Stations Of The RCAF: Portage La Prairie

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(reference: The Roundel, Vol. 12, No. 2, December 1960)

At Portage la Prairie, approximately 200 years ago, fur-seeking *voyageurs* upped canoes from the Assiniboine River and portaged to Lake Manitoba to continue their northwestward journey. Today this place holds a similar significance for young flight cadets; as here they change from piston to jet aircraft and travel a giant step further towards their goal of becoming pilots in the RCAF.

During the Second World War, when Canada became known as "the aerodrome of democracy", the prairies were the scene of the most intensive flying training program in the world. In more recent years, although the numbers of aircraft and personnel involved are smaller, the prairies have been "the air training ground of NATO." (*THE ROUNDEL, June-July 1958.) Nowadays the students are almost all Canadians but, since many of them will subsequently be transferred to squadrons in No. 1 Air Division, the link between the prairies and NATO remains intact.

RCAF Station Portage la Prairie (or Southport, as it is known locally) is one of the wartime training bases which in 1952 were reactivated, after several years of dormancy, to handle the expanding NATO program. It is the home of No. 2 Advanced Flying School (No. 3 is at Gimli) which receives its students from the Flying Training Schools located at Penhold and Moose Jaw. Also at Portage is the jet portion of Flying Instructors' School.

As the young FTS graduate first enters the main gate he is confronted with the sign pictured above. "The Jet School" will have a profound influence on his life for the next six months. If the three words stimulate thoughts of life as a "rip-roaring, hot-rocket jet-jockey" then he can expect a sad disillusionment. He will soon learn, as have thousands of students before him, that the RCAF, (although it requires young men of spirit to fly its jets) puts a high premium on the important virtues of self-discipline, team spirit, and a studious attitude towards one's chosen profession.

GROUND TRAINING FIRST

The student will spend his first week of training with No. 2 Field Technical Training Unit. There he will be introduced to the complexities of the T-33 *Silver-Star* aircraft; to such items as the Rolls-Royce Nene jet engine; the hydraulic system which powers the undercarriage, power assisted controls and speed brakes; the electrical system with its numerous circuit breakers; the fuel system and its various float valves; and the multitude of ancillaries which are required in a modern jet aircraft.

The operation of these systems is demonstrated by working models which show exactly how every component works and, though he is not expected to become as proficient as the tradesmen who are also trained by the FTTU, he will have gained a thorough and essential knowledge about the innards of the T-33.

The next four weeks of his course are spent in Ground Instructional School where his instruction is split into two phases, academic and officer training. In the academic phase he will receive an advanced course on subjects which he studied at FTS. These include high speed aerodynamics, flight procedures, meteorology, radio aids, and high speed navigation. New subjects include T-33 handling, which teaches him the flying characteristics of the aircraft and how to deal with any emergency which might arise. This entails sitting in a cockpit cut from a T-33 and memorizing the position of every

instrument and switch so that he can execute his emergency drills blindfolded. Indeed, he must pass a test which requires him to do just that before he can go solo.

Another new subject is aviation medicine. Here he is made aware of the close liaison between doctors and pilots necessitated by the medical problems involved in flying high-speed, high-altitude aircraft. He will learn, for example, that without oxygen he would remain "usefully conscious" for only nine seconds at 30,000 feet; that without the protection of a pressurized cabin he would suffer from the "bends" in the same way as a deep sea diver who surfaces too rapidly. He is introduced to such terms as "anoxia" (partial oxygen lack), "hyperventilation" (a deficiency of carbon dioxide caused by rapid deep breathing) — either one, or a combination of which, can cause unconsciousness and death. He is taught their potential danger during a run in a decompression chamber, which is a large tank from which air can be evacuated to simulate high altitudes. There he can sample for himself the insidious onset of anoxia under the supervision of an Aero-Medical Training Officer and learn the corrective measures to rectify such an occurrence in the air.

EJECTION TRAINER

One of the more spectacular parts of his training is a ride on the seat-ejection trainer, the only one of its kind in Canada. The trainer closely simulates the sensations which a pilot would experience upon ejecting from a T-33. The student is strapped into the same type of seat he will use in the aircraft. The seat is equipped with a propellant charge roughly equivalent to a 37-mm. shell which, when fired, accelerates seat and student from a stationary position to a speed of 40 miles per hour over a distance of only 42 inches. The sensation is rather one of "now you're there, now you're not" as the student finds himself 35 feet up the tower a split second after squeezing the trigger.

The officer training part of his course is a continuation of the training which he has received throughout his service career to date. It covers such items as world affairs, effective speaking, air force law, drill, and physical fitness. He learns it is not enough merely to fly, in order to be granted a commission in the RCAF.

During these first few weeks in ground school, one overall impression emerges. There is no air of urgency or emergency at Portage. Rather, there is an atmosphere of confidence in the ability of the instructors and the ground-crew to do the job at hand, and do it well. The whole station has a feeling of quiet pride in its accomplishments, and the student knows that he has a high example to follow.

FLYING AT LAST

At the beginning of the sixth week the course is split into two sections, each half spending alternate mornings and afternoons in flights and ground-school until the final exams are written in the ninth week, after which both halves attend flights full time.

There are three training flights and one standards flight on the unit. Each of the training flights has its own course at a particular stage of proficiency depending on seniority. As one course graduates, a new group arrives a few days later to renew the cycle. Standards flight, as its name implies, ensures that both staff and students maintain a high level of proficiency.

It is during the sixth week, when the student is beginning to wonder if he will ever finish ground school and get his hands on a T-33, that the long awaited moment finally arrives: his first jet flight.

Regardless of how thoroughly his instructor has briefed him on the points to note during the flight, he will retain practically no impression except that of extreme speed. The "T-Bird" is as fast on the landing approach as his previous aircraft, the *Harvard,* is at cruising speed; and it climbs to 30,000 feet in the time that it takes the *Harvard* to make less than a third of that. This first trip is a most important one. The instructor spends most of it "selling" the "T-Bird" to the student, so that he will like the aircraft and desire to fly it well. Usually it's a case of love at first sight.

It doesn't take the student long to catch up with the aircraft during the next few trips as he practises stalls, spins, forced landings and "circuits and bumps" under the guidance of his instructor. Once he has soloed and proved that he can cope with the basic problem of taking off and landing, he progresses to more advanced work such as aerobatics, instrument, formation and night flying.

INSTRUMENT FLYING

The instrument flying phase is divided between flying "under the hood" in the rear seat of the T-33, and flying the instrument trainer. This is a much more sophisticated affair than the machine which trained so many wartime pilots. The C11 Link Instrument Procedures Trainer contains a maze of wiring and electronic equipment, an instrument-filled cockpit, and an instructor's console. The instructors, as well as the other ground school staff, are all qualified jet instructors. The C11 costs about $65,000 and provides instrument training for roughly one tenth the cost of equivalent training in a T-33. The syllabus is designed so that the student may practise new procedures on the ground, before attempting them in the air.

The culmination of these hours spent "chasing the dials around the instrument panel" is the award of a jet instrument rating, certifying that the holder is proficient to fly down to specified limits in bad weather. Formation and night flying exercises round out the syllabus. At various stages of his training, the student receives progress checks and final tests on the different phases of the flying course. Should he pass them all successfully, he will graduate with about 125 jet hours, receive his wings, and be commissioned as a Flying Officer.

In addition to its basic function of training pilots, AFS provides jet familiarization for student navigators from No. 2 AOS Winnipeg, at a special flight provided for the purpose. It has been found that jet indoctrination, given at a fairly early stage of navigator training, provides a means by which students who are found to be unsuitable for jet flying can be re-routed to some other navigation field. It also gives the suitable students a fore-taste of the type of problems they will encounter navigating within the cramped confines of a jet cockpit.

JET INSTRUCTORS

Another important unit based at Portage is the jet flight of Flying Instructors' School, the piston half of which is located at Moose Jaw. As the name implies, FIS is concerned with the production of flying instructors. The FIS staff members are wise to a thousand tricks of the trade and know the most effective ways to train pilots.

The pupils at FIS are also experienced pilots, most of whom have just finished a tour with a Sabre or CF-100 squadron. Prior to arriving at FIS they attend a course at the School of Instructional Technique at Trenton where they are taught to master "stage fright" and learn sound lecturing techniques.

On arrival at FIS the student instructors are given a refresher course in FTTU and ground school before going to the flight-line. In addition to flying the "T-Bird", the budding instructor must maintain a running commentary on the various manoeuvres and learn how to analyse and correct student faults. A great deal of emphasis is also put on pre and post-flight briefings, for these are equally as important as the airwork.

The course lasts 12 weeks, after which graduates are awarded a "C" instructional category and transferred to one of the two AFS's where, as they gain experience and ability, they can progress through "B" and "A2" categories to the coveted "Al" top instructor's rating.

COMMUNITY EFFORT

The flying carried out at Portage requires the co-operative effort of roughly 13 men for every aircraft on the station: the flight-line, maintenance and repair crews who keep the aircraft serviceable; the construction engineering people who maintain the runways; the vehicle and marine men who, after a December blizzard, keep them clear (a job equivalent to ploughing 250 miles of two-lane highway); the flying control personnel who, on a busy day, can have as many as 1,100 take-offs and landings to control; the fire hall crews, the medical and dental personnel, mess staffs and many others; all of whom could justify an article devoted to their activities. It must suffice to say that these personnel are fully appreciated by the aircrew they support.

Space does not permit adequate coverage here of the social and recreational aspects of life at Portage. Station teams are successful competitors in many sports, including volleyball (Air Force champions '59), badminton (14 Group champions '59), and golf (14 Group champions '58). In addition to the sporting side, the station boasts a first-rate band and an active drama club. Other important facets of community life are the station newspaper "Jet Air", the town council of the "married patch", and the women's auxiliary.

From the foregoing, it will be apparent that off-duty life doesn't differ greatly from life in a civilian community of comparable size. The vital difference is that though it is thousands of miles away from the "world's trouble spots", the community as a whole is proud of its contribution to keep Canada and the free world secure.