

aviation news digest

British Exports

British aircraft exports during the first eight months of this year exceeded the total for all other full years. As of the end of August the figure was \$204,561,781, which is just short of \$20,000,000 above the record established for all of 1955. Complete aircraft accounted for \$144,200,000 of the total, engines for \$51,800,000, with electronics, tires and instruments accounting for the remaining \$8,400,000. The United States, purchasing \$4,071,164 worth of complete aircraft was the U.K.'s best customer in August.

New Transport

Two prototypes of a new turboprop transport based on a proposal made earlier to meet Royal Air Force specifications but dropped in a U.K. economy drive are to be built as a private venture by Armstrong Whitworth Aircraft in Britain. The AW650 will be the firm's second postwar turboprop transport. The company previously developed the Apollo airliner, built to a Brabazon Committee specification from which the Vickers Viscount was evolved. The new prototypes will be high-wing, twin-boom box-cars with front and rear clamshell loading doors. There will be experiments with four Rolls-Royce Dart and two Rolls-Royce Tyne engines. Passenger version would be for 66 tourist class, but interior would be adaptable to mixed freight-passenger layouts. Maximum range is given as 2,000 nautical miles, and low capital and operating costs are claimed by the company.

Education & Westinghouse

Two Canadian Westinghouse Co. engineers will go to the Nova Scotia Technical College as instructors for the academic year 1956/57. The co-operative plan was revealed at the conclusion of the recent manpower conference to study critical shortages of Canadian-trained engineers and scientists. An agreement with the college will permit the two engineers to complete work on their masters degrees while assisting the faculty with teaching assignments.

Indian Gnats

An order for 25 Folland Gnat light jet fighters and plans to manufacture the aircraft under license at Hindustan Aircraft Ltd. were announced recently by the Government of India. Delivery on the order, to be spread over a period of about two years, is to begin in April. In addition it was revealed India has signed a long-term agreement with Bristol Aero-Engines Ltd. for technical assistance in manufacture of gas-turbine aero engines in India.



NATO CF-100s. Canada's famed interceptors get a coat of camouflage paint at Avro Aircraft's Malton plant preparatory to their ferry overseas for service with RCAF squadrons in Europe. The first re-equipment ferry operation in which Wing Commander E. G. "Spike" Ireland of 445 Squadron will lead his crews overseas is scheduled to leave Ottawa's Uplands Airport Oct. 30.

BOAC to Frisco

British Overseas Airways Corp. is said to plan a start on operations to San Francisco next April using Douglas DC-7Cs. The service would be operated as an extension of the London-New York route, with connections on Qantas Empire Airways' Sydney-San Francisco route.

Fairey Helicopter

Fairey Aviation of Britain is now offering its two-seat Ultra-Light Helicopter for civil use. The craft is powered by Blackburn-Turbomeca Palouste tip-jet drive. Performance data given by the company showed: Gross weight 1,900 lb; payload/range, two occupants plus 300 lb is 50 miles, two occupants plus 90 lb 100 miles, and one occupant plus 60 lb 150 miles; maximum speed 105 mph, cruise 85 mph; vertical climb 1,300 ft per min.; hover ceiling 6,000 ft no ground effect.

Atomic Missiles

Atomic warheads are said to be available to fit the Falcon air-to-air missile and its successors. The assumption is that similar warheads can be fitted to other missiles of the ground-to-air and air-to-ground type.

Mach 3 Turbojets

The United States Air Force Deputy Chief of Staff for Materiel, Lt. Gen. C. S. Irvine, says turbojet engines capable of Mach 3 operation should be developed within three or four years if requirements are met for improved materials for compressors. The General called for "major breakthroughs all along the line." Mach 3 turbojets, he said, will require compressor discharge temperatures above 1,500F and turbine inlet temperatures in excess of 2,500F.

Bonaventure Delayed

Royal Canadian Naval headquarters announced recently that labor difficulties have resulted in a delay in the commissioning of the new aircraft carrier, HMCS Bonaventure. The ship is being built by Harland and Wolff Ltd. at Belfast, Northern Ireland. Commissioning had been scheduled for the end of October, at which time HMCS Magnificent would have been turned back to the Royal Navy, with a Canadian crew going aboard Bonaventure for the voyage to Canada and fitting of the new ship with electronic gear. It is now expected that commissioning of the Bonaventure will take place early in the new year. Meanwhile, the RCN retains the Magnificent.

Expand Facilities

Expenditure of \$4,440,000 for expansion of Talos missile production facilities operated by Bendix Aviation Corp. at the Naval Industrial Reserve Ordnance Plant at Mishawaka, Ind., was approved recently by the U. S. defense department.

Twin Pioneer

Scottish Aviation's Twin Pioneer is now being offered for \$136,500 picked up at the plant fully equipped for passenger airline service. First deliveries on the aircraft were scheduled for last month, with the initial batch recently raised from 100 to 200 and the build-up said to be on the basis of one plane a week by July 1957 and two weekly by March, 1958.

UK Employment

Employment in Britain's aircraft industry stood at 253,300 in mid-1956, according to figures released recently by SBAC. The figure represents a high for the eight-year period since 1948 and is about 10,000 more than at the same time last year.

Israel Sabres

Sale of 24 Canadair-built Sabre VI's to Israel has been approved by the Canadian Government. The order is valued at just over the \$6,000,000 mark. Delivery will be over the next six months. The agreement states that if at any time during the delivery period the international situation warrants cancellation or postponement on the outstanding part of the order such action may be taken. The large number of jet fighters and bombers Egypt has received from Russia were said to have influenced the Canadian Government to approve the Canadair order.

Chilean Otters

The Chilean Air Force has placed orders for five DHC-3 Otters with de Havilland Aircraft of Canada Ltd. The final aircraft is to be delivered by the end of December. Chile is the first South American country to order Otters for military purposes and the fifth nation to adopt the Otter for this role.

Cargo Streamlining

British Overseas Airways Corp. is offering faster freight service as a result of streamlining of customs documentation and formalities for cargo being trans-shipped at London Airport.

Errata

In an article dealing with Quebecair Inc. titled "Flying School to Airline and Still Growing Fast" in the September issue of CANADIAN AVIATION it was stated: "The airline also operates its own traffic control tower under authority from the Department of Transport." A Department of Transport official has pointed out that while there is a control tower structure on top of the hangar recently erected at Rimouski Airport and the company's dispatcher broadcasts information to the company's arriving and departing aircraft, this is not airport control service. CANADIAN AVIATION is pleased to comply with the DOT request that this correct information be published so that readers will be aware there is no airport control service authorized by the Department of Transport at the Rimouski Airport.

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THE "SKEETER Mk. 6" BECAUSE—

All maintenance can be done from ground level, except for the main rotor hub which is reached by using footholds on the helicopter structure.

The handling qualities, due in part to its three-bladed fully articulated rotor, are just those found in the larger types of helicopter. It is not difficult to fly, and the manoeuvrability is exceptional.

The throttle may readily be disconnected from the collective pitch lever, permitting practice autorotative landings without stopping the engine, and the engine may safely be left running on the ground.

The engine of 'One Hour Power' rating gives consistent and undiminished performance.

Vision from the cockpit is unusually good, with a wide aspect rearwards.

A manual control of the centrifugal clutch prevents overloading of the rotor system when starting.

These are some of the features of the Skeeter helicopter which commend it for its chosen duties. Each of them contributes towards the economy which is a feature of its initial and operating costs.

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Convair 880 Specs

Detailed specifications on the Convair Model 880 jet transport show the following operating statistics: For 500 mile stages take-off weight would be 128,000 lb with an 80-passenger payload of 21,700 lb; take-off distance would be 4,140 ft and landing distance 5,400 ft at 117,000 lb. On 1,000 mile stages, gross weight is up to 148,000 lb, take-off 5,750 ft and landing 5,400 ft. At the maximum 3,000 mile range weight becomes 173,500 lb, take-off 8,300 ft and landing 5,400 ft. Payload includes 8,500 lb of cargo and baggage. Other figures released recently give the 880's maximum landing weight as 130,000 lb; empty weight 80,800 lb; maximum operating altitude 40,000 ft.

Computer Courses

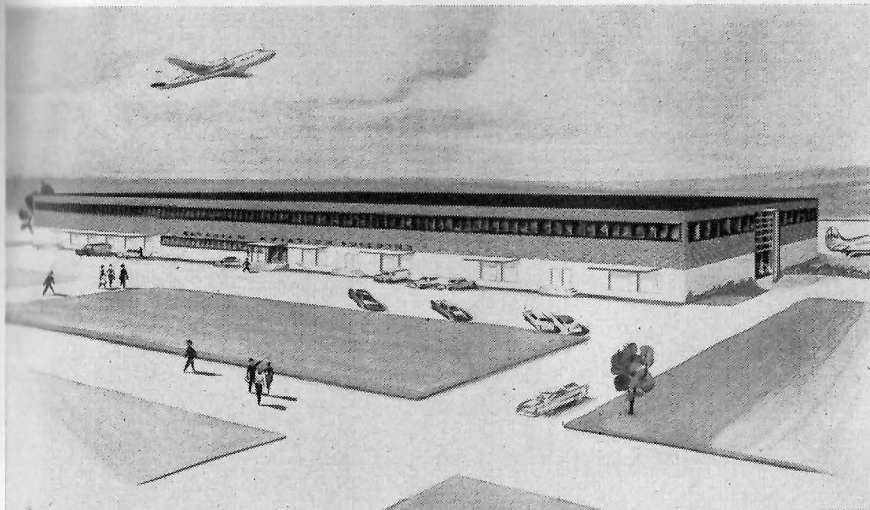
McGill University in Montreal this year will add a course on the application of electronic data processing to business needs in lectures on electronic digital and analog computation. Lecturer will be George Glinski, P.Eng. of Ottawa, who will also continue the courses which he has been directing for the past six years on this subject at Carleton College in the nation's capital.

Flight Planning

A system of optimum flight planning designed to allow transAtlantic Military Air Transport Service flights to make maximum use of wind patterns has been perfected by the USAF Air Research and Development Command. System is said to permit detours as much as 500 miles from standard Great Circle route and still assure arrival at destination in better time and with more fuel aboard than if the Great Circle were used.

Accidents Down

Civil Aeronautics Administration in the U.S. reports a decline in the number of accidents and fatalities involving light planes during 1955. The drop occurred in most classes of general aviation, with the exception of noncommercial operations (including business flying) where there was a slight increase.



AIR FREIGHT TERMINAL. An artist's conception of the giant new air freight terminal and office building, the first private enterprise project of its kind in Canada, which Timmins Aviation has under construction at Montreal's Dorval Airport.

Air Freight Terminal

Timmins Aviation (Terminals) Ltd. has announced plans for construction of a \$1-million air freight terminal at Montreal's Dorval Airport. To be known as the Canadian Aviation Building, it will also provide a top floor of modern offices, and is to be constructed directly adjacent to the present domestic air ter-

terminal. The Timmins project marks the first time that a venture of this sort has been undertaken by private enterprise in Canada. The structure is designed to the specifications of major airlines using the Montreal Airport, and seven international carriers, as well as the Canadian Customs Department, have already con-

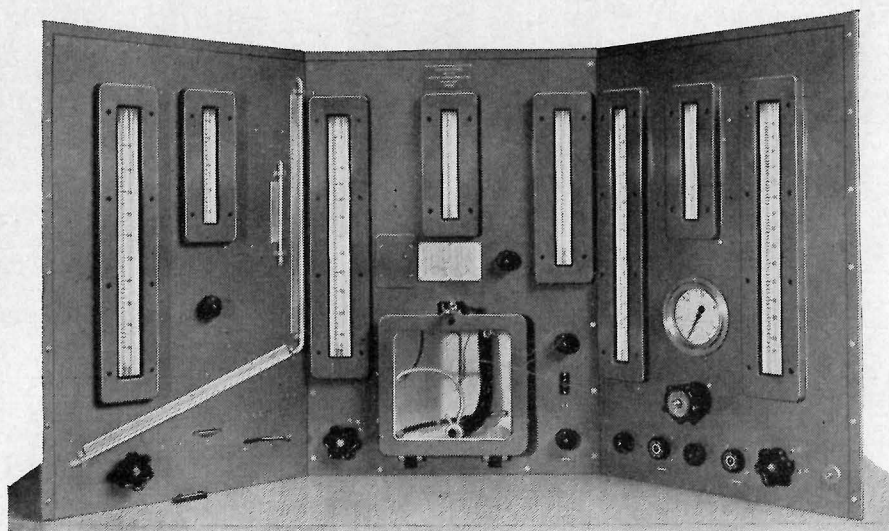
tracted for space. John A. Timmins, president of Timmins Aviation Ltd., says that plans for the structure have had to be revised four times since the original proposal for the combination facilities as a result of enthusiasm for the project by airlines and others associated with the industry. Construction contract has been awarded to Community Enterprises Ltd. It is expected that the building will be in operation by July, 1957. In addition to reserving for carriers which have contracted for space, Timmins has set aside 10,000 square feet in the new terminal to cater to requirements of transient air freighters.

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CF-105 Fire Control

A multi-million dollar contract for research and development of an integrated electronic weapon system for Avro of Canada's CF-105 has been let to Radio Corporation of America and Minneapolis-Honeywell Regulator Co. The contract for the "Astra" system was placed on behalf of the Canadian Government by Air Materiel Command of the USAF. RCA was given full responsibility for development of a complete system for fire control, navigation, communication and an integrated automatic flight control system. M-H will develop automatic flight controls. RCA will also develop the fire control radar system to meet the special requirements for the CF-105.

Main test stand for **Diluter Demand Oxygen Regulator**



1. Suitable for all Demand Regulators and sub-assemblies.
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Reserve Sabres

Toronto's two Royal Canadian Air Force Auxiliary Squadrons took delivery of F-86 Sabre Mk. V jet aircraft in the latter part of October. The six aircraft were ferried to Canada from the RCAF Air Division in Europe and were turned over to No. 400 City of Toronto and No. 411 County of York squadrons in a brief ceremony at Downsview Airport. Re-equipment of the Toronto reserve squadrons with the combat-proven Sabres is part of an over-all program to bring RCAF auxiliary squadrons up to modern standards in training and equipment.

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Steel Bomber

The XB-68, the Glenn L. Martin Co. high speed and altitude tactical bomber will be one of the first all-steel aircraft scheduled for possible operational use. The company recently won a Phase 2 Air Force contract for its design of the honeycomb construction which is expected to give better strength-to-weight ratios than similar aluminum construction, especially at high temperatures. Armco Steel Corp. will supply the stainless steel for the project. Practical temperature limitation for the material being used in the XB-68 is about 6,000F, which would permit sustained flight at Mach 3.1 at 50,000 ft. However other considerations are said to limit flight temperatures. Operational altitude is said to be close to 100,000 ft, with range from 2,000 to 3,000 miles.



EVALUATION TEAM. Temco's TT-1 primary jet trainer was put through its paces recently in Texas by a Royal Canadian Air Force team. Left to right are S/L Robert Hamilton and F/Lts. A. R. Bill Lehman, Roley Cardin and Reginald Litt.

Joint Certification

Canada and the United States are said to be working together for joint civil certification of the Vertol H-21 helicopter. The program calls for the two investigations to be carried out simultaneously. The implication is that the H-21 in its civil version will be manufactured in Canada as well as the United States. Vertol of Canada's plant is located at Arnprior, Ont.

Noorduyn Named

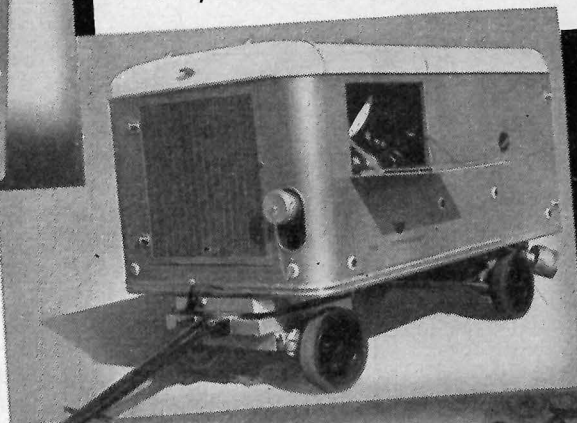
Appointment of Noorduyn Norseman Aircraft Ltd. of St. Laurent, Que., as sole Canadian sales agent has been announced by the Aircraft Division of Ledkote Products of New York, Inc.. The Quebec firm will handle sales and distribution of aircraft exhaust systems and airframe assemblies. Ledkote has sales representatives in the Far East, Australia, the Middle East and Europe.

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M.L. Automatic Tester. Simultaneously checks resistance/impedance, continuity, flash-over and insulation in any number of electric circuits.

Here's diversity in design — electrical testing, pressurisation, airborne releases.



M. L. PRESSAIR ground pressurisation unit. Tests cabin leakage.

M.L. Airborne Releases for all roles and loads — to wing, brake chutes, and anti-spin chutes, etc.



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RCAF SPEEDSTERS. Four members of No. 1 Overseas Ferry Unit from RCAF Station St. Hubert, Que., recently set up a record between Vancouver and Halifax during flights to test efficiency of rapid deployment of fighters. Left to right are F/O R. J. "Chick" Childerhose of Arcola, Sask., F/O. "Bernie" McComiskey, Granby, Que., Flt. Lt. Ralph Annis, McAdam, N.B., and F/O Bruce Merklinger, Oakville, Ont. Flt. Lt. Annis and F/O Childerhose made the hop in five hours, 30 seconds, with one refueling stop.

Canadian Source

A new company, Ward Leonard of Canada Ltd., wholly owned subsidiary of Ward Leonard Electric Co. of Mt. Vernon, N.Y., has acquired the assets of D. M. Fraser Ltd., which represented the parent company for a number of

years in Canada. Under the new arrangement, Ward Leonard products are now being manufactured in Canada. In addition to Ward Leonard electric control devices, the firm also distributes in Canada Statter oil & air circuit breakers, Kenco pumps, Esco Electro switches, Barkelew instruments and Saft batteries.

DH Mobilized

De Havilland Aircraft of Canada Ltd. is the first foreign firm to be included in mobilization production plans of the United States. DH and the USAF are to work out tentative wartime production schedules which could be put into effect swiftly in event of an emergency. There are indications that Canada and the U. S. will eventually take steps to bring suppliers in both countries into their particular government's mobilization production plans.

Aerotron Distributor

Glenn Aviation Radio & Instruments of St. Lambert, Que., has been appointed Canadian distributor for the Aerotron line of VHF radio products manufactured by Aeronautical Electronics Inc. of Raleigh, North Carolina. The line includes both airborne and ground transceivers.

Helicopter Schedule

Chicago Helicopter Airways was to start scheduled passenger service between Midway and O'Hare airports the first of this month with 16 daily flights between the two points. Fare will be \$5 for the 12-minute trip. The company took delivery of its three S-55 seven passenger 'copters late in September. As of Dec. 1 operations will be extended to include service to downtown Chicago.

Pneumatically controlled equipment...

TODAY, especially in supersonic aircraft, extremely high ambient temperatures preclude the use of much electrical equipment. For this reason, Teddington Aircraft Controls are producing a range of pneumatic equipment which is light, compact and reliable.

... **HOT AIR BUTTERFLY VALVES.** Solenoid controlled, deriving operating pressure from upstream side of valve. Operating conditions: Through air pressure 250 p.s.i.; Through air temperature 450°C; Ambient temperature 250°C, which can be exceeded if solenoid is remote from actuator. Valves can be set to 'fail safe' in event of electrical power failure. Size range 1½" to 4½" bore diameter.

... **CABIN TEMPERATURE CONTROLLERS.** Requiring no external power source, and capable of very compact assembly, the Teddington Pneumatic Cabin Temperature Controller will operate at temperatures as high as any which are at present foreseen in supersonic aircraft. Comprising basically a bi-metal sensing element as selector working a bellows-operated air controller, the circuit is capable of controlling cabin temperature within ±2½°C.

... **PRESSURE REGULATORS.** Because of the problems involved in using the engine compressor as a source of compressed air, it is normal to consider pressure control of the engine compressor tapping at the engine bleed port, and Teddington Pressure Regulators are suitable for installation at this point. They are fully automatic, relying on no other aircraft service for operation. With inlet pressure ranging from 65 to 250 p.s.i., one model controls the outlet at 60 ±2.5 p.s.i.



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