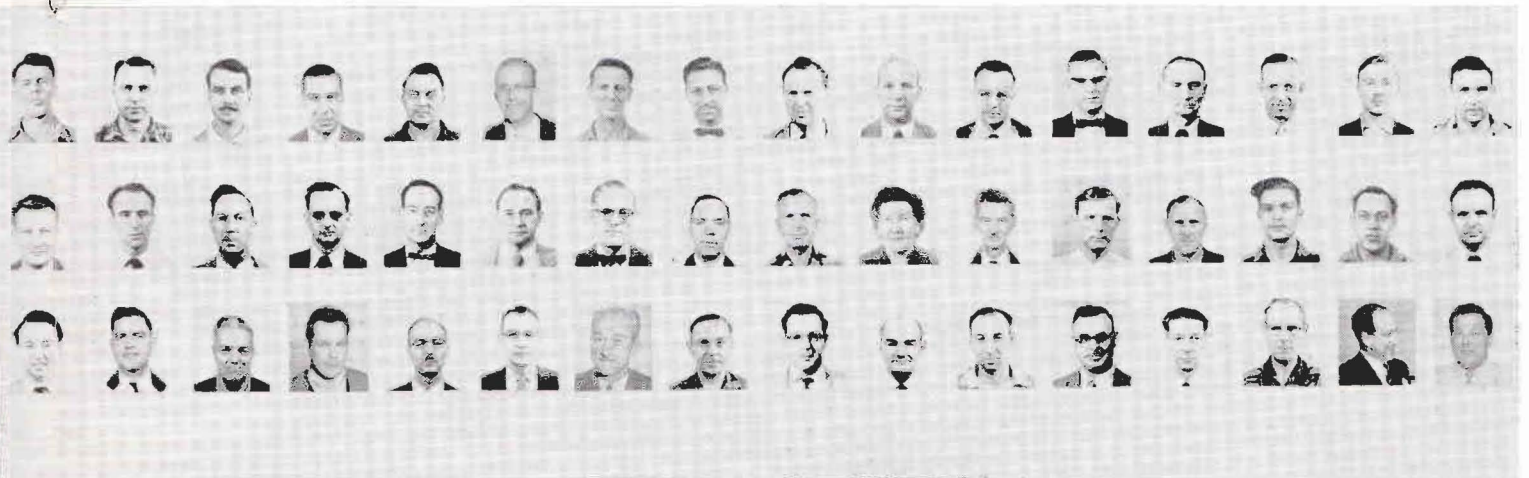
First Row, Kneeling: J. R. King, R. W. Hopper, R. J. Hams, P. M. Honsinger, L. F. Gulliver. Second Row: H. Haley, H. E. Hallett, F. Harrison, A. Ives, C. H. Gardner, J. Howitt, R. G. Hetherington. Third Row: R. Gilbertson, E. M. Hoffland, J. Gasior, G. J. Harrison, Miss S. Jones, W. E. Kent, J. J. Killeen, W. P. Graham, W. J. Hutton. Fourth Row: J. B. Delaney, H. Haynes, R. Gray, M. C. Greenslade, G. R. Gow, W. B. Gardner, W. J. Holmes, C. J. Hennessey.



First Row: R. C. Brownridge, J. A. Pincombe, P. E. Woodger, Mrs. E. M. Swan, Mrs. G. Watt, E. D. Wright, A. Sowery, R. H. Thesiger, P. A. Waters, M. Syron. Second Row: A. C. Williams, A. C. Raeburn, E. A. Tupling, B. Stewart, S. M. Tatlock, M. Smith, M. R. Watkins, R. Wood, D. J. Scott, L. E. Sprigg, K. J. Palfery, A. Shawcross, W. J. Yokum, J. J. Stephens. Third Row: H. N. Shoji, F. Taylor, H. E. White, G. T. Thompson, J. H. Thompson, A. R. Webster, L. M. Treleman, R. W. Waechter, A. F. Withell, G. E. Wright, F. P. Rogers, W. K. Iredale, R. K. Snell.



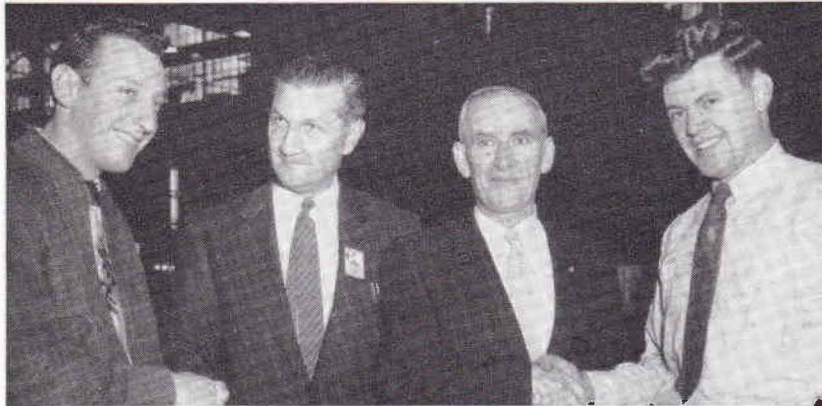
First Row, Kneeling: J. R. MacPherson, W. P. McDowell, D. S. Lobb, V. R. Manser, J. A. McKillop, R. Burney, E. F. Lawrence, E. W. Lyons, L. McNertney. Second Row: W. G. Lamberton, D. McCall, H. G. Millin, R. N. Lowe, Mrs. J. Middleton, Mrs. B. E. Mendham, J. M. McGrath, C. E. Littley, H. C. Lacey, E. S. MacDonald, J. C. Mutton, W. Lamb. Third Row: R. B. Lester, J. C. McElhinney, S. Linnard, H. McDougall, A. Hemmingway, E. Lewis, F. Lake, W. Kuzyk, J. M. Moreland, B. Lapping. Fourth Row: E. R. Merklinger, T. Lockhurst, W. H. Logan, A. C. Bryans, W. R. Meek, W. W. Moodie, A. W. Marks, C. F. Maidment, D. Mitchell, D. M. Linger, N. O. Lundy, W. A. Longhouse.



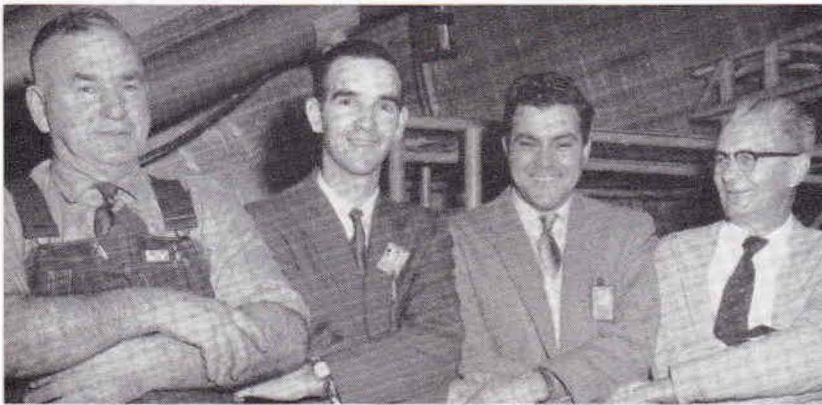
Left to right, Top Row: A. Allen, G. M. Evans, G. S. Armstrong, H. N. Belfort, M. W. Boddam, R. A. Bowers, T. E. Bragg, L. E. Buller, J. T. Canning, W. A. Collinson, R. N. Crisp, J. V. Cudahy, G. W. Farley, F. Fewster, L. T. Fitzpatrick, S. Gowan. Second Row: J. Griska, R. F. Hale, G. W. Handforth, A. Harris, A. Inch, E. G. Kent, J. W. Coopmans, A. Ledger, G. Mackrall, V. M. Marr, F. A. Martin, J. M. McKinney, J. A. McMullen, J. B. Mitichie, C. A. Moat, R. P. Nelder. Third Row: P. W. O'Donnell, W. H. Parker, A. R. Pippy, P. Podger, C. G. Rileigh, G. C. Ridley, R. M. Stevenson, H. K. Syme, W. U. Tomlin, W. H. Wale, P. W. Watson, A. Webster, G. R. Williamson, C. Batchelor, J. C. McCulloch, J. Wright.



AT TEN YEAR CLUB dinner last week, six fathers welcomed their sons into the Club! Shown above are, left to right, Frank Hems and son Roy; Bob Wood and father, Bob Wood, Sr.



From left to right, Dalton Albrecht and father, Dalton, Sr.; Bill Gow and son George.



Left to right, Bill Moodie and son Bill, Jr.; Okey Oke and father Gus.

## 'WOW!' Says Godfrey When He Sees Arrow



When Arthur Godfrey, internationally known television and radio star was in Toronto recently he demonstrated dramatically for Avroites his personal interest in aviation.

During an informal visit to Avro, he kept up a running, knowledgeable conversation with his hosts on technical matters affecting the production of aircraft that evidenced a keen appreciation of North American air defence.

He is shown, from top to bottom looking over the big skin mill with the President, J. L. Plant and Vice-President Manufacturing, Duke Riggs; looking over one of the Arrows with Don Rogers, Flight Operations Manager and Spud Potocki, Chief Experimental Pilot; signing autographs for Mrs. Irene McKee, Miss Anola Frampton and Miss Ann Harland.



FOREMEN'S CLUB's recent annual Dinner and Dance was obviously a good party. Those in the picture are, left to right, . . . Editor's note: "Are you kidding? Try your luck at picking them out yourself!"

# Zura Makes News While Flying ....And It's News When He Quits



FACING TV CAMERA, Zura is interviewed by CBC-TV news editor Ron LePlant for viewing later that evening. Asked if he was "retiring from flying, for sure," Zura replied: "Officially yes, but I'm not very sure about it."



AVIATION WRITER Fred McClement gets information for a feature story on the man who introduced the Supersonic Era to Canada.

When the retirement of Jan Zura-kowski was announced to the public recently, Avro's Public Relations department promptly became the target of newspapers, TV, Radio and magazine representatives for arrangements to interview Zura as soon as possible.

These interviews were set up quickly by P.R. Among them was one by CBC-TV News Editor Ron LePlant, which was filmed in the P.R. Manager's office by CBC News Cameraman Ed. Higginson, for telecasting later that day. Here is the text of that interview:

**Ron:** "Forty-four year old Jan Zura-kowski, one of the world's top ranking test pilots and certainly Canada's greatest is said to be ready to ground himself. How about it Jan, is this true?"

**Zura:** Yes, that is correct. I stopped flying a few weeks ago.

**Ron:** What prompted this decision?

**Zura:** The retiring age for test pilots is usually 40, but I intended to do a bit more flying to reach a certain stage in the development of the Arrow.

**Ron:** Did you want to see the Arrow become operational?

**Zura:** Not really operational but I wanted to do enough flying to obtain a

clear picture of how it was working out.

**Ron:** Would you rate this as one of the toughest decisions you have ever made?

**Zura:** Certainly, I would still like to fly a few more years but I promised my wife that I would retire at the age of 44.

**Ron:** As a test pilot, it is your job to prove an aircraft. How did you feel the first time you took up the Arrow?

**Zura:** When I took the Arrow up for the first time, we already had enough knowledge of the aircraft from test flight investigations that it was not as unproven as a number of other types.

**Ron:** You have flown 60 different types and done more than 4000 hours. What aircraft have you enjoyed flying most?

**Zura:** From sheer pleasure point of view, the pre-War Polish fighter was a nice one, and the British Vampire, but

from a performance point of view, the Arrow.

**Ron:** Would you say that flying the Arrow has given you the greatest amount of personal satisfaction?

**Zura:** Certainly.

**Ron:** What do you consider the greatest thrill in your aviation career?

**Zura:** I don't know. Probably the first flight of the Arrow, though, as I mentioned before, we had a lot of knowledge about the aircraft; but there were a lot of unknown points which had to be proven. Personally, I had every confidence in the aircraft.

**Ron:** I have a quote here from Mr. J. L. Plant, President of Avro: "When the Arrow becomes powered with the Canadian-designed Iroquois engine, the present world speed record could be brought to Canada by the Arrow at any time Canada wants this done." Is this possible?

**Zura:** Yes, I would say certainly. The Canadian engines have got much higher thrust than the present engines.

**Ron:** Now that you have grounded yourself, what does the future hold?

**Zura:** I am still quite close to flying operations at Avro and I am trying to be as useful as possible in planning flight tests and to some extent supervising and coordinating flight test activities.

**Ron:** Do you sincerely believe, yourself, that you will never fly again?

**Zura:** Officially yes, but I am not very sure about it.

## SET DANCE DATE

The Ten Year Club Committee announces this year's Annual Ten Year Club Dance will be held on January 23, at Palace Pier. All members are urged to keep this date open.

Every effort is being made to make this year's Dance the best yet. It is hoped that all members will attend. More information to come in the next issue.



FELLOW PILOTS of Jan Zurakowski, who recently retired as Chief Experimental Pilot and is now Technical Design, Staff Engineer, are shown here at a small party held for Jan. Front, left to right, Lorne Ursel, Experimental Test Pilot; Denny Young, Co-Pilot Engineer DC-3; Jan Zurakowski; Don Rogers, Flight Operations Manager; Spud Potocki, Chief Experimental Pilot; Peter Cope, Experimental Test Pilot; rear, left to right, Len Hobbs, Orenda Experimental Pilot; Bill Devine, Company Pilot, DC-3; Stan Haswell, Production Test Pilot; F/L Jack Woodman, Project Pilot, Arrow Detachment, CEPE; Chris Pike, Chief Production Pilot; and Mike Cooper-Slipper, Chief Test Pilot, Orenda Engines.



# SPORTS REVIEW

By Stan Linnard



ENGINEERING DIVISION HOCKEY LEAGUE had its start about three years ago when a number of non-skating Englishmen remarked how easy it was to play hockey. This immediately led to a match being arranged between Limeys and Canadians. With the aid of a borrowed goalie (J. Brooks) the Limeys held the score down to 15 to 0 and everyone had a hilarious evening. From this start the league was formed with teams from C100 and C105 Engineering, Flight test, Loft and Stress Office. Each team was composed of a mixture of skaters and non-skaters and rules were established so that non-skaters would play non-skaters in order to equalize the play. The league has increased the number of games to be played this year to 10 per team in the regular schedule. Then all teams will enter a play-off series for the right to hold the Harpley Trophy for another year. Shown above are, left to right, Johnnie Bowser, Roy Risley, George Doige, Herb Jenkins.

Now that **Avro's Soccer Club** has won everything in sight and ended its season, your reporter can relax, with other hot stove leaguers while winter sports steal the spotlight.

Hopes for the future months include: a strong basketball team, a win over Orenda in the hockey festival, keen bowling teams to compete against our neighbours in bowling play-offs, and a happy new year to all.

**HOCKEY**—**Bruins** continue to dominate the **House League Hockey** but each game is a real battle. The four teams entered are well balanced and anything can happen the way these boys play. **Bruins** downed **Biltmores** 6-1, but the real accomplishment in this game was keeping **Irons** from scoring. Johnny at the present time is the leading scorer in the house league. **Harvey** for **Bruins** had 2 in this game while **Chard** had 3 assists. **Chapman** came up with 2 assists. Other scorers were **Proulx, Smith, Burton** and **Valentuzzi**. **McCosh** scored for the losers unassisted.

**Flyers** and **Aces** battled to a 2-2 tie. **Cavender** for **Flyers** had 2 with assists from **Surtel** and **Lund**. **Bob Mitchell** and **Yowart**, scored **Aces'** goals on assists from **Gord Mitchell** and **Quackenbush**.

**Bruins** topped **Aces** 2-0 in a well-played game. **Dixie Rhodes** earned the shut out while **Valentuzzi**, had a single along with an assist. **Smith** scored with

1 while **Chard** was credited with an assist.

**Biltmores** and **Flyers** battled to a close one with the **Bilts** edging out a 3-2 win. **Irons** came back to normal, scoring 2, while **Groombridge** had a single along with 2 assists. **Hoare** was also credited with 2 assists in this game. **Jobes** and **Cavender** scored **Flyers'** goals; **Cavender** also had an assist. **Surtel** was in on 2 assists.

On November 16, **Aces** and **Flyers** duplicated their previous game by ending in a 2-2 tie. **Bob Mitchell** and **McCosh** for **Aces** with **Wright** getting both assists. **Surtel** for **Flyers** scored both his goals on assists from **Foster**.

**Bruins** once again showed their superiority over **Biltmores** outplaying them 4-1. **Smith** scored 2 in this game along with an assist. **Marr** scored unassisted while **Burton** scored a single along with an assist. **Bilts** lone tally came from **Hoare** on an assist from **McCosh**.

**BOWLING**—**Chris Wilson's Fighters** along with **Jeff Lamberton's Jokers** lead the men's division "A" at Playtime Bowl. **Tommy Coopers' Redskins** are only a single point behind. **Bob Bromley's** 220 is high average while **Earl Wilkings** 349 holds high single flat.

In Division "B", **Red Akin's Redets** are tied with **Leo Sauve's Spoilers** for top spot. High triple flat is held by **Al Boyd** with 838. **Vic Healey** is top man

on average with 233. **Vic** also has a 234 average in the **Toronto Mixed League**. **William Mallett's Leaders** are living up to their name by leading the Thursday night league. **Don Semple's Outcasts** are a mere 2 points behind. **Jim Caughlin's Lacers** continue to set the pace in Division "E" Mixed League.

High average for the ladies is **Mona Smales** 197 while **Hank Leger's** 219 holds the men's high average. **Bill Pitkin's Hi-Lo's** are causing the **Eager Beavers** no end of trouble by staying on top with them in Division "F" Mixed. Classy bowler **Dot Heeley** leads the ladies high average with 191 while her high single of 321 will be hard to beat. **RUGGER**—**Avro's** rugby squad continues to have its ups and downs. On November 1st, **Avro 1** and **Avro 2** lost both their games. On November 8th, both teams came back to win their games. **Avro 1** defeated **Saracens** 8-0 on a try and convert by **Laurie Blackburn** and a try by **Keith Bryan**.

## Climaxing 11 Years Avro Achievement

(Continued from Page 3, Col. 2)

### Economic Impact

The economic impact can be realized from the following statistics:

The value of the CF-100 program, including spares, etc., amounts to approximately \$450,000,000; while the Orenda program (including \$135,000,000 for engines to power **Canadair Sabres**) totalled approximately \$440,000,000. Exports, not usually associated with the Canadian aircraft industry, include approximately \$25,000,000 for CF-100 airframes, spares, etc., for Belgium; while exports of Orenda engines to Belgium for CF-100s, to Germany for Sabres, to South Africa for Sabres and to Columbia for Sabres, account for approximately another \$27,000,000, making a grand total of some \$52,000,000.

A good illustration of local economic meaning of the CF-100-Orenda program is the impact on the neighbouring community of Brampton where some 1,100 Avro-Orenda employees live. Between them, they take some \$5,500,000 annually into their community in wages and salaries. Toronto Township total 1957 assessment was \$71,483,229 and the combined Avro-Orenda-A.V. Roe 1957 assessment: \$10,688,140 (which represents approximately \$16 out of every \$100 for the entire Township).

### CF-100s in Service

Praise for the overall capabilities of the CF-100 and its Orenda engines has been voiced by air forces throughout NATO. Pilots of many nations who have flown various marks of the aircraft, either in service or at Avro, consider the CF-100 has the finest handling capabilities. Among military leaders it is acknowledged that no other fighter aircraft in squadron service in the western world today is considered as having the same all-weather capabilities for bomber interception.

# CLASSIFIED ADS

This want ad service is offered free of charge to employees only. Turn all ads in to EMPLOYEE SERVICES DEPT. and not AVRO NEWS. Include your name, home address and house telephone number, in that order, with your ad. No Avro Aircraft local telephone numbers can be published. Ads will be repeated once only on renewal of the ad.

## WANTED

**RECENT Model Car** wanted for cash. not older than 1954. CH. 1-5152.

**TRICYCLE** for four year old, and fair sized toy wagon in good condition. F. S. Dupree, 21 McIntyre Cres., Georgetown.

**CHILD'S Pedal Car.** LE. 5-5887.

**BOY'S Bicycle**, 20-18 frame, in good working condition, reasonably priced. CH. 1-1777.

## CARS FOR SALE

'51 Hudson sedan, Pacemaker, good condition. LE. 3-9711.

'57 Chev. 4-door sedan, in excellent condition, undercoating, radio, etc., \$1600. RU. 2-3814.

'49 Chev. 4-door sedan, clean inside and out, just had motor work done. Good condition, must sell, \$150 or best offer. BU. 6-2367.

'48 Ford Panel Truck, good all-round condition, fully equipped, \$175 or offer. Phone Acton 465.

## MISCELLANEOUS

**WINTER Storage** for boats and trailers, canoes, etc. AT. 9-2520.

**DAY Care** provided for pre-school aged child. Phone Valley 7-2844 (Oakville).

## PROPERTY FOR SALE

**HOUSE** in Malton, full price \$10,500, down payment \$1,500. 6 rooms, nicely decorated, oil heated, all aluminum screens and storms, close to schools and within walking distance from four corners. Brampton, GL. 1-4013.

**COTTAGE**, \$3,500.00, 3 rooms, at Holland Landing, winterized, furnished, includes refrigerator, television, radio, electric stove, motor and boat, access to Lake Simcoe. RU. 3-7629.

## ARTICLES FOR SALE

**BABY Crib**, carriage, high chair, play pen and pad, stroller, good condition. Caledon 201 R 4.

**RABBITS**, Young Flemish Giants. AT. 8-1431.

**GIRL'S Winter Overcoat**, size pre-teen 12, dark grey wool, reasonable; also hand knit skating sweater, red wool with pattern, fit 8-10 year old, made in Quebec. RU. 3-5862.

**MOUTON Coat**, good quality, size 16-18, \$50. Also 2 fitted wool coats, size 14, one brown, one rust, \$4 and \$7. Phone ME. 3-1936.

**DIVAIR Demand Regulator**, single tank of 70 cu. ft. at 2400 P.S.I. with Reserve Valve and Harness, 1 hour submersion, \$149.50, take best reasonable offer. RO. 6-6915.

**BABY Carriage**, 6 in one combination carriage; car bed, stroller, etc., almost like new. \$25. HU. 1-2965.

**ELECTRIC Stove**, Gurney, 40 inches, warming oven, good condition. BE. 3-4327.

**BABY Carriage**, in excellent condition, grey, convertible with mattress; commode chair, grey and chrome; car seat, with steering wheel; baby scales, with weights; sterilizer, white enamel, holds 8 bottles; tricycle, small size. BU. 6-4173.

**STERLING Silver Plating** for four, plus sugar spoon and butter spreader. Northumbria sterling, Celo pattern, never used, \$75. CH. 1-7623.

**WATER Heater**, 22-gallon glass-lined, used six months. BU. 6-4147.

**GIRL'S Highland Costume**, kilt, 2 jackets, socks, hie, sporrans, fit girl 10-14; also child's crib, excellent condition. LE. 5-0943.

**BABY'S Crib and Mattress**, \$20, hand lawn mower, used 1 year, \$10. CH. 4-6246, after 6:00 p.m.

**AMANA Chest Freezer**, 15 cu. ft., perfect condition, \$225. TU. 4-1687.

**ELECTRIC Trains**, two, all metal cars, automatic coupling and reversing, \$15., second set plastic freight cars, lighted passenger cars metal, wig wags, gates, etc., \$35. Both sets in excellent condition. CH. 1-8388.

**STOVE and Refrigerator**, cheap, also large wardrobe, all in good condition. Phone RU. 2-3814.

**RIFLE**, Savage 222, Model 640, one month old. BE. 1-9218, evenings.

**STEEL Hot Water Heater**, complete with elements etc., and fibreglas water jacket, 30-gal., \$20 or exchange for power saw. BU. 6-2319.

**SECTIONAL Chesterfield Suite**, 3-piece; 17" maroon television set; Vanity desk with mirror. BU. 6-3570.

**35 MM. Camera**, f2.8, speeds to 1/300 sec. "Lordomat", interchangeable lens, coupled range finder, fully automatic timing, etc., as new, must sell, make offer. CH. 1-1450.

**ROUND Table**, carriage, \$6.00, Child's crib, junior bed, gas hot water heater, with fittings. OX. 4-4279.

**GOLF Cart**, good condition, \$8.50. CL. 5-2613.

**ELECTRIC Guitar**, S. S. Stewart, \$45.00, with case and \$5.00 set of strings, 6 months old. CH. 4-3461.

## ACCOMMODATION AVAILABLE

**MODERN Cottage**, Belfountain, 2 bedrooms, bathroom, basement, \$75. per month. Caledon 201 R 4.

**TWO Bedroom Apartment**, Mimico, TV antenna, parking, \$80 per month. CL. 5-3976.

**STOREY and a Half** to rent in Brampton, 6 rooms and bathroom, with full basement, oil heated, garage, reasonable rent to right tenant, available approximately middle of December. GL. 1-6876 after 6:00 p.m.

**3 UNFURNISHED Rooms** for rent, sink, gas, cupboards, also garage. RO. 2-3853.

**HOUSE For Rent**, Malton, 6 rooms, nicely decorated, within walking distance from four corners, close to schools. Brampton, GL. 1-4013.

**2 LOVELY Large Rooms** for rent and kitchenette, bathroom, \$65.00 per month, at bus stop. 5 John Street, Weston.

**THREE-Room Heated Apartment**, downstairs, \$60. per month, including hydro, on No. 10 Hwy., 11 miles north of Brampton in Claude. Wm. Haase, R.R. No. 1, Inglewood.

**HOUSE to Let**, 2-bedroom bungalow, all conveniences, 11 miles north of Malton on Main road. Bolton 294 J 3.

**5-ROOM Bungalow** to let near Rexdale shopping plaza, early occupancy. CH. 4-6246, after 6:00 p.m.

**3-ROOM Unfurnished Apartment** for rent with private bathroom and garage, Dufferin-Eglinton district, suitable for business couple. RU. 2-3814.

**2-BEDROOM Cottage** for rent near Hockley Valley, Orangeville district on 7th Line Mono Township, furnished or unfurnished \$55 and \$40 respectively, ample cupboard space, furnished includes washing machine, fridge and electric stove. D. A. G. Rolph, R.R. No. 1, Mono Mills.

**BASEMENT Apartment** for rent, one bedroom, kitchen, living room and toilet, Dufferin and 401. \$15.00 weekly. RU. 3-1510.

**FURNISHED Room**, suitable for gentleman, parking facilities, Bloor & Runnymede. RO. 2-1965.

**3-ROOM Basement Apartment** close to plant, conveniences, close to transportation and shopping. BE. 3-9291, after 6:00 p.m.

**FURNISHED Rooms** for rent, cozy two rooms and kitchenette, (frig., stove, etc.) block from Danforth, \$16.50 weekly. OX. 4-4279.

**LARGE Furnished Room** for rent, Weston, after 7:00 p.m. CH. 6-2207.

**4-ROOM Apartment**, two piece bathroom, heated, suitable for working couple or couple with baby, available Dec. 15. Bolton 499W.

**BACHELOR Apartment**, modern broadloomed building, excellent location, \$92.00. HU. 1-8344.



MOVIES • BOOKS • TV • RADIO

Hear-See

THEATRE • MUSIC • RECORDS

By Elwy Yost

**MOVIES: The Old Man And The Sea** which just completed a short run in Toronto at unpopular prices and may be due back shortly, is indeed a most curious motion picture. Costing in the neighbourhood of \$5,000,000 (they ran \$3,000,000 over on their budget but this viewer is at a loss to determine where the money was spent) the entire film, except for beginning and end, is focused on a man (Spencer Tracy) in a boat catching a fish. Off screen the man's voice narrates whole chunks from the Hemmingway novel it was based on. A most faithful rendition, you might say. True, but therein lies the problem.

The ideas expressed . . . life, fate, human destiny, the unconcern of nature for the welfare of man . . . these are sufficient to stimulate philosophical thinking, and on this platitude the film is excellent. But this is the book or literary level. Visually, the whole affair seems to let down the abstractions it is dealing with. Radio, music, novels, art have an especially effective province here, but the cold lens of a camera has never been particularly adept at philosophy, except in the rarest of past instances. An unrealistic, symbolic interpretation might have done the trick, but this kind of treatment was not employed.

"The Old Man And The Sea" is a fine, ironic, compassionate novel. It is best read . . . not seen.

☆ ☆ ☆

**AVRO SHOW TALK: The Bolton Community Choir** took part in an all-night talent show recently in aid of the Springfield miners over TV channel 3, Barrie. Avroite sleepwalkers who enjoyed handsome selections from Oklahoma plus a variety of English folk songs will be interested in a revival of **The Gypsy Rover** which the talented group presented last year. **Ruth Rowley, Employee Services**, and **Syd Waldron, Sales and Service** are teamed once again in this delightful musical comedy. Performance dates are: Bolton, Nov. 28; Alliston, Dec. 2nd; Tottenham, Dec. 5th.

**The Same Sky**, a new play penned by England's Yvonne Mitchell, goes on the boards at The York Community Theatre's 49 LaPlante Ave. residence this Dec. 12, 13, 17 to 20. The story concerns a love affair between a young Jewish girl and a Gentile set against London's War II years. **Mavis Hayman** is cast in the lead as Esther, and Avro's own, **Lionel Levy**, appears but briefly this time in an Underground Subway sequence during a London air raid. The Group has a thoroughgoing professionalism about it and has already set some pretty high standards in the letters of Canadian theatre.

Sorry this column missed The Weston Little Theatre production of **"Harvey"** but some mighty fine comments have been coming to our ears over the performance of **John Mew, Stress**, as the psychiatrist who becomes involved with the pixilated, invisible rabbit.

☆ ☆ ☆

**BUGHOUSE:** Enjoyed the **Wayne and Shuster** joke in **The Toronto Star** about the mad scientist who crossed a pig with an octopus. The results were very interesting: a football that could throw itself.

☆ ☆ ☆

**RADIO:** Radio sets, we hear, are outselling Television three to one. This is not surprising when one honestly considers the adelptated quality of the average TV presentation. It is not our policy to grind axes in this column and we generally prefer to highlight the better rather than denounce the worst. But discounting such happy reliables as **Explorations, Close-Up, Gunsmoke, General Motors Theatre, The Unforeseen, I've Got A Secret, Playhouse 90**, and a number of **News, Sports and Public Affair Programs** the common denominator among the hundreds of TV shows produced weekly is vaguely tragic.

There are a number of reasons why radio is on the fast comeback and one of the best is a tidy little CBC affair at 10.45 pm each Monday called **"Out Of This World"**.



## **moonlight at noon**

Operating in the Arctic areas,  
aircrew and groundcrew of  
the Royal Canadian Air Force  
could throw away the clock  
and use a calendar—  
and tear off November,  
December and January as the  
period of the long night.



**AVRO AIRCRAFT LIMITED**

MALTON • CANADA

MEMBER - A. V. ROE CANADA LIMITED & THE HAWKER SIDDELEY GROUP

CF-100'S ARE ON GUARD IN CANADA—AND IN EUROPE WITH NATO AND THE BELGIAN AIR FORCE