

THE AIRBORNE SERVICES

Trainer Hunt

The RCAF is still canvassing the field of jet primary trainers to find a successor to the piston-engine Harvard. Interest currently centres around two domestic designs (about which no details have been released) and four foreign types.

Leading the parade at the moment seems to be Britain's Hunting Percival Jet Provost, an Armstrong Siddeley Viper-powered re-design of the RAF's familiar piston-engine Provost. A demonstrator is expected in Canada this summer. An RCAF team has already gone to Britain to evaluate the type there.

Other types under consideration are the U.S. Cessna XT-37, the French Fouga Magister and the French Morane Fleuret. Design studies have been completed and submitted to the RCAF by de Havilland and one other manufacturer, probably Canadair Ltd.

The popular Jet Provost, which, if selected, would probably be built in this country under license, provides side-by-side seating, has tricycle undercarriage, provision for 50-gallon wingtip tanks, top speed (at 20,000 feet) of 281 knots and stalling speed of 66 knots.

To make a jet out of a fairly conventional trainer, Hunting Percival moved the cockpit far forward (greatly improving visibility) and balanced it by installing the 1,640-pounds-thrust Viper amidships. Air intakes are of the bifurcated, as opposed to the straight-through, type. The fuselage was lengthened more than three feet to accommodate the tail pipe. The Bristol tip tanks are of Fiberglas-reinforced plastic.

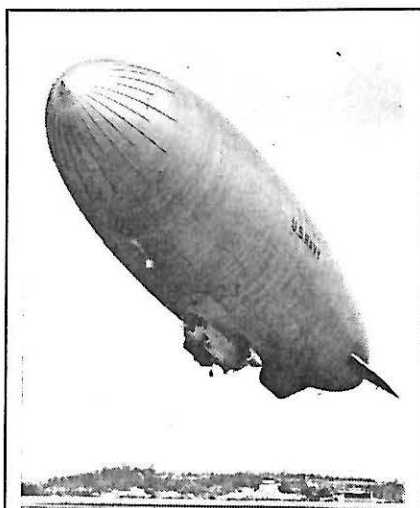
Cessna's XT-37 is powered by twin Continental J-69's of 900 pounds' thrust, claims a top speed in excess of 350 mph and has side-by-side seating.

The Fouga Magister and the Morane Fleuret are both powered by twin Turbomeca Marbore of 880 pounds' thrust. The Magister, which claims 455 mph, has tandem seating. The Fleuret has side-by-side seating.

Once the RCAF finds what it's looking for, pilot training will, it is ex-

pected, be conducted on jets throughout. A trainee will start on a light, relatively simple machine like the Jet Provost, advance to the T-33 Silver Star, then specialize on something harder to handle, the Sabre or the CF-100.

This arrangement, it is felt, will simplify many of the present problems of conversion. Pilots will not have to "unlearn" various piston-engine characteristics, such as the effects of propeller slipstream on the controls and on landing drag.



FAT BOY: The XZS2G-1, forerunner of a new series of airships for the USN's anti-submarine warfare service, was recently delivered by Goodyear Aircraft Corp. The new Goodyear airship is planned as a replacement for the type of blimps used so effectively on anti-sub patrols in World War II.

Dew or Die

The United States will pay the full cost (variously estimated at \$250,000,000 to \$700,000,000) of the Distant Early Warning radar line in the Canadian Arctic, External Affairs Minister Pearson has announced. Work on the project is being rushed to meet a two-year completion deadline.

A newly-completed U.S.-Canadian DEW Line agreement provides, among other things:

"The extent of Canadian participation in the initial operation and manning . . . shall be a matter for later decision by Canada after full consultation with the U.S. . . .

"It is understood that, in any event, Canada reserves the right, on reasonable notice, to take over the operation and manning of any or all of the installations . . .

"The U.S. is authorized to station personnel at the sites, and to operate the DEW system, in accordance with the principles of command in effect from time to time between the military authorities of the two countries. . .

"The DEW system shall be maintained in operation for a period of 10 years, or such shorter period as shall be agreed by both countries in the light of their mutual defense interests. . .

"Ownership of all removable property brought into Canada or purchased in Canada and placed on the sites, including readily demountable structures, shall remain in the U.S. . . ."

Flying activity at Mont Joli, Que., main eastern loading point for the DEW Line airlift, has reached a new peak, with Canadian carriers sharing the over-taxed facilities with a detachment of C-124 Globemasters of the U.S. Air Force.

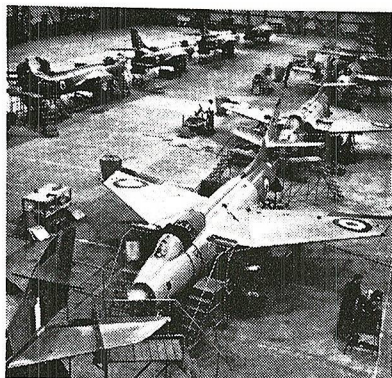
Indicative of the heavy haulage demands is the fact that one sub-contractor, Wheeler Airlines of St. Jovite, Que., planned by the end of May to have in operation 10 leased C-46 Commandos and three DC-4s.

"Big Kick"

A 70-foot ejection seat practise tower—the only one in Canada—has been placed in operation at the RCAF's advanced flying school at Portage la Prairie, Man. It is intended that all jet trainees make at least one trip to the top.

The device is of British design and was manufactured under license by Canadian Flight Equipment Ltd. of Cobourg and Campbellford, Ont. It is slanted at a 70-degree angle and, by means of a cartridge, fires a regulation ejection seat along rails for 55 feet at a velocity of 50 feet a second.

Passengers are subjected to 12 to 14 G's for the six-tenths of a second it takes to make the trip. Thus, since one G is equivalent to ordinary weight, a 200-pound man on a 14-G journey would weight 2,800 pounds. The seat is automatically stopped by an air brake and is lowered by a suspension tackle



IN SERVICE: Hawker Hunters are now in operational service with a number of RAF fighter squadrons and over 200 Mk. 1's (R-R Avon-powered) and Mk. 2's (AS Sapphire) have been delivered. Hunters are shown lined up at RAF Station Wattisham, Suffolk, while at left is part of the Hunter production line at the Hawker factory at Blackpool. The Hunter is armed with four 30 mm Aden cannon and has automatic ranging radar. This armament is said to have eight times more firepower than the equivalent number of 20 mm cannon.

incorporated in the structure.

The Portage tower's first customer was the station CO, Group Captain C. W. Burgess, who described the sensation as "the feeling that you've just received a kick in the pants." He said there was no apparent loss of faculties.

The trainee seats himself, places his feet in the foot troughs and secures the safety harness. On command from his instructor he pulls the firing curtain over his face, thereby triggering the cartridge.

Whambo!

More Squadrons

The RCAF announces the existence of two more CF-100 squadrons, Nos. 423 and 425, both based at St. Hubert, Que. (*Aircraft* last month published an RCAF acknowledgement of two other CF-100 units, No. 419 at North Bay and No. 428 at Uplands.)

No. 423 perpetuates a wartime coastal flying boat squadron that operated in the Atlantic and North Sea theatres. The wartime 425 was the famed Alouette Squadron that flew heavy bombers over North Africa and Western Europe.

Commanding 423 is Squadron Leader L. P. (Pat) Bing, DFC, 34, of Regina, who joined the RCAF in 1939 as an air gunner and flew two tours of operations. He is credited with sharing in the destruction of 13 enemy aircraft while on night operations in the Mediterranean theatre. He was commissioned in 1942, returned to Canada and won his pilot's wings in 1943.

He flew with a coastal squadron on the East Coast during 1943-44 and with a communication flight at Edmonton during 1945-46.

Commanding 425 Squadron is Wing Commander D. L. S. MacWilliam, AFC, 40, of Quebec City, who joined the RCAF in 1940, trained as a pilot and served in Canada as a flying instructor and on staff duties. Since 1945 he has served at AFHQ and in Command posts.

Comets Returning ★

The RCAF's two lovely orphans, the de Havilland Comet 1-A plushlined radar targets, are likely to be returned to service before many months. They were grounded at the time BOAC first began experiencing severe altitude prob-

lems, and have been kept in storage ever since.

Since the monumental investigations at Farnborough to discover the Comet's weaknesses, the Air Force has considered several courses: to ship the twins back to de Havillands at Hatfield for a major re-build, if possible, to ensure safe pressurized operation at ceiling; to return them to service, pressurized, with minor modifications, but with a stiff altitude restriction; to sell them commercially or back to the manufacturer; to dispense with pressurization and fly them the old-fashioned way—with oxygen masks. The plan now seems to favor the last course.

The Comets were, at last report, due for surgery at the de Havilland plant in Toronto. The nature of the surgery was not immediately disclosed.

When modifications have been completed, the aircraft will be returned to Air Transport Command to continue the task for which they were purchased, the simulation of high-speed, high-altitude bombers to exercise radar and interceptor units.

According to a recent return tabled in the House of Commons, incidentally, each of the RCAF's Comets cost \$1,544,000, excluding spares.

RAF Visit

Training establishments of the RCAF were visited last month by a team of nine officers, led by the Commandant, Air Commodore G. J. C. Paul, DFC, from the RAF Central Flying School, Little Rissington, Gloucestershire. The tour returned a visit last year to Little Rissington by RCAF and USAF officers.

Aircrew Statistics

The RCAF in 1954 was 15 short of its requirement of 900 candidates for aircrew training, according to a report tabled in the House of Commons. Some 5,570 applied for aircrew enlistment, but 312 were rejected on medical grounds, 80 for failing to meet educational requirements and 3,729 for that popular shortcoming, "other reasons." Commissions went to 409 new aircrew.

Aircrew discharges went to 151: 20 for physical disabilities, 78 for completion of terms of service, 53 for the aforementioned other reasons.