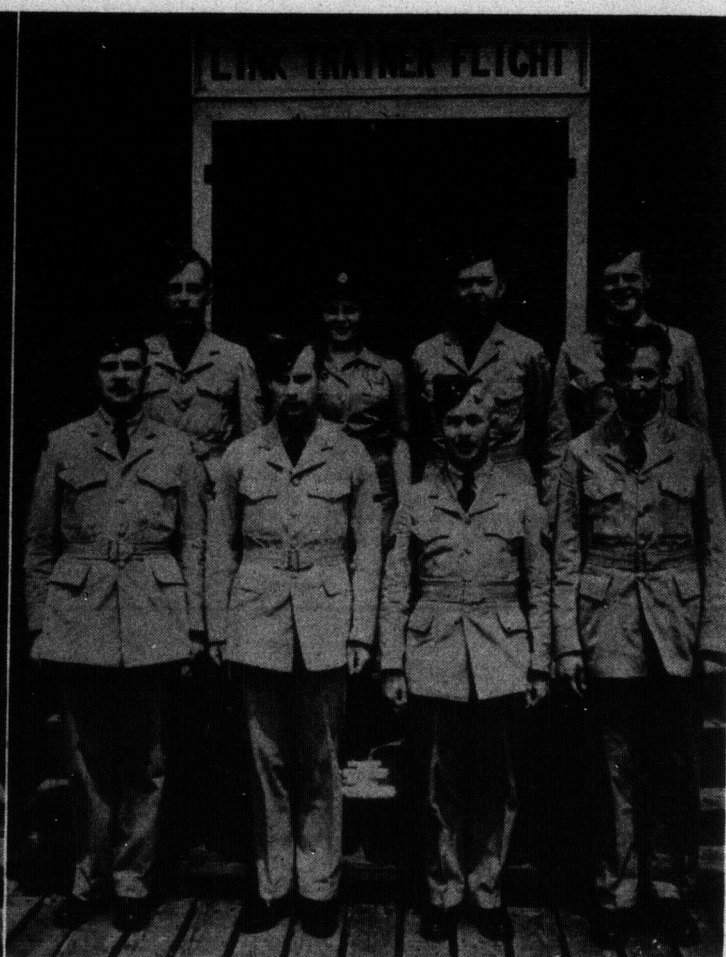


FRONT ROW—F/O DeGrace, F/L J. P. Cross, F/O Bray, F/O Scrivener.  
MIDDLE ROW—F/O Nugent, F/O Lang, F/O Hough, F/O Alton.  
TOP ROW—Sgt. Williams, Sgt. Pauli, Sgt. Thomas.



FRONT ROW—ACI Gibson, LAC Drury, Cpl. Baker, LAC Richie.  
TOP ROW—LAC Lillow, AW1 Moore, LAC Sickie, LAC Moyer.

## LINK TRAINER FLIGHT

Students Develop Accuracy and Precision in Instrument Flying

Accuracy and precision are the keynote of Instrument Flying today. In the Link Trainer the student, under the careful guidance of an instructor, develops those qualities.

Seeing the Link Trainer Building here at No. 1 S.F.T.S., with its new extension rapidly being finished, one is given to wondering how it all started.

At the outbreak of the war there was one Link Trainer situated in what is now the Airmen's canteen. In the spring of 1940, Link's new home, A-86, was built. Soon there were four trainers and a staff of five commissioned instructors and six maintenance men of other ranks. The students got ten hours of instruction, but a greater appreciation of the value of Link was growing. Soon "Link Time" was stepped up to fifteen hours and again to twenty hours.

This increase in pupil-hours called for an increase in the number of instructors and machines and so our ranks began to grow.

F/Lt. Cross' instructional staff originally consisted of F/O Bray, our present S.F.O., and F/O Lang, our baseball team's coach. Both had served as fighter pilots with the R.F.C. and R.A.F. in the last war.

F/O Hough, pilot under training when the last war ceased, and F/O Nugent, who served with the R.F.C. in Texas, joined

them. Among the repair men was one A. C. Baker, who was to become head of the maintenance staff.

Still Link grew—F/O Alton and F/O Scrivener, both reconnaissance pilots in World War No. 1, came to Borden's Link Section. It is interesting to note that F/O Alton came from India to re-enlist in the service.

The number of trainers had reached the total of five, and then six. As the expansion continued, we were joined by our youngest commissioned instructor, F/O Martin, who before enlisting taught high school at Dundas, Ont., and later by F/O DeGrace, to whom Borden was not new; only changed. He was trained as a pilot here in June, 1918.

When the number of trainers was increased to eight, Sgts. Thomas and Pauli were among the Instructional Staff. Sgt. Pauli was with the 112th Squadron overseas during the Battle of Britain and Sgt. Thomas is a graduate of No. 5 A.O.S.

Latest addition to our instructional ranks is Sgt. Williams, one-time American civilian pilot, with 1000 flying hours to his credit.

Students are now receiving a total of 25 hours instruction. The last five of these are given in A.T.U.—under the direction of F/O Hough.

## Flight Lieutenant JOHN PARKIN CROSS

Officer Commanding Link Trainer Section

Born in 1899 in England. He was educated at St. Austell County School and London University. Joined the Royal Flying Corps as Cadet in 1916, served in England, France and Belgium in RFC and R.A.F. as Lieutenant (Pilot).

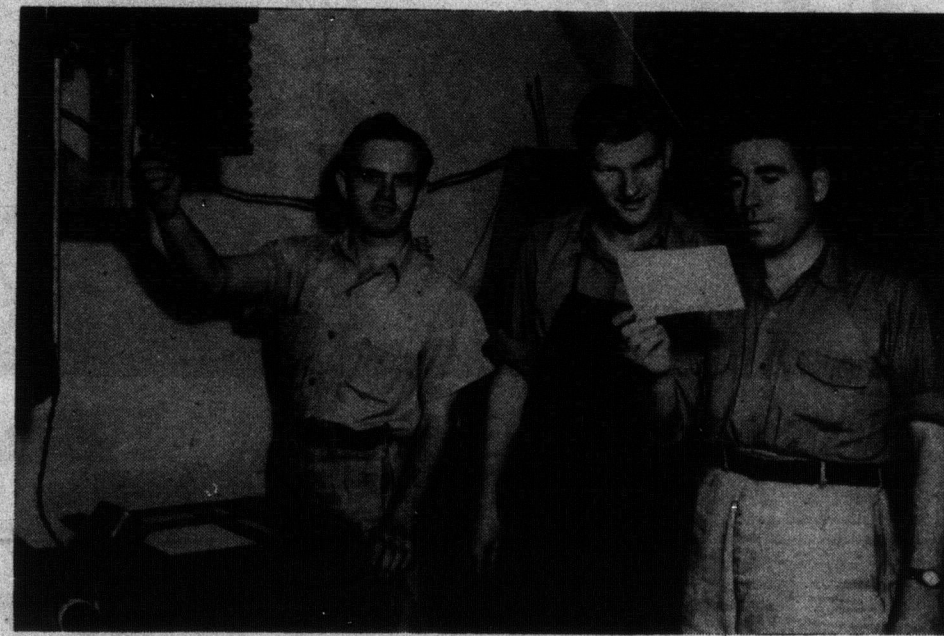
On coming to Canada he was employed on the technical staff of American Cyanamid Co. for 18 years at Niagara Falls, Ont. On the R.C.A.F. Reserve, he was called back to Active Service in April 1940. Was at first employed as Administrative officer at RCAF Headquarters, Ottawa, and afterwards at Trenton. Took a course in Link Trainer and after graduating was posted to No. 1 S.F.T.S., Camp Borden.

The section also boasts of a W.D. clerk, AW Moore.

The maintenance staff, consisting of seven electricians specially trained in this technical work at T.T.S., St. Thomas, working two shifts, keep the Trainers and radios in perfect operating condition at all times. They are under the able supervision of Corporal Baker.

As this goes to press we are expecting another Sergeant Instructor. We welcome him to the bigger and better Link Section at Camp Borden.

## OUR PHOTOGRAPHERS



How do you like the pictures in Wings Over Borden? The credit goes to our smart photographic section. Here they are—Cpl. Donahue, LAC Glunz, Cpl. Thompson.

## ARMAMENT SECTION

Fundamental Knowledge of Aircraft Armament Necessary to Successful Combat

A fighter pilot engaged in combat must not only be able to fly well, but must have developed to a high degree the ability to aim and shoot accurately in split second intervals. A fundamental knowledge of the armament carried on aircraft, along with many arduous hours spent in perfecting himself in the most effective use of this armament, is necessary if the pilot is to be successful in combat.

The Armament Syllabus which is laid down for Service Flying Training Schools is intended to teach the student pilot the underlying principles of armament. Throughout the remainder of his career as a fighter pilot these basic principles, properly developed, will be an invaluable asset to assuring victory in combat.

It requires a great deal of patient study and determination on the part of the aircrew student to complete successfully the Armament Course. "The Theory of Air Sighting" is usually the first subject taught. This part of the course covers the basic principles of sighting in the air and must be learned thoroughly on the ground and put into practice at the Advance Training Units until eventually air sighting becomes instinctive.

"The Theory of Air Sighting" is followed normally by "Harmonization," which is the procedure adopted by the R.C.A.F. from the R.A.F. for mounting guns in an aircraft in relation to the line of sight, so that they will shoot to the point aimed at. A pilot must be able to check accurately the harmonization of his aircraft before taking off to engage in combat.

Next comes the offensive armament mounted on the fighter aircraft, i.e., guns. The Browning rifle calibre machine gun and the Hispano 20mm. gun are the types most commonly used and therefore the ones studied most intensely. Ask any hard working aircrew student the number of hours he has spent learning the names of parts and intricate mechanisms of these guns. You will be amazed at the long and mournful reply received.

The remainder of the armament training is studied under the following headings: "Firing Control Mechanisms," "Camera Gun W 7," "Pyrotechnics," "Stop Butt Test," and "Aircraft Recognition." The most important of these is Aircraft Recognition. Many hours are spent by the student learning to identify "own" and "enemy" aircraft. The students are encouraged to compile scrap books and to read articles of interest on Allied and Axis Aircraft. The importance of having a thorough knowledge of this subject cannot be over emphasized. Every month friendly aircraft are shot down due to mistaken identity.

The knowledge gained in Armament at an S.F.T.S. by a student pilot will stand him in good stead in future combat flying.

The armament instructional staff is ably led by the station armament officer, F/Lt. McGillivray, G.B. Mr. McGillivray was born at Pense, Saskatchewan, on June 25, 1910. He received his education at Regina, finally finishing at McGill, when he received the degree of Bachelor of Commerce. Before the war he was connected with the Consolidated Mining and Smelting Company at Kimberley and Trail, B.C. He was also a real estate manager in Regina.

F/Lt. McGillivray is interested in all sports. He played senior football and hockey at McGill and in 1932 he was captain of the hockey team. For one brief winter he barnstormed Europe in the interests of Canadian hockey. Before coming to No. 1 S.F.T.S., Mr. McGillivray gained armament experience at other S.F.T.S.'s and B. and G. schools.

The remainder of the Armament instructional staff is composed of WO1 Smith, H. B.; F/Sgt. Hinett, F. G.; Sgt. Cruikshank, J., and Sgt. Blatt, D. G.

WO1 Smith was born in Edmonton, Alberta, and attended the Eastwood High School in that city. Before entering the service in 1937 he was working for an outdoor advertising firm in Edmonton. Most of his practical armament experience was gained on the West Coast and at various

other R.C.A.F. stations too numerous to mention. Interests, sports, especially golf. Married; no children.

F/Sgt. Hinett, F. G., was born in Sydney, N.S. Educated at Sydney Academy, Nova Scotia Normal College, Gordon College (B.A. degree) and Acadia University, where a year of P.G. work ended with enlistment in the R.C.A.F. Earned a living by teaching before enlistment and continues to do the same. Married; one daughter.

Sgt. Cruikshank, "Jim," was born in Glasgow, Scotland, and is known as a dour Scot. Educated at Lachine High School and was attending McGill University. Interests: sports—track and basketball (known as "Beat the Gun Jim"). Jim is a recent arrival on the station. He was formerly instructing armament at No. 3 E.F.T.S. Contemplating marriage.

Sgt. Blatt is from Kenora, Ont. He completed his High School education at Winnipeg. His chief interests are Machine Shop work and building Armament Instructional equipment. A new arrival on the station, our gain is No. 7 E.F.T.S.'s loss. Married.

## C FLIGHT TIDBITS

F/O LOWE—"Gee, these floors look bare. Hey—There's the ash tray on the table. Use the d— thing."

P/O WRIGHT—"I'm telling ya, lads, ya can't trust the brakes on these A/C." In addition to being able to spot a rock pile from 3000', Jim is now an authority on three point landings. I.E. undercarriage and prop.

WO2 HELD—"You're nuts; I'm a married man. Ask any of the fellows—I never go anywhere."

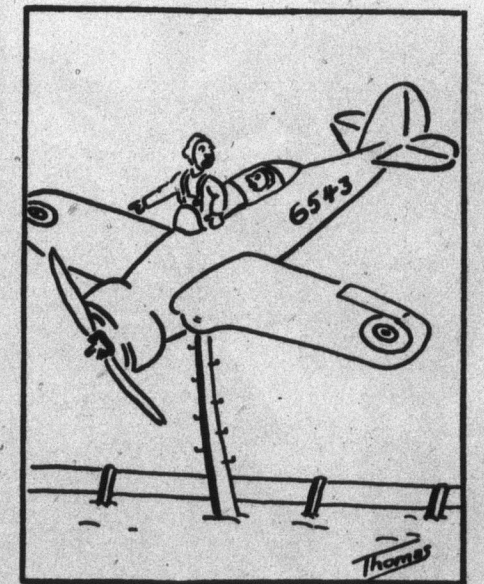
P/O GARRETT—"Me for the Ferry Command. Fly when you want, and where you want. You get kind of stale flying these pursuit ships all the time."

P/O EDINGER—"Who's got some nickels—the rent is due."

F/O ADLAM—Walking in at 8 a.m. with tooth picked eyelids, saying: "Let's go home now. I and my bed have parted only temporarily." (The motion has been passed that Adam's trombone be buried at the end of No. three runway.)

P/O SHIPLEY—"Say, Addie, this Toronto nite life is rather fast—I'm going back home for two weeks."

F/O FUNKHOUSER—"Who wants to be an instructor? That guy looks at his airspeed about as often as he checks the gas."



And now it's a Link Trainer!