

The Airborne Services



FIRST AIRCREW TRAINEES to be graduated by the RCAF, on Dec. 20, 1924, are shown above with Avro 504 trainer of the period. At far right is Provisional P/O C. R. Slemon, now Air Marshal Slemon, NORAD deputy commander. Photo was released to mark RCAF 35th anniversary graduation ceremony held at Winnipeg Dec. 20. Guest of honor was A/M Slemon.

Role of the CF-104

The RCAF in the next few years will assume again a role which it lost at the end of the Second World War: offence.

This is the real — and generally overlooked — meaning of adoption of the CF-104 strike-reconnaissance jet plane for the RCAF air division in Europe.

One Ottawa authority says the Defence Department has been somewhat astonished at the fact that so far there has been no criticism of the change in the 14-year-old role of the RCAF as an instrument of strictly defensive character.

In effect, the RCAF is back in the bomber business in far greater strength than during the Second World War because of the advent of nuclear weapons.

As it became apparent that interceptor missiles would more and more take over the role of manned interceptors, NATO cast about for a new job for the RCAF Air Division based in France and West Germany. It decided that it needed strike planes and the Canadian government agreed.

Officials say the CF-104 will not be used primarily for support of ground troops but to strike at targets several hundred miles behind enemy lines.

RAF Bases in Canada?

The possibility that RAF Bomber Command might use Canadian bases in event of a war emergency was raised in Ottawa in November.

Marshal of the RAF Sir Dermot Boyle said in an interview that Canadian bases "might" be used though

there were "no plans at the moment" for this.

The RAF chief of staff was replying to a reporter who noted that Sir Dermot was to visit the RCAF stations at Knob Lake, Que., and Goose Bay, Labrador, on his way home and that RAF bombers have often made training flights to and undergone cold-weather tests at Canadian Arctic and sub-Arctic bases.

The USAF now is lengthening runways at four Canadian bases — Frobisher, Churchill, Cold Lake and Namao — to accommodate aerial tankers which refuel in flight bombers of Strategic Air Command. RAF V bombers — Valiant, Victor and Vulcan — could operate from these bases if unable to use their own in the United Kingdom.

Sir Dermot also said manned interceptors will be needed "for many years to come." All indications were that the threat of the manned bomber would last "as far as we can foresee."

Sir Dermot said he doesn't think the Lightning, latest British interceptor soon to go into squadron service, will be the last British plane of its type.

NORAD Boss on CF-100

Gen. Laurence Kuter, NORAD's new boss, said in Ottawa Nov. 17 that new Canadian manned interceptors are needed in the air defence system "at an early date."

His statement came a year after RCAF Air Marshal Roy Slemon said at a press conference at NORAD headquarters at Colorado Springs that manned interceptors would be required as far ahead as could be seen and

that the Arrow would be the best available until the F-108 came along. Since then the Arrow has gone, and so has the F-108.

Gen. Kuter said that now is the time for the Canadian government to make plans for replacement of the subsonic CF-100.

There is some reason for believing that such arguments are getting through to the Canadian Government and that it will acquire a new interceptor for RCAF Air Defence Command even if it has to accept one free from the U.S. or at very nominal cost. Recent reports have it that the RCAF has been looking over some USAF McDonnell F-101's which will soon be available at surplus prices.

S & R No. 1000

The RCAF recently completed its 1,000th recorded mercy flight in Canada.

The number of such flights is actually much higher, but in the first seven years of its existence — from 1946 to 1952 — the RCAF search and rescue organization either did not keep complete records or they have since been discarded.

This is fairly typical of S&R. If there's a chance of making a rescue, S&R will take it without seeking public acclaim. Most of its mercy flights do not come to the public's attention.

Since 1950, most of S&R's 63,000 flying hours have been spent in searches for lost planes and boats, not on mercy missions as the public understands them.

S&R has a total of 44 aircraft based across Canada at five centres — Torbay, Greenwood, Trenton, Winnipeg and Vancouver. Included in this total are Cansos, Otters, Dakotas, Lancasters and two types of helicopters.

Ten long-needed Grumman Albacross amphibians planes are on order as replacements for the Cansos and the first is scheduled to be delivered in the fall of 1960.

Until last year, S&R didn't even keep a record of the number of lives saved.

It considers that in 1958, it saved 43 lives and in 1959, 27 to the end of September. It had made 115 mercy flights to that time compared with the annual average of about 160 in recent years.

Ten RCAF officers have received

awards for bravery during S&R operations and one of them, Squadron Leader R. B. West, DFC, AFC, of Medford, N.S., won the McKee trophy in 1948.

Postings & Careers

•Group Captain William Weiser has been appointed Director of Air Defence Operations at AFHQ. He has relinquished his position as senior air staff officer at ADC HQ, St. Hubert.

•Wing Commander Walter Grant Harvey, 51 chief technical services officer at Station Trenton, retired from the RCAF Nov. 14, more than 32 years after he joined the service in Vancouver. W/C Harvey enlisted April 2, 1927, as a clerk standard but a short time later was accepted as a fitter, subsequently serving in every rank except WO1. During World War II he served at a number of Canadian SFTS's until he went to Newfoundland with 10 BR squadron as CEO. Before being transferred to Trenton in 1955 he was OC No. 2 TTS at Camp Borden for three years.

•Group Captain F. W. MacLean has been appointed Chaplain General of the Armed Forces (Protestant). He succeeds Brigadier The Venerable John W. Forth, MBE, CD, who retired last month. G/C MacLean has been Director of Religious Administration (Prot.) for the RCAF since November 1953.



MARTIN-BAKER TIE CLUB: Membership in the club is conferred on all those aircrew members whose lives have been saved by the use of the M-B ejection seat. Members receive a tie (above) bearing the familiar triangle which identifies all aircraft equipped with a Martin-Baker ejection seat.

New Literature

Packed With Power

Aircraft Engines of the World 1959/60 — by Paul H. Wilkinson
734 15th St. N.W., Washington, D.C.,
320 p., illus., \$15.00 U.S.)

The reputation of this authoritative reference is further enhanced by the 17th and latest edition. Though the familiar format is retained, the book has been completely revised and includes specifications of 231 engines, of which 38 are new. Of this total, 120 are main powerplant gas turbines, with 18 being new; there are 22 specialized gas turbines (e.g., APU's), with six new.

New reciprocating engines continue to be developed at a surprising pace, considering the swing to gas turbines. A total of 69 of this type of engine are reviewed and of these, seven are entirely new models.

Aeronautical Engineering

Dynamics of Flight — Stability & Control — by Bernard Etkin (John Wiley & Sons Inc., New York 16, 511 p., illus., \$15.00 U.S.)

Bernard Etkin, Professor of Aeronautical Engineering, University of Toronto and Research Associate in the Institute of Aerophysics, is probably Canada's foremost authority on the subject. In his book Prof. Etkin covers static and dynamic stability, transient and frequency response, feedback systems and automatic controls, dynamics of missile, machine computation (analog and digital), and mathematical aids.

Prerequisites for reading this book are a knowledge of basic mechanics, aerodynamics, and mathematics including complex numbers and differential equations. It will be useful both as a textbook for senior and graduate university students, and as a reference book for practicing engineers.

Soviet Air Power

The Soviet Air and Rocket Forces — Edited by Asher Lee (Ambassador Books Ltd., Toronto 3, 300 p., illus., \$8.75).

This book is a companion volume to *The Soviet Army* and *The Soviet Navy*, and consists of chapters written on different aspects of Soviet military

air strength by different authorities.

Subjects covered include the early beginnings of Russian air power, World War II, strategy and accomplishments and post-war developments.

Despite Russian propaganda threats of pure-missile warfare; the authors generally seem agreed that Russia actually continues to rely on her bomber and fighter air force as the basic means of delivering the bombs.

Aviation History

In Canadian Skies — by Frank H. Ellis (The Ryerson Press, Toronto, 226 p., illus., \$5.00).

A history of flying in Canada from the Silver Dart to the present day by one of the pioneers who helped make that history, this book was obviously hurriedly put together to capitalize on the 50th anniversary of flight in Canada. It suffers accordingly.

The author has lived with aviation in Canada since 1914 and has accumulated a wealth of interesting anecdotes of the early days. The early years and the middle years are well handled, though mainly a rehash of Mr. Ellis's earlier and superior "Canada's Flying Heritage." Unfortunately, when the author comes to the Jet Age, his story falls short.

Star Gazing

The Elements of Astronomy — by E. A. Fath (McGraw-Hill Co. of Canada Ltd., Toronto 4, 354 p., illus., \$6.90).

A fifth edition of a popular book on basic astronomy, this present revision offers a simple, fundamental, and accurate treatment of the entire field and is intended as an introductory text for college students taking astronomy. The author, using a minimum of mathematics, develops the necessary physical concepts to provide the interested student with the principal facts of astronomy and a sound elementary understanding.

Several chapters, chiefly those dealing with the sun, stars and extra-galactic objects, have been completely rewritten in this fifth edition. Further bringing the book up to date, is a new chapter added on interstellar matter.