preferred by HANDS Forged from Slim, trim tough Chrome-Vanadium Steel light in weight Openings from perfectly 1/4" to 15/8" balanced Lengths from 3" 3/4 to 26" SW-35 Set Here is an ideal 35 piece socket set designed for the mechanic that does general repair work. It includes regular single hexagon and straight wall sockets, with an assort-ment of popular attachments. Sturdy metal case included.

Sold and serviced by leading automotive jobbers from coast to coast.



literature

(Continued from page 78)

Delta wing with subsonic leading edges. The chapter on aerofoils in compressible flow is concluded with a description of the higher order theories of supersonic flow and a section on transonic flow.

The final chapter of the book contains the theory of aerofoils in unsteady motion. The two dimensional aerofoil theory for unsteady incompressible flow, the study of two-dimensional motion with constant forward velocity and motion with nonuniform section on aerofoil theory for unsteady city and motion with nonuniform average velocity comprise the portion relating to incompressible flow. The flow is followed by the concluding section on aerofoil theory for unsteady supersonic flow.

FLIGHT FLY-PAST: A portfolio of aircraft photographs by "FLIGHT" cameramen: Iliffe & Sons Ltd., Dorset House, Stamford St., London, S.E. 1, (British Book Service (Canada) Ltd., 1068 Broadview Ave., Toronto 6, Ont.); ill.; 24 pp.; \$1.69.

Here are 24 exceptionally fine examples of photography in the aviation field, all but one of them air-to-air shots.

FLIGHT's John Yoxall and L. W. McLaren are well known for their workmanship and art. Here are some of their latest and best, well reproduced 11½ by 9½ inches in black and white.

For the connoisseurs and those who just like looking at aircraft in their natural element.

the UK Ministry of Transport and Civil Aviation by the Central Office of Information; Her Majesty's Stationery Office, London; obtainable through the UK Information Service, 119 Adelaide Street West, Toronto, or at Ottawa and Montreal; 61 pages, illustrated; 77 cents.

An attractive and well-produced booklet which immediately commends itself to those interested in aviation. The story of the development of London Airport in ten years from a motley assortment of tents and caravans to the finest air centre in the world, is a dramatic one.

To day London Airport is virtually a township — with its own post offices,

police force and other services. The book takes its reader behind the scenes. It follows the progress of both an intending traveler and the pilot about to enter the circuit. Numerous attractive illustrations and color plates support the text.

PICTORIAL REVIEW, by the editors of "Aeroplane"; Temple Press Ltd., Bowling Green Lane, London, E.C.I., England; illustrated; 7s 6d. (\$1 approx.).

In the study of aircraft one picture can convey as much information as hundreds of words of text. It is with this idea in mind that the publishers of The Aeroplane have compiled this book containing 280 illustrations. These have all appeared in the weekly publication during the past 12 months.

Sections include civil and military aircraft, and also a review of people and events connected with the industry.

News in brief

Transair Ltd. has applied to the Air Transport Board for a licence to operate a Class 2 regular specific point commercial air service serving Montreal, Ottawa, Weenusk, Ont., Churchill, Man., Coral Harbour, Fox and Resolute, N.W.T. Application is subject to the restriction that no traffic rights be exercised between Montreal and Ottawa.

Timmins Aviation has been granted a licence by the Air Transport Board to operate a Class 4, Group B charter commercial air service for persons only between points in Canada from a base at Montreal. The base protection afforded to Class 4 carriers by General Order No. 7/52 does not apply to this licence.

The promotion of Air Vice Marshal Hugh L. Campbell to the rank of Acting Air Marshal has been announced by Hon. Ralph Campney, Minister of National Defense. Air Marshall Campbell is Deputy Chief of Staff (Operations) at the Supreme Headquarters, Allied Powers Europe.

Air Commodore F. R. Banks, a director of the Bristol Aeroplane Co. of Canada (1956) Ltd., has been named as a 1956 Honorary Fellow of the American Institute of the Aeronautical Sciences.

Timmins Aviation Ltd. of Montreal has announced the appointment of Jack R. Graham as Vice-President and General Manager, and Victor R. Bennett as Secretary.

J. F. Forster has been appointed Executive Vice-President of Vickers Inc. of Detroit.

Mar 1857



The Airborne Services

AVM Guthrie to Retire

The forthcoming retirement of AVM K. M. Guthrie, C.B., C.B.E., Air Officer Commanding the RCAF's North West Air Command, has been announced. He will be succeeded by AVM H. L. Campbell, C.B.E., who has been attending Imperial Defence College in the U.K. for the last year. The change is to take place on March 31.

AVM Guthrie served with the old Royal Flying Corps in World War I, and has been associated with military



AVM K. M. GUTHRIE

and commercial aviation in Canada since 1920.

AVM Campbell, who is 41, has been with the RCAF since 1928 when he began training as a student at the University of New Brunswick. He joined the permanent force in 1931.

Expenditures

Recent news reports of \$7,300,000 spent on military planes last year refers to 85 Vampires purchased at a cost of \$7,000,000 from the U.K. and 30 Mustangs at a cost of \$300,000 from the U.S. In addition 36 Auster aircraft (for artillery work) were bought

at a cost of \$300,000 from the U.K. All have been received and costs applied against credits held in the U.S. and U.K. The sum of \$10,377,000 is being spent on modernizing, reconditioning, and modifying several types of aircraft. Because of security regulations, no breakdown of this sum is available.

The RCAF in 1948

An eventful year was passed by the RCAF in 1948 and the reorganization and training programs set in motion since the end of the war began to bear fruit. Flying time, a significant factor in assessing actual air activities of the force, was approximately double that of 1947. Flying time for 1947 was just under 64,000 hours; in 1948 the total was nearly 113,000 hours.

Several hundred veteran aircrew who are now being employed on flying duties were taken back into the service, in addition to the recruits entering through the normal channels. The ceiling on recruiting was lifted and the strength of the Air Force rose from the 11.660 of 1947 to about 14,000. Both air and ground crew are being recruited and there is at present no restriction on the size of the Force.

Also joining the Air Force were the de Havilland Vampires, which first appeared in Canadian skies early in the year. At the same time, development work made and is making rapid progress on the all-weather twin jet fighter being built at Avro Canada. The engine for the fighter, the Avro Orenda, is also in an advanced stage of development. Delivery of the last of the 23 Canadair Fours was made to the Air Force during the year.

Construction crews were busy extending and hard surfacing runways at Rivers, Manitoba, and Summerside, P.E.I. to permit operation of heavy aircraft. Several wartime stations, including Mont Joli and Bagotville in Quebec, and Chatham, N.B., were reactivated and plans were made for the extension of these and several others.

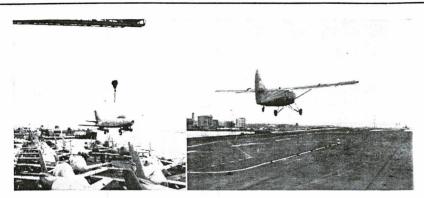
During the last month of 1948, the formation at the new St. Hubert (P.Q.) O.T.U. of 410 Fighter Squadron took place. This is the first of two jet interceptor squadrons for the regular RCAF, to be based in eastern Canada.

Addition of two more Auxiliary Squadrons during the past year brought the total to ten, the two latest being in Calgary and London. Five of these squadrons are equipped with Vampires. Announced late in the year was a special one-year pilot training program for members of Auxiliary Squadrons. A similar plan for ground crew mem-



AVM H. L. CAMPBELL

bers of the Auxiliary is being studied. Flying training within the Regular RCAF hit a high tempo and wings parades became a familiar sight. Postwar plans call for majority of airscrew to be short service commission officers, who serve on flying duties for a sixyear period and then retire to the Auxiliary or Reserve. Basic pilot training is given at Centralia, while radio officers go to Clinton, the RCAF's radar and communications centre. Navigators attend the Air Navigation School at Summerside, P.E.I. Training was also given under the Univer sity Summer Flying Training Scheme



STEEP TAKE-OFFS FROM THE MAGGIE: Above left, one of 59 RCAF Sabre 5's is hoisted from the deck of the HMCS Magnificent at Halifax. The aircraft, which saw service with the RCAF's No. 1 Air Division in Europe, will be sent to auxiliary squadrons in Canada. Above right, one of four RCAF Otters takes off at Port Said from the flight deck of the Magnificent. It is headed for reconnaissance and communications duties with the United Nations Emergency Force.

received from the Corps, and without the assistance of radar.

The Corps was established in northern Canada, above the 55th parallel, in 1950. A year later it was organized in the southern portion of the Dominion. So many volunteered — the figure reached 80,000 at one time — that a weeding process was necessary. However the Corps still needs volunteers in some parts of the country.

Between 4,000 and 5,000 Ground Observer posts are spotted about eight miles apart throughout Canada, although in the thinly-populated areas of the North, the distances between are greater. The post may be in a place of business in a small town. In rural areas it is usually in a farm-house. In truth, a post is generally little else than a place with a telephone or radio-telephone. They are designed primarily to report on low-flying aircraft which can sneak under radar coverage. Observers report on all airplanes, giving the type, direction, number and altitude. In some

cases the observer can only report the

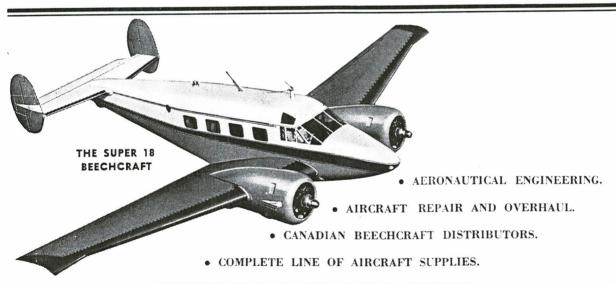
Postings & Careers

Air Vice Marshal Hugh L. Campbell, CBE, CD, RCAF, has been appointed to the rank of Acting Air Marshal, while holding the position of Deputy Chief of Staff (Operations) at Supreme Headuarters, Allied Powers Europe. A/M Campbell has held this appointment since August, 1955.

Otters With UNEF

The RCAF Otters that are presently flying support for the Canadians with the UNEF in Egypt, have been doing yeoman work. Like the camel of the desert in olden times, the Otter can carry a heavy load over a long distance without refueling. It's an all-purpose mode of transportation and it doesn't get bogged down in the sand.

The four Otters, each capable of carrying 12 men, four stretcher cases, freight, or a mixture, are believed to be the answer to Maj.-Gen. Burn's problem of keeping in touch with his many outposts. Surveying torn-up highways is another job being done by the versatile aircraft.



- SUBCONTRACTORS TO THE AIRCRAFT INDUSTRY.
- DISTRIBUTORS OF AIRCRAFT, AIRCRAFT INSTRUMENTS AND EQUIPMENT.

P.O. BOX 366, MUNICIPAL AIRPORT, OSHAWA, ONT. Phone RAndolph 3-2204



Branch offices at CALGARY, VANCOUVER, WINNIPEG & OTTAWA

May 57 AIRCRAFT