A.W. (Bill) Baker

THE LIFE AND TIMES OF BILL BAKER

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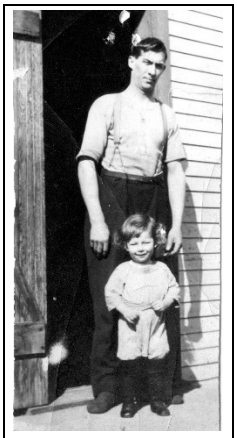
FOREWORD

This taping (and subsequent printing) will be an attempt at recording some events and experiences of my life on earth, so that our children will have some idea of who their Father was, and what, if anything, he accomplished. It will be done from memory with some help from log books and passports for dates. It will therefore be only as accurate as my memory allows. Time is a great modifier of memory and pride will ensure only the best side of any experience, so forgive the errors or omissions. They were not planned.

1

THE EARLY YEARS

My first memories are of music, vivid to this day.
We lived in a small four-room house on Duffield St. in Moose Jaw. My Father had returned from France after World War 1, in 1919, collected my Mother and myself in Montreal, where I had been born and took us to Moose Jaw, on the Prairies, where he acquired a small home and started work again for the Canadian Pacific Railway.



Dad and I at our first home in 1920

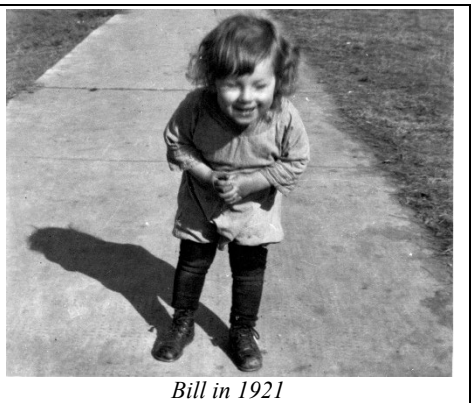
The Christmas of 1922, Dad bought Mother a gramophone (a wind-up machine), and he started playing it Christmas morning. I woke to the sounds of Tanhauser. This is the first music I recall ever hearing and that tune has remained forever with me. My Mother had a great singing voice and she often sang while doing her housework. In later years, I recall her singing at various gatherings and club meetings. She was in some demand.

In 1924 Dad bought an office building from a brewery and had it moved to a lot on Coteau St. where he put it on a foundation and added a glassed-in veranda on the south face. In later years, we added a room at the back. Then, as the family increased, we raised a new roof and made a large bedroom on the second floor for the boys.

I went to Empire public school, a couple of blocks along Coteau St., from kindergarten through grade 8, doing reasonably well with no great effort. My two pals throughout public school were Jack Gardner and Mickey Bedford. We three were usually at the top of the class (the order changing regularly). I wasn't too active in sports other than swimming and football (the

swimming done at the Y.M.C.A. in winter and in Moose Jaw Creek in summer). I became a good distance swimmer and won prizes or awards most years.

In 1925, Dad bought us a piano and Mother started me taking weekly piano lessons which continued until l was about 14 or 15 years old (when I quit). I have never played the piano since (to the great sorrow of Mum and Dad). My sisters, Florine and Bertha, also took up the piano and carried on for many years and neither play to this date. Della, the last in the family, never took any lessons, but played the church organ for many years.



Bill in 1921

When I was about 7 years old, I joined the choir at St. Michael's Anglican Church as a boy soprano, singing for hire at ten cents a service until my voice broke. I often sang solos at Church in the Anthems and participated in a number of musical festivals in Saskatoon Regina, and Moose Jaw. When my voice changed, I was so upset I never sang publicly again.

When I was around ten years old, I collected scrap lumber from around the neighbourhood and built a fairly reasonable shed in our backyard to raise homing pigeons. I can't recall where I got the first few birds, but soon had a nice flock, of which I was very proud. I used to go down to the C.P.R. yards and sweep out grain cars for wheat and other grains to feed my birds. During the second year, all my birds were stolen one night and probably were featured food in the Chinese restaurants in town for the next few days. The thieves left two eggs which were due to hatch in a few days. I took them into the house where they hatched. Dad was upset but helped with care and feeding. We used an eye-dropper supplying milk and porridge made from grains to the baby birds. Both birds survived and we called them Pip and Squeak. They flew all over the house and they were surprisingly clean. Their droppings were on newspaper on the veranda where they roosted. Pip was drowned later when he flew into the rain-water cistern in the basement. Squeak moved out to the coop outside and became a member of a new flock raised over the next year. Once I had about twenty birds again, I heard my coop was to be raided again, so Lloyd Peterson and I, armed with baseball

bats, hid out in the dark, by the coop. We had waited for an hour or so, when two guys carrying grain sacks arrived and Lloyd and I leaped out of the dark, swinging our bats, and really walloping them. They were scared out of their wits and ran off but not before they took terrible punishment. Apparently, they were two men trying to make a few bucks selling the birds to the Chinese. My coop was never bothered again.

At about the same time I got into the pigeon business, I started to spend time across the street at Doctor Sam Merkleys' place. He had a large beautifully kept property, and lovely gardens and trees, a large root cellar and barn. He had about twenty hives of bees and Lloyd Peterson and I helped him collecting the honey. "Doc" gave us large jars of honey for our labour and Mother never bought honey for the next ten years. "Doc" Merkley was a dentist, with his office in his home. He also had set up the first radio station in Southern Saskatchewan, 10AB and broadcast from his home. One of his programmes featured singing canaries. He captured wild canaries in his trees around the house and placed them in with German Roller canaries in a large aviary built on the back of his home. His screened kitchen windows opened into the aviary. When broadcasting, he put on quiet organ music on his gramophone and put a microphone for his radio with the canaries. They sang their hearts out with the organ as background. "Doc" would carry on with his patients, pulling teeth etc. while the canaries sang to anyone with a radio tuned in. "Doc" sold his station, 10AB, and it became CHAB, one of the oldest in Canada.

"Doc" was very interested in animal husbandry and had ideas on predetermination of sex of offspring by use of foods such as acids and alkalis. To put this to the test, he raised hundreds of white rats in the root cellar, all carefully sorted for feeding programmes to determine offspring and sex. He claimed his ideas were valid and proven but he ended up with so many white rats that he got a new idea to raise ferrets, to kill rats around the country, in garbage dumps etc. This worked out very well. We often watched
the fun at the Moose Jaw dump when "Doc" let loose his ferrets and the rats really "left town". Those that didn't leave town were killed. Those ferrets were murderous and killed like lightening. The city was not interested in paying for this service, however, so "Doc" got rid of the ferrets. Lloyd Peterson and I participated in all these activities and enjoyed every minute of it.

There is one final story of my activities with "Doc" Merkley. In 1930 he persuaded the Saskatchewan government to underwrite a pheasant raising programme which he would develop. Apparently, the Chinese Ring-neck Pheasants were not indigenous to Western Canada, and "Doc" felt they would do very well, so he arranged a source of fertile pheasant eggs in the U.S.A. and arranged a contract with the government to raise and release birds at eight weeks old, for the sum of seventy-five cents per bird. This programme required the building of holding pens for chicks, getting broody hens to sit on the eggs in the root cellar, finding and setting up of incubators for additional eggs, planning and arranging feeding programmes, and setting up heating systems for the pens. Lloyd Peterson and I were busy from morning to night every spare moment over the next two years from Spring to Fall with the project. Our main task was feeding the birds. They were fed ground up hard boiled eggs with crackers mixed in. We boiled thousands and thousands of chicken eggs, then ground them in a mangle with crackers and fed this to the chicks throughout the pens. We also stood guard because the pheasants were inclined to be cannibalistic. If one pecked another and got a speck of blood, within seconds, all the other birds would be in the melee picking and finally eating the injured bird and, of course, in the melee, others were injured, and it propagated. When this happened, Lloyd and I would have to dash into the pens and pull the birds out to prevent further losses. We again got paid in honey and any crippled pheasants (raised to eight weeks old, then eaten). We ate pheasant for Sunday dinner for two full summers. During the programme, in the two years it operated, we raised and released seventy-five thousand birds. Five years later, the Saskatchewan government had an open hunting season for cock-pheasants. This was one of "Doc" Merkleys' most successful projects and to this day, pheasants are one of the most popular birds in the southern prairies. They thrived in their new home.

Bill and Lloyd Peterson starting out on an overnight hike

In 1929, Harry Crone, an Englishman from Whitley Bay, on the northeast coast of England, arrived in Moose Jaw. He had been a Sea Scout in England and decided Moose Jaw should have a Sea Scout troop. The Boy Scout movement was very strong in Moose Jaw, probably because of its' British heritage. We had nine active troops. Harry started up the tenth Sea Scout troop 2,000 miles from the sea and I joined up with many of my South Hill pals. The first year, meetings were held away over in the northeast side of town, which meant a walk of two and a half miles each way on a winter evening for us living on South Hill. The next year the troop moved to King Edward School on South Hill, the area where so many of us were from. The troop was a success from the start. Harry was a magnificent Scout leader who inspired us all. I can say now that any lad who spent time in Harrys' Sea Scout troop, turned out well in later life, and was a credit to the Scouting movement. Our parents were caught up with Harrys' enthusiasm and joined in actively promoting the troop - raising money and anything else to ensure its' success. I progressed through the Scouting system - first a patrol leader, then to troop leader and became the first Scout, in Saskatchewan, to achieve Kings' Scout with gold cord rank. Harry acquired a ten-oared whaler from somewhere and during the summer, we held our meetings aboard the whaler, rowing on the Moose Jaw creek. Also, in the summer camps at Long Lake, Harry got hold of some sailing dinghies for us to learn how to sail. Harry also got us working on the St. John Ambulance programmes with a view to going into competition. The first year we competed in national championships, we won the Junior championship, the Leonard Trophy. Our team was Glenn Turner, George Campbell, George Gillan and myself, as captain. Ted West and

Bill and Lloyd in Sea Scout uniforms

Sea Scout First Aid Champions

Lloyd Peterson were our patients. The next year, we competed in the Junior and Intermediate categories, won the Junior and were second in the Intermediate. The third year, we competed in the Seniors against Mine teams, Police teams, etc. from across Canada. We were still Juniors but were seventh in Canada.

When I got involved with aeroplanes, I gave up Scouting, but I must say that it was a great period in my life. The challenge to be the best you can be established a work ethic that has remained with me since. I and many other lads can look back and thank our lucky stars for the arrival of Harry Krone at Moose Jaw, with strong British sense of honour, pride and enthusiasm. He contributed a great deal to many and was so humble and self-effacing about himself. To me, he was a great man and one to look up to.

During all the period that I spent working at "Doc" Merkleys', I had also expanded my own animal and bird facilities. I had chickens, which produced eggs and meat for the family, also some Mallard ducks I had acquired from somewhere, (they also produced meat), and rabbits, and of course, still kept the pigeons. I'd also built a new pen at the side of the house for ten pheasants which did well until a neighbours' cat somehow got into the pen. The pheasants went mad and flew through the wire pen and all killed themselves. When I came home and found what had happened, the cat was still in the pen and ran into a small shed in the pen where I couldn't get at it very easily. I found a way by lying down and stretching my arm into the shed, and I could tap the cat with a hammer. I did this until it died. I couldn't get a swing at it to kill it quickly, so it had to die a slow way. I've never liked cats since.

After grade eight, at Empire School, I went to the new technical school on the north side of town. It opened for first classes that year. My courses included mechanical drafting and electrical engineering along with the usual high school subjects. Again, with little effort, I got reasonable marks. I remember one case where I ended grade nine with 100% in drafting - the only one in 90 students.

The summer I left public school, Ted West, George Campbell and I set up a camp on the Moose Jaw Creek down the steep hill one block back of the Campbell's' home. We had a good tent on a platform, made a fireplace, a diving board etc. and spent the next three summers and well into the Fall each year sleeping out each night and racing home for breakfast before walking to school one and a half miles away. I came home for lunch each day, as we had one and a half hours lunch break, so certainly got lots of exercise. We, of course, swam each morning and again before bed at the camp. By October,

the water was damn cold. We always had a competition to see who would be last in, for the season, but always, we gave up together, and packed the camp up for the winter. With all this swimming I became quite good at it without any coaching to this time.

In Winter, and particularly before much snow came, we could skate for miles around the creek from the centre of Moose Jaw, at the Aquatic Club, through all the twists and turns to the dam at Kingsway Park. When heavier snows came, we all kept the ice cleared for a constantly played hockey game. Being the oldest of the seven children, who arrived over about a twenty-year period, and with a Father on the railroad, away from home much of the time, I learned responsibility at a very early age. Winters were hardest because it was my job to keep the big furnace going by feeding it lumps of Drumheller hard coal and digging out mounds of ashes. The furnace fire had to keep going during a Prairie winter or we would have been in deep trouble. In time, Dad taught me how to bank the fire so that it would last a night, and all this by the time I was six or seven years old.

With the large and growing family, we had a constant problem with sickness. In those days, they posted a quarantine sign on the front of the house for all diseases such as measles, mumps, chicken pox etc. We had them all - usually running through the family one at a time - so much so that where the quarantine sign was placed, our house did not fade the same as the rest and we could see the results for years to come. I guess the worst session came about when I got diphtheria, the day Mother came home from the hospital with baby Barry. Nurse Cooper came to live in to help Mother with all her new children. She was a marvellous woman. British to the core. When I got diphtheria, the house was sealed off. Dad had to leave and stay away at the C.P.R. bunkhouse where he could keep on working. No-one could come in or out of the house for the next two months. I was sealed in the back bedroom, and when I finally got better, all bedding, clothes etc. were burned. I remember little of the worst period of my illness (about two weeks long), but I do remember how painful the whole process was and how dedicated Nurse Cooper was in making me better.

When I was 11 years old, I remember coming home from Empire School for lunch with a pain in my stomach. I reached up to open the front door, and felt such a sharp pain, that I fell into the house with a scream. I woke up two weeks later in the Providence hospital. Apparently, my appendix had ruptured, and Dr. Leask and Dr. Burwell had quite a time pulling me through. This was before antibiotics. I required constant nursing attendance, 24-hours a day, the costs being paid by Dad for many years to

come. I also got what they called "ether pneumonia" and Dad was told I wouldn't survive. To everybody's' surprise, I did but I was in hospital 31 days.

One other significant activity of my youth must be recorded. During one of Mothers' hospital stays, her next bed patient was a Mrs. Agnes Hollman, who'd just had her new son, George. She then lived on a rented farm in the Pittman, Saskatchewan area, about sixty miles from Moose Jaw. Of course, Mother made friends and arranged that we would all drive down to Pittman to see her. Dad had just bought his first car, a used McLaughlin Buick D-17 touring car, a monster made in 1917 and this was 1928. Dad planned the trip for weeks and off we set on the very rudimentary roads of that day. About 20 miles out, we got stuck in a ditch across the road and had to be pulled out by a team of horses kept by a farmer for just that purpose, near the ditch. After eight hours, we got to Pittman, stayed two days, and headed home. About ten miles from home, the car burnt out a piston, but Dad kept her going sounding like a C.P.R. locomotive until we got home. He later pulled the engine and rebuilt it and it ran for a couple more years. That was the first of many visits to the Hollman farm for me. They moved the next year to the Pasqua area 11 miles out. Every year, until I worked full time at the airport, I spent at least the harvesting period stoking, driving the binder, pitching sheaves into the thresher. Mr. Hollman was an ex-W.W.1 cavalryman and he taught me to ride first bareback for a year, then with saddle. I also got very good with a lasso roping the calves. He ran an all-horse outfit - about 12 horses - and had about eight milking cows. One of my chores was milking cows twice a day, and churning butter every 10 days. I enjoyed my farm-working holidays and learned a lot. I never made much money, but felt I was contributing to a nice family who had hard times in those depression years. The farm was an awful place during the great droughts of the thirties when the surface soil was blown away in the constant Prairie winds. The drift of wind-blown soil covered fences and, in some areas, almost up to the telephone lines. After the dust-bowl years, then came the locusts and army worms - a most depressing period.

When I started flying, I used to wander the skies around Moose Jaw, putting in flying time. One day, after a particularly wet spell, I found myself near the Hollman farm, and saw Mr. Hollman heading out from the house to the barn, about 200 feet. With very little thought, I dove down at him, in the Moth, levelling off about three feet off the ground and heading right at him. He finally looked up and saw me coming and just dove into the mud. I was so surprised, I didn't pull up over him as I'd planned to do but continued at

three feet high until well past him. Each time he got up, I came back at him 'till he got to the barn. He was mad as a hatter, saying, later, that I'd tried to kill him for all the times he had given me "hell" for my misdeeds. That story made the rounds of all the farms in the area and whenever a Moth flew in the area, the farmers got out of the open and into buildings fast.

I got my first gun when I was about 12 years old. I had saved eighteen dollars and fifty cents over a period of a year or so to be buy a Savage 22 with a five-shot clip. It was a good gun, and I became quite proficient with it, demonstrating this by clipping a hanging cord holding a weight at twenty paces. We could buy fifty shells - 22 shorts - for about 45 to 50 cents - so they were a significant price and not to be wasted. I wandered around the farm fields east and south of Moose Jaw locating good sites for shooting gophers. They collected in large colonies and the farmers were happy to see them eliminated. We got two cents apiece for each gopher tail from a government office in Moose Jaw, so if you were a good enough shot, it was possible to make a little money after paying for the shells. The trick was to be patient and to give a whistle every now and then. The gophers would come out of their holes and stand on their hind legs to look around giving me a perfect opportunity to shoot. Many times, I shot a whole box of shells, getting fifty gophers without moving ten or fifteen feet.

Dad took me hunting ducks and geese for the first time, when I was about twelve. He got me an old 12-guage double-barrel shotgun to use. The first time I fired it, I was unprepared for both the kick and the bang, and I ended up on my seat. With more practice, I learned to lead the flights properly and began to get the odd bird. As time went on, Dad organised hunting trips further afield with his buddy, Bert Trites, and his son, Barry, who was my age. Most memorable of these, was for a week, when I was sixteen.

Dad borrowed an old Essex car and a tent and the four of us travelled south and west of Moose Jaw, then north, shooting ducks and geese in the morning, at dawn, then having a nap and hunting upland birds, (partridge and prairie chicken) in the afternoon, and then, in the evening, catching the late flights of ducks and geese.

We ate much of what we shot, gutting the birds and wrapping them in Saskatchewan clay to make a ball and putting them in our camp-fire, which was maintained all day long. When we got hungry, we fished out a hard clay ball, broke it open, to find a steaming bird cooked in its' own juices. The feathers and skin were removed with the clay chunks. We did some Pike and Pickerel caught at Long Lake the same way and it was delicious. At night it was freezing cold, so we had to drain the Essex radiator. The first night I

drained it into glass jugs and kept them in the tent. In the morning the jugs were broken when the water froze.

Bert Trites was a C.P.R. engineer like Dad and had been a sniper in W.W.1, wounded six times with six scars to prove it. He could shoot both rifle and shot-gun and make shots that were unbelievable. He spent some time with his son, Barry, and myself teaching us how to do it right. We both became very good with the shotgun. In later years, I hunted with Ross Flack who had a large farm in the Caron area while he worked for me at Prairie airways. Al Bunn and I also hunted a lot together. It was a way of life for a Prairie boy to hunt game and Dad taught me how and stressed that you had to kill for a purpose, eat everything you killed or, if it was a gopher, sell the tails.

From the foregoing, you can see that I was a very busy boy. I always had something to do and never lacked for challenge, physical or mental. At home, I had lots of chores but never felt put upon. I was responsible and diligent and realised that in a large family, one had to contribute, and particularly so, during the terrible years of the depression. Dad was lucky enough to keep working but found it necessary during the lowest period, to find work away from home because of the seniority system. This put a tremendous burden on Mother to feed and clothe us with the small pay that Dad was able to provide. I remember the summer of 1930, Mother found out that we could probably live cheaper in Vancouver for two months than in Moose Jaw, so she packed us on to a colonist car (we had a railroad pass) for the two days and night trip to Vancouver. There were the four kids then; Toots, Bertha, Barry and Doug. On arrival in Vancouver, she left me in charge at the station while she went out and found a place to live. We ended up in a place, second floor right on English Bay at the beach. The people who owned it had a little convenience store on the first floor and I ended up spending a few hours a day, for pay, waiting on customers. We had a great summer and Mother said it certainly cost less than Moose Jaw and we had a new and satisfying experience in our life after the dusty, hot prairie.

One famous legend, in our family, deserves recording here. I spent a lot of time fishing, in Vancouver, and came home one day with some large round crabs. Mother had never cooked them before but decided they should be boiled, so she put them in a large pot of cold water on the stove. Shortly after, a Moose Jaw friend, Mrs. Ford, came for tea with Mother. As they were drinking tea and chatting Mrs. Ford said "Bertha what in heavens name are your cooking on the stove?" Mother said. "Crabs, I just put them on before you came in". Mrs. Ford said, "Bertha, you drop them in boiling water to kill them quickly". Meanwhile, the noise from the stove was getting louder and more frantic as the crabs were in hotter and hotter water. In spite of the cooking method, they tasted good and we had them often as my skills got better in catching them. An event took place in 1936, which changed my life completely and for the better. Each Christmas Mother and Dad sent letters to and received letter from the Flower Family, in Montreal. Bert and Edie Flower played a large part in Mother and Dads early life and certainly in mine. Mrs. Flower came with Mother to Canada in 1917 and they set up housekeeping together in Verdun to await the return of their husbands from was in 1919. Mrs. Flower helped Mother raise me through my first year of life (apparently that was no small task as I was only three pounds at birth and rather sickly). When the men returned to Canada from France, the Flowers stayed in Montreal, while we moved on to Moose Jaw. In 1936 we head that Mabel and Betty Flower were crossing Canada on their way to

Mabel Flower in Montreal, 1936

Vancouver Island for the summer and would drop into Moose Jaw on the return trip East. Mrs. Flower later decided to meet them in Saskatoon on their return trip and come with them to Moose Jaw. I must say now, that when I first saw Mabel, I lost my heart instantly and decided then and there that she was the only girl for me. As she has been ever since. They stayed about a week and how we all fitted in the house, I can't recall. I, of course, slept at our camp and it was a great period for me. However, I was so shy I wasn't able to push my interest in Mabel too effectively. After they left for Montreal, I tried to convey my interest with letters, which in retrospect, were mostly weather reports. However, over the next few years, it was apparent that Mother and Mrs. Flower were both encouraging Mabel and I to keep up with our letter writing.

2

PRAIRIE AIRWAYS

My interest in aeroplanes started during the period when Canadian Airways operated the Prairie Airmail Service and that was in about 1929, 1930. The sound of the Hornet-powered Fokkers and Boeing 40B-4's would get all the kids in MooseJaw heading to the Rosedale Airport northwest of town. The main problem was the service operated essentially at night. The grass field was lit with a large floodlight pointing down-wind, the aircraft landing over it. In summer, with short nights, we often saw the operation, as it was still light when we arrived at the airport. In winter, it was too bloody cold to stand around. The pilots were our heroes and certainly they earned their pay in open cockpits on a cold Prairie winter night. They used an airways system of flashing beacons, about roughly fifty-sixty miles apart for navigation. Apparently, they had a pretty good service with very little interruption from weather. From that period on, my ambition was to fly and to work with aircraft. I didn't talk about it at home fearing rejection. I knew I could never go to University as it required money we never had, so my dream was to get to fly airplanes somehow. As part of the solution, I got a part-time job delivering groceries for H.E. New, at 5 cents a customer. I saved enough to get a bike. This allowed me to make faster trips and earn a little more.

When I got into grade 10 at the technical school, I realised that I had to do more towards my ambition, so I quit school to go to work full time for H.E. New, at five dollars a week. My Dad was pretty upset. The Principal was upset, but I was determined. From the five dollars I got each week, I paid Mother half and saved the rest for flying costs. I also delivered the weekly flyer for another fifty cents a week. Finally, after I'd saved fifty or sixty dollars, I went out to talk to R.W. Ryan (Dick Ryan) who was the instructor at the Moose Jaw Flying Club and found out it would cost twelve dollars an

hour for dual instruction, and eight dollars for solo flying in a Gypsy Moth. I figured, then, I could afford it so I signed up to learn how to fly.

The lessons were twenty minutes long and carried forward on a roughly weekly basis. In just under four hours dual flying time, I went solo - one month and ten days after starting. Dick Ryan said I was a good student and held the Club record for soloing in the shortest time. Over the next one and a half months I added five and a half hours to my log book, practising for the Private Pilots' Licence test. In those days, one had to demonstrate quite a variety of capabilities in flying the aircraft. An example of this was: one had to do spins both left and right hand, turning three times in each spin and coming out of the spin on a particular heading. The five and a half hours were essentially solo time and I was well prepared for the test, which was completed with under ten hours total time dual and solo. All flying, to that date, had cost me $100 and no one at the Club had ever got his licence for less money. After that brief burst of flying, I couldn't afford to carry on, due to lack of cash, and, in fact, only carried out two flights over the next nine months.

Dick Ryan, however, offered me an opportunity of serving an apprenticeship for an Air Engineers licence at the Club. I would be the first apprentice taken on and would work for nothing for eighteen months, then would get $20 a month until I wrote the Air Engineers examinations in two years' time. I thought this was a good deal, although Dad wasn't very happy that I seemed to be wasting my time. However, he finally agreed to support me, feed me, clothe me during the two years and wished me luck. H.E. New also agreed to hire me on Saturdays from eight in the morning until ten at night for $2 for that day. This $2 a week allowed me to carry on a bit of flying toward the day I would have accumulated 25 hours solo time when I could then fly passengers, but not for hire. The airport job was six days a week, about sixty hours, my day off being the Saturday I worked at the store.

Bill in front of Moose Jaw Flying Club Moth in the uniform of the day, 1936

After a few months, my friend Jack Bailey signed up to become an apprentice and we then worked together for quite a number of years and became the best of friends. We originally worked under Alec Dame who was the Club Engineer and our work consisted of, first of all, washing the airplanes, keeping them clean, then doing odd maintenance jobs, fabric work, wood work, engine top overhauls, daily inspections of aircraft and engines.

During the first winter, Jack and I assisted Alec in giving a course at the technical school (a night course) covering basic ground maintenance activity on aircraft generally. This was two nights a week. We didn't get paid for it but did have the opportunity of learning and teaching at the same time. Every spare minute from work I spent flying and once I acquired 25 hours, I started carrying passengers for hire (illegally, of course) at $2 a trip. I carried all the kids in the family, plus a variety of friends and any other contacts I could talk into spending two bucks.

Once I got the fifty hours in, I took the Commercial Pilot's test and passed both written and flying tests. The triangular navigation course used in those days was Moose Jaw - Weyburn - Regina - Moose Jaw. All the tests I took were on a ski-equipped aircraft, as the test was taken in March.

During the following year, or so, I flew around the Prairies with a variety of people barnstorming and selling rides, usually on Sundays. I recall one Sunday (actually July 1st Day), on a Sunday, that year, in Swift Current, I sold $187 worth of rides in one short afternoon. A good day! We slept out under the aircraft at night returning to Moose Jaw in the early Monday morning.

I also flew to the Minot North Dakota air show and had opportunity to both participate in and watch my first air show.

During our flying Club career, Jack Bailey and I had a rather exciting period. We seemed to be always into problems which occasionally became quite expensive and disastrous. I remember one particular day Jack and I were doing a check of a Moth. I was swinging the prop. Jack was standing by the rear cockpit, reaching over into the cockpit to hold the throttle. We had no chocks in front of the wheels, which was, obviously, pretty stupid for us, at the time. I swung the prop. The engine popped and coughed, popped and coughed. It was a little difficult to start. Each time, Jack opened the throttle a little more. Finally, I swung and the engine started with 'a hell of' a burst and the airplane jumped ahead, and as it jumped, the lower wing hit me and knocked me flat and it rolled over top and passed me. Jack, of course, was blown away from the cockpit; the tail hit him and knocked him flat. The airplane proceeded out across the field in a great curve. In hitting me with the

wing, it started a gradual turn to the left. It swung out around the field, came back toward the hangars and hit our little Imperial Oil gas office smack on the side with the prop and the pieces of prop went flying. It then turned up on its' nose a bit and damaged the upper wings. Jack and I were taken before the Board of Directors of the Club and told off for being so stupid and made to feel pretty hopeless. Well, it wasn't a couple of months later, I was watching Jim Lundy, one of the Club Directors, out starting an airplane and I saw that he didn't have chocks in front of the wheels and, in fact, had no one in the cockpit. He had set the throttle, got out and swung the prop, and I was hollering at him: "No chocks!", when the engine started and it started to move! The wing knocked Jim down, and I had started to run towards the airplane. Bailey also saw it and he was running. Jack was able to jump on the tail of the plane and as it had a tail skid, was able to slow it down enough for me to race up and cut the switches. Of course, Jim was pretty upset about the whole affair and both Jack and I enjoyed his obvious confusion.

The Flying Club shops were expanded, and a new engineer came in, Phil Green, a British engineer who I had high regard for. Our work became more involved and we got into doing all manner of overhauls (engines and airplanes). Then early in 1937, Prairie Airways persuaded the government in some way to approve a scheduled airline service for Saskatchewan and it became the second scheduled airline operation in Canada with services running from Regina, Moose Jaw, Saskatoon, Prince Albert, and North Battleford on a daily basis. They acquired two new Beach-18D aircraft, CFBKO and CFBKM, to perform in this service. Prairie Airways then took over all shop facilities from the flying Club and established both an airline, a bush operation and overhaul facilities. I was one of the first employees and was made foreman of the shop operations. Jack Bailey, meanwhile, stayed on with the flying Club becoming the Club Engineer and eventually spent more and more time flying. He later became a Bush Pilot in Northern Saskatchewan. He was killed, there in 1943.

A new Chief Engineer, by the name of Fred Staines, came in and the shops were expanded to carry out a much broader range of aircraft and engine overhauls for outsiders. During this period, we overhauled a couple of airplanes, a Bellanca and a Waco, for Louis Bisson. This was the first time I met Louis. He became very important to me later in my career. We also did a Fairchild for Del Zaal (the Mad Trapper of the Arctic). We did a few smaller private aircraft for people in Alberta and Saskatchewan.

With the expansion of the shop we added new apprentice lads. Some of these were Doug Cook, Slugger Bell, Cliff King, Bill Dobin, Ross Flack,

Vern Pratt, Harold Goodwin. There were probably others I can't remember at this particular moment.

By now, I had written and obtained my Air Engineers' Licence "A" and "C" category, which allowed me to sign out aircraft for flight. By this time, my wages had also gone up to $100 per month. I was thoroughly involved in all activities at the airport, base engineer signing out the airliners every morning, in charge of the shops during the day. I had stopped work at the grocery store by this time.

In February of 1938, Al Snider and I decided that we should take a trip together to North Battleford to see Mel Knox who was then based there with a Waco-F doing charter and mercy flights. We would share the flying time. He would fly one way. I would fly the other. We started out in mid-February. The ground temperature on departure, was minus 22 degrees Fahrenheit. We piled on all the clothes we had. I had made a face mask of a piece of chamois leather which actually turned out to be a Godsend. We took off on skis, this very cold morning, heading for North Battleford non-stop, which actually was at the extreme radius of action for the airplane. We had hoped to have little or no wind and could thus reach North Battleford with probably four or five minutes fuel left. However, while en-route, we picked up a head wind from the northwest which caused us more and more concern. The weather was clear and bitterly cold, Al Snider was in the front seat bouncing and jumping around trying to keep warm - jumping so much that he put his foot through the side of the fuselage tearing the fabric and then had an eighty mile an hour breeze blowing in on him. We got to about eight or ten miles from North Battleford airport, when suddenly the engine quit, out of fuel. I dived down to a farmhouse I saw, landing right beside it in very heavy snow and slid to a stop. As soon as we stopped, Al hopped out of the front seat and ran for the farmhouse. I stayed to cover up the engine with an engine cover we carried and once I got the cover on, I went to the farmhouse and found, on entering, that Al was sitting in the kitchen with his feet in the oven of an old coal-stove, a cup of coffee in one hand and a piece of cake in the other. He told me, later, what had happened when he got to the door. When he'd banged on the door, a woman came out and he said,

"We've run out of gas!"

She looked at him and said,

"You can't. You couldn't!".

"Oh," he said, "Yes. We did. We've run out of gas".

"But," she said, "you couldn't! The roads are all blocked, and they have been all blocked for the last month or so."

"Oh", he said, "We're flying."

"Oh," she said, "come on in."

Within a minute, she had a coffee in his hand and a piece of cake and his feet in the oven. I got the same treatment on arrival and after a few minutes, I asked about the possibility of fuel. She said she had some lighting naphtha which I felt would do the job and I bought two gallons from her paying $2.00 a gallon. I took it out to the aircraft, put it in, started up and we flew on to North Battleford where we had a great party that night with Mel Knox.

We flew home the next day, stopping in Saskatoon to pick up more fuel and had no problems reaching Moose Jaw.

During the summer of 1938, we had our first accident with the Beachcraft when Bob Eddy was making a landing at North Battleford. Something went wrong, and he pounded down on the right undercarriage and it collapsed, sliding to a stop. Nobody was hurt but it was a fair bit of damage to the aircraft. The upshot of all that was that I was sent to North Battleford with Slugger Bell as my assistant to make repairs to the aircraft. I spent about 4 weeks on that task. It turned out to be far greater than we had anticipated. I had to replace the right centre section which meant stripping the entire right side of the aircraft, building a new centre section, attaching the wing and engine. The repairs turned out right, and because it was an insurance job, I got extra pay for the task and also full expenses staying in the Hotel North Battleford.

A word here on the problems of getting work every day.

We lived just about three miles from the airport and in summer I rode my bike, taking about 25 minutes (as long as we didn't have a north-west wind - and we rarely didn't!). It was uphill most of the way and exhausting. However, coming home at night, tired out, it was a pleasure to let her 'rip. The winters were another matter. I had to walk. Starting out about seven a.m., in the dark, I began by travelling across the Fourth Avenue bridge, where the wind really whistled, then up Fifth Avenue to Caribou Street, then west north-west into the wind with no shelter the last half mile to the airport. Winter clothing, in those days, left much to be desired. They weren't wind-proof. They were heavy wool and had no zippers (so offered lots of opportunity for the wind to get in). During that first winter, I froze my "donigar" badly when the wind whistled in around the fly buttons. God! It was painful for weeks. Mother solved the problem by sewing a pouch of rabbit fur that I wore from then on. It was great!

It seems to me now, that we had much colder weather then. I can remember whole months when it stayed colder than minus thirty Fahrenheit. I very rarely arrived at the airport with my lunch un-frozen. The hangar was unheated, the shops were partially heated in that area where we carried out fabric work or "doping". I got so used to working in the cold that I could work all day, bare hands, handling all manner of tools and carry out the tasks without running back and forth to the little office to warm up. Most of the other lads couldn't seem to take it. I seemed to be lucky in that regard.

Phil Green had an old 490 Chev with high wheels which we, occasionally, were able to ride to the airport in winter. We had modified the exhaust system to provide heat into the car and it was a luxury. However, in those days, the roads were not ploughed and many times we had to get out and push - and push - for about half a mile to get it to the airport. By the time the third winter came, I had committed to buy a 1938 Chevrolet Coupe and was able to use that for, probably, eight or nine months, when the front end, heavy duty, knee-action system started to break down and I sold it to buy a new 1941 Plymouth Opera Coupe.

In 1938, we also had our second accident with the airliner, when Louis Bisson, on a flight between Moose Jaw and Saskatoon, had the right engine suddenly turn rough and as he reached for the throttle, to pull it back, there was a 'hell of a thump and the propeller broke off and went ahead of the aircraft and dropped off under the right wing. The cowlings flew open and the aircraft went into a flat spin to the right. The spin continued until the cowlings finally broke free and fell to the ground. Louis turned round and came home on the one engine. A farmer brought in the prop and the cowlings a couple of days later. I had the task of rebuilding the cowlings because we couldn't get spares. I had to take the mess and create a cowling from it. It turned out pretty good. Actually, Louis had been very lucky because when the crank shaft sheared, the sudden loading on the engine mounts pretty well sheared the three bolts that held the engine to the airframe. If any of those had sheared completely, the engine would have fallen off and, of course, the aircraft would have crashed. What had happened - the master rod, operating into number one cylinder, broke off and popped up into number two cylinder which caused the engine to stop dead instantly and sheared the, roughly three-inch, solid steel shaft, which the propeller was mounted on. The Jacob L-6 engine mounted in the 2 Beachcraft were a constant problem the first couple of years. We were very lucky to get fifty hours of flying time out of them before overhaul and many times we've had the airplane come in at five o'clock in the evening and myself and team were there to pull the engine,

strip it down, clean all the parts, assemble it, put it back in the aircraft, give it an hour running and have it ready for flight at eight the next morning. Engine overhauls overnight - a very unique activity.

Fred Staines really found the problem with the engine when he determined that the L-6 engine had been operating in, very successfully, much slower aircraft over a number of years. When they were put in the twin Beach, it was a much faster airplane and therefore higher cooling on the engine. In effect, the engine was running too cold, so what we did was develop shrouds around each cylinder and put a large flat plate immediately behind the propeller blocking most of the air running through the engine. With this modification, the airplane (or the engine) worked great afterwards and we were able to get up towards the four hundred hours between overhauls. Up until that time, it was very costly airplane for Prairie Airways.

Prairie Airways were paid to carry mail essentially (I forgot the exact dollars and cents) per pound but as, you can imagine, there wasn't a 'heck of a lot of mail to justify the payment and the flight frequency, so our base operators (usually a radio operator-cum-traffic man) was in the habit of checking the mail before departure and if it didn't look satisfactory, mailing a brick, suitably packaged, to the next base. They had these bricks already addressed, so it was a matter of quickly shoving it in the mail bag pushing the weight up and getting a full payment for the trip.

In 1939, we had our third accident with the airliners. I think it was Carl Youll couldn't get the undercarriage down and did a belly landing in Moose Jaw. The upshot of all that caused real problems for Fred Staines, who was chief engineer at the time. Apparently, he had not properly recorded, in the log books, the fact that we had performed regular undercarriage retraction tests on the proper hourly cycles and when the Department of Transport inspectors investigating the accident discovered this omission, Fred was roundly chastised, and his licence was suspended for a period. As a result of that, he left the plant, left Prairie Airways, and headed East to work for DeHavilland. A new chief engineer, J.O. Noury, came from the east to take over in Fred’s' place. He was a totally different man and with nowhere near the experience and I had the feeling that he was very much a 'four-flusher', a liar and a cheat. Those are harsh words, but I'm sure others felt the same way.

When war was declared in 1939, I received a telegram, in fact the day war was declared, asking me if I would report for service in the R.C.A.F. These telegrams were sent to all licensed pilots in Canada and was, in effect, the R.C.A.F. effort to gain experienced personnel anticipating a rapid expansion of the force. On receipt of my telegram, I decided I should go to

Montreal first to see Mabel, then come home and send my acceptance wire in. I went to Montreal figuring that if I did get accepted by the R.C.A.F., I would probably never have a chance to see her for some period. On My return to Moose Jaw, I sent my wire in, saying I was ready, and I got word back that they didn't want me, and I was to stay where I was. Because of my position in the company and my training and experience I was required to stay working at P.A.L.

The Flying Club immediately received additional trainer Tiger-Moth aircraft and also received provisional pilot officers for training. These were largely American lads who would come North to Canada to join the R.C.A.F. The Flying Club' system were then brought into the training scheme to carry out initial training of these people and get the pilot training programme under way. The Flying Club became quite a busy place and, as a result, our shop operations also became more heavily involved (in fact, I was grabbed to give lectures to these new students on engines and air frames and the management of them).

I guess it was in the period around November 1939, we all had the great thrill of meeting Gracie Fields when she made a tour of Canada and came specifically to Moose Jaw, which was then recognised as 95% British. I had the pleasure of meeting her and receiving her kiss.

In 1937-38-39, the Moose Jaw Flying Club grew very rapidly to become one of the most active flying clubs in the whole of Canada. We had many new students from quite a variety of places. A couple who became very good friends were Sam McRae from Meadowlake, a fisherman from the North, Al Snyder, from Edmonton, out of a private school in Winnipeg. These two fellows slept at the airport in pretty primitive surroundings but couldn't afford to move to the 'Maw Leveriges' Boarding House. During this whole period, the airport was a very busy place, with a lot of young fellows, full of high spirits, full of practical jokes, and a lot of idle time waiting for opportunities to go flying.

I had, by this time, acquired some considerable skill in using the power sewing machines which were used to make cotton and linen covers for wings and fuselage and flying controls and I was delegated to make up a parachute and harness for the airport cat, and it turned out to be very successful. The usual practice was to take the poor cat in a brown paper shopping bag, in the airplane and drop her out at some predetermined height and have the cat arrive on ground at a particular spot on the field. We always believed the cat enjoyed these parachute drops, until a particular day when it was my turn to fly the airplane and Al Snyder to carry the cat in the brown

paper bag. We took off, in quite heavy rain and as I climbed up, I noticed quite a commotion in the front seat where Al was with the cat. In fact, it got pretty wild and I finally, could hear Al screaming, so I turned and came in for a landing. What had happened was that the brown paper bag had got wet and, of course, fell apart. We then found out, the cat really didn't like parachute drops because she actually tore strips right off Al, who couldn't get away from her in the cockpit. That stopped the paratrooper-dropping cat!

In the years prior to the start of World War 11, the Flying Club turned out probably a hundred and fifty new pilots and with this new competition of young fellows trying to acquire cheaper flying time, they obviously, messed up my opportunities for passengers to help defray my costs. I was cut out of the passenger-carrying business. With the start of the war, a lot of these young lads were able to get flying jobs with the newly-formed Air Observer Schools across Canada flying Anson aircraft and acquiring experience. Most of Air Observer Schools were operated and managed by the newly-formed Canadian Pacific Airlines and, as a result of this association with the airlines many of the lads stayed on with Canadian Pacific flying in either their bush operations or on their main-line routes in post-war years. In fact, for many years, the first dozen or so pilots on the seniority list with Canadian Pacific Airlines were all graduates of the Moose Jaw Flying Club - all trained by Dick Ryan, who later, post-war, became executive vice-president of Canadian Pacific himself.

The Air Observer Schools gave opportunity to many young lads to acquire good experience which allowed them to, after several years in the Observer School, to move to the Royal Air Force Ferry Command and many, again from Moose Jaw, arrived in that Command.

About mid-1940, I began to become very frustrated with all the work at Prairie Airways. I seemed to be working seven days a week, ten, twelve hours every day, and always on call for problems during my off time, so I decided that the simple solution was to try to get back in the Air Force. I went to the Recruiting Office in Regina, and signed up using an assumed name. 24 hours later I was back in Moose Jaw, at my job, with instructions to stop 'fartin' around. I was never going to get in the Force! I was too valuable where I was. I did get a raise. My pay was about $175 a month.

In mid-1940, the British sent several hundred Anson Aircraft to Canada to be used in the Air training programmes. These aircraft were used as navigation trainers in the Air Observer Schools. They were not suited to Canadian winter conditions, so a contract was let by the Canadian government to Prairie Airways to modify all Aircraft for Canadian use. The

modifications included heating systems for the aircraft, carburettor anti-icing provisions, oil system changes, powered undercarriage retraction systems etc. and as time went on the British engines were also replaced.

The contract became a major activity to our overhaul shops and we eventually had 2 or 300 people involved. I was given new authority as Chef Inspector responsible for all technical matters and air worthiness of the aircraft produced. I stretched this authority many times to include the actual flight test of aircraft after modifications. I was enjoying a very busy period.

With the successful conclusion of the Anson modification programme, Prairie Airways next won the contract to become the overhaul centre for the new Cessna T-50 or Cessna-Crane aircraft which was going to be used in the advanced twin-engine training schools in the West. Prairie Airways were required to set up a facility which could support all operations of this type of aircraft and provide major maintenance, crash re-builds, overhaul and technical support. This required a very large expansion of shop facilities and a projected expansion to employment of about 1,000 people.

As the first step in early 1941, we received three crashed aircraft on trucks and they were delivered to a temporary facility we established in an old factory building on Fairford Street, in the west end of Moose Jaw. This was a learning programme to see how we made out, and also, to determine, basically, what facilities would be required. We found out that these aircraft had been rushed into production with minimal tooling at Witchita, Kansas, where they were made. As a result, interchangeability between components was almost hopeless, so we had to devise special jigs and fixtures to look after the variety of dimensions each component would have and then, hopefully, maintain control of all components so that they would be assembled in the same aircraft they arrived in. My staff was expanded rapidly. As I was Chief Inspector responsible for all technical aspects of the programme, I had hired Bob Eastman as my deputy.

With the expansion, I no longer had overall responsibility for the shops, and a new general manager was brought in and plans were made to build a whole new factory building at the airport to carry out the programme. This new activity I guess bothered me in the sense that it was expanding rapidly and I no longer felt in control and became more and more frustrated, so much so that I finally had quite a 'set-to' with Dick Ryan and got permission (which he organised) for me to try to move on to another wartime operation. My plan was to move to Ferry Command (which was just forming up in Montreal). I was given two weeks to become gainfully employed with the Ferry Command operation or else I would be returned to my old position

in Moose Jaw. I packed up my things into my new car, a 1941 Plymouth Opera Coupe and headed East. I guess it was about early September and I found out in heading East, that I couldn't drive all the way across Canada because there were no roads. I wasn't allowed to leave Canada, so with that in mind, I found that I could get as far as Fort William (now Thunder Bay) and catch a boat across the lakes to the Sault (and I could take my car with me). So I headed to Winnipeg and realised that I was running out of money. On arrival in Winnipeg, I went out to McDonald Bros. Aircraft and got a job that day and worked that day and for the next three days. I got paid for my four days and resigned. I started out for Thunder Bay in the early evening over the brand new road from Winnipeg. I picked up an Air Force Sergeant who was thumbing a ride, expecting him to keep me company and awake through the night. However, on getting in the car he promptly went to sleep, and I drove through to Thunder Bay, arriving early the next morning. This was one of the wildest rides I had had up to that time. There were no bridges built on the road, as yet. It was all gravel and where bridges were going to be, they had temporary corduroy-log bypasses which were, to say the least, frightening in the dark. I got to Thunder Bay, however, in time to catch a boat and I got a berth. We went across the next night to the Sault. From there, it was on in to Montreal with no particular problem to surprise the heck out of Mabel when I met her leaving work at Canadian General Electric on Beaver Hall Hill.

3

FERRY COMMAND

As reported earlier, I was a licensed commercial pilot. When Canada declared war in 1939, I had received a telegram, asking me to report for Military service with the R.C.A.F. Instead of replying right away, I went to Montreal to see Mabel and to participate in Ron and Adas' wedding. My progress courting Mabel wasn't very noteworthy but more than ever, I was sure she was the girl for me. When I returned to Moose Jaw, I was informed that I could not join up as I was more valuable to the war effort where I was in Prairie Airways. In 1940, I again went to Montreal, on my holidays to spend two weeks at Pollards' Cottages in the Laurentians with Mabel (with Ada as chaperone!). It was a wonderful two weeks but still no great progress made persuading Mabel to be mine. At the end of 1940, I could not stand the thought of Mabel going out New Years' Eve with someone else, so I caught the train for the two-day trip to Montreal, arriving New Years' Eve. I took Mabel out and headed home again on January second. I had taken an engagement ring with me, but Mabel was not interested, at that time, in committing herself, but I did go home more hopeful and our letters had less and less about the weather in them.

By mid-1941, as I said earlier, I had determined that I was leaving Prairie Airways to try for Ferry Command in Montreal, and after much argument with Dick Ryan and ensuring that he had a good replacement for me in Bob Eastman. I got approval for me to try for Ferry Command.

Mabel didn't know that I was coming East. I met her coming out of work the day I arrived in Montreal and I drove her home. I stayed with the Flowers overnight and the next morning went to Dorval where the Ferry Command had just opened their new headquarters to apply for a flying job. They quickly found out that I had no instrument flying experience, so I was turned down as a pilot. They didn't need flight engineers at the time, so I was hired on as an inspector starting the next evening. Through contacts with Bert

Flower, I was able to get room and board with a widow and her small son in the Dorval area, handy to the airport. I would work the night shift, checking out Hudson's and Liberators before morning departures to the U.K. These were the biggest aircraft I had ever seen and certainly had the largest engines by a factor of four. The first night, I did some checks, engine run-ups etc., and signed out the approval for flight, then worried all the next day in case something went wrong with them. In a week or so, I stopped worrying when I realised that I knew more about aircraft and engines than anyone working with me. I was lonely working ten to twelve hour shifts at night, six days a week, seeing Mabel for a few minutes on my day off, which usually wasn't on a weekend. I met Vic Cole from Moose Jaw. He worked in Ferry Command in the instrument shop and he persuaded me to check in at the central Y.M.C.A. on Drummond Street in downtown Montreal. This was a good move because I persuaded Mabel to have dinner with me some evenings before I went to work, and before she went home from work. Vic and I got along great and enjoyed living in adjacent rooms at the "Y". The food wasn't great, but we were handy to some wonderful eating places along St. Catherines Street.

At the end of 1941, I met Louis Bisson again. He was a senior Captain in the Command. A couple of days later, he called me to meet him in Air Commodore Taffy Powells' office at headquarters at ten a.m. the next morning. I worked all the night preceding and went to Powells' office next morning, as required, wondering what was going to happen. There was a Lieutenant Colonel in the U.S. army also in the meeting, introduced as Charles Hubbard. Hubbard then described a problem he had where the U.S. had set up three weather stations in the high Arctic in August 1941 dropping off men and supplies at three bases; one near Fort Chimo, Quebec, the second on an island in Frobisher Bay, and on the third on Padloping Island off the Northeast Coast of Baffin Island. About 9 to 11 men were in each camp to set up facilities and start broadcasting weather reports as soon as possible. At the end of 1941, nothing had been heard from any station and an attempt made by the U.S. Army Airforce to visit the camps, (now called the Crystal Stations) had ended in disaster with two aircraft lost. Hubbard, who was responsible for the project, was desperate and decided that maybe contact could be made using Canadians with Arctic and cold weather experienced crews. Louis Bisson had agreed to head up the project and recommended me to be responsible for engineering and to act as co-pilot. I was volunteered, whether I liked it or not. From that moment, I changed jobs working full time to determine the best method of getting to the Crystal Stations and back. I

was given authority and priorities to acquire anything we felt we needed. Also, as time went on, a staff to do any tasks I determined were necessary. This was heady stuff. First off, I felt we should use a C-47 aircraft (a DC-3) but found that we could not get skis for such an aircraft within a reasonable time. In the end, we decided that our best hope would be the use of two Norseman aircraft, if they could be given more range. I selected two, new, R.C.A.F. Norseman aircraft that were being used as radio trainers at Uplands Airport in Ottawa. They already had belly tanks which gave them a range of about seven hours. We flew them to Dorval, where I then fitted them with 111-gallon cabin tanks which we used in delivery of Hudson aircraft. This would give us about thirteen hours or fifteen hundred miles range. The tanks were located a foot behind the co-pilots' seat and right on the centre of gravity. To give additional engine oil, I installed a five gallon can behind the co-pilots' seat and ran a line through the engine fire wall into the engine oil tank and used a little woggle pump to transfer oil. I went over both aircraft with a fine-tooth comb making changes and replacing parts to achieve, what I thought, was a perfect aircraft. Finally, I installed a sun compass mount over the instrument panel in each aircraft. As all this was going on, we filled out the crew with the addition of Don McVicar to fly 2478 and Lloyd Wheeler, a radio operator, to handle all long-range communications with Louis in his aircraft, No.2477. Hubbard would fly with Louis as co-pilot. Louis had us all go to Woods Manufacturing in Hull, Quebec, to be outfitted with Arctic clothes, sleeping bags, etc. We then got rifles, shot guns, snow shoes, skis, snow knives, silk tents, Swedish primus stoves, cooking gear for each aircraft. Both had to be equipped to survive alone. We then started adding food designed for maximum nutrition and low weight. We would carry enough for three weeks, basic, hoping to add to that with game. Finally, I wanted engine and wing covers and a small motor generator set in each aircraft. However, we started weighing all the items and realised we were going to be way over max. gross weight for the aircraft and I still hadn't added any spare parts for the aircraft or my tools. We eliminated one motor generator set and added one set of spare spark plugs for each engine and twenty-four exhaust collector clamps. When all tanks were filled, with all aboard for take-off, we were well over 12,000 pounds away over max. gross weight, however I figured we'd be using a hundred-octane fuel in an eighty-seven-octane engine. In cold heavy air the extra power would get us airborne. Don and I carried out a compass swing in our aircraft and found it was way off, the reason apparently caused by magnetised rudder pedals. The compass was located between the pedals. I had the pedals removed and degaussed and

the compass was swung again with acceptable corrections. Louis never got time to swing his compass, to our later sorrow. We were finally ready to go. I was advised that I must pack and address all my belongings and complete a will as they really didn't expect us back and wanted no problems if that happened. Mabel was impressed when I left her my new Plymouth Opera Coupe in the will. A smart move on my part!

We finally left Dorval on February 23rd, 1942 heading for Goose Bay. The weather deteriorating along the way, and after five hours, landed beside the Hudson Bay Post at Seven Islands, Quebec. We stayed in a Roman Catholic mission until the 28th, while each day we tried to take off. Temperatures had climbed, and the snow was sticky and with our loads we couldn't get airborne. On one attempt, we ran over a stump buried in the snow and tore a large gash in the belly of our aircraft. That meant a four-hour repair job for me. Finally, on the 28th it got cold and with new snow, we were able to get off and headed over the mountains on the north shore following our leader, Louis, in 2477. The weather worsened, and we lost sight of Louis but carried on 'till we found the Hamilton River which led us into Goose in very rough air, four hours and forty minutes after take-off.

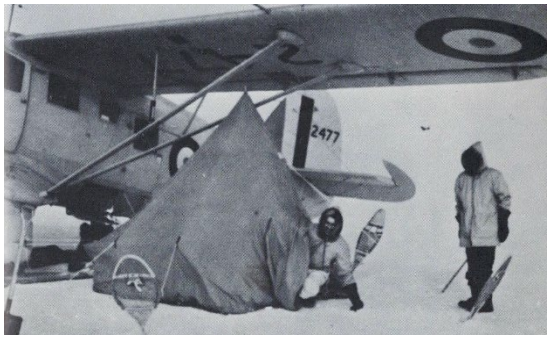
Repairing the belly of 2478 at Seven Islands in deep snow

The contractors had just started the construction of Goose Bay airport. Long strips for the runways had been cut through the bush, stumps were removed, then the snow-cover had been compacted so that the first winter operations of the airport involved aircraft landing on compacted snow and ice. We were in the first group of aircraft to have ever landed at the site and we stayed overnight in the contractor shacks, sleeping in our sleeping bags on the floor. We ate in their mess. The food was excellent. We met up with our safety aircraft, next morning, a Hudson, flown by George Evans and Gale Swaney with Jerry Pollock, a radio operator. They were to be available

to us if we got into trouble and eventually they based in BW-8 on the north-west coast of Greenland.

Standing by our Safety Aircraft in Greenland

We topped off all fuel tanks with 100-octane fuel and got off out of Goose shortly after dawn on March 1st heading for Fort Chimo and the Hudson Bay Post on the Kokesoak River. Again, we followed Louis Bisson but started to complain on the radio that he was off course, to the right. He replied that our compass Hubbard, who supposedly knew the terrain, said we were on course. We couldn't argue with this statement so had to accept Louis' course. After three hours, we were on top of a low cloud and lost ground contact. The weather was thickening, and we realised we were getting into more and more trouble.



Setting up camp at Crystal "Minus 1" in Northern Labrador

After four hours, we decided we that we had to land and by this time, we were in the midst of a very heavy blizzard. Somehow, Louis led us down through very heavy snow to land on what might have been a frozen lake. There were no trees around and our visibility was such that we couldn't see more than a few hundred feet in any direction. At least the landing area was flat. We quickly set up one of our tents under the wing of an aircraft and cut snow blocks to pile around the tent to cut the wind, which was increasing steadily. We got engine covers and wing covers on each aircraft and prepared to sleep out the blizzard. The temperature was

about twenty below, in daylight, but dropped to well below forty-below in the night. The five of us were going to use a tent sized for two. We laid out a bearskin that Louis had on the floor, then our three-star Eiderdown robes. We stripped to get into our bags. It was a tight squeeze in the tent. If one turned over, we all had to turn over. Every three or four hours, I melted snow over the little Swedish primus stove, made tea or boiled some chocolate - fortified chocolate bars. This provided nourishment and prevented dehydration. The wind howled for the next 36 hours without a break. We didn't venture out and used our cooking pot for relief. During the second night, the wind dropped, so we got dressed and out to a starlit night but very, very cold. I got the motor generator set going to keep the battery up on one aircraft, so we could get on the radio. All we could pick up was a ham-operator in Australia and this seemed to be the pattern for most of our trip through the north. We were undergoing a period of high sun-spot activity, so a radio was almost hopeless. We got out a sextant, took a number of star shots and found out we were off course 130 miles to the east and on the edge of the northern Labrador Coastal Mountains. Louis' compass was bad, ours must be all right, so from then on Louis would follow us. With dawn, we found both aircraft almost buried in snow, the tip of a fin and the props and parts of the wing showing from the drifts. We worked hours digging them out and finally I started both aircraft engines with little difficulty and no pre-heating which proved my methods of using the oil dilution system on a double-shutdown philosophy. We finally got airborne in the afternoon, after taxiing back and forth on the deep snow to do some packing as with our load we could not break free into the air from the very soft snow. Once airborne, we realised we had been in a valley and there were hills all around us and with further ability to see, we found that the weather was not that good and thickening up again and that with this worsening weather we would have to make a further landing. We had, meanwhile, headed towards Ungava Bay hopeful of getting to the coast, proceeding on a westerly course then upriver to the Hudson Bay Post at Fort Chimo. We landed on a tributary to the George river and the ice was reasonably smooth. We set up base along a scrubby bush shoreline. This time we used Spruce boughs under our sleeping bags and found it much warmer that night. Don, went foraging and came back with a couple of Ptarmigan which I put in the pot with corned beef etc. and a good meal was had by all - but it certainly had a different taste. Don was suffering quite a bit as he had slipped at Seven Islands, when climbing up to the cockpit in the Norseman. His mukluks were covered with snow and when he put his foot on the small metal step, it slipped, and he fell against the step and according to my

doctoring, broke three ribs. I had checked him over and taped him up as best I could so that at least he could move around if he did it gently. This problem of his ribs carried on throughout the whole of the northern trip and forced me to do much of the heavy work and much of the flying because it hurt him too much to do the tasks. Next morning, the weather broke, clear and again with some difficulty, we got airborne. The snow was quite soft and required us to run back and forth to compact the snow. This heavy engine use, particularly by Louis, caused a lot of problems in that the thrust seal, behind the prop on Louis' aircraft allowed the oil to get out and spray back over the wind-screen, so that even flying, he had to stick his arm out the window and wipe the oil off to see ahead. I investigated the problem and found Louis was not opening up his oil-cooler radiator far enough and that, as a result, the oil was being over-heated and thinned. Once he correctly operated the oil cooler, he had no more problems. Shortly after take-off from the river, which we later found to be the George, we saw the wreck of one of the U.S. Army Norseman which had crashed in the December effort to visit the Crystal Stations. We didn't stop but carried on in lovely weather to find the Fort Chimo base following the Kokesoak River which has some of the highest tides in the whole of Canada and, I guess, in the world. The tidal effect on the river runs up over thirty feet with the result that with tide change the ice is thrown in great chunks into the air and for some hundred miles from Ungava Bay upriver its' unbelievably piled with ice. The Hudson Bay Post was on the east bank of the river and at that point, the tidal affect was not enough to break up ice in the centre of the river, so we were able to land on this relatively smooth strip and, of course, had to walk through piled-up ice for at least a mile to the Post. The Crystal Station had been sited on the west bank of the river almost opposite the Hudson Bay Post. On arrival there, we found why that particular base had not been able to broadcast weather reports. It was a base comprising 11 men and they were to erect two main buildings; one for living accommodations and eating facilities, the other for radio equipment and workshop. Apparently, there had been bad feeling between the people on the base and the men really got "bushed" (I guess that is the term) and had a bit of a riot and burnt the one building with all the radio equipment so they lost a good deal of their supplies and their ability to communicate with the outside world. Our arrival broke some of the tension and we were very welcome because we had enough foresight to take a couple of letters for each member in each Crystal station. These men were receiving mail for the first time. None had been expected for the two years they were to be in the Arctic. They had not expected any visitors and of course, they certainly weren't expecting

us. With the help of a dog team from the Hudson Bay Post, we were able to wrestle some 50-gallon fuel drums containing 100-octane fuel from the Crystal Station, down to the aircraft where the base people helped me pump up fuel through chamois into each aircraft, topping them off. Actually, the fuel system that I had designed, had a good workout on this last series of flights, because we had still fuel left after spending some eight hours flying plus several hours of ground taxiing, so I was very pleased with the way it had performed and thankful that we took every advantage of filling tanks to the top for every major departure.

Don and I, slept that night in our sleeping bags in a porch adjacent to the Anglican Mission House. It was unheated, of course, but at least was shelter. The Missionary's wife had provided us with a lovely dinner the night before and it was largely game (Caribou and Ptarmigan). When I looked around her place, I found hundreds of jars of bottled Ptarmigan. The Ptarmigan were plentiful along the river and one could walk up to them and hit them on the head with a stick to kill them. They had little or no experience with the human and hadn't learned to be fearful of them. In the morning, it was determined that we could be of no further help to the base at that site as it was impossible to get out to the outside world to communicate problems. Our only hope was to continue north. In the expectation that the sun-spot activity would decrease allowing us to communicate with the outside world, or get to a more northern base where, hopefully, we might be able to get on the air with their more powerful radio sets. So, with reasonably good weather, we took off from Fort Chimo and headed north, down the river to Ungava Bay and set course across the Hudson Straights to Baffin Island.

It must be recorded here, that we had obtained a set of maps in Montreal, which were the best available, at that time and looking back at the quality and their completeness, I have to wonder how the "hell" we ever found our way to any place. Most of the maps were the result of mariner reports where the sea captains following along the coasts marked out the salient points. These points were connected by map cartographers to show what they expected the coast-line to be. The interior of these areas was largely unexplored. In fact, the maps we had for Baffin Island, showed much of the southern area of Baffin Island and Frobisher Bay particularly, reasonably well illustrated but as we went further north from Frobisher, the coastal areas became dotted lines on the maps, (therefore sort of unknown) and all the interior areas were blank. A number of the points that could be seen from the coast, were shown as estimated heights and, in general, the heights of land shown for Baffin Island were one thousand feet. In truth, we

had to cross mountain ranges that exceeded eight thousand feet, so with this guidance, one can see, we were perpetually lost.

Crossing the Hudson Straights was, I guess, our most perilous trip. The Hudson Straights were not entirely frozen but full of ice flows of varying sizes (none big enough to hold an airplane) tossing in a pretty rough sea and obviously looking very, very cold. We started across the Straights, as usual in the early part of our flights using fuel from the main 111-gallon cabin tank and we sat there expecting some four hours flight from this tank. Anticipating towards the end of the four hours to shift over to wing-tanks, but, as usual, we were cruising at about 2,000 feet altitude, when the engine quit cold, out of fuel. The tank had run dry, catching us unprepared and with great panic we shifted to the wing-tanks and pumped like "hell" on the woggle pump to get the flow started. It seemed like forever before the engine started to cough and bang and finally run again. Our heart rates were probably about 15 times normal.

As we came up on the coast of Baffin Island we ran into very heavy weather again and it was obvious we weren't going to be far from the coast before we would be in deep trouble. We could see mountains sticking up through the clouds and suddenly realised that our maps didn't show this and therefore, where, the hell, were we? We got into very heavy snow storms and as leader were lost when Louis came on the air and said,

"Quick, follow me. We're going to land!"

We swung on to Louis' tail.

By this time, everything was absolutely white. The only reference we had was seeing Louis ahead of us and he led us down into what turned out to be a valley, there was a black spot on the floor of the valley and Louis popped down into very deep snow beside this spot and we landed right behind him. Within minutes we were in the midst of a dread white-out. One could not see a thing! It was like white soup! When I climbed out of the cock-pit and down onto the ski, and stepped off the ski, I immediately dropped up to my armpits in snow - soft, feather-like snow. I had to climb back up onto the ski and get into the aircraft to get snow-shoes and with these on, we were able to stay reasonably on top of the snow, but we found it almost impossible to walk without horizon or other visual reference. We were in the white-out and could not maintain our balance. We set up our tent again and prepared for the night coming, putting all covers on engines and wings. We were in a raging blizzard and spent a miserable and long night getting little sleep because of the cold and our worries. In the morning, the weather broke clear and Lloyd Wheeler, our radio man, snow-shoed back to find out what the

black spot was that Louis had seen and landed beside. It turned out to be a white fox in an Eskimo trap which before it died, had marked the snow. He removed the fox from the trap and replaced it with a dollar bill he had in his pocket. We often thought afterwards about that poor Eskimo and what he thought when he found a dollar bill in his trap and tracks starting and ending with no trail in or out to his trap site - the people from outer space! When we got to Crystal 2, Lloyd had the fox skinned and used the fur to trim his gauntlets.

With better weather in the morning, we all got out on snow-shoes, tramping back and forth on our projected take-off path, doing some snow compaction. Once we got engines started and ready for take-off, we both ran back and forth a couple of times with the skis, to do some more compaction and were thus able to get airborne.

We had a frightening experience just after take-off in our aircraft, the oil pressure in the engine dropped almost to zero but we couldn't stop - just did a quick prayer and kept peeking back at the oil pressure to see if it failed completely. After a few minutes, it came back up to normal. I have guessed later that with the oil dilution systems in use, we had probably an excess of gasoline in the oil, which thinned it down to a state that it was like very thin water and the pressure dropped accordingly.

We had climbed above the mountain range which seemed to be about 4,000 feet in the area. We suddenly heard on our radio a quite powerful signal which apparently was from a radio station relatively near at hand. From their signals, we determined that it was a signal from the Crystal 2 Station in Frobisher Bay and in fact this was their first broadcast since arrival the previous Fall, so it was rather an exciting arrival at Crystal 2 Station. They had finally got on the air with their first weather sequences.

Crystal 2 was set on an island in Frobisher Bay where they had their two buildings. There were nine men in this camp and it was headed up by a Navy Lieutenant Commander who had served in the Antarctic on various explorations for the U.S. Navy. None of the other men in the camp had any Arctic or cold weather experience. In fact, one lad had been taken from the Panama Canal direct to the Arctic. In spite of this lack of experience, this camp was well run, and morale was high. The camp was erected on an island which was about 70 feet above the surrounding sea ice. An Eskimo camp of some 20 people was located on the sea ice directly below where we landed and stopped. Of course, the whole camp was out to meet us with all the Eskimos. Also, we were all feeling quite high - exhilarated actually - to have

completed a very significant leg of the trip and to find everything working finally at Crystal Two.

We were standing around talking, when I happened to notice an Eskimo woman (she was quite elderly) standing by me and reach over every once in a while, to pick ice beads off my parka and pop them into her mouth. I suddenly realised what she was doing and understood what she was eating. In preparing the aircraft for this Arctic trip, I had made a major error in not planning for relief tubes when realising that we could be sitting in the aircraft for up to ten or twelve hours at a time. On several of our flights to date, we had exceeded my bladder capacity and having no relief tube, I used a small cooking pot, sliding the cock-pit window down and throwing the fluid overboard. When you're sitting in temperatures of ten to forty below zero, it doesn't stay liquid long and instead of flying out the window and out the aircraft, much of it flew back all over me and froze instantly into ice beads. This is what the old Eskimo woman was doing - picking off beads of urine. I later that day gave this Eskimo woman a pair of sealskin mukluks that Louis had provided for me which were as hard as a board. I gave them to the Eskimo woman to chew and soften. Obviously, if she could stand urine, she could stand sealskin. She returned them the next day, soft as chamois. I didn't know what to give her, so I gave her a packet of American cigarettes that I had - showed her how to open the package and expected her to smoke them. She pulled out a cigarette, popped it in her mouth, chewed it and swallowed it. Obviously, it didn't seem to hurt her.

Within minutes of our arrival, one of the camp lads came up to me and asked me if I had any tools. I said, yes I have some, what's the problem? Well, he said, I'm the camp Doctor. In fact, he had just finished his internship when he was sent up to this Arctic base and he'd had very little time to prepare a full kit. He explained the problem. The captain had a very bad infected tooth and he had been trying for several months to get the thing out and I said well, I don't know if I would have anything that would help. Let's go and see, so he took me into the little workshop and showed me all the bits of things he had been using in attempts to get the Captains' tooth out. I looked them over and decided that maybe my water-pump pliers might be useful. So, the Doctor and I looked over the water pump-pliers and decided they might work but it had to be done soon because if he didn't get this tooth out, he would have to saw it out, going in from the outside of the mans' face. His face was a horrible mess already. Anyway, we got the captain and fed him some Rum that Hubbard had and he drank about half a bottle of it and we laid him on the floor in the living quarters, put a man on each arm and on each leg to hold

him down and went wrestling with the water-pump pliers to get his tooth out. It was a "hell" of a night! The pliers kept slipping and grabbing either the mans' tongue or part of his cheek and there was blood everywhere, but finally with perseverance we were able to pull the tooth. Within days, the Captain was much better.

With the ability of Crystal 2 to send out messages, we apprised the contacts at Goose Bay where we were and got off a simple message to George Evans suggesting that he move on to Greenland. Within minutes of that message, the radio faded again, and we were lost again to the outside world. We had hoped to hear from Crystal 3 on Padloping Island away to the north - hoping to have some weather reports which would aid us on the next leg of our trip north, however, this was not to be.

After two days at Crystal 2, we decided to press on, in hopes that we could communicate with Greenland when we got further up Baffin Island and closer to the BW8 base. Again, we wrestled oil drums to the airplane and broke the seals to fill up our fuel tanks and this time we found that the fuel drums had been breathing and a lot of water had accumulated in the gas drums and frozen so that where I had expected to get some 50 gallons from each drum, in some cases, I only got 10 or 15. Thus, we had very hard work to move these drums out of deep snow down to the aircraft. It was most disheartening to find after all the work, so little fuel in each drum.

The island on which the Crystal 2 base was situated was relatively small and sat up about 60 to 70 feet above the ocean ice. The area where we landed and took off was in a rather large arc, sort of curving around the camp which was on a hill higher that the take-off area. Towards the end of the take-off run was a very large rock about 10 to 15 feet high on the right-hand side and, of course, this became bigger in our minds as we approached it on the take-off run. Louis made the take-off run first with no particular trouble except a very long run and off the edge of the cliff to finally gain speed and height. We did the same, again a long run and clearing the rock with not too much to spare as we were well overloaded again.

We headed north, initially in broken cloud and for the first time started to see the most beautiful mountain scenery of Baffin Island and what they call, "The Blue White Glaciers". This is pure ice, very high up in the mountain, probably about seven thousand feet above sea level, not large, but just like a magnificent diamond with the sun shining on them. I did all the flying on this leg, as Mac was in considerable pain and he busied himself in making a map of the route marking all the salient points for further reference.

Typical Baffin terrain near Cumberland Sound

As we got further along, and passing to the right of Pangnertung Fiord, clouds started to firm up underneath us and we ended up on top with no breaks below and flying at about eight thousand feet.

After a couple of hours, we made a pretty stupid decision that McVicar and I should descend below cloud to try and get a position and find out where the 'hell we were. Leaving Louis on top with an aircraft that had a hopeless compass and, essentially, no way to get back to Crystal 2 without a 'heck of a lot of praying. We descended down into the clouds and got fairly low (about 2,000 feet) when we started to get very severe icing - rhyme ice started to gather all over the aircraft and we hadn't seen ground, as yet. We put on full power and tried to climb out. It was touch and go and towards the end of the climb, we were down to about 35 feet a minute climb and "belting the hell" out of the engine. We finally broke out on top to find Louis circling and worrying, so we returned to Crystal 2 hoping for better weather the following day.

On arrival at Crystal 2, I refuelled again with the same problem of ice in the fuel drums and got to bed early. We slept in the accommodation building in our sleeping bags on the floor as there was no other space available. At least it wasn't freezing.

In the morning, the weather looked better. We still hadn't had any word from further north, so we had to take a chance again. Louis did the first take-off, got off successfully. It was our turn next. Before starting the aircraft, I had gone over it thoroughly, knocking off all the ice that still remained on wings and various parts of the aircraft, made sure it was clean, polished the wing up with a rope, so I felt we shouldn't have any trouble with the take-off.

However, it didn't seem to pick up speed as well as in the past and that rock kept getting closer with both of us on the controls. The airplane became airborne just before the rock and the left wing dropped toward the side of the hill, both of us rolled on full right aileron without too much result and meanwhile standing on the right rudder to swing the aircraft and increase the speed of the left wing and hopefully get more lift. It started to come up when there was an audible snap and the control wheel spun in our hands, we had lost aileron control. The aircraft drifted to the left, hitting the side of the hill with the wing tip. Meanwhile, we cut power and hung on praying all the way. On hitting the side of the hill, the airplane, bounced into the air and came down on the right ski and undercarriage shock leg which were pretty well torn off when it hit the snow. This bounced us into the air again and we went off the edge of the cliff (60 to 70 foot) and it pitched nose down into a great snow drift. We hit with a "hell of a whump", neither of us had our seat belts on which was not very smart. I slammed into the controls - into the instrument panel - as did McVicar. The fully loaded fuel tank behind me broke free of its' moorings and pushed forward, flattening the five-gallon oil can and stopped as it touched my back - that's a 1,000 pound weight! Immediately clouds of steam burst from the hot engine onto the snow. Mac began hollering,

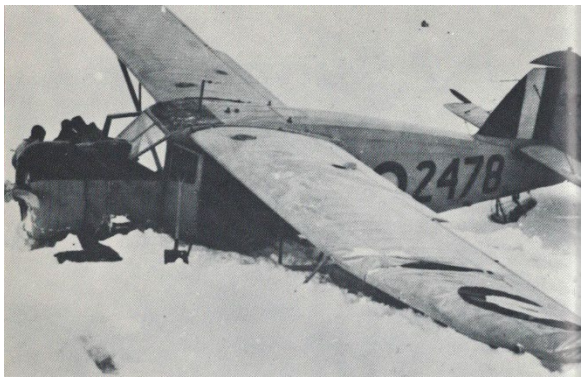
"FIRE!" and looking for a fire extinguisher.

I, meanwhile, just picked up my camera and hopped out. He always said later, I wasn't very thoughtful for the future. Anyway, we were pretty well bruised and I'm sure our nerves weren't too well treated either. The doctor in the camp, of course, saw the whole thing, came rushing over and immediately broke out an emergency supply of rum and ordered both Mac and I to pour down a few. He was concerned about shock. Well, within an hour or so, both Don and I were 'pixilated having had nothing to drink for a few weeks and very excited anyway. Obviously with the rum we took and the excitement of the crash, we became kind of stupid. We got out the marine flares, the Very pistol, rifle and shotguns and started a fight with each other. We then chased the Eskimo all around the area, firing the Very pistol flares after them. The Eskimo had never seen anything like this in their life before, and they were scared skinny. Finally, after a half hour or so of this stupidity, (nobody would come near us we were so dangerous) we both passed out in the snow. They carried us into the camp to recover.

Louis, was airborne at the time of our crash and had just come back over the strip to watch us take off and saw us take the plunge, so he came in and did an absolutely fantastic job of landing with this enormous overload

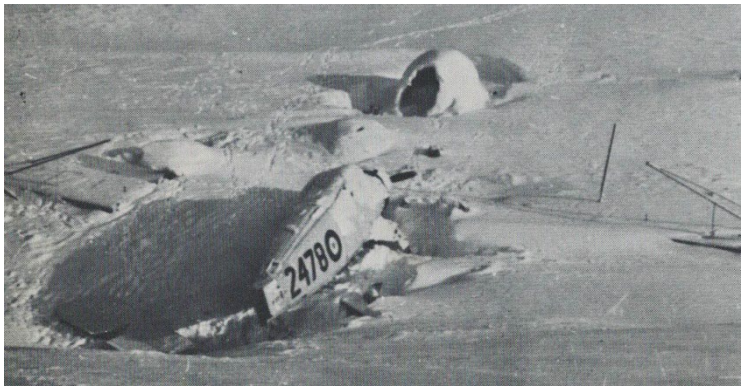
(something he should never have done) but got away with it. There we were, then, stuck at Crystal 2 with one serviceable aircraft and no radio contact with the outside world.

The next morning, I went down to the wreck determined to find the cause of the aileron failure and I did. The aileron control cables run under floor, then up a vertical longeron on either side of the pilot and the co-pilot and from there over a pulley into the wing. The pulley bracket held on by three welds to the vertical longeron. The welds on the bracket next to my head on the co-pilots' side were very poorly done. They had no penetration, they were just tacked on and showed very poor workmanship. I guess this is a product of the war-time factories when the skill of the employee wasn't that great, and the eyes of the inspector weren't very clear. Anyway, I found the problem. When this pulley bracket broke free, it gave about eight feet of slack in the cable and of course, the ailerons were useless. There was no question of being able to do local repairs there because about eight or ten feet of the left wing from the tip was all banged up. The right undercarriage leg was pretty well torn free. The engine was shoved back and the mounts damaged, the prop was all bent. The engine was damaged, with more bends and breaks through the fuselage area, so that I could not understand how we both could have walked away from an airplane so badly smashed. The thought of that great big fully loaded gas tank breaking free from its' moorings and flying forward with not one drop of gas being spilled was astounding! My fuel system installation worked perfectly.



The day after the crash
Damage to the left wing is obvious

Starting of the Aircraft stripping for sea shipment



Stripping completed

While I was working on the crashed airplane, Louis and Hubbard got their heads together and decided that maybe we could hopefully get a signal out to Greenland and get George Evans over with the Hudson to land on the sea ice on wheels. We would have to compact the snow in a strip about half a mile from the camp. Evans could land on wheels and take Louis and Hubbard away and McVicar, Wheeler and I could carry on the survey. To this end, we all got on snowshoes and tramped back and forth for about a mile run and I figured out later I had walked 16 miles that day tramping the snow, trying to pack it down. We got a dog team from the camp to pull some fuel drums full of water, frozen, and roll these on the snow. It really wasn't working out, so after a couple of days of this activity, we decided that the

Packing snow at Crystal II

only solution was to all get in the one remaining aircraft, 2477, and hopefully get off and head for Crystal 3. With this in mind, I obviously had to make changes to the compass installation in 2477 because of the suspected magnetic influence of the rudder pedals. I removed the compass from its' location between the pilots' legs and installed it in the ceiling and arranged a bit of a mirror so that we could look at the compass. It was as far away from the rudder pedals as I could get. To swing the compass, we had no ground references around which would give us headings for a flight swing of a compass, so I borrowed the theodolite from the camp. The theodolite was used in weather recording to follow the balloons which were sent into the air to determine wind direction and speed. The theodolite, of course, had its' own basic compass references. I then taxied the aircraft around to various headings, left the engine running, and cross-checked the heading with the theodolite. Making two complete circuits of the compass headings, I applied such corrections to the compass as I felt necessary. I'd got, what I believed, was a pretty good compass for our further use. Our future flying, depended on its' accuracy.

I had also prepared 2478 for eventual shipment out, by boat, if a boat ever come into the Frobisher Bay area again. Feeling that it could not be put aboard a boat with the wings on, I removed them, drained all fuels and prepared the engine for long-term storage. All of this activity was done out in the open with the average temperature somewhere in the range of thirty below zero and working with tools that burnt like fire on bare hands.

Crystal II base camp had two huts that housed 11 men, supplies and equipment for two years

On the morning of March 13, the weather broke clear, so we all decided that maybe this was the day to make the attempt to run to Crystal 3. The five of us got aboard the aircraft. I was last. The boys in the camp actually had to shove stuff in underneath me as I laid across the load in the back of the aircraft. I could see out through the side window in the door. Don was going to act as co-pilot to Louis. Hubbard and Wheeler were packed in beside the fuel tank. We fired up and went to the extreme down-wind end of the strip and Louis poured on the coal. Acceleration was quite slow and that big rock was coming closer and closer and finally Don slammed the throttle to the firewall and with the engine really bellowing, Louis hauled it into the air off the cliff and kept it airborne. It took a number of miles before he got up enough speed to even attempt to climb. How he got it airborne, I really don't know because in retrospect I would think we were close to 3,000 pounds over maximum gross weight which is unbelievable for a Norseman.

We climbed out, slowly, in good weather heading north into the mountain areas via Pangnertung (the farthest north hospital in the world) and into Cumberland Sound and finally found Crystal 3 camp on little Padloping Island. We were airborne just five hours.

During the flight, we had to climb to ten thousand-five hundred feet to clear the mountains. So much for maps, which said the highest heights of land would be a thousand feet.

On arrival at Crystal 3, we found the situation a little like that at Crystal 1. The base captain apparently was pretty stupid, a navy man, who had been with Byrd in the Antarctic, but he obviously hadn't learned anything. In this small little camp of 11 men, he stood on military formality and required his ten men to salute him wherever and whenever they met him (which was constantly). At meal time, he ate at the common table alone. When he finished eating, the men could sit down and eat. We found the place like a time bomb, ready to blow and obviously our arrival took some of the pressure off.

That night, we were able to obtain contact with Greenland for the first time and Hubbard gave instructions, that the base captain be replaced as soon as practicable and, in any manner, possible. The station could not function unless changes were made. Meanwhile, Hubbard was able to get operations going properly and the weather reporting system was initiated with first sequences to the outside world.

With dawn, on the 14th, we were able to find a spot out on the sea ice in Cumberland Sound which was smooth and miles long. A radio signal was passed to Greenland for Evans to come over and pick up Bisson and Hubbard and take them back to Greenland, Goose and then Montreal. McVicar, Wheeler and I were to carry on the additional tasks of searching for sites for potential airports.

On the 14th, McVicar, Wheeler and I took 2477 over to Pangnertung Fiord and landed at the hospital and had a quick meal there.

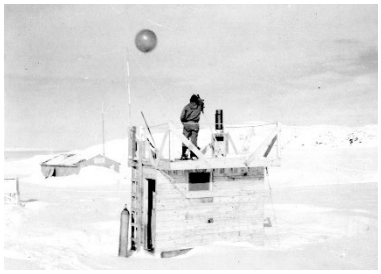
We found out that they had a critical problem as a result of the last visit of the Hudson Bay supply ship, the Nascopie. Traditionally with the supply ship dropping into these Arctic bases, it leaves 'germs' - usually Measles or something like that, and the Eskimo, having no immunity to them are killed off in great numbers. The only way to protect them was with serums and there were none in Pangnertung at the time. A Measles epidemic was in full swing. We suggested we would try to make arrangements for an airplane to fly up either from Dorval or from Greenland with serum to be dropped by parachute to them. We didn't know when this would happen, and I guess it was a tongue-in-cheek offer, but it was the best we could do at the time.

After lunch, we went back to Crystal 3. The flight time on each leg was something like an hour and ten minutes.

On the 16th we took the airplane again on a trip heading north-east up the coast of Baffin Island proceeding up about an hour and thirty minutes to a spot which was called Kivetoo, an Eskimo camp of years past. It was on

a gravel esker and it appeared to us to be the only spot within a thousand miles where one could put in a strip and make a suitable airport in the area.

We returned in the afternoon and on arrival back we didn't have a lot of fuel left. We had not refuelled since arrival at Crystal 3 to give us the opportunity to land after short flights to avoid overloading the aircraft.



Releasing weather balloon

On the night of March 17th, I went out with the meteorologist from the base to do some upper air wind measurements with a theodolite and it became most interesting. The night was absolutely beautiful, starlight, with no cloud, still, and very cold. We let the balloon go with a flare on the bottom of it to show up in the dark, and it rose just straight, vertically above us. We watched it for well over an hour and I forgot exactly the time it took, but what it turned out to be, was the highest recorded continuous sighting of a weather balloon released at that time anywhere in the world. The winds were dead calm, all the way up. I would say we saw it, probably, for between 80 and 100 thousand feet.

Bill following the balloon's flight

George Evans, Swaney and Pollock came over with the Hudson and made a fine landing on the hard wind-packed snow in Cumberland Sound. We had a nice chat and Louis and Hubbard left on their way back to Greenland and civilisation. This was the first wheeled landing of an aircraft in the Baffin Island area ever.

On the 19th, Don, Lloyd and I finally departed Crystal 3. Again, we had little or no weather forecasts to help us on departure and as we got into the higher mountain areas, the clouds hung over us. We were in a valley that climbed and ahead of us we could see the pass was closed with cloud right down to the deck. Happily, we were over one of those high mountain lakes which actually was pretty well glare ice, so we decided to land and wait for the diurnal effect, later in the day for the clouds to lift. Well, when we landed on the glare ice, the airplane, as it slowed down, started to turn, due to the torque of the propeller and engine. Gradually, it slowed down in smaller and

smaller circles until it was only slowly turning. We finally came to a stop by shutting off the engine (which wasn't very smart considering we were hundreds of miles from any place and no one knew where we were going to be). After an hour or so spent in relieving ourselves and looking around with binoculars, we decided that we could see a hole underneath the cloud for us to get through the pass, so, we fired up again. As soon as we started up the engine, the aircraft started to move in circles again. The only way we could get to the end of the lake was to tie a great long rope to the tail skid and I got out at the end of it (about 100 feet from the aircraft) and McVicar dragged me a mile down the lake where we could turn into wind while I removed the rope and got aboard. Opening the throttle very slowly, and using violent rudder, it took a few hundred yards before we got heading in the right direction and finally airborne again.

On arrival at Crystal 2, I decided I had better do some engine maintenance because the dreaded Hudson Straight crossing was next. I did a complete inspection, replaced spark plugs and again replaced some exhaust clamps (and I was rapidly running out of those). It seemed every take-off we blew at least one clamp and then had to sit the rest of the flight staring at a flickering flame from the missing clamp area. Lloyd Wheeler attempted to help me with the maintenance, but he couldn't stand the cold and forever after kept telling the story of how I worked for hours out there with bare hands and he was frozen stiff in ten minutes.

That evening, in the camp, while McVicar and Wheeler worked out a plan of radio communication with the Hudson, I got volunteered by the Doctor to help him do a mastoid operation on an Eskimo woman. The Doctor said none of the other fellows in the camp would help him. The lads just couldn't stand the sight of blood. Anyway, I helped the Doctor when he did a scraping of the mastoid bone, and he used the tyne of a screwdriver as nothing else was available.

Obviously, even in that northern latitude, compasses aren't too reliable to start with and we were still concerned with our compass. We hadn't been getting much sun, to be able to use the sun compass, so the big concern was to cross the Hudson Straights in any kind of weather and find Crystal 1 again. If we ran into any weather, we would be in trouble. What McVicar had figured out was that we could get the Hudson timed properly to come up from Goose Bay, up over Crystal 1, and on arrival there, operate his radio for periods of a minute or so, every couple of minutes and we in turn time to arrive within half an hour or so of the Hudson and could use our radio

compass homing on the Hudson and therefore be guided to the Crystal 1 area. It was quite an interesting solution and it worked perfectly.

We crossed the Hudson Straights in rather dicey weather, and, as usual, the engine quit, part way across catching us unprepared, again. It didn't cause us as much panic this time. We got to the coast of Ungava Bay and the weather really turned sour, we ran into 100-foot ceilings. We had anticipated bad weather and we got it. With the Hudson up ahead, we finally picked up its' signal and arrived at Fort Chimo, Crystal 1, after five hours in the air

The base people at Crystal 1 had brought gas down to the airplane and were prepared to refuel the aircraft while Mac, Lloyd and I went up to the Anglican Mission to have a quick lunch. Meanwhile, the Hudson circled overhead. A quick check of the fuel state and we were airborne again, with The Hudson flying formation with us, heading for Goose. The weather wasn't great, and we got up on top of cloud, but without the Hudson's' guidance, I doubt if we could have made the flight. At one stage, I was flying, and Don was sleeping on the load at the back, when the Hudson crossed in front of us. Swaney apparently was flying at the time, and he crossed in front of me without thinking and I was caught in the vortex it just flipped us. The first thought was "My God, the ailerons have failed again!" but from a pretty-near inverted position, I got the airplane righted. Meanwhile, McVicar was awakened and screaming but calmed down when he saw things were back to normal.

Arrival at Goose took a further five hours and 10 minutes in the air. That day, we had flown 10 hours and 20 minutes, a mighty long day in an airplane like a Norseman.

Over-night was spent in the contractors' shack and we were away early in the morning heading for Montreal. We made a non-stop flight of seven hours and forty minutes - a bloody long trip! - and arrived at Dorval at the end of March. There was no snow left and the fields were kind of soggy with water between the runways.

On a Sunday afternoon there was little activity at Dorval, so we decided that we would try landing on the grass on the skis. The tower was upset with this plan, but we decided 't'hell with 'em! Wheeler and I climbed right to the tail end of the aircraft, as we descended, to get our centre of gravity as far aft as possible. McVicar brought us in hanging on the prop. When we hit the grass, mud and water went flying. The tail came up a bit, but with a blast of power, he blew it down and we slid to a stop in the mud - the end of an Arctic adventure!

A station wagon came out to the airplane and we removed our belongings and got aboard. The driver asked where we wanted to go. McVicar had a wife and kiddie, Wheeler had a place to go to, I had none, so I decided that maybe I should be dropped off at the Flowers' place and see Mabel, so the driver took me there. I hadn't so much as washed properly for over a month, and no shaving, and I was in clothing that was pretty ropey by this time.

On arrival at the Flowers', the station wagon stopped in front, Mabel came rushing out of the house and kissed me. That was the first time she had ever volunteered to kiss me first. I knew then that she had missed me and that there was some hope for my courting to be successful.

The Flowers had guests at the house, but I was invited in and asked to tell a little about my story. The place was at normal room temperature, but I couldn't stand the heat and within minutes the heat was causing me to perspire. After a few more minutes, Bert Flower came over to me and he said, "Bill, so much as we love you, we have to ask you to leave. We can't stand your smell", so I got a taxi and went down to the Central Y where I got a room. I spent an hour in a hot shower, cleaning off the dirt. When I tried to sleep on the bed, I found it too soft and finally went to sleep, lying on the floor.

I spent the next few days with Bisson, and McVicar reporting on the results of our surveys and advising on the locations we felt would be best for establishment of airports. Airports were built where we suggested they should be in Fort Chimo and Frobisher, the strips were started later in 1942.

Louis made an impassioned plea for support to the idea of using the Northern route to Britain, pointing out that the legs of each hop were shorter and that one wouldn't have to wait in Gander for so long for suitable weather. As a result of his presentations, he was authorised to organise a further demonstration programme and it consisted of having two PBY5A Canso aircraft and a B24D Liberator fly to Scotland via Goose BW8 on Greenland, Iceland, to Prestwick. The Cansos were to be left in Scotland and the crews would all be returned via the same route by Louis flying the Liberator.

The Cansos were a brand-new version of the old Catalina flying boat, fitted with a retractable undercarriage. This of course created consternation at all the airports when they first arrived because the tower saw a flying boat approaching to land, when obviously they should be landing in water. When they argued with the pilot about it, saying he couldn't land there, he replied,

"I can so!".

That apparently was the fictitious source of the name Canso.

I had never had anything to do with the flying boat and it was all new to me, so I had my first flight in one on March 30 with Louis doing landing practice. It was also his first flight in this type. In the Canso or Catalina, the flight engineer has a separate station up in the strut between the hull and the wing where he has all the engines instruments and controls together with electric's and what-have-you and operates on instructions by tele-light system from the pilot. It was all very exciting, flying in such a large aircraft and having such a responsible role. I flew again the next day with PBY533 with McVicar, who also was on his first flights, we did an hour practice. The on the 3rd, we did our predeparture test for almost three hours where we tested every element of the airplane, proved all the systems, swung the compass and got it ready for departure. Nobody was really sure how the flights would go because very little information was available about the route and certainly no one had ever flown between Greenland and Iceland, so we were, again, acting as explorers.

There were then, three aircraft; the Liberator 11096 (flown by Louis Bisson with Gale Swaney as flight engineer), the Canso 536 (flown by George Evans with Matt Andrews as flight engineer), and our 533 (with Don McVicar and myself as flight engineer). Our co-pilots were two Polish fighter pilots who were working their way back around the world to Britain having escaped the Germans when they invaded Poland. Both had never been in a large aircraft, both were single-seat fighter men, and both had previous problems with respect with their ability to handle altitude.

Bill on the wing of the Canso in Goose Bay, April 1942

We left Dorval on April 5 and after quite an exciting flight, arrived in Goose in seven hours and five minutes. We had encountered quite severe icing and I gained a lot of experience keeping engines operating with large carburettor ice problems. One had to stay in long-range cruise conditions which doesn't provide a lot of heat out of the engine to keep the carburettor free of ice. Goose airport was still operative and using compacted snow runways. There were a few more aircraft around and significantly one U.S. Navy Canso-type aircraft. Our ship

had developed a problem on our flight with a voltage regulator and there were no spares available in Goose so on the night of April 16, Matt Andrews and I went down after dark to the U.S. Navy aircraft, took their good voltage regulator and replaced it with our bad one, figuring we were going out overseas, they were returning south to the United States.

On the 7th, we departed after dark for a night flight to Greenland. We almost 'came 'a cropper after take-off. The Polish co-pilot selected gear-up then interrupted the retraction cycle before the gear was fully up. This left us with a very high drag and with a big load we were having difficulty climbing out of the sort of valley that Goose is located in and the hills were coming awful close in the dark. We suddenly realised what the problem was, retracted the gear, and were able to get up over the hills.

We arrived at the mouth of the Fiord leading into BW8 shortly after dawn on the 8th and had a most exciting ride following the narrow fiord to the end where the airstrip was located. It sloped down to the fiord and up towards the glacier which is at the inner end of the airstrip. The procedure was that all aircraft land in towards the glacier and take off downhill towards the fiord. It was still very cold in Greenland and I recognised we would have a problem of starting engines the next day unless we did something about it. It seemed impractical to drain the oil from each engine because each tank held over 45 gallons which is a lot of oil and it would have to be heated the next day. My solution was to start engines every two or three hours keeping them reasonably warm for when we needed it. This, of course, interrupted sleep and I was pretty tired when we got ready for departure on the night of April 9th. We were proposing to do something that had never been done before - that is - take off after dark, fly down the fiord with an 8,000-foot wall on either side of the fiord that varied in width from 1/2 a mile to 3/4 of a mile and twisted and turned all the way out to the sea. The fiord was about 50 to 60 miles long. I was facing the take-off and climb-out with some trepidation.

Weather, on departure, was not too bad. We could see the stars and there was some light from the aurora, so we were able to see the white snow-covered fiord below us and the dark walls of the mountains. We kept reasonably in the centre of the fiord out to the ocean on the west coast. We then climbed to about 11,000 - 12,000 feet and headed out across the ice cap towards Iceland. It was bitterly cold; the airplane really had no heater system and it seemed to be full of holes with drafts everywhere. I would expect the temperature got down to about 30 to 35 below zero. Both our co-pilots flaked out. They couldn't operate without oxygen and we had little or no oxygen aboard. The navigator was a first-tripper, a graduate from the schools in

Western Canada and obviously didn't know what was going on. McVicar had to do the navigation, which required him to take star shots by opening the overhead hatch (a three by three-foot hole) through which a ninety mile and hour breeze blew, further chilling us down. While he was doing the navigation, I had to leave my position and do the flying. Don froze his hands quite significantly during this task. Shortly after we got off the east coast of Greenland, and started to descend a bit, we got into heavy cloud and suddenly a strong smell of burning in the aircraft which automatically makes your hair stand straight on end. I finally found the problem. Our electric systems were on fire. This required me to isolate the whole electric's, so I threw off the master switch and got the fire out. We then had no lighting, no radio, nothing electrical operating. We shortly thereafter ran into a period of "St. Elmos' fire". This was my first experience of this phenomenon and it was very frightening. What we had were large balls, 6 to 8 inches round of purple and green and red running up and down the windscreen, and great washes of blue and purple flame off propellers and extending back 20 to 30 feet. The whole airplane was bathed in a flickering blue fire which extended from any protrudance and the trailing edge of the wings for 3 or 4 feet back of the airplane. It is apparently related to static electrical discharge and has been reported, of course, by the earlier sailing ships over the years. It was, for all of us, a first experience, a very exciting thing. It wasn't the last encounter I had but never quite so bright and scary as this first time.

We gradually descended down to where we could see the ocean (about 5 or six hundred feet) and, to me, it looked rather calm. We were getting very concerned because we didn't know where we were or, more particularly, where Iceland was and that we had no way of communicating with anybody. I happened to look out and saw a North Sea fishing trawler. This ship was something over 100 feet long and I had assumed, up to that point, that we could land on the ocean and I had mentioned that we could always land on the hull (it's a flying boat). McVicar said, "Well, look at that trawler. It's going straight up and straight down. Do you think we could still land?" I had to agree, that it was a hopeless task. However, the sign of a fishing ship gave us some indication that we were fairly close to Iceland. Shortly thereafter we saw the coast and found, via reasonably good maps of Iceland, where we were on the north west coast and had to come around to the southwest to find Reykjavik and the airport. We landed to find Louis Bisson had arrived already with the Liberator (a much faster aircraft) but no sign of George Evans with the other Canso. The R.A.F. had a coastal command base at Reykjavik and operated some Catalina flying boats from

the bay adjacent to the airport. I was able to get some help and parts from them and effect repairs to our electrical system which took all of the day, April 9th, to complete.

George Evans arrived several hours after we had landed at Reykjavik and with the only explanation that his navigator had lost him, at least they had some radio to help them find Iceland.

We spent the night in Quonset huts at the base in Reykjavik and had a few minutes on the morning of the 10th to go into town, a couple of miles away, and experience a first 'goats' milk shake. It was a very interesting place and I would have loved to spend more time, but I did that on later trips.

We left Iceland around noon on April 10th and had a beautiful trip of just over six hours to land at Prestwick, my first Atlantic crossing. Again, the tower operator, at Prestwick, was all upset to find a flying boat trying to land on his runway. We had arrived in Scotland five days after departure from Dorval and flown a total of twenty-eight hours. This was certainly far better than the history of earlier attempts to get to Scotland via Gander.

Overnight this time, we spent in the Orangefield Hotel on Prestwick airport. I had a terrible night, I was dead tired having slept very little on the whole trip to Scotland. I found Scotland to be quite cold even after having just spent most of the winter in the high Arctic. I was properly dressed for it, I suppose, and the experience of an unheated Scottish room was very uncomfortable. I found I couldn't sleep, I put on my flying clothes, took down the blackout curtains and finally drank part of a bottle of Scotch before I got to sleep, then I slept for about 12 or 13 hours, being awakened with instructions to get ready for departure aboard the Liberator that evening.

We climbed aboard Louis' B24, in the dark, a most depressing experience, and prepared for take-off in the blackouts typical of the U.K. at that time. We were taking off to the west and heading right for the great big rock, Alysa Craig, some 15 hundred feet high. You always wonder, on that take-off heading, if you'll hit it or be able to climb over it. Anyway, we got off, heading out over the Atlantic, for Greenland. Louis had decided that we could make a direct flight from Prestwick to BW8 in Greenland. We had no significant weather information and were going 'by guess and by God, really. We were out about three hours flying around twenty thousand feet in cloud, when someone hollered,

"My God, number one engines on fire!".

This certainly gets your attention. It was difficult to see out from the B24 bomber, to look at your engines. The only possible way was to go out to the rear gunners' position and there was a small window in that side escape

hatch. One could look out. Well, a number of us had a look out at number 1. There was a red glow and a lot of, what seemed to be, sparks falling off the engine and fading back into the slipstream. We were all rushing around, at the time, with our oxygen masks off, so I think we were probably bothered a bit by anoxia. In any case, it was agreed by all who looked, that number 1 engine was on fire, so Louis and Gale Swaney feathered the engine and pulled the fire extinguisher and didn't seem to have too much effect. Meanwhile, Louis had turned around and headed back for Prestwick, where we landed some 6 hours and 10 minutes after our late-night departure. On investigation, we found that a red passing light, or formation light, located between number 1 and number 2 engine, had been turned on. We don't know who did this, being in cloud, that red light reflected off the cloud and the red sparks and material coming from the engine was, of course, shown up as red snowflakes. There was considerable embarrassment all round, however, no particular problems existed with the engine, after we cleaned it out, so again planned our departure for the morning of April 13th.

This time, we flight planned to Iceland and arrived there in 4 hours and 20 minutes, then on to Greenland in another 5 hours and 10 minutes. On arrival at BW8, in Greenland, we found out that, interestingly enough, if we had carried forward with our attempted flight of a couple of days earlier from Prestwick direct to Greenland, we could not have got in to either of the two main Greenland airports because both were closed down with a major weather system. We would have been badly placed to arrive over those stations with not enough fuel to go anywhere else and would have had to crash land somewhere. I guess the Lord provided us with a fake engine fire to make us turn around and go back.

On the morning of the 14th of April, we took off from BW8 and flew over to Baffin Island and the Pangnertung Fiord and the hospital. On departure Dorval, we had picked up a large serum pack and arranged a parachute set up for it and as promised we went over the hospital and dropped it out. We first dropped a couple of flares to determine the wind because we couldn't get too low, as the hospital was located in the bottom of quite a fiord and we had to stay at something like eight thousand feet. We made a guess and kicked out the serum and parachute. It opened, and we heard later that it landed within yards of the hospital.

After some eight hours in the air, we landed at Goose, refuelled and immediately headed for Montreal arriving there after some five hours in the air, after dark. The rapid turnaround of crews and delivery of aircraft was most impressive and proved Louis' whole argument. We had delivered

aircraft to the U.K. and returned to Montreal ready for further flights all in under 10 days. As a result of all this activity (the Arctic Norseman flights and these early proving flights on what became known as the Crimson route), Louis was made a member of the Order of the British Empire. McVicar and myself received Kings' commendations and thank you letters from the Air Council of Great Britain. These were the first decorations issued in Ferry Command.

I was only home a few days when I got called to make a Liberator supply flight to Moncton and return. The Captain was to be Clyde Pangborn, a very famous pilot, who flew the first non-stop flight from Japan to Washington State, U.S.A., in the mid-thirties. He had been one of my early idols in the flying business. On the taxi out to take-off at Dorval, I heard a loud clicking noise, so I looked around the cockpit and outside and finally noticed that Clyde had a big ring on his right hand and he had his hand resting on the throttles. The clicking was from his hand - he was shaking so much! That didn't give me a hell of a lot of confidence. We returned to Montreal the next day and a most interesting short trip because the return was made at night.

The next week, I was on test flight duty making test flights with a variety of pilots and particularly with Al Lilly who was in charge of the test department, Al was from Moose Jaw. The tests covered airplanes being prepared for departure. The last one was AL638 an LB30 which I was scheduled to go out on. We completed the tests on the 28th of April and departed Dorval on May 3rd to Gander. (My first flight into Gander). It was an interesting one because we went through very heavy rain to get to Gander. The Captain was Don Teale (a famous Texan who always wore his cowboy boots even with his uniform in later years). We got to Gander in 4 1/2 hours and I topped off fuel and we got something to eat and departed about 11 o'clock that night and flight planned across to Prestwick non-stop arriving in 10 hours and a half. The flight altitude was 10,000 feet and the most intriguing part of the whole trip was that we never saw a cloud from Gander to Prestwick and I've never had a flight like it since. Of course, en route, my birthday arrived, so we all had 'a little nip from Dons' bottle to celebrate. We checked into the Orangefield Hotel and next morning I found out that I would have to come home by sea and was given a rail pass to head to Liverpool. I didn't know anyone else going and I thought I'd be all alone. I went down to Liverpool and checked into the Adelphi Hotel which had been bombed 'to hell by the Germans in months preceding and was still being threatened by German aircraft coming over nightly. In checking in with the Port Authority,

I was told that they couldn't forecast a departure time for me, nor would they tell me what ship. "However," they said, "go out and have fun!" and it would be within the next five days.

The first day, I wandered around Liverpool looking at damage and finding out a little about England and dodging traffic on the wrong side of the road. That evening, I went to a movie theatre and sat in the balcony and during the show a young lad next to me got a pack of cigarettes and lit up and I said, "My God, you can't do that here!" and he looked at me as if I were a bit of a nut. Anyway, I looked around and found other people were smoking too. When the movie was over, I went out to the lobby and the lad was there waiting for me and he introduced himself as a fellow by the name of Taylor. He said, "Obviously, you're new to England.". I said yes, I was, and he said, "You're not in uniform." and he questioned what I was doing. I told him I was involved in the bomber ferry. Anyway, he took me home to meet his parents. His father was the Fuel Authority for the port and, of course, had all kinds of fuel. The next day, he invited me to meet with him and they drove me all over the whole area and actually I spent a couple of days off and on with them. It was an interesting contact.

I finally got the signal to show up at a dock, in the morning and when I arrived, I found five other fellows there (one Captain who I never met before or since and four would-be radio operators coming from Britain to join Ferry Command). The six of us were put on a tug boat and taken out in the harbour heading to another small ship we could see and one of the lads said, "Well that's not the one. We'll be transferred to something else." but it turned out to be this ship we were returned to New York on. It was "The California Express", a Norwegian motor ship, a refrigerator vessel of just over 3,000 gross tons. We were met at the gangplank by the Purser, who said "Dinner is served.". We went into the most sumptuous meal I'd had in months and being a refrigerator vessel, of course, they had all kinds of fresh food aboard (the Norwegians like to eat).

As soon as we boarded, they pulled up anchor and we headed out. I was talking with the first officer and found out that we were going by ourselves - no convoy - it was a 15-knot ship and that they were running back and forth steadily between New York and Liverpool. They had, since the war started, never been in convoy. Within an hour or two we were in the Irish Sea and it got rough, very rough, as we come up upon the Northern part of Ireland. I had a separate cabin to myself with a single bed in the centre. That night as soon as I got into bed, I fell asleep and just as quickly found myself on the floor. The ship was pitching and rolling so badly that the only way I

could get any rest was to sort of lock my arms on each side of the bed and hang on, laying on my tummy and that wasn't very successful. I never did see the other passengers until we got into harbour in New York, eight days later. They were all very seasick. I was never bothered with the motion and had the full run of the ship and was in every nook and cranny of it.

On two of the days en route, we had gun practice. On the bridge there were two 50-calibre machine guns, and on the stern, a three-inch naval rifle with four Norse-Marine gunners. I had fun shooting the machine guns. We would drop 45-gallon oil drums overboard and try to hit them. The Norse-Marine gunners would let that drum almost disappear from sight and then let fly with the 3-inch gun over open sights and almost hit it every time. They'd make the drum bounce and if you looked from the bridge back to the stern that ship was pitching so badly that the gun was moving up and down probably sixty/seventy feet with each wave.

We arrived in the New York area on Norwegian Independence Day and anchored out in the harbour. The Captain declared that other than a very few on watch duty, everybody could get drunk! He placed liquor of all kinds in the officers' quarters for us and beer in the mess for the sailors and that boat rocked in calm water all night long. At eight o'clock in the morning he rang a bell and everybody had to stop drinking and go to work again. We were docked about noon. I made contact with the British Consulate and that evening was put on a train returning to Montreal.

I had a couple of days off and made good use of them with Mabel, finally persuading her to accept an engagement ring with a projected marriage date in September that year.

On return to work, I was involved in training duties with pilots on LB30 aircraft day and night, circuits and bumps.

On the 7th of June, I was booked out on AL614, an LB30, on a freight flight with passengers through to Presque Isle, Maine, an hour and a half away. The next day we flew from Presque Isle to Gander in three hours and then on the 8th, returned to Dorval in five hours with 22 passengers and freight.

On the 9th of June, I did a test flight on a B24D-FK226. This was to be again an aircraft that we would take to the U.K. This was the first D-model Liberator that I had been directly involved with. The turbo super-chargers, were manually controlled and very easy to over boost and blow an engine. What it did do was give you lots of power - up to 25 and 30 thousand feet. We tested it on the 9th, and on the 13th, departed Dorval for Goose with Hunter Moody, chief of the civilian pilots, as Captain. We took four and a

half hours getting to Goose and late that same evening went from Goose to Reykjavik, Iceland, in nine and a half hours. We passed over the south tip of Greenland en route. It was a long, slow trip.

On arrival, at Reykjavik, we refuelled and headed for Prestwick. We spotted and dived on a German sub on this leg of the trip and I guess we scared the 'hell out of a few Germans. Just before we came up on the Scottish coast, we were intercepted by an R.A.F. Beaufighter who didn't like the look of us because we were a relatively new type of aircraft to Britain and already one of our delivery flights had been shot down by a Polish R.A.F. pilot. It was a Liberator.

We had some problems en route because I couldn't get one undercarriage leg up to stay up. When we saw the fighter and he began making nasty passes at us, we put all the undercarriage down (this is a sign of submission) and he didn't shoot at us.

I had a five-day wait in Scotland before for my return and used it to go up to Kilmarnock to visit with the parents of a Scots lad, Douglas Haig-Eadie, who spent his time, while based in Moose Jaw, with my Mother and Dad, I met his father and his sister.

On the night of June 19th, I was returned as a passenger in an early version of the Liberator, B24A AM262, operated by B.O.A.C. and flown by Tommy Tomlinson. We left Prestwick and made flight direct to Dorval - 17 hours and 40 minutes- and I have recorded it as pure hell. It was bitterly cold, and we flew at an altitude which required use of oxygen the whole flight and we were hungry with no food. The food that had been put aboard, froze, so we laid on wooden slats in the bomb-bay with no lighting and we could look out and see clouds and the ocean, occasionally, through the cracks. It was a bitter, bitter trip.

I returned to Flight duties on the 30th of June and was given a B17E FK206 to prepare for departure. This was my first experience with this type of aircraft and I was given no instruction, no training, not even a manual. I had to find my own way around and do the proper inspections and find out how to operate the "damn thing"! We finally were cleared for departure on the 3rd of July. The Captain would be Flight Lieutenant Wendy Reid, who later became a very senior Captain with Air Canada and retired about 1980. The co-pilot was a Flight Lieutenant Ralph who was pretty ropy. The rest of the crew were all R.C.A.F. and all on their first trip. Wendy Reid had been an instructor since the start of the war and was now being posted to a squadron in the U.K. We took off from Dorval and Reid was telling me that his Mother lived in Sydney, Nova Scotia and he would dearly have loved to

visit her before he went overseas and I said, well, I see number one engine as giving us some problems over there. I think it would be smart if we did a precautionary landing in Sydney and while I'm working on the engine, you could grab a cab and go see your folks. His face lit up like, oh, it was unbelievable, he was so happy. I feathered an engine just before we got to Sydney to make it look legal and we landed on the three engines. I borrowed some ladders and opened cowlings and worked around an engine that was perfectly serviceable until he showed up a few hours later and we buttoned up and took off again for Gander, arriving in the early evening. That night we took off for Prestwick and I was right to have had some concern about this very "green" crew. At one stage, probably three or four hours out from Scotland, I had been in the radio room trying to warm up a bit and have a short nap, (it was the only heated area on the airplane) when I noticed the airplane making a turn, so I went forward to the cockpit and said, "What's going on?".

"Well," they said, "the Navigator doesn't know exactly where we are. We're trying to get some bearings."

"Well, what's this business of turning?"

"Well, it seemed logical that we should make a turn and stay where we are, so we can get some bearings."

"For Gods' sake, Man, the B17 has marginal fuel capacity for this trip. Keep on your heading. Haven't you been taught this?" I said.

Anyway, we got into quite an argument. Apparently, Ralph had taken over and caused all this confusion. Well, with some great pressure from myself, they oriented to the original heading we were on and we finally got to Prestwick ll hours and 40 minutes and the flight should have been done in about nine and a half to ten hours and we didn't have much fuel left on arrival.

On the night of July 6th and 7th, we returned to Dorval on a B.O.A.C B24A flown by Bill May, at altitudes of some 8 to 15 thousand feet, arrived in Dorval eighteen hours and thirty minutes after take-off. It was monotonous but, for a change, not too cold.

For the next couple of weeks, I carried out flight test duties on B17 and B24D's and finally, on the 16th, departed Dorval on the B24D FL906 via Gander to Prestwick. We actually had a great trip. The whole flight was done at only 5,000 feet and quite pleasant weather. Paul Zimmerman was the captain.

We carried out a test flight on FL906 on the 18th at Prestwick and then flew it back to Canada via Reykjavik and Goose and carried 17 returning passengers as Ferry crews. This was the start of return ferry service by the

Ferry Command group that eventually became 231 squadron. Our flight demonstrated again the advantages of having an aircraft within our own command control because we left Montreal in the afternoon of the 16th of July and returned on the evening of the 21st, with a load of passengers.

Just to add further variety to our activities, towards the end of July, I was flown down to Elizabeth City, North Carolina to crew up with a new R.C.A.F. crew, captained by Tom Chase-Cassgrain, a flight lieutenant who had been on coastal command duties on the west coast of Canada flying Stranraer flying boats for two years and had never seen a submarine. He was being posted overseas to squadron activity and I was sent along to help him get across. Again, we had a first-trip crew with the exception of myself. We picked up a Catalina from Elizabeth City and left there on the 30th of July, heading for Bermuda. We had a heavy load of de-icing alcohol in five-gallon cans being delivered to Bermuda for use in the delivery aircraft. As we were climbing out just off Cape Hatteras (we were up at about 1,000 feet) I looked out my window and suddenly saw a submarine on the surface, so I hollered "Submarine!" and pointed and with that, Tom Chase-Cassgrain went mad. He practically rolled the Catalina into a dive at the sub and screaming and hollering, asking for bomb release. Obviously, we didn't have any bombs, but we went across the sub at nought feet just as it went under the surface. If we'd had depth charges or even bombs, there's no question in my mind that we would have sunk it. Poor old Tom, two years of looking and all the time prepared with bombs, then a few minutes in Ferry Command and he sees his first submarine, and no bombs or depth charges.

We stayed in Bermuda until the 3rd of August and departed for Gander or Gander Lake, which was a slow, uninteresting trip of 10 hours. The handling facilities at Gander Lake were minimal. We had some difficulty getting prepared and fully fuelled for the trip across, which was finally made on the evening of August 5th and day of August 6th. It took us 20 hours and 10 minutes to Gourouk, in Scotland. Gourouk is up the Clyde somewhat from our normal landing site at Grennock. We taxied the last five or six miles up the Clyde between great ships such as the Queen Elizabeth, and the Queen Mary and the battleship King George V and had flown in between balloon barrages set up to protect the harbour. It was quite exciting, and I had never seen such big ships. We had a good sleep in the Orangefield Hotel at Prestwick and were off again the next evening returning in AM258, a B.O.A.C., from Prestwick to Dorval in eighteen hours and ten minutes. This time, Bill May flew at 10,000 feet but it was quite rough, the whole trip.

On August 12th, I reported to Boucheville, opposite Montreal on the St. Lawrence for training duties on Catalinas. We were to take navigators on a flight heading west and up past Toronto and North Bay and out to Lake Huron to give navigators practice. On returning towards Montreal, the left engine gave a hell of a bang and there was oil flying everywhere and the Captain started to scream (he was a Flight Lieutenant LaVerre),

"What should I do? What should I do?" he said.

"Well, hang on a 'sec, let me look."

I finally decided that we should feather and suggested we cut the engine and he fly on one engine at the proper speed. Well, he wouldn't slow the airplane down and as a result, we kept losing altitude until finally we had to land in the lake at Rideau Ferry, Ontario. He tried to taxi on one engine, but we just went into a fast turn. Finally, a boat came out from shore and towed us to shore. I was able, later, to climb up and find out what had happened. A spark plug had blown out of one cylinder and the action of the ignition harness swinging cut an oil line between cylinders. Of course, that sprayed oil all over everything, and the engine was very, very rough. Anyway, I radioed to Boucheville and they flew another spark plug to me which I was able to replace, and we returned to Boucheville, after some six hours in the air. We carried on further tests at there, until the thirteenth, with McCauley (a very famous U.S. test pilot who was later lost on the Atlantic in a Catalina).

On the 14th, we left in Catalina FP118 and arrived at Gander Lake six hours and ten minutes later. Carl Keiser was the captain. We attempted to take off that evening in spite of a very big argument with Keiser. With a full load of fuel, the airplane was sitting tail-down with a far-aft C-G (centre of gravity).

I said, "We'll have to move freight to get a better centre of gravity."

He said, "No, we haven't time. We've gotta go."

"Well, we'll never get the bloody thing in the air." I answered.

He replied, "Oh, I've done this before."

I said, "Well, you've never done it before with this load and if you get into trouble, I'm going to cut the engines."

Anyway, we started a take-off run with this great overload and the nose started to come up and finally it started to porpoise, bouncing out of the water and smashing down in. I watched it for a few seconds, then reached up and cut off the engines. We came down in the last bounce, the right wing into the water, lurched sideways, smashed the gun blisters off the right side of the

airplane and took on hundreds and hundreds of gallons of water. I thought we were going to sink. Anyway, I started the engines and said,

"Head for shore!"

Meanwhile, I got the auxiliary pumps going and gradually lightened the aircraft. Well, I spent the next two days, rebuilding the blister and repairing the aircraft so that we could attempt the trip to the U.K. again. This time, Keiser didn't argue with me on the centre of gravity, but we had a pretty hellish trip as a result of weather. We were on instruments the whole way with severe icing and lost all our aerials. We never got a bearing and actually, almost missed Scotland. We hit the north tip after getting down right on the sea to be able to see ahead and we found the north tip of Scotland and swung south to Grennock. It was a terrible, terrible trip!

(An interesting thing about Carl Kaiser - A week or so later, when we got back to Dorval, he was going to fly a Ventura, taking a load of steel pipe and some construction people to Goose Bay. He never checked his load to see it was properly tied down and on take-off, as he pulled off the ground, and lifted the nose, the steel pipe slid to the tail end of the airplane and the Ventura went straight up, stalled and came straight in killing everyone. He was an accident, ready to happen).

I had three days in Scotland, the 18th to the 21st, so I had a chance to do a little sight-seeing and I wandered around Edinburgh. Captain Andrew, with B.O.A.C., returned us to Dorval on the night of the 21st/22nd (an excellent trip - 18 hours and 35 minutes at 6,000 feet).

Mabel and I had planned our wedding for September 5th, 1942 and I must admit that because of all the travelling I had been doing, I hadn't been too active in the planning of the details. I had asked and been approved for three weeks leave from work for our honeymoon. Just the day before our wedding, as I was getting into the car, Frank Lewis, the crew assignments dispatcher, hollered from the 2nd floor window for me to come back to the office. I was told that because of the urgent demand for aircraft at various places, my leave had been cancelled and instead of three weeks, I could only have one week. This changed the plan that Mabel and I had been developing to go as far west as Banff on our honeymoon. With the new shorter period, we had to sort of 'play it by ear and make a run as far west as Niagara Falls.

We had recently been issued with uniforms, so I was able to use my uniform at the wedding. It was double-breasted and dark blue with silver buttons and decorated with an R.C.A.F. ribbon for rank. The summer uniform was the standard R.C.A.F. khaki colour and shorts were acceptable.

The Flowers gave us a nice wedding reception, I remember. We danced, and Keith Bennett sang for us. When Mabel and I left the reception, we stopped en route to the Mount Royal Hotel to remove confetti, so we wouldn't look so obvious. When we got into the crowded elevator at the hotel however, and I removed my cap, confetti fell off my head on to the floor around me. The whole carload began to cheer and guided us to our room. We were both quite shaken!

When in Toronto, later, at the King Edward hotel, we had another mishap. When the waiter, delivering our evening meal to the room, opened up the hot cart to serve us, the whole meal fell to the floor. He just left it there, and went dashing off to get another serving, which took about an hour.

On return from our eight-day trip, we moved in with the Flowers, having been unsuccessful in finding any other place to live until November when we moved into 5200 Cote St. Catherine Road. A flight engineer friend, Ben Mitchell and his wife separated, and he left Ferry Command also giving us his place. (Lucky, even though we had to buy the furniture to get).

When I reported back to the Command, after the honeymoon, I was sent off in a Canso to Elizabeth City, North Carolina, with a load of Ferry crews to meet urgent demands for delivery of Catalina aircraft to U.K. I did a series of training flights and test flights at Elizabeth City through September and found that it was the hottest place I'd ever lived in - very, very humid and impossible to get cool.

On the thirtieth of September, I left Elizabeth City and went to Bermuda carrying a great load of de-icing alcohol and freight. In fact, we were operating over eight thousand pounds over max. gross weight and had a rather rough flight, which tended to make the airplane creak badly. I was in Bermuda to the fourth of October and then flew on a Canso back from Bermuda to Elizabeth City and then on to Dorval by the fifth of October.

We had a little excitement on our take-off from Bermuda, when just after being airborne the port voltage regulator caught fire in the cabin. We had to land very rapidly for me to get the fire out.

On the 7th of October, I did a flight test of B24D-FL940 with Al Lily and departed Dorval on the 8th with that aircraft, Captained by Bob Sowers, through Gander to Prestwick, a total 14-hour flight, lovely en route but terrible on arrival. Since I would have four or five days wait in Prestwick before the return flight, I decided to hitch a ride up to Kilmarnock to see Scottish friends, so I went out in front of the Orangefield Hotel to the highway and was 'thumbing a ride, when a little English car pulled up. I looked in and there was an army General with the red tabs indicating senior

staff. He stuck his head out and asked me where I was going. When I told him I was going to Kilmarnock, he said, “So am I. Get in!"

Well, I was very nervous because I was in uniform and he was obviously top rank. Anyway, we started to chat. He asked me what I was doing there and when I told him, he said, "Do you know who I am?"

I said no I hadn't the slightest idea.

"Well," he said, "I'm Johnny Walker of the Walker Distillery and I'm on my way to Kilmarnock to the distillery to do a check on it. Have you ever been in a distillery?"

I said, no I hadn’t, and he replied,"Do you have time to come with me?"

I said, "I'd love to!"

So, he toured me through his distillery at Kilmarnock and of course we sampled some of his products which were beautiful. The distillery was very a decrepit place, very dark, and dreary but it certainly turned out a magnificent product. Afterwards, he drove me to my friends' place

I returned to Dorval on one of the first operations of Trans-Canada Airlines with an LB30-AL592 flown by Lindsay Roode, another old friend. We had a good trip of eighteen and a half hours to Dorval. I was only home a few days when I got called to head for Holton, Maine. We were five or six crews being loaned to the United States Airforce to take some B17F's (Flying Fortresses) over to U.K. for the U.S. Eighth Army Airforce. This was an emergency situation because of very heavy losses of the air force in their initial bombing operations over Germany. We arrived at Holton and were allocated an aircraft number 25715 and went immediately out to do a test flight and found a few problems which had to be corrected and did a further flight and then got ready to take off for Gander. We were just loading our baggage aboard when an Army Lieutenant came up to us and asked if any of us knew how to operate the guns and when we all said no, countered with, "Well, obviously you're going into very dangerous areas and you can't go unless you can operate the guns!"

Well, we tried to tell him that we had been flying this "dangerous area" for several years without a problem but, no, that wouldn't push him off, so in spite of the urgency, they held all our crews for three days while they gave all of us a gunnery course. It started out with firing rifles on the range, then submachine guns (Thompson type), then single-mounted 50 calibre machine guns, then four-gun turrets and we must have fired off thousands of rounds each and had 'a hell of a good time! Finally, they said okay we could go. When we got aboard the aircraft, we found all guns had half loads which

amounted to a ton or two of weight for shells. Anyway, we went to Gander and got delayed a couple of days for weather and finally headed out on the night of the 28th. Jimmy Duggan was our Captain. Halfway across the Atlantic, and in the dark, I got up in the four-gun upper turret and had the guns pointed forward and let fire with a four-gun blast. It scared the 'hell right out of myself because I had never fired these at night and at night they shot an enormous flame. Well, poor Jimmy Duggan, who was sitting right under the guns, nearly died of a heart attack, because I hadn't warned him I was going to shoot. With that, we put the airplane on the auto-pilot and all five crew members got on the guns and we had a heck of a time shooting off all these shells. We dropped flame floats out of the rear of the airplane and let them drift down and tried to hit them of course with shell fire from the guns. We had a great time for something better than half an hour. We arrived in Prestwick after 12 hours in flight and the other crews in this group arrived in roughly the same time, but not one of them had arrived with one shell aboard. They had all done the same thing as I did - fired all the guns and wasted all the ammunition. I have often thought, later, what if we had been over a convoy or a ship that night when we were all shooting those guns? The sailors must have imagined a major battle underway and so far from land too!

This time I went back to Edinburgh and Glascow for a couple of days of sightseeing and returned home on the night of the fourth and fifth of November on another Trans-Canada Liberator captained by George Lothian, another old friend - a good flight - 18 1/2 hours to Dorval.

The pressure for delivery of flying boats to U.K. to meet requirements of Coastal Command battles with the submarines mounted and every available crew was pressed into this type of service. With winter deliveries of boats, it was necessary to make the long non-stop flight from Bermuda to either U.K. or, hopefully, via Gibraltar to U.K. We could not use east coast ports because of ice. I was crewed with Don McVicar again and sent to Elizabeth City in late November where we picked up FP280 and flew it from Elizabeth City to Bermuda in four and a half hours. Crews stayed at the Belmont Manor in Bermuda and the place was full. There must have been, oh, 20 crews, of five-man each, all sitting waiting for weather and weather we did get! A hurricane warning was broadcast around the 1st of December and because they could only put so many aircraft on beaching gear on Daryls Island, the base opposite Belmont Manor, many of the aircraft had to sit out at moorings out in the Bay. With the hurricane approaching, people were selected to sit aboard these aircraft and the plan was that if the mooring broke free, he would start up the engines and, hopefully, hold it in position

until the hurricane stopped. That was quite a dream. Anyway, I was selected, with another lad, to go aboard an aircraft at the moorings. We took aboard some lunch boxes and water and coffee and expected to be off in 24 hours. Well, when the hurricane arrived, and the wind built up (I'd never seen anything like it) - I sat in the cockpit for hours in the dark with the wind howling and my airspeed indicator showing up to 100 mile an hour winds, I could actually fly the airplane, lift the wing out of the water, put it down, lift the nose, drop the nose. It was a howling night and the man who came with me (I forgot his name, now) was sick in the first 20 minutes and spent the whole time unconscious on a bunk. No one could get to us, of course. During the night, at the peak of the winds, three aircraft broke free from their moorings, were thrown up on the rocks, and smashed to pieces. No one lost their life, but we lost three aircraft. There was no way in Gods' Green Earth that one could start engines and hold it in winds and waves like that. Well, the hurricane lasted for much longer than the 24 hours. In fact, I didn't get off our aircraft till two and a half days later and by that time I was pretty blood hungry and sick of the motion. I never did throw up or anything like that but the poor guy with me had to be taken to the hospital. He was really bad.

Don and I were able to do a test flight of one hour to prove the aircraft on the 11th of December and then it was a matter of waiting for weather. Each morning we would get up at three, go into the weather office, look at the forecast for the next thirty hours, decide that it was 'no go, and go back to bed. If we had planned to leave, we, of course, had to pack up, go out to Darylls Island by boat, get the airplane ready and, hopefully, get everything ready by nine o'clock in the morning for take-off. That meant we were already up six hours, with a twenty-four-hour flight ahead of us. This early morning check of weather was repeated daily, and it got pretty hard on you and frustrations built to a point where it became dangerous in the sense that we would go with less than ideal conditions. During the day we played checkers. I had learned the game there, and towards the end of my first long trip in Bermuda, I was becoming pretty good at it.

Bill and Fraser Marshall playing checkers at the Belmont Manor

On the morning of the 19th, we got what we thought was a reasonable forecast for the long flight ahead and took off. It turned out to be one of the nastiest, roughest trips I've ever been involved in. Within a few hours we encountered severe icing and lost all our antennas. The auto-pilot hydraulic unit wasn't working too well so it meant the airplane had to be flown manually the whole time. We were in cloud all the trip and anywhere from a couple of hundred feet to ten-twelve thousand feet we tried 'em all and couldn't get out of cloud to get any star shots. From the occasional time we saw the sea, we were able to get drift readings and a feel for ground speed, but we didn't know exactly where we were. At one stage, during the night, I had real trouble with both engines with carburettor icing. We were not operating engines hard enough to develop much heat to melt the ice building up in the carburettor throats. If I put on more power, we wouldn't have enough fuel to get across so, at one stage of several hours, the only way I could get the ice out was to back-fire the engines. This meant I would cut off the fuel flow and then throw it back on and this caused the engine to give a mighty belch and a flame about ten feet long would shoot out forward. The first time I did this, McVicar, up front practically had a heart attack when the great flame belched over his head. I had to keep doing this every few minutes on each engine, alternately, to keep them operating. When McVicar complained, I said either he'd have belching engines, or we'd be in water. There was no alternative, so we had to keep doing it. Later, during the night, in very rough air, McVicar demanded that I come forward and take over his position and fly the 'damn airplane, while he tried to help the Navigator figure out what was happening and where we were. The Navigator was on a first trip basis and, of course, had no experience like this at all and was almost useless. The co-pilot was a first-tripper just finished his flying training on the Prairies, so he had no experience in flying that type of airplane, so I had to fly at two to three hundred feet over the sea at night and I had to fly it for something like two to

three hours. The worst part was wondering if the altimeter was recording correct height over the sea, which we couldn't see, and what would happen if we came up on a ship in the dark and he was higher than we were. It was a terrible, terrible nerve-wracking trip which called for every bit of skill and knowledge we had.

The strangest thing is that after twenty hours, we all decided that it was time to drop down and see where 'the hell we were. We broke out of cloud at about a thousand feet and there was Ailsa Craig opposite Prestwick. Unbelievable! Right on the nose. We landed at Grennock twenty hours and thirty-five minutes after take-off - one of the fastest trips anybody had ever done from Bermuda.

After landing, we hooked onto a buoy at the mouth of the Clyde and a crash-boat tender came out to pick us off the airplane. There was a Doctor, I guess, aboard the crash-boat who helped us get aboard. We were at this time, pretty beat, and he handed each of us a glass about three-quarter full of Scotch and said,

"Down it!"

We were not allowed to sit down until we had finished that Scotch. By the time we got to shore, which was about twenty to twenty-five minutes on boat, we were all pretty well flaked out and they man-handled us into a bus for the two-hour drive to Prestwick. We slept the whole way. We got checked into the Orangefield Hotel and slept for about twelve hours. A horrible experience.

It was obvious we were going to be in Scotland over Christmas, waiting for our turn home on the return ferry service, so on Christmas Eve we held a party in the mess, which was on the second floor and had a nice patio overlooking the airport. So, we got Curly, the old bartender, who hadn't a hair on his head, to start serving what we called "depth charges". It was some concoction based upon gin. Anyway, during the evening, McVicar and I got pretty loaded and the story goes around that we were on the floor on our hands and knees making believe we were lions and roaring an accompaniment to a Salvation Army group who came in to sing Christmas carols. We put each other to bed, tearing most of the buttons off our clothes to do it. At six, Christmas morning, I was awakened by Curtis, the Major-domo of the hotel telling me that I'd better get dressed as I was to go flying that morning and I just couldn't believe how I could do that. Well I had, apparently, been selected along with others to pick up and ferry Catalinas from Largs, another mooring down the coast and fly the boats to new moorings at Grennock. This was an awful thing to put on us first thing

Christmas morning and particularly after the night before. They took us by bus to Largs where I was to fly with Louis Bisson. We got aboard the aircraft and I got the engine started, we unhooked from the mooring and cleared for take-off. Once airborne, I opened my window and relieved myself, we spent an hour and five minutes getting to Grennnock where we were met by another crash-tender and taken back to Largs by bus for another airplane. That's how I spent Christmas, 1942 - sick as a dog - but still flying!

We flew home to Dorval the night of the 27th - 28th of December with George Lothian again (a ten-thousand-foot flight). A good flight, but very, very cold. It was so cold that a radio operator passenger aboard our airplane got badly frozen when he had to get up to relieve himself during the night and went to the aft-end of the airplane where the 'can was and didn't plug in his oxygen mask. We found him an hour later with his hands badly frozen. He lost all his fingers and thumbs eventually. It was a warning to us to be very cautious.

By January 5th, 1943, I was back in Elizabeth City with McVicar and we were, this time, flown over as passengers in another Catalina to Bermuda to pick up an airplane for Scotland.

This particular flight, was flown by a guy by the name of Stagner. It turned out to be the roughest flight I'd ever been on. There were about 20 Ferry crews aboard with a five-man crew flying. It got so rough that the passengers all got sick, including myself. The first and only time I've ever been sick in an airplane. It got so bad that the flight engineer on duty in the tower collapsed and fell out of his position bleeding at the mouth. I took over from him to keep things going. Captain Stagner fell out of his seat, also sick as a dog. McVicar was able to climb into his seat and take over the flying. Between us, we were the only two people out of that mob capable of doing anything. We decided that the only solution was to get up above the weather into the colder and hopefully, calmer air. Well, we climbed as high as we could, up to some 13 to 14 thousand feet and got into calmer air by this time, all the passengers and the rest of the crew were comatose, and pretty near frozen too. It was a five-hour trip into 'hell!

We were assigned our aircraft, FP262, equipped with the latest submarine radar search equipment which consisted of great boom antenna all over the 'damn airplane. When I saw it, I said, "There's no way we're going to get this airplane to Scotland, with all those antennas. The way we fly, and the conditions we fly in, these antennae will be loaded with ice. Our air speed, caused by the drag there will be way down. We won't have enough fuel to make it." I persuaded the base Commander that I could take off the antenna

and put them in the airplane. I had to do this from a boat out on the water working under the airplane, standing up in the boat and taking the antenna off. They were six and eight feet long, with multiple booms, so they were quite a thing to handle. Anyway, I got them all off and into the airplane at the stern. They weren't heavy, but they certainly were drag producers.

We were able to do a test flight of two hours on the airplane on the 12th of January. Then we sat and waited and played checkers. During this time, I won the championship of the base playing checkers (getting up every morning, of course, checking the weather and then going back to bed).

On the 28th of January, we decided to take a chance to get to Scotland via Gibraltar and took off that morning.

The take-offs from Bermuda with the loads we had to carry, were literally mind-boggling. The take-off run on the water took three to four minutes before we broke free of the water. By that time the engines were red hot and the aircraft had been pounded by the waves, taking green water over the prow and into the propellers. It was very hard on the airplane and particularly so on the engines. Then we had to rely on those engines for the next twenty-four hours.

We were out some four hours on the way to Gibraltar, when we got a recall signal because of adverse winds. We returned to Bermuda, after eight and a half hours in the air, realising that we'd have to do it all over again.

We spent the next day getting the airplane ready and on the 30th we again took off in the early morning heading directly for the U.K., but again, the winds were bad, so we got a recall and headed back to Bermuda (another seven hours and some minutes in the air). This was getting very frustrating.

Finally, on the 5th of February, we got a forecast that looked pretty darn good, so we got airborne and away and had a not bad trip using various altitudes from two to ten thousand feet. We arrived in Largs 21 hours later.

The weather over the Atlantic over the last couple of months had been very bad with the result that there had been quite a back-up of aircraft waiting in Scotland for the return trip to Dorval. A decision was made, then, that maybe an attempt should be made departing Prestwick in the early morning making a direct daylight flight back. The plan was to have two aircraft make the attempt. McVicar and myself were in the second aircraft to be flown by a Captain Stewart, a B.O.A.C. type we didn't think much of (he was perpetually getting lost). We were quite concerned when we learned that we had to ride with him. The other aircraft was to be flown by Pat Eves, a very sound, top-grade B.O.A.C. skipper. He was taking off first and got away fifteen minutes ahead of us. These were the first daylight flights attempted

during the war, flying from East to West. The reason the flights were traditionally at night was that we could take star shots and plot our position and thus be able to work out our ground speed and position fairly accurately. There were always headwinds on the East to West crossings. Their strength varied with your position relative to the highs and lows across the Atlantic. It was vital to know your position and speed over the ground (sea) at all times to determine your ability to complete the crossing with some reserve. In each flight, we calculated "a point of no return" where we couldn't return to take off point and were committed to carry on to the bitter end. With a daylight crossing, we had for navigation an astro-compass (for sun-line shot) which would give us a latitude line, but no longitude and therefore no ground speed. Heck, radio, in those days, wasn't very good! Two or three hundred miles out to sea we had no way of getting a good radio bearing. We had drift meters aboard each return Ferry Aircraft which could be used to record drift of the Aircraft over the sea resulting from the winds aloft. A flame float would be dropped from the aircraft and followed on the sea with the drift meter. It would show whether you were drifting to the right or left, giving an idea of wind direction. If you were really good, you could time the movement of the aircraft away from the float and get an idea of ground speed. All this only if you could see the ocean and were close enough to see the flame float. The odds for this were very slim.

The return flight was uneventful for the first six or seven hours and then we began to realise that maybe things weren't going as well as we'd hoped. We had been climbing and cruising at around twenty-one thousand feet. It was very cold, but we could at least see the sun.

Just after the point of no return, we were able to get some indication from radio signals from Greenland that we had run into very heavy headwinds. The headwinds on departure were forecast at forty knots but what we seemed to gather from the bearings from Greenland was that these headwinds were more like a hundred knots, so this caused consternation throughout the airplane both the crew flying and all the passengers. We all knew what we were heading into. Pat Eaves, flying ahead of us, was flying at a much lower altitude and consuming a little more fuel, but had not found out about the wind as early as we had. There is a point in flying an airplane in headwinds where it is good business to increase your speed, using more fuel to do that, to reduce the time in which you spend in the headwinds. We were able to keep our speed up reasonably well in hopes of having enough fuel to get to Gander. When a couple of hours before our estimated time of arrival on Gander, we got weather reports from Gander saying that Gander

airport was closed due to the heavy snow and severe icing with zero visibility at ground level. This was a shocker because, obviously, if we got to Gander, we probably would be unable to land there. When these messages came to us and were digested, it was an intriguing thing to see everyone on his knees saying prayers, I included. When we got nearly over Gander, Stewart sent the message back that if anyone wanted to bail out, they were quite free to do that. On all these flights, by the way, we were required to wear parachutes. We considered them generally, a waste of weight but here was an opportunity that maybe we could save our necks. When we realised that if we bailed out over Newfoundland in a snowstorm (and by this time it's night) the odds of anybody finding us were pretty slim, so no one wanted to make that jump. We all voted to carry on heading west, hopefully heading towards Sydney, Nova Scotia and prepared, of course, to bail out when the engines quit. Meanwhile, Eaves arrived at Gander without enough fuel to carry on further and elected to make landing attempts. He made two attempts to land and came very close to the airport runway but was unable to land. On the third attempt, a couple of miles back from the airport, the engines quit and they ploughed in. Two people survived, a flight engineer who had his leg severed, but still lived and a Captain by the name of King Parker, who had a fractured skull (in fact his skull was split open) and they laid in the wreck for some 48 hours before they were found and brought out. King, survived to fly again and just died recently of old age. I lost some very good friends in that crash.

Meanwhile, we had carried on gradually descending and praying steadily, when suddenly we broke out of weather at about a thousand feet and we saw flame flares from the gas plant at Sydney. We landed with engines popping and quitting, out of fuel. We were able to get some hot coffee and soup while the aircraft was refuelled and took off and flew on to Dorval and arrived in there on the morning of the 10th.

It's interesting to look back on this particular event because it illustrated how people developed feelings for each other and categorised pilots and crews. If anyone in our group under Captain Stewart had the opportunity, he would have given up his rights immediately to fly with Eaves and, of course, would have lost his life. We all returned on these aircraft on a first-come-first-serve basis and very few had the courage of his convictions to demand change in position.

Having done our bit and taken the Catalinas across, we were given a little reprieve and on the 21st were allocated FA699, a B17, which McVicar and I test-flew on that date and departed Dorval on the 22nd of February 1943 for Gander. We waited until the night of the 24th for our departure to

Prestwick. It was not a bad flight; it was a very high flight on oxygen all the way. With the turbo super-chargers on a B17, one could get up quite high and this flight we flew at 22 to 25,000 feet the whole way. I did have problems during the night with the turbo super-charger controls and at one stage lost the turbo on two engines which caused us to sag down in altitude, but I was able to get them working again after an hour or two. We arrived in Prestwick after 9 hours and twenty minutes, a pretty good flight for a B17.

There was still a back-up of crews in Prestwick, so we were unable to return 'till the night of March 9. We came back with Buddy Messenger, a B.O.A.C. Skipper and cruised at 21,000 feet in very strong headwinds; 15 hours to Gander and then another five and a half hours to Dorval - again, one of those very, very cold bitter nights

The return flights from Britain by B.O.A.C. and Trans Canada Liberators in those first few years were truly terrible and confirmed what we all said, that: "We were paid for coming back, not for going over!" Taking aircraft to the U.K. was a piece of cake, by comparison.

On the morning of departure, the passengers list for that night would be posted with the Captains' name and aircraft number. There would be much grumbling and bitching about certain Captains because of bitter experience with their flight plans. I remember one day when Captain Moll (a pre-war KLM pilot) was listed for the next flight and all his passengers held a meeting and demanded that he make the flight at reasonable altitude - under 12,000 feet! Moll got up in front of the group and stated that he always flew at maximum altitude over the Atlantic "... as you might be cold, but you won't be Vet!"

The night departures were most depressing because of blackouts and to a large extent the history of the return ferry service in the winter of 1941-42. Three return ferry Liberators had crashed in just over one month, killing all aboard - over 70- flight crewmen.

About one hour before departure, in the early evening, we met in the lobby, bundled up in full flying clothes (in fact, as much as you could put on!) wearing a Mae West Life preserver and parachute harness. We could hardly move! We also had to carry 2 old-style bladder-type oxygen masks each for use with the constant flow system in the aircraft. We would then be led out in the pitch dark to a black painted aircraft, usually sitting in a light rain with engines running. We would board through a door in the belly, right into the bomb-bay which had been floored over with wooden slats with a small gap between each slat. The black-out was rigorously maintained because German aircraft were always in the area. No lights were used -

adding to the macabre scene. Up to 22 men would be crammed into the bomb-bay laying on the floor and jammed together for the take-off and first segment climb out. The bomb-bay had only 2 small lights - one at each end - adding to the gloom and depression. After we reached a few hundred feet altitude, a few men would move to the rear fuselage which was just as spartan but at least we could stretch out a little. With the very heavy fuel loads in the early part of the flight, we had to stay in the bomb-bay area for take-off and then climb out to maintain a safe centre of gravity.

We would usually step climb as we used fuel and lost weight trying to avoid heavy icing conditions in cloud and by mid-Atlantic would be cruising between 18 and 24,000 feet. Oxygen masks would be put on over 8,000 feet and on most flights would remain on until we landed, up to 18 hours later. As we climbed the bomb-bay temperature would drop steadily to between thirty and fifty below Fahrenheit even on summer crossings. After about two hours, the bladder and drain on our oxygen mask would freeze solid and we would change masks. The frozen one would be placed inside your flying clothes next to your body to thaw out, of course this soaked your clothes too! Sleep was almost impossible and quite dangerous because of the need for constant oxygen flow. In moving around in the cramped space, it was easy to pinch or kink the oxygen supply tube cutting off the flow and as a result, drift off into unconsciousness in a minute or so. The lack of oxygen at altitude is hard to recognise and in fact is a most pleasant way to leave this world. We had to establish a very positive buddy system where we watched each other to ensure all was well.

On departure, hot soup, coffee and sandwiches were put aboard. They would all be frozen within 3 or 4 hours of the flight, so we didn't eat or drink thereafter. We had absolutely no heating and the wind whistled through the poorly fitted bomb-bay doors. The crew flying the aircraft were not much better off - they, of course, had seats and could see out and had something to do to pass the time. Cockpit heating systems were non-existent until later in the war when conditions on the flights did improve. Some seats were provided in the rear fuselage and the bomb-bays were sealed. No heating system that worked was ever installed. The main improvements resulted from more experience over the Atlantic and better weather forecasting. With these we were able to fly at lower altitudes and thus be warmer and stay off oxygen.

I was most happy to get away from delivery flights and move into special flight activities where I flew many more hours and crossings, but I didn't have to ride the bomb-bays again.

On the return to Dorval airport reporting for duty, I was advised that henceforth I could wear a second stripe as the senior flight engineer. There were two of us with this second stripe: John Afflick and myself. I then was appointed to be the personal engineer of Air Commodore Powell and henceforth would fly with him wherever he went and in whatever aircraft he wanted to fly. This was quite an honour and I became quite proud of the fact that I had achieved such a rating.

We flew together for the first time in AL578 (an LB30) - did a test flight on the 19th of March and, on the 20th, left Dorval for Gander and Prestwick. We had some very senior, what I called, 'Brass Hats, aboard, taking them to the U.K. We never really found out who our passengers were in all cases because Security did not permit publishing the names. After a refuelling stop in Gander, we carried on right through to Prestwick (11 hours Gander to Prestwick). We had some problems with propeller controls and quite severe icing en route. Good exercise in skills!

On the 22nd, we did a test flight of AL578 with Paul Zimmerman as Captain and on the 23rd took that aircraft through to Iceland with 12 top "Brass Hats" and returned to Prestwick on the 25th.

We did a couple more test flights with Zimmerman on AL578 because of nose-wheel problems and problems with the propeller governors. We got this all sorted out and finally departed Prestwick with Air Commodore Powell (Taffy Powell) as Captain and I had Matt Andrews as Second Engineer with me. We carried Sir Frederick Bowhill and eight high-brass passengers, returning them to Dorval via Reykjavik.

On arrival, in Reykjavik, a hydraulic pump wasn't working so I spent the night, on the 30th of March, in a Quonset hut, pulling the pump apart. I couldn't get spares there. Found a little problem with the spring and put it all together again in time for us to depart Reykjavik for Dorval (which we did non-stop 11 hours and 35 minutes).

Prior to departure Reykjavik, we had quite a problem getting ice off the aircraft. During the night, we had quite a good freezing rain and Matt and I had a job getting all the ice off before departure. Powell was trying to push us to depart on time schedule and I refused saying we were going to clean the ice first. Anyway, it wasn't a bad flight on into Dorval.

On April 5th, I flew as co-pilot-engineer in a Locheed-Hudson, with Powell, carrying Sir Frederick and Lady Bowhill to Washington. We flew at 12,000 feet and had a very rough flight. We returned that evening - a total of six hours flying that day!

On April 15th, 1943, we again took off with the AL578 on a long trip around the South Atlantic, across Africa and back up to the U.K. carrying Sir Frederick Bowhill and six top-command people on an inspection tour. We left on the 15th, with a flight to Nassau in seven hours and fifteen minutes. On the seventeenth, from Nassau to Trinidad, in seven and a half hours. On the 18th, Trinidad to Belem in Brazil in seven hours. On the 19th, Belem to Natal, in five hours and twenty minutes. We had five hours on the ground in Natal while we refuelled. All the passengers went off for lunch. Matt and I were busy refuelling the aircraft, when suddenly a man hollered that fuel was running out of the wing on the left side. When we looked, we found a bolt had come free from the integral tank and the fuel was coming out a three-eighth inch hole and there was some thirteen-hundred gallons above it all going to drain. That moment, Taffy Powell came by and saw us all standing looking at this fuel drainage and started to 'rant and rave.

I said, "Now, leave us alone. We'll fix the 'bloody thing and we'll be ready for departure on schedule!" He daggered a look at me and dashed away.

We knew we couldn't pull the tank covers to replace the bolt properly, so I went searching in the junk piles of the U.S. Army maintenance area and found a large P.K. screw (a sheet-metal screw with a washer and a piece of rubber to make a gasket). I decided that we could use this to screw into the wing skin and it would stop the leak. Matt actually did the job but got terribly burned with a rash from the hundred-octane fuel. He was just wearing light overalls and when he got under the wing and had to put the screw in with fuel coming down, it ran all down his back and tummy - a very dangerous position to be in - the fuel caused quite a severe rash that took quite a few days to clear up. Powell, Bowhill and party returned for the scheduled departure time and we were all ready for them.

We flew non-stop across the South Atlantic to Accra in British West Africa, on the Gold Coast, in fourteen hours and ten minutes.

En route, about mid-way, Powell turned to me and said "Baker, how did you repair that?" and I answered that I had put a Pk-screw in it.

He had no idea what a Pk-screw was, but when I explained it to him he just about 'blew his top! He asked me if I thought it would hold and I said,

"Well, Sir, I'm aboard the 'damn airplane and I certainly wouldn't get on if I didn't think it would!"

Well, it turned out the repair was the driest part of the fuel tank for the rest of the trip all the way around half the world and back to Canada.

We stayed in Accra until the 22nd and then made the run across mid-Africa from Accra to Khartoum in the Sudan, in 11 hours - a long, hot, rough trip

The Khartoum stop was scheduled for about three hours and Matt and I began to check the aircraft over and refuel while everyone else went off and had a nice meal. It was 'bloody hot - the temperature up around 120 degrees Fahrenheit. The natives were up on the wing putting the fuel in. I went up to check, make sure the tanks were full and the caps locked properly. I couldn't stand on the wing, it was so hot. My feet were cooking!

When our passengers and Powell returned, I noted that one guy was missing, and I reported to Powell that the man in charge of the Commissary systems in Ferry Command was not there.

"Oh," he said "He's supposed to be collecting lunch for you guys, so tell me if you see him coming because I want you to start the engines and we're “gonna go”.

I put Matt up on the top escape hatch to look out, while I started the engines. Matt hollered back that he could see him coming around the corner of the hangar carrying a big tray.

Powell then said, "Okay, tell me if he gets close."

Meanwhile, he released the brakes and started to taxi away. This poor man (he was a big man) was running like 'hell in that heat carrying this tray of sandwiches for Matt and me. Powell just kept ahead of him, all the way. He made him run half a mile. Finally, he stopped at the end of the runway and the man came aboard more dead than alive. He'd lost all the sandwiches, so Matt and I had nothing to eat and Powell was laughing like a fool, saying it serves him right.

We flew up the Nile Valley from Khartoum to Cairo and landed there in five hours - a most interesting flight.

We stayed for the next couple of nights at the Minna House, an Inn just below the pyramids, so we did have an opportunity to climb around the Sphinx. I climbed to the top of Ghinza, the main pyramid. Quite a task! Matt and I also went for a walk in the nearby town of Heliopolis. As we were walking along, an Arab urchin, I guess about eight or ten years old, came up to us and wanted to sell us a small bottle of Spanish Fly for two dollars. We told him we weren't interested and tried to ignore him and carried on our walk. Each block or so, his price kept coming down. In the end, he wanted to give it to us for nothing and we refused that. Meanwhile, he's screaming and ranting and quite a crowd of the most evil looking guys gathered around us, crowding us. We were still trying to ignore him and suddenly realised that

we were surrounded. I, at that time, used to carry a 380 Savage automatic in my upper pocket. I reached in and just partially pulled the gun out. With that, the crowd evaporated - disappeared instantly! We weren't bothered again. Nobody realised, of course, that I had no shells for the gun.

On the 24th, we made a very interesting flight from Cairo to Algiers. This flight was made along the Coast road, by Tobruck and Tripoli, over the great battles in SFAX and Sousse in Tunisia, and across Algeria. This was at the time of the great desert battles and rather interesting conditions were required for the flight. We had to fly at an altitude of 3,000 feet, which would indicate to the Allies troops that we were a an ally, not German. When we got to Tunisia, we were flying over German-held areas and I was praying mightily the whole time. We didn't really encounter any particular problems, but it was a very exciting flight. The war wreckage along the coast was mind-boggling.

Later on, after the war, I received the African Star medal because of operations in combat areas in the African theatre.

Algiers had been freed from the Germans for only a few days when we arrived. Accommodations were marginal, so all the passengers and the navigator departed for town. We didn't have enough rank, so Matt and I and Al Lockridge, our radio operator, had to stay with the airplane. We slept aboard for the next few nights. At the start of the trip through Nassau, Matt and I had acquired a few bottles of liquor and some rum in Trinidad, so we were reasonably well equipped to 'hang out in the aircraft. It turned out though, that, at night, the Germans came over and bombed the airport areas, but happily, not near us. It was noisy, though.

We took off, in the dark, on the night of the 25th, from Algiers with just a few lights available to us because of the German air activity. We went through the Straits of Gibraltar and out to the Bay of Biscay. It was usual practice on the Gibraltar-U.K. run to go as far west as longitude ten west and fly up that longitude. The belief was that this was far enough out in the Bay of Biscay to avoid German fighters, although the German Condor Bombers could get well out past us, and intercept with these.

As dawn was breaking, Taffy Powell turned to the co-pilot, Count Carlais, a Frenchman, and suggested that as he was going back for a shave, he was to take over. As soon as Taffy departed, Carlais laid back and went sound asleep. The airplane being on the auto-pilot, so I moved into the Captains' position and kept watch. We were flying at about 8,000 feet at the time, and I happened to notice something ahead of us on the surface of the sea and it took me a minute or two to realise there were two submarines on

the surface lying together, obviously German. Without thinking to wake Carlais, I took the aircraft off the auto-pilot and made a pretty rapid left turn, heading well around the submarines and toward some cloud. At that time of the war, the Germans in submarines, when attacked by aircraft, usually stayed on surface and fired very accurately with anti-aircraft and heavy gunfire. So, I was busy handling the aircraft and putting it on the new heading, when I heard this ruckus from behind and turned to look. Here was Taffy Powell, the Air Commodore Captain hitting the cockpit with his pants around his ankles, in his undershirt, shaving soap on the left side of his face, and partially shaved on the right, with a great gash in his cheek and blood running all down his chest. He hit the flight deck and the first thing he saw was Count Carlais sound asleep. He tore an almighty strip off Carlais and finally turned to me and said "Baker, what happened?" When I told him, he just grunted?

Meanwhile, Sir Frederick Bowhill and another Air Chief Marshall, I forget who it was exactly, were trying to get up in the cock-pit to see what had happened. We got everybody settled down and I found out that Taffy had just started to shave with a straight razor when I reefed the aircraft to the left and he sliced his cheek from nose to ear.

In later years, when I was in the Argentine, I contracted with Taffys' organisation to fly out some Sandringham Flying Boats to Buenos Aires from the U.K. and I met Taffy at the ramp in Buenos Aires and there was the scar, a neat scar right across his face, but he did not, however, refer to it.

We got into Lynham in the morning, after a ten-and-a-half-hour flight from Algiers, and stayed four days, returning to Dorval via Prestwick, Gander in a total of about twenty hours of flying. Not a bad flight.

On the tenth of May, we left, again in AL578, with Matt Andrews as Second Engineer and George Evans as Captain and fourteen passengers. We were heading for Natal, in Brazil. We made a non-stop flight on the day and night of the tenth and eleventh of May to Trinidad in thirteen and a half hours. Then on to Natal in eleven and a half hours on the night of the eleventh and twelfth. We returned via the same route: Natal-Trinidad in ten hours, then Trinidad-Nassau in seven and a half hours, where we over-nighted; on the fourteenth, Nassau to West Palm Beach; West Palm Beach to Dorval in seven and a half hours. It's kind of interesting to look back on these types of flights. They were rather typical of 231 Squadron activities. We had left on this trip on the evening of the tenth and arrived home in the early afternoon of the fourteenth, having flown over fifty hours in that period. We all had marginal rest periods between flights, but particularly the Engineers.

When we arrived at a base, the Engineers had to prepare the aircraft for the next departure. The reason we carried the two Engineers was to allow some relief in flight. In the main, I carried out most of the flight duties and Matt was the key man on the ground.

In May, of 1943, Churchill and his team were in Washington for a typical war-time conference and this made our activities kind of hectic. We left Dorval, again, with George Evans as Captain, and Matt as Second Engineer, in AL578. We went to Washington and spent a couple of days there and picked up nine of Churchills' team. We took them from Washington to Gander and then on to Prestwick. We picked up a load of people there and took them via Reykjavik and Gander to Dorval, arriving on the second of June. This flight ran something over forty hours in six days.

We were off again on June 9th with AL578 with the same crew going to Prestwick via Gander and did a test flight or two because of some problems with propellers.

We had some interesting passengers on that flight. We took back to U.K. a ships' crew that had been rescued after a torpedo attack on their ship.

While in Scotland, on June fourteenth, we picked up Air Marshall Sir John Slesser and his party. Sir John was head of Coastal Command and we were to take him on a tour of various bases and get him back to Northolt, London, over the next couple of weeks.

We left Prestwick on the fourteenth for Reykjavik, where Sir John was to do an inspection. His Secretary (a man), approached me on this flight and said he had never been in the cockpit of an airplane before and could I arrange for him to come forward on the next leg of the trip. I said I would certainly organise that. Well, when we left Reykjavik on the sixteenth of June for Gander, we got nicely underway and I had organised with Evans and the rest of the crew to slip down into the bomb bay, into a sort of bunk arrangement we had hidden down there, with a curtain. I went back and picked up this secretary and brought him forward to the cockpit. When he got into the cockpit, there wasn't a soul there (as we had all prearranged). He 'pretty near had a baby without benefit of intercourse. Of course, we had the aircraft on the auto-pilot. Well, this was rather a stupid thing to do, because he went tearing back to his boss, the Air Marshall who sort of 'ticked us off, although he did it with a smile on his face.

On this leg of the trip, we got into very heavy icing - the worst I'd had in a Liberator, to that date - and had some real problems. The Davis wing of the Liberator was very critical of any material on it. We went over BW1, the southernmost base in Greenland but did not land. We arrived in Gander

on the morning of the seventeenth, got some fuel, and went over to Torbay, to Dartmouth, in Nova Scotia. On the way into Dartmouth, I had problems with number two engine and the fuel pressure dropped and so we had to 'feather it. The weather in Dartmouth was terrible, with 100 to 150-foot ceiling, with fog and rain. George Evans, however, did an absolutely magnificent approach and put us down right on the end of the runway on three engines in that terrible weather. I worked through the night getting the aircraft in shape again and the weather got worse and worse through the night until it was zero-zero fog and we assumed when morning came, that the flight would be held over. George Evans and the rest of the crew arrived and had quite a time finding the airplane in the fog. We were standing there waiting and wondering what was going to happen, when Sir John arrived with his party.

He looked at us and said, "Well, I suppose we're going to cancel out?"

George only said, "If you want to make your schedule, we're prepared to take you."

Sir John answered "Well, if you're crazy enough to go, I'm crazy enough to go with you." and away we went!

We took off in absolute zero-zero conditions and Evans did another fantastic job. We flew from Dartmouth to Ottawa encountering quite heavy electrical storms en route. We dropped off Sir John picked up some fuel and went back to Dorval. Home again!

On the twenty-fifth, we flew AL578 to New York, to pick up Sir John and his party to take them to Gander and from there to Northolt, in London, (eleven hours and twenty minutes from Gander). This was an interesting flight because well out over the Irish Sea, we were met by the Polish Squadron of Spitfires which were normally based at Northolt. They had come out to escort us in and I must say, it was quite exciting because the Poles just collected all around us and at one stage I looked up through the Astro-hatch and saw a Spitfire propeller ticking over not more than a foot from the hatch. I looked out and at every window there were Spitfires. I'm sure if we had sneezed and pushed a control, we'd probably have taken half a dozen of them out of the air at the same time. They escorted us in to Northolt and allowed us to land first. Then they came in after us landing from every direction regardless of the wind. It was quite exciting and typical of the Polish fighter pilots!

We got a little fuel and left Northolt after an hour or so for Prestwick, only a couple of hours away. We did a test flight on the 29th, then departed

Prestwick for Reykjavik and then Dorval, arriving home on the afternoon of the 29th.

This series of flights, starting May tenth to June twenty-ninth involved over a hundred and seventy-four hours of flying. We were across the Atlantic Ocean six times, from Montreal through to the north-eastern tip of Brazil and back, though, I don't know how many countries and different airports. We also missed a 'heck of a lot of sleep! Most of our long flights were done at night and attempts were made to sleep in various places during the day, which, in the main, proved almost impossible. It was a very, very busy period. The Command made up for it by giving me some leave and Mabel and I went off, by train, to meet the family in Moose Jaw. We had a nice trip and enjoyed ourselves. It was great, too, to see some of my old friends from Prairie Airways days.

It was during this period of high activity, when I was coming and going from home at all hours of the day and night, that Mabel became a little concerned about her safety. She was a little upset with my coming banging on the door at three in the morning to awaken her from a sound sleep and, of course, giving her a shock, I suppose. Anyway, I bought her a 410 Over-and-Under Shotgun and took her out and showed her how to use it and put it beside the bed, so that she had something handy. I never put any shells in it for her though. I agreed to change my habits also in the sense that I would let myself in quietly so that I wouldn't disturb her. Well, on one trip, I came home again, at the usual three in the morning, let myself in quietly, and went into the bedroom, leaned over and kissed her. With that, she sat up and started to scream and scream, and scream and scream. I had a really hard time getting her to stop! When finally, she calmed down, we realised that no one else in the apartment building had even heard her and her screams had been a waste of time.

I got back to flying with Taffy Powell again on the 28th of July in AL578. We did a series of flights over a four-five-day period. Taffy was getting back his instrument flying skills practising. We would go out each day and fly for up to two hours at a time, doing instrument practice and he would attempt blind approaches to the airport. I operated as co-pilot-engineer and monitored his efforts. At the end of each days' effort, he made a practice of going over his home at relatively low altitudes (1000 feet or so) just west of Dorval and doing steep turns to waken his wife. She would come out and wave at him, and he would wave. I got a little fed up with this because he would get so involved with looking for his wife, he would forget about flying the 'damn airplane. The stalling speed of an aircraft goes up in direct

relationship to the angle of bank. He was doing steep turns and I figured that we were very close to a stall and I told him so, but it didn't seem to stop him, and he still asked me to fly with him. I guess it didn't bother him.

We did a compass swing again with the aircraft on the 6th of August and on the 9th, departed for Gander and Northolt, London. This time, we did Gander-Northolt in ten hours and forty minutes, a very nice flight. We stayed a week in London, which gave me lots of time to wander around Southern England and do lots of sightseeing. On this trip, I was able to meet up with various of Mabel's' relatives and truly enjoyed the change and the rest.

We left Northolt on the 17th of August, going directly to Reykjavik with Sir Frederick Bowhill and eight passengers and overnighted in Reykjavik and, on the 18th to Dorval in 11 1/2 hours non-stop. We took Sir Frederick on another inspection trip of North Bay and Toronto in a Hudson, on the 23rd and 24th of August and on the 27th, were off again on AL578 with Gayle Swaney as second engineer. We went to Bermuda on the 27th and on the 28th to Elizabeth City and Baltimore, New york and then home to Dorval on the 29th. I should note here AL578 had become the number two airplane 00in 231-Squadron after AL504, Churchills' airplane, The Commando. I felt that AL578 should have a name and on one of these trips, Matt and I came up with the idea that we should call it Marco Polo but we had to get the Air Commodores' approval on this. He, surprisingly, agreed, and thought it was a good idea. Matt and I arranged, I think it was in Cairo, to get a sign painter out and he painted the name on the front of the aircraft and forever after Marco Polo was its' name.

On the 13th of September, I had a very interesting and very short test flight with John O'Neil as Captain and myself as co-pilot engineer in a Liberator AL593. On the take-off, just as we left the ground, all four-engine propeller-governors failed at the same time and the engines overspeed. I had selected gear up, and it came up halfway and stopped. Then the cockpit filled up with smoke. All We had was a radio operator aboard to help us and I had to use special emergency procedures and some I developed on the spot. The propeller speed governor controlled the propeller blade angle and thus power output and engine speed. Certain of our aircraft had electrically operated propellers, others had hydraulic propellers. The electrically driven ones gave us constant problems that usually developed on take-off just as you were leaving the ground. This was the one and only time that all four governors failed at once. We got away with it because we were lightly loaded, and I developed an unusual solution never tried before. I pushed all 4 feathering buttons which would turn all propeller blades to feathered position and stop

the engine. As the blades turned to feathered position they went through pitch position giving some power. At that instant, I pulled out the buttons getting the engines into control. I had to be fast as the cycle was only 3 or 4 seconds long. When the engines over-sped and the props ran away, your effective power was almost nil, because the props were running in full fine pitch. Anyway, I got the enough power to keep us flying, and meanwhile tried to figure out where the smoke was coming from (and never did). The undercarriage problem was caused by a maintenance man who locked the hydraulic dump valve the wrong way. When I selected gear up, the undercarriage started to retract, then all the hydraulic fluid was dumped overboard, and the gear stopped halfway. I used emergency systems to get it down and locked. We were only in the air twenty minutes, but it seemed like forever. When we flew the aircraft later that same day, after maintenance work on it, on the take-off only two props ran away (which wasn't too much of a problem).

I have recorded earlier my experience in surveys of Northern Labrador and Baffin Island and edges of Greenland and pointed out then that the plan was to establish some new air strips in sites that we had pointed out as probably most suitable. This plan went ahead, and the so-called Crimson Route was developed. The aim of this route was to be able to take shorter range aircraft (such as fighters) from the west coast of United States and Canada via Churchill, Southampton Island, Baffin Island, three stations on Greenland, Reykjavik, and Keflavik and then down to Scotland. Each of the legs on this route were six to seven hundred nautical miles so that the average fighter, in those days with an extra tank, could make the hop. This certainly was a far better approach than taking the airplanes apart and shipping them by sea and losing half of them to the German submarines. Anyway, by the first part of September, in '43, most of the bases on the route had been established but had never been used. A plan for McVicar and I to fly the route using all of the bases between Edmonton and Scotland in both daylight and dark was formulated. We would establish the basic and significant points for navigation and route planning, prove out the ground handling systems, runway approaches etc. It was an involved process. We were given a Hudson Mark V with the Pratt and Whitney engines, AM844. It was a beat up, clapped-out airplane that had already, in its' relatively short life, been 'pranged three times. Our radio operator-navigator would be (Johnny) J.J. McGrail. I would operate as co-pilot and engineer. We collected our Arctic gear again and some survival equipment because we would be going over areas that heretofore had never been flown. So, I modified the airplane again

Hudson named Chinook at Crystal II now Frobisher Airport on Baffin Island

and made sure we had extra tankage and proper spares and equipment to look after ourselves for the next few months.

We departed Dorval on the 23rd of September to Winnipeg, and on the 24th we went to Le Pas, Manitoba and then on to Edmonton. On the 26th, we did a test flight around the Edmonton area to prove out everything and started our basic operation on the morning of the 27th. We flew Edmonton to Fort Churchill in four and a half hours and on the same day, flew Churchill to Crystal II on Frobisher Bay and did a night landing. The leg from Churchill to Frobisher was done at night and I had an interesting experience during this flight. Sitting in the cockpit, with the airplane on the auto-pilot, I was able to read the Edmonton newspaper with the light from the aurora. There were no other lights on in the airplane, but it was so bright that it was like flying in daylight.

We had another interesting experience when we picked up a Hindu passenger in Churchill. He was in his robes and wore a turban. We dropped him off in Greenland and to this day, I cannot figure out what 'the hell he was doing there.

On the 29th, we left Crystal II and went to BW8 on the west coast of Greenland and we did an instrument approach up the Fjord to land uphill toward the glacier at the end of the runway.

On the 30th we took off from BW8 at night, climbing up along the narrow Fjord and then up over the ice-cap at 15,000 feet heading for Reykjavik (arriving there in four hours and forty minutes). We refuelled and went on to Prestwick in another four and a half hours. We had an instrument approach into Prestwick and were warned that we shouldn't be landing a

Hudson there because the twenty-five-knot cross-winds. Hudson's certainly don't like cross-winds, but we felt that we had to get maintenance done that day on the airplane and we had some rights because we were on a special mission. So we landed and did a very exciting ground-loop as a result. The aircraft weathercocks into wind as it slows down and once the turn has started there is no way you can stop it. It goes into a spin on the ground and ends up rolling backwards. In a Hudson, this usually causes the undercarriage to collapse and the undercarriage legs go through the fuel tanks and it blows up. Well, in our case, happily, it spun and rolled backwards without breaking the undercarriage. We got our maintenance work done and departed October 2nd for Reykjavik again arriving in just over five hours.

On the 3rd, we left early in the morning for BE2. This was a new base established on the side of a mountain on the east coast of Greenland and just north of the Arctic Circle. It was never used because the approaches were absolutely horrendous. One had to go around an island and were blind coming around the island, when suddenly, on the side of the mountain there was the airstrip - most frightening! Once we had a look at it, and landed, we decided that we were never, ever, going to use it at night. That was the only time we ever did go in.

We left after refuelling and went over the ice-cap to a spot halfway between BW1 on the south and BW8 above the Arctic Circle on the west coast, a place that was called Maraak. This was a spot on the coast where a U.S. air force B17 made an emergency landing on a strip of gravel, totally unprepared, of course, and when the ship went in to pick these guys off, they decided, maybe they could make an emergency airstrip there. They scraped up gravel and put some oil on it and called it an emergency strip. It was within our terms of reference to do a landing and take-off from the site. It would never be used normally, just as an emergency point and certainly never at night. When we landed there, it was snowing fairly heavily, and we took on a little bit of fuel and our take-off was from the ocean side toward a mountain. The strip was about 4,500 feet long, gravel and snow. The snow was about 3-4 inches thick by this time and I was concerned because we were heading right into the mountain, but we got it airborne and immediately banked away, missing the side of the mountain by, what felt like, inches, but must have been feet.

From Maraak, we went down to Crystal 1 (which is the original Crystal station at Fort Chimo). This turned out to be a pretty nice strip. We refuelled at Crystal 1 and took off in the early morning of the 4th (a night take-off) and flew non-stop to Churchill in six hours and fifteen minutes,

refuelled, then on to Edmonton in four hours and forty-five minutes. This flight was a little more difficult, in that we were in smoke haze from great forest fires for hours and we could not pin-point map reading, and radio wasn't very good. The only station we could pick up was the CBC-Watruss which gave us some ground speed measurements. We were back in Edmonton, 7 days after leaving and had flown over fifty hours in some of the most in-hospitable areas of the world, certainly in some of the most difficult areas to navigate. Our routes in the high Polar areas were such that one could not rely on the typical magnetic compass. Closer to the Pole, the compass will become very erratic and I have seen it do a rotation completely round the 360-degrees in a few minutes, while the aircraft is flying a straight heading. Essentially, we would use the Astro-compass for sun lines or star lines at night (or moon lines) and wherever possible, and weather permitting, star shots with a sextant. Radio was very unreliable and if the sun-spot activity was high, certainly, our radio was almost useless. Again, the maps of that era were, particularly in those areas of Northern Canada, almost useless.

Don had a friend who wanted to move a bunch of freight up to Alaska, so we were busy plotting how we could make a test flight to Alaska and back, taking the freight and enjoying a different scenery, when we got a signal from Dorval indicating that they had sent two Air Force officers out to meet up with us in Edmonton and to ride with us on the next U.K. trip to aid us in writing up all the reports that were necessary. When we heard this, we were very upset because it 'buggered up a trip to Alaska and secondly, it gave us two more people to worry about, who, in our view, had no real feel for the situation, nor the hazardous part of the flight if we got into trouble. Squadron Leader, George Wakeman, a Canadian and a Flight Lieutenant radio expert from U.K. arrived as forecast. Wakeman, who I knew of in the past as a typical 'asshole who had promoted himself up by great talk and very little action. So, with their arrival, we carried out a test flight and then departed on the evening of October 8th from Edmonton for Churchill. We encountered the forest-fire smoke which made for rather difficult navigation and arrived at Churchill in the early morning hours in the dark. Churchill had just been completed as an airstrip, had minimal lighting and none around the ramp. It was kind of awkward to do our ground service and refuelling

AM844 crashed into the ditch at Churchill

checks. We were on the ground about an hour to an hour and a half and loaded up, fired up and headed out for take-off. As I mentioned, there was minimal lighting. We could see the main lights at the end of the runway, with a few perimeter lights along the strip. We, of course, didn't realise what was around the strip because of the black night. I did my run-ups and we started our take-off roll. Normally, the Hudson would start to leave the ground at about 80/85 knots. This time, it didn't want to come off the ground until we were very near 95 knots and it lifted off two or three feet and suddenly the left wing dropped. We pushed the stick forward and put her back on the ground, on the wheels and Mac cut the power. With the power cut, the aircraft swung immediately to the right and we rolled off the side of the runway in the dark, and both of us thought we were going to be all right, when suddenly, there was a big twenty-foot wide ditch about ten feet deep. We flew across the ditch hit the other side, tore off the undercarriage and stopped DEAD! I didn't have my safety belt on neither did Don, I got thrown forward and happily got my right arm up enough to take some of the bang when I went through the instrument panel. I was thrown into the nose of the aircraft. Johnny McGrail was sitting on the back of his seat with his feet in the bucket and was thrown violently forward and landed on the master-switch, a big toggle switch in the centre panel between the pilots. It was driven into his right knee-cap. He then fell back and got the corner of the radio transmitter into his seat.

With that, he hollered,

"Fire!".

In truth, all the fuel tanks, with the exception of the cabin tank, had burst and there was gasoline everywhere. I came climbing out of the nose, McGrail was heading aft through the cabin and as he got towards the entrance door, the two passengers had got to the door first and McGrail knocked them flying. They got to the door again, when I came through, and knocked them flying, and then McVicar did the same thing. We hit the gravel outside and ran down the runway in the dark to get well away, because we expected the airplane to 'blow at any second. The passengers were first to the door and last out, of course complaining bitterly. In the dark we got together, when a jeep came tearing up with a U.S. Army Sergeant in it and as we were standing and congratulating ourselves, I pulled out a cigarette and was about to light it, when the Sergeant knocked me flat. I got up, mad as 'hell, and he explained to me that I was dripping in gasoline and if I'd lit that match, I'd have gone up like a torch. In the light of the jeep, I was able to see blood all over me, so with that, an

ambulance arrived, and we were all carted off to the hospital. The doctor gave us a going-over and I was bandaged up. My ring finger on my left hand was pretty' near torn off. I had caught my ring on something as I went through the instrument panel and it peeled the finger quite badly. The doctor said I had probably cracked the bones in my right forearm, and I was certainly bruised all over. After an hour or so in the doctors' quarters, the Base Commander decided that we needed further treatment over in the Mess, so he opened up the Mess at four in the morning and we went there for a few drinks then I was taken back to the hospital and put to bed. For a couple of days I couldn't move, the bruises were so painful the Base Nurse fed me. By the third day, I was up and moving around when Mac had arranged a hunting trip, so we went out with a team of Army Privates, south of Churchill, in some jeeps and came across a herd of Caribou and we were able to knock off eight Caribou and Moose in about twenty minutes. The army personnel butchered them and brought them back to camp and we ate them the next day. The airplane was pretty badly battered and certainly beyond local repair and I doubted very much that it ever could be repaired satisfactorily. It was a write-off. I tried to take a couple of souvenirs such as the clock from the instrument panel, when I got it out, it was junk inside. The bang of hitting that ditch just shook everything inside the clock to pieces.

We got word from Dorval that they were sending out another aircraft. This time, a Hudson MK3A-FK774. It was flown up to Churchill and arrived on the fifteenth, so we flew the crew down to Winnipeg that same afternoon and checked into a hotel in Winnipeg. Had a nice party on the sixteenth and returned to Churchill on the seventeenth. We packed up got our passengers aboard and departed that evening for Crystal 2 arriving after a 5-hour flight. The next morning flew from Crystal 2 to BW88 and then that night to Reykjavik. After departure BW8, Don went back to have rest because we had been going pretty steady, and I took over flying. We were at about 17,000 feet over the ice cap on a black, black night with lots of ice crystals in the air, no radio. The outside air temperature was minus 22 degrees centigrade. Everything was going great until I figured we were just about on the East coast of Greenland, when there was a sudden burst of turbulence and an audible 'sw-i-sh' which lasted for 3 or 4 seconds and I saw the airspeed fall off very rapidly, so I pushed on full power and full fine propeller pitch trying to hold the airplane at that altitude, but we were losing altitude and very rapidly. Meanwhile, I was flashing my flashlight around trying to figure out what 'the hell was going wrong when I got a

glitter off the gun-site post three feet ahead of the cockpit. I suddenly realised that we were covered with at least three-quarters of an inch of clear ice. I got the alcohol systems operating to clear the ice from the props and after about 4 or 5 minutes, the ice started to come off and I started to get a little more effective power. We were, meanwhile, losing height steadily and I was hollering for McVicar to wake up and come forward, I needed help. This particular flight and the incidence of clear ice at -22 degrees centigrade is now written up in Canadian Meteorological history as the coldest ever encounter of clear ice on an aircraft. Normally, clear ice shouldn't be expected at more than 3 or 4 degrees below zero centigrade. In this case, there was an odd flow of air rising up the side of the 9,000-foot wall of the east coast of Greenland and a convection developed carrying moisture into the higher altitudes and as it rose, the moisture coalesced into very large drops in still air. When the airplane went through it, they immediately froze on the airplane. It was a very exciting event and we were very lucky to be able to get out of it as well as we did. We were east of the mountains by this time and I could descend towards the sea in safety. I was hopeful that I would be able to hold the airplane just above the ocean, where there is so much salt in the atmosphere that the ice supposedly will melt off. This has happened in the past, and a number of airplanes were saved by that salt-laden atmosphere just over the ocean. Anyway, I was able to hold the altitude at a couple of thousand feet as we got more ice off the propellers and more effective power. The ice on the wings and fuselage, I couldn't touch - I wouldn't touch - because the typical inflatable de-icer boots of that era would not have cracked it. If it did, the wing would have been made rougher and probably created more problems.

We arrived in Reykjavik in the early morning and McVicar did a very hot landing at about 30 or 40 knots faster than our normal landing speed because of the load of ice and the danger of a high-speed stall. We spent a couple of hours on reaching the ground there, beating the ice off the airplane. We departed the next morning, October 19th and were in Prestwick five and a half hours later.

On the 22nd of October, we took off from Prestwick and in just over four hours arrived in Reykjavik, to find out that during that day a Hampden, with Bob Coughman, Ronnie Snow and Ted Greenaway as crew had gone down off the south-east coast of Greenland. So we took off after refuelling and headed out there on search. We got into some terrible weather, with heavy snowstorms, poking in and out of the Fjords made for

very 'hairy flying. It scared the 'liver out of us! After doing this a while, we realised that we weren't doing any good at all and because the weather was so bad we headed back to Iceland. The three of us, alone in the Mess, John McGrail, Don McVicar and myself, got sort of plastered that night in memory of our lost friends.

The next day, in five hours, we went on from Iceland to BW8. We did a run around the east coast of Greenland, partly in search of our friends and partly in search of a supposed German base being used for weather reporting. We saw nothing.

We refuelled quickly and took off again, still on the 23rd, from BW8, and went over to Baffin Island, circling Crystal 111, on Padloping Island, and then headed down to Southampton Island at the top of Hudson Bay. Arriving there, after dark, we found the weather very bad. We did an approach down to a couple of hundred feet, saw one light, and decided it wasn't for us. We were running low on fuel and had to land back at Crystal 2 as our only alternate base, we had no place else we could get to. We leaned the engines down and took a slow-speed cruise back to Crystal 2, hoping that we would get out of the weather en-route. I guess about 20 minutes out of Crystal 11, we broke out of the heavy snow-storm and saw the lights of Frobisher airport. We had been eight hours and 15 minutes in the air, when we landed. The next morning, on refuelling, I found we had only 15 gallons left in the airplane, enough for 15 to 20 minutes of flying. That was **much** too close for comfort, in that environment.

Bill in Ferry Command uniform with two strips up at Moose Jaw

We left on the 24th, from Frobisher to Southampton Island again in three hours and twenty minutes, flying down the Hudson Straights and over the Nottingham radio station. From there, after an overnight, on to Edmonton in eight hours. Not too bad a flight! We left there on the 27th and went on to Winnipeg and then Montreal, but we had to return to North Bay because of weather in Montreal. We refuelled and spent only an hour or two in North Bay and went on to Montreal late on the night of the 27th. In a period of 34 days, we had flown 140 hours on the 22 days that we flew. This was a very heavy task for all of us involved because for every hour we flew,

there was at least another hour or two in preparation before and after each flight.

I got five days off then, did a Hudson trip to Washington and back on the 2nd and 3rd of November with Squadron Leader Ralph and some senior 'brass passengers. We then started a series of runs with a Liberator AL593 to Elizabeth City and back, taking crews down for Catalina deliveries. We made three runs. An attempt on the 16th of November to go to Bermuda, from Elizabeth City failed when we got into some violent weather and had to return to Elizabeth City and from there back to Dorval on 17th.

On the 19th, another Hudson trip to Washington with Air Vice Marshall Marrix, returning on the 21st. On the 29th, to Elizabeth City with the Liberator AL590, then on to Bermuda on the 30th and on to Dorval on the same day. Again, terrible weather with hurricane-type thunderstorms.

We did another Hudson trip on the 7th of December to Ottawa and on to Washington and from there to New York and returning to Dorval on the 8th with Flight Lieutenant Ed Townsend.

On the thirteenth of December, we started off on a special trip with a Hudson, FK771, taking Air Vice-Marshall Marrix on an inspection trip through all the South Atlantic bases down to Rio de Janeiro.

On the way south, we stayed overnight in each of the stops: Elizabeth City, Miami, Puerto Rico and Trinidad, Belem and Natal.

On the eighteenth, we were to head to Rio. As we were loading up, prior to take-off, I had just helped Air Vice-Marshall Marrix aboard. (He had a wooden leg, so it was difficult for him to climb the ladder). I suddenly felt ill and that is the last thing I remember. I woke up later that day in the base hospital. I had food poisoning. I stayed in the hospital a couple of days while the airplane went on to Rio and back. I had missed a 'damn good trip!

We started home on December 22nd from Natal to Sao Louiz, Brazil, then on to Zandera, in Dutch Guiana. On this particular leg of the flight, Jaimie Reese, the Captain, decided to fly at between seven hundred and a thousand feet all the way. This was a pretty stupid decision and we had quite an argument about it. He was concerned about the Air Marshall suffering from high altitude problems if we had to fly at the usual altitude of ten to twelve thousand feet, so he wanted to fly off the coast at under a thousand feet. I tried to explain that because of very heavy rainstorms it would be quite dangerous. Jamie wouldn't change his mind, so we headed out at 900 feet over the ocean and about 40 miles off shore. We were

running in and out of storms and trying to dodge the worst ones. It was also very hot. Just off the mouth of the Amazon River we hit the grandee daddy storm with the rain so heavy it felt solid. Both engines quit - Bang! - water just filling the carburettor intakes. I slammed carb heat on which takes air from behind the engine into the intake. The engine starts to operate again but roughly. We were down to 3 or 400 feet by this time but were getting some power back although both engines were banging, 'fartin' and popping because of water in the ignition systems. Once we got into clear air, I opened the door to look back and see how the passengers were. I saw the Air-Marshall laying back in his seat with his wooden leg propped up on the seat ahead and drinking from a bottle of rum. We arrived at Zandera, then operated by U.S. Army-Air force with everybody out on parade in white helmets for the inspection. We taxied up to the appropriate spot and had to carry Marrix out. He was completely 'blotto! So, the inspection failed.

I worked all night on the aircraft getting the engines dried out and we departed early in the morning of the twenty-third for Trinidad. We had very poor weather after take-off with heavy rain and this time, Reese agreed with me and we climbed up to 11,000 feet. Both engines were still very rough.

On the twenty-fourth, we went from Trinidad to San Juan and then to Nassau, where we enjoyed a very quiet Christmas - a very lonely one too!

On the twenty-ninth, we did a Nassau to Miami and return flight and on the thirtieth Nassau-Miami, Miami-Washington, and then on the thirty-first, Washington to New York. We stayed in New York over the New Year period. It was quite interesting wandering up and down Times Square in uniform and being treated by everybody as a hero. It was quite an experience to be on Times Square, on New Years' Eve.

I arrived home on January 4th, 1944, and found Mabel in bed, looking quite ill. She told me, between sobs, that we were to have a baby I said,

"Well, I have no real experience with this sort of thing." It didn't seem to me, though, that she should be ill, at this time, and I asked her if she had seen the doctor. She said she had seen their old family doctor, Doctor Taylor and he had been looking after her. So, I said, let's call him right now and we went to see him immediately. He tried to say that the problem she was facing would maybe clear up, but he wasn't absolutely certain. I asked that he get in touch with the top Gynaecologist in the

Montreal area immediately. He argued with me, but I got mad and told him that if anything happened to Mabel, I was going to kill the 'son of a bitch! So, he got in touch with a top Doctor and we went to see him right from Doctor Taylors' office and he put Mabel in the hospital immediately. She had peritonitis, among other things, and he said he was going to have to clean everything away and that we probably would never have children as a result. We spent a bad few days, when we were advised that, hopefully, everything would be okay, and I brought Mabel home from the hospital.

In the period from January 17 to 21, I did a run with Paul Zimmerman in AL593 from Dorval through to Rabat, French Morroco non-stop, in sixteen and a half hours, from Rabat to the Azores, and from the Azores to Bermuda (one of the first times anyone had flown in Ferry Command on this particular run) and back to Dorval from Bermuda on the evening of the 21st.

On the 31st of January, I went with Evans in BZ715, B24D to Elizabeth City and then Bermuda and Bermuda back to Dorval on the 1st of February.

On the 8th of February, we left Dorval with BZ715, through Sydney, Nova Scotia then on that evening and night to the Azores and the next morning on to Rabat in about seventeen hours elapsed time. We had a few hours' sleep in Rabat, then off to Gibraltar and that evening, the tenth, from Gibraltar up the Bay of Biscay to St. Mawgans, in Wales. That evening, again, on the 11th, from St. Mawgans to the Azores and then from the Azores heading back to North America on the night of February 11th and 12th.

On this particular flight, we were given a bad forecast. In fact, the forecaster in the Azores gave us information that was twenty-four hours old. The result was that we were caught out coming up on the coast of Canada and Newfoundland when the whole Eastern coast was closed down with storms and we were past the point of no return. We had to keep coming! We came in over Newfoundland with reports that they had zero-zero conditions everywhere. By this time, we ran into ice crystals which cut out all radio reception. We had a load of eighteen air crew in the bomb-bay and only one of them had a parachute. He sat by the escape hatch holding his parachute ready to bail out when the engines quit - out of fuel. We kept heading west in the early morning and at one stage climbed up to 20,000 feet! We broke out of the cloud and were able to see the moon, stars and took a quick fix. At the same time, we were able to get a bit of

radio and the reports were hopeless for us. At this point, I had to say to George Evans, that we had to descend because we didn't have any fuel left to stay at that altitude, so we dropped down into the cloud, hopefully stretching our glide as far as possible. We were down to 7,000 feet and dawn had come when one of the crew hollered, "I can see the ground!" and we looked out and we were in a small area of clear air. The most amazing thing was that we could see an airport at the bottom of that clean air. We tried to radio for clearance to land, but weren't sure which base it was, and turned on to final approach anyway. The engines were starting to pop and quit - out of fuel as we rolled to a stop at the end of the runway and the snow came down again. Within seconds, we couldn't see a thing! A jeep came out to lead us in and we found out we were in Presque Isle, Maine. I was able to get two engines running enough to get us into the base. We went to bed in the barracks that afternoon and slept through the night. We had been on the go for five days and nights. I hadn't taken my clothes off for that entire period and really the only sleep I'd got was a few hours napping in the airplane while on the ground and none in flight. The Lord certainly looked after us on that particular series of flights, we had flown some fifty-four hours in five days.

I was able to get ten days off and spent them trying to find wheels and tires for our car. We had an apartment on the ground floor and a garage underneath which held about ten or twelve cars. Our car was located right underneath our bed. Sometime during the night during this last trip, somebody had broken into the garage, and taken all the wheels and tires off our car and just dropped it onto its' belly. A number of other cars were similarly treated in the garage. It was most difficult to get tires or wheels or gasoline at the time and the only way we could really do it was on the black market. Anyway, I was able to get some tires. They weren't the best, but at least we were on wheels.

I left Dorval again, on March first with Captain Bowen in AL590. We went to Bermuda and we were planning to take off that night for the Azores and Rabat and on the run-up, prior to take-off, number two engine went bad, so we cancelled the flight. I stayed and worked for the next twenty hours on the engine replacing carburettor and various other things. We finally departed on the night of the fourth and went from Bermuda to Rabat in just under fifteen hours non-stop. We had a night or so in Rabat and came back through the Azores to Bermuda.

On that Bermuda flight on the night of the 7th and 8th of March, it was one of the wilder nights for weather that I had encountered up to

that time. We had eighteen passengers, all air crew. We were about two hours out of the Azores, when we encountered a cold front and had to run along the front for the next six hours and were flying right on the icing level. The first thing that happened was that all four engines quit! Bang! with carburettor icing. I was able to get them going again before we lost too many thousand feet. We climbed up again a bit and then we were into major lightning and thunder storms. We turned on all the lights bright and oh, it was pretty wild! Once there was a 'hell of a bang and a crash. We were all blinded. All four propellers ran away - they were electrically operated - to full fine position and then some - which meant the engines were all over-speeding. You couldn't see the instruments, so I banged the feathering buttons which cuts off the engine completely and turns the props to full-feather. This worked. As I couldn't see what was happening, but I could hear, as the engines slowed down, I pulled this feathering button and happily the propeller governors took over. At the same time the lightening hit, the cockpit was full of fire (that is electrical discharges) - all around the cockpit, off the radios, off anything that stuck out. The smell was ozone, unbelievably strong and a smell of burning - which is more frightening. Everything seemed to work afterwards, so we carried on into Bermuda. On arrival the next morning, after twelve and a half hours, we were taxiing in when the tower said "Liberator, you better check your rudder. They look kind of strange." Well, we found that the top part of the left rudder was missing. The fabric had been burned off. In searching around, I found a hole about six inches around in front of the cockpit windscreen where the lightening had entered. We had become part of a lightning bolt! This was very exciting!

We were back in Dorval on the evening of the eighth of March, after a very rough flight in severe weather from Bermuda to Dorval in six hours.

On the 28th of March, we took off again in BZ715, a B24D, through Bermuda, Nassau, Elizabeth City and back to Dorval on the 31st. Again, encountering very heavy weather conditions.

On early morning, April 1st, I was called out under emergency conditions, asking me to bring my Arctic gear. I was going on search with a Norsemen, on skis, with McVicar. We were appointed to an emergency crew arrangement at any time we were in Montreal, if an emergency arose during the winter. We were to take a Norsemen, held for that purpose, to do searches in the expectations that we would land and bring in survivors, if any. What had happened was that a new R.C.A.F. Airforce crew had

departed Dorval on the preceding day heading for Goose and had disappeared. During the night, a railway Engineer reported seeing an airplane go into the bush way up in northwest Ontario. We were to go out and search that area. In actual fact, the crew had gone 180 degrees off course and ran out of fuel up near Sudbury.

Don and I took Norsemen 406 out of Dorval, on only a trace of snow and en route to North Bay heading by Ottawa, we had an exhaust stack blow off. We were getting a little concerned with the fire in front of us, when we got a radio message to say that the crew had been picked up, so there was no need for us to carry on. We landed at Ottawa, again on very little snow, and I was able to get parts from the R.C.A.F. there, and repair the exhaust pipe, so that we were home that same night (after a rather hairy landing at Dorval on the mud).

On the 23rd of April I got a call to report to Taffy Powells' office, pronto! I headed there with some trepidation, wondering what I had done wrong. He surprised me by saying he had sent AL504 Churchills' Commando to the Consolidated Aircraft factory in Tuscon, Arizona to be modified into a passenger transport type aircraft. Consolidated had come up with a new version of the Liberator and had just finished modifying the first aircraft and AL504 would be the second. I was ordered to go to Tuscon to oversee the final work on the aircraft and participate in the test program to ensure it met our requirements. I was very pleased and flattered at being selected for this responsibility as Powell could have called on many capable Air Force Engineering officers to do the job. I was instructed to use my special A1 priority to travel to Tuscon by Commercial Airlines and I left the next morning on the first seat available in an American Airlines DC-3. It was a long trip of two-hour flights heading south to New Orleans then west across Texas to Arizona arriving before noon the next day. The trip was not without incident as during the night across Texas we ran into the Grand-daddy of all storms. I was in a rear seat in the cabin tightly buckled in when the Stewardess coming back to her seat at the rear was tossed into the air in violent turbulence. She flew up to the ceiling and crashed to the floor beside me where another man across the aisle and myself grabbed her and held her down until we landed about 20 minutes later. The Stewardess was taken away by ambulance with a suspected broken leg. She should not have been moving around in such conditions and I got a new appreciation of how strong a DC-3 really was.

I spent about 3 weeks in Tuscon staying at the Santa Rita Hotel enjoying great weather in the Desert and being treated like a V.I.P. by

Consolidated. The modifications move right along, and I had no problems with quality.

One morning I awoke with a very sore throat, got dressed and found out from the reception desk that a Doctor had an office just 2 blocks down the street. I remember heading for his office but from then on, it's a blank. Apparently, I passed out as I got to the office door and woke up 2 days later in the hospital. Luckily, I had been in uniform and was taken by Military Ambulance to the Davis Monthon Air Base Hospital with a sever strep throat. They filled me with sulpha and it cleared up fast and I returned to work a few days later.

The rework of the aircraft consisted of adding 10 feet to the fuselage between the cockpit and wing leading edge, removing the bomb bay and replacing the twin rudders with a single large dorsal fin and rudder. A new passenger cabin was installed for 30 people in great comfort compared to other aircraft of that time. The Commando in this new version had the longest range of any aircraft in the world at that time as room for another 600 gallons of gas within the wing was created. The aircraft now could hold 3300 Imperial gallons, about 25 - 28 hours at cruising speed. Test flights were completed quickly by April 22nd and Flight Lieutenant Ed Townsend was sent from Dorval to Captain the aircraft back to Montreal. We first had to take the aircraft over to San Diego, California to the main Consolidated factory for final installation of the passenger cabin details. This work took 6 days to complete and we then had a very posh cabin in cream and brown leather.

We departed San Diego on the night of the 29th, heading for Dorval, non-stop, which took 12 hours and a half. En route over Kansas, Townsend decided he had to go and have a 'crap and christen the new "Throne room", as we called it, in the tail end of the airplane. It was a nice bathroom with a "Throne" in the centre. All our return ferry aircraft used the same sort of 'can. It had an arrangement that at the appropriate time you could dump the can contents overboard from the airplane. Well, Ed had relieved himself and stood up and was just about to pull his pants up and he stood on the dump. Well, instead of going overboard, the 'shit came back and splattered all over him and all over the room. It was actually imbedded in the leather (it had 180 mile an hour breeze behind it). He arrived in the cockpit mad as a hatter in just his underwear and blasting 'the hell out of everybody. As we got near Dorval, he got on the radio with a message to his secretary (he was the C.O. of our 231 Squadron) asking him to meet the airplane at the end of the runway with his greatcoat. This

caused a lot of problems at Dorval because nobody could understand why he wanted a greatcoat, because it was a beautiful spring day. All the Press and photographers were out to welcome Churchills' airplane. Anyway, after a lot of swearing and cursing, he was finally able to persuade his secretary to do just as he asked, and we stopped after landing away out on the runway. His secretary came out with a Jeep and he put on the greatcoat and we taxied in to meet the Press. He came off the airplane bare-legged, wearing the coat and dashed for the offices.

Normally, our Squadron Aircraft had a little scoop which faced aft at the dump site for the 'can and this would suck the products, in the 'can, out and away from the aircraft. Somehow the people in Tuscon had put the dump facing forward and I hadn't caught it. Of course, I was to blame because I didn't check it. Anyway, that scoop picked up the full airstream and up through the 'can and sprayed the 'shit all over the beautiful compartment. It had to be redone in Dorval.

There was one other thing I didn't like about the aircraft. Every 49 to 50 seconds a little buzz or vibration would develop up at the tip of the high fin, work down the fin, and forward along the fuselage and then into the cockpit. All the instruments would then blur for four or five seconds and it would damp out and repeat itself every fifty seconds. Obviously, we had a problem here, but I wasn't smart enough to really understand it, there was a harmonic vibration developing, which, in time, could be very 'damn serious. I reported it at the time, but nobody paid much attention.

On the night of my birthday, May 4th, we departed Dorval with Air Commodore Powell as Captain, carrying Sir Frederick and high brass passengers. We went Dorval to Northolt, London, non-stop in fifteen hours and fifteen minutes - a tremendous flight, quite smooth except for the vibration.

Just before arrival in Northolt, Taffy turned to me and said,

"Now, Baker, you'll have to stay with the airplane at Northolt. You can stay in the Mess there. Prince Bernhard, of the Netherlands will be coming out to the airport tomorrow, supposedly to fly the airplane. He likes to test all new types and I don't want him to test the AL504. It will be up to you to prevent that."

"Well," I said "how?"

He said "I don't care. It's up to you."

That left me a little confused. Anyway, the next morning, I was around the airplane as required, when along came a couple of cars with Guard

outriders, flags flying, and Prince Bernhard climbed out of a car and came over to me. He said,

"You're Baker?"

I said, "Yes, Sir!".

"Well," he said, "I'm here to inspect the airplane and you're to guide me."

So, I said, "Fine."

We walked all around the airplane discussed its' capabilities and then finally went up into the cockpit. I was facing forward, and he was standing facing aft, when he said,

"Now, I guess we're ready to go flying".

I said, "Well Sir, flying? I haven't been told that."

He said, "Oh, yes. It was all arranged."

I told him that I hadn't been notified of this, and that I had already refuelled the airplane filling the new tanks and that we had enough fuel aboard that would prevent our landing for at least ten/twelve hours after take-off. Then I noticed that he was looking over my shoulder at the big boiler gauges that showed the fuel level in the tanks at only a quarter full. He twigged right away that I was telling him a lie, looked at me for a few seconds and said,

"Fine. I understand. I understand, and I won't press you further. Thanks for the tour." and he left.

I stayed in the Northolt Mess which was home to three Polish squadrons of Spitfires - two high and one low altitude. It was quite an experience to watch these guys doing daily sorties over France and The Channel, coming back from the battles and landing in every direction regardless of wind, almost careless of anything, and the great parties in the Mess at night. It was an experience I'll never forget!

During the day, I had ample time to look around the airport. One thing I had particularly noticed on the upwind end of the main runway (which we would be using for departure) were a series of barrage balloons starting from a couple of miles out to about ten miles out and up to four, five, and six thousand feet and right on our departure path. We would be taking off with full tanks and actually the heaviest load the airplane had ever flown with, so I knew we would take every inch of the runway and it would be a long time before we got any altitude after take-off. We'd certainly be in among the balloon-barrage. When the Air-Commodore arrived on the afternoon of the 12th, preparing for departure that evening, I suggested to him that we have the balloons brought down. Well, we

argued about it and finally I got out my charts, gross weights and take-off run and showed him that it would be a marginal effort and particularly when we were taking off in the dark! He finally agreed, and the balloons were pulled down that evening.

The return flight to Canada was to be a special test to determine the absolute range of the aircraft and the ability to go from Northolt to Dorval non-stop. Our take-off run used every inch of the runway and we didn't have much altitude until well out over the Irish Sea. I was in charge of the test run and dictated how the airplane was to be operated throughout the flight. I was able to obtain fantastic performance as far as fuel usage went and we were able to go non-stop to Dorval in 20 hours and 5 minutes and had enough fuel left to go on to Winnipeg with reserves. It was a spectacular flight and was the first time it had ever been done in history.

On the 17th of May, we took AL504 again to Washington and back to show off the airplane and to also take a load of people down. We could take up to 29 passengers, now, in reasonable airline comfort.

On the night of the 30th-31st of May, again in AL504, we went from Dorval to Rabat non-stop in sixteen hours and ten minutes with Ed Townsend as Captain. The airplane was still shaking every fifty seconds. We returned from Rabat on June first, through the Azores to Bermuda and home to Dorval on the 2nd. We were able to get the airplane up to twenty-three thousand feet on that last leg over a major front. We had carried twenty-nine passengers on these flights and in just under three days we flew thirty-nine hours and had our clothes off for about eight hours in Rabat, for a little nap.

I was only home a few days, then booked out again on the ninth with Paul Zimmerman in AL590. We departed in the morning of the ninth of June through Gander to Rabat, arriving early morning on the tenth to find that number one engine was bad. We couldn't get a spare engine and after some 'diddling around, we finally got permission to fly the airplane home on three engines.

We departed Rabat on the thirteenth with no passengers, just our five-man crew. We refuelled at Lagens and on take-off, number three engine blew the exhaust manifold off and I had to start up number one again to get us enough height to land up on the runway (which was only three hundred feet above the sea). It was the longest ten minutes I've ever spent in the air!

I was able to get parts in the Azores to make exhaust repairs and we flew home via Gander to Dorval in thirteen hours, on the fourteenth.

At the end of June I was off again in AL590, with Zimmerman, to Gander and Rabat, overnighted, then to the Azores and to Dorval, arriving home on the fourth of July.

231 Squadron was firmed up and solidly in the business of flying V.I.P. passengers throughout the world and providing North and South Atlantic services out as far as India, returning air crews to either the Bahamas or Dorval. The Commanding Officer was Flight Lieutenant Ed Townsend, an American millionaire in the R.C.A.F. I was appointed Engineer in charge of the Test and Technical Group, over and additional to normal crew schedule flights. My duties were to include development of operational procedures for all aircraft in the squadron and establishment of a maintenance program for each aircraft to allow them to be operated in an airline-type mode with reasonable life expectancy. The typical Bomber Aircraft of that day were designed for a life expectancy of some 500 flight hours. My task was to develop a maintenance and test program which would allow us to fly the aircraft for around 3000 hours a year with reasonable maintenance reliability and hopefully higher safety factors. Squadron Aircraft included B24A, LB30, B24D, C-87 and RY3 (all Bomber derivatives). We also had Hudson, C-47 and C-54 transport types with much less problems.

A word here about our accommodation at the various en-route and destination bases:

When we were travelling around the South Atlantic routes through Trinidad, the Guianas, Brazil, Ascension Island to British West Africa, from 1943 on, we were using base facilities established by the U.S. Army. They were a typical barracks with the upper and lower bunks packed into a Quonset-type hut. In the tropics, these were very hot and we all slept under mosquito nets. From Accra, across Africa, and up to Cairo we used the typical R.A.F. stations which were certainly a little more comfortable from a sleeping point of view, but not as good from a 'messing or food point of view. In Morocco at Rabat, we stayed in the Balema Hotel, probably the best hotel in the town. It had typical Arabian arrangements, no Western-style toilets, just a hole in the floor, two cement footprints and a bar to hang on to when you performed your ablutions. The meals, in Rabat, were God-awful and I traditionally carried cans of sardines, chunks of cheese and used the local wines. If we stayed more than two of three days, I began to get pretty hungry.

From the fourteenth of July to the seventeenth, I made another run in B24D from Dorval to Gander, Lagens to Rabat and return, flying a total

of 40 hours in three days. I made a few more V.I.P. flights with a Hudson, through Washington and New York which kept me busy the rest of July.

In August we tried something a little different. We would slip crews on a couple of the routes. The aircraft we flew into Rabat or Cairo would be flown on by a crew awaiting our arrival. We then would carry on with the next arrival usually one to two days later.

On the first flight of this type we left Dorval on August 11 in a C-87 (a Transport version of the Liberator) through Gander and Lagens to Rabat. Two days later we took AL-578 (an LB30) to Cairo, had a nights' rest and flew AM-259 (an original B24A) to Rabat, Lagens, Bermuda, Nassau and on to Dorval. The trip took 11 days and involved 70 flight hours. However, we did get some sleep in Rabat and Cairo.

We did the same aircraft-slipping flight again in September departing on BZ748 (a B24D) through Gander, Lagens to Rabat and picked up AL578 again through to Cairo and then back through Rabat, Lagens, Nassau to Dorval in AM263 (a B24A). This particular series of flights from Lagens to Nassau was the first time anybody had ever flown from these two islands. It was kind of a spectacular flight in that we were over land five minutes out of the fifteen hours that we were in the air.

Right after take-off at Nassau the next morning, we got a tremendous smell of gasoline throughout the airplane and it scared the heck out of us because we couldn't find any problems. We demanded no smoking from all the passengers and carried on up to Dorval. As we were slowing down, I warned the Captain (Paul Zimmerman) that I expected a fire of some sort as soon as we started to lower undercarriage and flaps for the landing. In fact, when we lowered the gear and put our flaps down to half there was a 'hell-of a bang and number 2 engine became a great ball of fire. We carried on with the landing. Meanwhile, I cut the fuel to number 2 engine and feathered the prop. The fire was still going pretty good so I pulled the fire bottle directing extinguishant into the engine nacelle but it was still burning as we braked to a rapid stop. I picked up the fire extinguisher from the flight deck and hopped out through the bomb-bay and put out the last residue of flames from the ground. On inspection, we found that the main fuel line to the carburettor had rubbed against a generator and worn a large hole (almost an inch across) in the main fuel line. This allowed fuel under pressure to spray out for what, I guess, was the whole flight and we must have lost quite a few hundred gallons. Why it never blew I don't know, but certainly as we slowed down there was opportunity for it to burst into flame. We had always understood that flame

could not stand in the open at anything over approximately one hundred and forty miles an hour. We were very lucky it didn't blow on take-off out of the Bahamas!

In October, I did another slip type flight, this time around the South Atlantic, via Bermuda, Nassau, Miami, Trinidad, Belem, Natal, and then out to that little island in the centre of the South Atlantic, Ascension Island (a very small island about 4 miles across: a dot! and most difficult to find! If you missed Ascension Island by about ten or fifteen miles, you missed it period. From Ascension we flew to Accra in British West Africa. The return was via the same route to Dorval. On the return from Natal to Dorval we set a record of just thirty hours elapsed time, with stops at Belem, Trinidad, Bahamas, Bermuda and Dorval. The flying time was twenty-seven hours, so we were only on the ground a few minutes at each stop. The overall trip out to Accra and back came to just a hundred hours of flying and it was accomplished in thirteen days. We flew seven nights during the period, so we didn't get much rest on these types of trips.

On another of these trips to Accra, starting on the 11th of November, returning on the 23rd, again a twelve-day trip, approximately a hundred hours of flying, we changed the routing and stopped in Georgetown, British Guiana between Trinidad and Belem. These trips were exhausting, and I always felt that if it hadn't been good weather along this route, we could have got into serious trouble because by the end of the trip, we were all acting like zombies. Each man in the crew, had some capability to operate in other positions, I had limitations on the radio, but could do navigation and the flying. We did try to spell each other in the various roles. This, in a way, was a form of relief and rest.

I was getting a little more time at home between these trips and it was becoming more and more important for me to be home as Mabel was quite pregnant. We were expecting our first child in March of '45. I tried to make it home and stay home as often as possible.

The next trip I was scheduled out on was to be a special one. We would take a number of very senior officials through to Karachi, in India. We were to depart Dorval on AL590, Paul Zimmerman as Captain, on the morning of the 8th of December. Our scheduled take-off was to be eight o'clock in the morning. We were heading through to the Azores non-stop, then refuelling and on to Rabat and across Africa. We arrived at Dorval airport at five in the morning and when checking the aircraft out, I found some mechanical problems which had to be repaired before take-off. We sat around throughout the day while mechanics worked on the aircraft and

finally were able to depart Dorval about 10 o'clock that night. By this time, we were pretty well dead-beat and certainly behind schedule. We flight-planned, as I said, heading for the Azores, and flew through the night and part of the next day. We got to the Azores and everything was going reasonably well, and we had enough fuel to arrive Rabat with about three hours reserve, so Zimmerman decided that we should carry on into the darkness of the second night in the air. As we got nearer the African coast, we went through the typical coastal front of bad weather and rain and then got a radio message from Rabat that the ceiling there was about a hundred feet with fog and rain. There was no radio range to aid us in finding the airport. All they had was a beacon. They wouldn't clear us anywhere else, so we had to try to get in to Rabat. After three or four attempts, (we saw the lights once), we could not find the airport and land. Meanwhile, we were asking control for a clearance to other possible sites for landing and were told to go up to Gibraltar. I did a quick calculation and found we couldn't make Gibraltar, not enough fuel. They finally gave us a clearance to head for Casablanca, about 80 miles south. They said the weather there was a three-thousand-foot ceiling and five miles visibility. We blasted them on the radio for delaying us and headed for Casablanca. About 10-15 miles from Casablanca, we broke into the clear and could see the airport lights and given clearance to land behind two other aircraft. As we came on to final approach, we had undercarriage down, flaps half down all set for landing, when the fog closed across the runway in front of us. That was it! We couldn't see a 'damn thing! We had one advantage, at Casablanca - they had radio range which allowed us to do a procedure attempt to follow the beam into the runway. The one problem that came up at Casablanca was that on the south end of the runway was a four-hundred-foot hill, which, in a sense, got taller in our minds as we attempted to try and get in under the hundred foot ceiling. If you miss the runway, you have to get the power on rapidly and climb to get over that hill. We made a couple of attempts, both were failures. On the second attempt, number four engine quit, out of fuel, so I feathered it. We were turning out over the sea at about 500 feet in rain and fog, when number three quit, out of fuel and I feathered it. The sudden loss of power on the right side caused the aircraft to roll and we pretty near went inverted at this very low altitude. Three of us were on the controls fighting it and we finally got it levelled out at, I don't know, maybe a hundred feet over the dark sea and got enough power and trim on to climb a bit because the airport was a couple of hundred feet above the sea level. Paul Zimmerman started screaming and hollering, having lost

his cool. I hit him a couple of good swats on the head and he calmed down. We attempted another approach and I was arguing with Zimmerman that it was a waste of time, we were never going to make it on two engines, we should head inland and let down until we hit the ground, at least land under some sort of control. At this moment, Paul closed the throttles on the two engines remaining and started to scream,

"Lord, I'm coming!"

Belly landing of AL590 eleven miles southeast of Casablanca, December 9, 1944

Our co-pilot was on his very first trip in a Liberator and just graduated from the Empire Training School, R.C.A.F. lad, by the name of Max Meissner. He was not much help in that situation except that he could put both legs on the left rudder, while I slammed the engines full forward. I hit Paul Zimmerman three times on the side of the head as hard as I've ever hit anybody in my life and he finally kind of shook his head and suddenly calmed down. I suggested to him again that we had better head inland and let down while we still had a little power on the one and two engines, particularly a little fuel for number two to keep the flight instruments operating. He agreed and said a little prayer for each of us and sent the radio operator, Johnny Cook and the navigator, Lance Hudson, to the back with the passengers to tell them what was happening and prepare them for the landing. I stayed forward and set up emergency procedures to

get some hydraulic power (which we lost with the loss of number three engine) to provide power to operate the wing flaps. We let down slowly on the south-east leg of the radio range heading inland. At about 150 feet there was a 'heck of a thump. We didn't know what that was caused by and number two engine finally gave a 'couple of bangs and quit. Then there was another great bang and we hit the ground on the belly, never saw a thing, and slid to a stop in the mud and rain. We had been in the air almost twenty hours, all of us completely exhausted but no one injured. I got out of the aircraft, took the Very pistol and flares and fired off a flare every half hour or so through the night, with no results. Our passengers, when we slid to a stop, went out the side escape hatch and one of them, a hydro-electric member for India, tore his shins as he slid out and he hit the ground and pulled his pants down and had a 'crap right there. He said,

"You know, I'm the only honest one aboard this airplane!"

He later, brought out a bottle of Scotch and gave me an ounce or two which knocked me completely out. I fell to the ground and was out for probably ten or fifteen minutes. When dawn came, the fog lifted to some degree and we were able to see where we were. The area just outside Casablanca is all rolling countryside covered with field stones which are piled in hedge-rows about eight feet high and eight feet thick, surrounding small fields, which are farmed. Looking back down our glide path, we could see that the first 'thump we had heard was when we had come over a small Arab village and went through the tops of high French Poplar trees, cutting many of them off. The second thump was when we hit number one prop on the rock-pile around the field into which we had finally slid to a stop. We stopped 16 feet from a rock pile. If we had hit that at any speed, we would have been all wrapped up. With the dawn, I heard a Jeep come across the field and it was driven by a U.S. Army type and he had an R.C.A.F. flying officer passenger and this guy started to holler as soon as he saw me. He said,

"Baker, what the 'hell are you doing here?"

It turned out to be a school chum from Empire School in Moose Jaw. What he was doing in that area, I do not know. We didn't have much time to talk, so I never did find out.

We were taken into Casablanca to the air base and went to bed in the typical barracks, had 12 hours sleep, and then were called out for a court of inquiry. This lasted for a few days with no results and it was decided to send us home, so we were sent out on a U.S. Army C54, which brought us back through to New York and from there, by train, back to

Dorval in time for Christmas. This crash was the 3rd one I had experienced in Ferry Command and I have the unique distinction of being the only air crew member who survived more than two. It bothered me for many years thereafter and I found I couldn't really speak about it for a number of years because my nerves would go all to 'hell, I would shake, and I couldn't get a coherent story out. I had trouble for a few months after the accident and went to see a Doctor because I couldn't eat properly, having terrible problems with my stomach. The Doctor pointed out that it was a result of the accident and that the only solution was to try and talk about it and the action of talking about it probably helped me in the long term. To this day, whenever I try to talk about the event, I feel the shakes develop and I start to relive it and all the horrors with it. Paul Zimmerman, a bachelor and an old-line pilot, who'd had lots of experience and prior crashes in his pre-war days, suffered worse than any of us. He survived another trip with me when we returned to Rabat for a further Court of Inquiry but from that moment on he never drew a sober breath. At the time, he was quite a wealthy man, had large land-holdings in Maine and, the last I heard of him, was about 1950, somebody had seen him lying in a gutter in Chicago. I don't know how true that story is, but there's no doubt he never worked again. He felt that he had failed, and he obviously had in my view, making the wrong decision to go on over-flying the Azores and then precipitating a possible fatal crash by cutting the power and screaming, Lord, I'm coming! We really didn't want to go with him at that time.

We returned to Rabat January 1945 with a B24J (one of the latest models from Ford - an absolutely terrible airplane - overloaded and underpowered) flew it with some difficulty through Bermuda, the Azores to Rabat where we happily left it while we stayed for several weeks participating in a thorough investigation of the accident and its' causes. Before we attended the formal inquiry, we four members of the crew (other than our Captain Zimmerman) agreed that we would never say anything about our Captains' breakdown at any time during the investigations. In so far as I know today, none of the crew said a word about the awful situation we faced when the Captain gave up. We don't know if Zimmerman himself said anything about it, but we gathered from the tone of questions asked, that it never came out. We were questioned for hours on end by a panel of experts drawn from the Royal Airforce. The pressure to come up with a suitable finding was strong because we were carrying some very high-level people and apparently, they had raised some concerns which had to be answered. In the end, we never did get a clear finding. Everyone was

taken aside and given a comment with respect to his participation in the affair and warned that we should not discuss it with the other members of the crew. I do not know what the findings were about the other crew members. I do know that I was questioned very deeply about management of fuel and why they found 100 gallons still in the left tank and why I hadn't used it across all four engines. The Liberators (LB30 type) we used had 2 fuel tanks each holding about 1360 Imperial gallons, each tank fed 2 engines on one side. The fuel quantity shown in each tank by two-foot-long boiler-type tube located on the rear wall of the cockpit at the front spar of the wing. The attitude of the airplane in flight changed the level of the fuel shown in the boiler-type tube so they were almost useless in manoeuvring flight. In the last 3 hours of this flight we were in long range, low speed cruise to conserve fuel and turning quite often thus the aircraft flew nose up-tail down and the gauges showed no fuel left. However, my flight log showed we should have had no more than 10 minutes fuel left when we landed after 20 hours in the air. We normally considered these aircraft to have a maximum flight range of 20 hours so in fact we had more fuel left than I figured but it was all in the left tank, the right-side engines were using more fuel than the left side. I explained during the enquiry that I wanted fuel left for use to the end with number two engine because that engine drove the vacuum pump which provided the power for our flight instruments and once a couple of the flying members of the panel understood this, they agreed wholeheartedly with my plan. I did not get any critical comments and was complemented in the management of the emergency procedures.

I was most anxious to get home to Dorval because of the impending birth of our first child and was finally cleared to come home on our return ferry service, getting home before the end of January '45.

I did not make another trip out of Montreal trip until April. Happily, the demands of my test department were such that I could avoid all outside travel while carrying on test flight duties at Dorval. We were getting quite a fleet with new RY3s, C-54s' and even Dakotas and they were spreading out and covering the world. I was home helping Mabel with our first-born, Ted - and he needed lots of help! (having an item called projectile expulsion). We would feed him, handle him very carefully and he would hiccough and shoot everything we had just fed him across the room and we'd have to start all over again. We were making formulas at all hours of the day and night.

I had to go back to Rabat in early April to respond to further question with respect to the accident at Casablanca, so we took a B24M (a brand-new Ford-built Liberator) to Rabat and left it there. This model was a pretty representative of the B24 type, each new model heavier and slower than the preceding model.

I returned to Dorval on the return Ferry service in mid-April to find that the Ferry Command was rapidly running down with respect to civilians. The air-crew members were departing in great streams and I anticipated my early release, but it did not happen as I expected. Gale Swaney and I had invested in a potential air-freighting operation which we hoped to start up with a group of other command-types to operate throughout the Caribbean with Stranraer Flying Boats which we were going to acquire from the R.C.A.F.

Our plans went asunder when Gale took my place with my normal crew Captained by George Evans on a trip to San Francisco and London. This was the first meeting of and formation meeting of the new United Nations Organisation. Swaney took my place, in an RY3 and they disappeared between Dorval and London, a couple of hours east of Newfoundland.

I had been doing test work on RY3s' at the time and was called to test a problem airplane which had been tested by three different pilots, all reporting odd behaviour of the aileron controls. I went out with Grafton Carlisle and we found what the problem was. I called it "aileron snatch". The ailerons had been rigged wrong with insufficient droop at the trailing edge. In flight the ailerons lifted slightly causing the centre of pressure on the aileron to move aft. In long range slow speed cruise, if you encountered moderate turbulence causing aileron motion, the centre of pressure moved aft of the aileron hinge line. This caused the aileron (left or right) to slam to full travel in spite of full strength applied against the travel by the pilot. Grafton and I had this happen several times in our test flight with a lightly loaded RY3. Each time we ended up inverted. This is exciting in a 4-engine aircraft. We could regain control by increasing speed and roll out to level flight. In the Evans/Swaney flight, I could imagine the same thing happened to them with a heavy load of fuel and 20 passengers at night. They never had a chance. I found all the RY3s at Dorval all rigged wrong and when we re-rigged the fleet, we had no more problems. I was retained by 231 Squadron in charge of the test department and overseeing the broad maintenance of the fleet. The flight crews were now military, R.C.A.F., R.A.F., and with very few civilians left.

In May, I was sent out to Tuscon, Arizona, to pick up a new RY3, which we delivered back non-stop in 10 hours and 40 minutes on the 10th of May.

On the 27th of June I went out on another interesting trip with a C54E, (KL979), non-stop Dorval to San Diego in fourteen and a half hours and returned the next day in eleven hours and fifty minutes. That was about my last flight in Ferry Command.

One short test flight in a Dakota on the 12th of July finished my flying with Ferry Command, however, I was held on staff until the 15th of December 1945, when I got my release. I was the last civilian airman to leave the Command.

Before leaving this broad subject, of Ferry Command, there are a number of points and stories which must be recorded. They are not chronologically oriented, and therefore can be placed anywhere within the story.

In the early days of the trans-Atlantic operations we had to wait quite often for many days, or even weeks at a time for suitable weather to make the crossing with nothing to do in the most 'God forsaken spots. Poker and gambling became a routine, in fact, in the first year or so at Gander, I don't think the poker game ever stopped. It went on night and day with changing players as the situation warranted. I was not an active gambler, but I was a lucky one. The poker games particularly were very, very rough, table-stake games which meant a fellow could put down a couple of thousand dollars cash and a cheque book. There was no limit to bets. It was also interesting, particularly when we got on the other side in Scotland, or Rabat or what have you, to see the variety of funds that were in use. One could find Canadian or American dollars, British pounds, French francs, British West Indies dollars, Brazilian cruzeiros, you name it, they were in the game and the players were most adept with the exchange rates to be applied. I was very lucky usually to win the first pot or two that I played and could win anywhere from a hundred to a thousand dollars and with this could play the rest of the evening without really losing any money. I never won a lot but never lost either. Crap games were particularly active when American crews were around especially along the south Atlantic routes where the U.S Army/Air Forces were active on their way to India and the Far East. I played in Black Jack games where even the U.S. Sergeants would bet a hundred dollars a card, this was a pretty expensive activity. One special crap game I recall vividly, took place in Prestwick. I was watching. I never liked to play Crap, but I liked to watch.

Matt Andrews, my second Dickie, was playing and his turn came to hold the dice and he had no money, so he turned to me and asked me for some and I gave him two pounds. I said,

"Matt, their lucky!" and with that, he started to roll.

He made 17 straight passes over the next hour or two, He either shot his point (a four or an eight or what have you) or shot a seven or eleven and he never picked up any money from the pot. He just let the pot compound. In the end, no one could cover all the money he had in front of him, so the game finished. He made probably eight or nine hundred pounds in that hour or so. I expected a nice percentage of it but only got my two pounds back and one drink.

Another great air crew activity was the trading and carrying of contraband, and all sorts of chicanery between the countries visited. A number of crews were picked up carrying stolen Canadian gold and trading it off in places like Cairo. They were caught and charged and disappeared from the scene. Others like Captain Leroy had a very thriving trading business going on. He would carry cartons of clothing, kitchen utensils, watches, you name it, he had it. I was in Rabat the time that he was caught by the police. He had probably a thousand pounds of stuff which he had set up in his hotel room at the Balima Hotel where the Arabs came in to trade with him. After he was caught, he too disappeared from the scene. My only trading was in dirty air force shirts. I could buy them new for about $2.00 each, in Montreal, wear them, throw them in my bag and whenever I went through Rabat I could sell them, dirty, for $8.00 apiece. No customs officer objected to dirty shirts.

Some of the fellows became quite skilled in handling various monetary units and were able to trade small percentage points through the various countries in which they travelled and could make a few bucks over and above their expenses. Fred Lasby, a good Moose Jaw boy, operating out of the Bahamas all through the war, had a simple deal. He would put one case of Stodderts' Scotch on his aircraft, which he got at $3.30 for 40 an ounce bottle. On the South Atlantic run, he would sell these off at a place like Ascension Island (which was a dry island). He could get $100.00 a bottle. Fred told me afterwards that he did this throughout the war. He had his wife and kiddies living in the Bahamas (an income tax free area) and that with his $6 or $8 a day en route expenses plus the profits from liquor sales he more than covered all his costs. His pay went in the bank and he ended up, after the war, quite well off.

In Pestwick, we stayed at what was called the Orangefield Hotel on the airport. It was an old manor house of some considerable size which had been rearranged to suit the Command. We had a nice bar operated by an old Scotsman we called Curly (he was as bald as a billiard ball). His favourite drink for us was called a Depth Charge, based on Gin and I don't know what else. It was a very potent libation. Off the bar was a lovely patio on the second floor where we could overlook the air field. On arrival in Prestwick, we would turn over our documents and report on the flight in a quick debriefing, get a room and head immediately to the bar, and patio if the weather was appropriate. We cheered as each new arrival came on the scene. Off the bar area, was a large room which had several English snooker tables (we could play snooker 24 hours a day) and then a smaller room in which was held a great big Baby Grand piano. My best friend and Second Engineer, Matt Andrews, turned out to have special musical skill. He could play any instrument but a trombone and never had a lesson in his life. The interesting thing is that, the more he drank, the better and more he played and the more he could remember. As time went on, we would have to have one man on each side of Matt at the piano bench, holding him up and it would get to a point where no one in the room could stick Matt on requests - Classical or Jazz - he could play them all and play the very well. He was quite a crippled man and relatively short and about ten years older than I was. He had a small dance band in Toronto before the war and one evening, when returning from a "gig", as they say, had a tire go on his car and got out to repair it. He was standing at the back bumper, when another car came out of the dark and hit him. It smashed both of his legs quite badly. It didn't faze him. He was a good and steady drinker and, in the end,, all his teeth loosened up and it used to be intriguing to watch him as he spoke, to see the teeth waving in his mouth. He said it didn't bother him most of the time, only when he tried to eat corn on the cob. We were together in Bermuda at the time of the hurricane previously recorded and Matt was aiding in beaching Catalina Flying Boats on to the ramp at Darylls' Island. He was standing by to operate the hand brake on one of the main wheels of the beaching gear and was required to pull the brake on when they reached a safe point on the ramp. The tow cable broke from the tractor pulling the Catalina up the ramp and Matt couldn't get the brake on in time and the wheel rolled on to his legs. He had a 30,000-pound airplane squashing his ankles into the concrete. It took a long time before they could get another cable to pull the airplane off Matt. Meanwhile, he was pounding the ground so hard that he broke his hands. He was in

hospital in Bermuda for several months and we used to keep him happy by sneaking bottles of Rum in to him. Once he got out of the hospital, he got back to playing with his poor beat up old hands. He was more crippled than ever, but it still it did not deter him. He survived the war and became a service representative for Canadair.

4

ARGENTINA

A few weeks before I got may severance notice from Ferry Command, I received a phone call from New York from the office of Don Alberto Dodero, the Argentine shipping man. Apparently, I had been recommended to him by Sir Frederick Bowhill and Dodero wanted to talk to me. I arranged to visit him in New York at his office on Wall Street on the 16th of December 1945, the day after I left Ferry Command. He owned the largest privately-owned shipping fleet in the world at the time and had plans to establish the first International Airline of the Argentine. He wanted personnel from Ferry Command to set up the airline and get it operating. He offered me the position of Superintendent of Maintenance for the Airline and, in the initial phase to be responsible for a DC4 fleet which he was acquiring from the U.S. He had ordered a dozen brand new C54E military transports. I was to get these aircraft moved to Martin Aircraft in Baltimore and have them converted to civil status and equipped for International airline service. It was a challenging task which I accepted immediately. I went over to Baltimore and made contact with Martin Aircraft and arranged for the first aircraft into the plant - the aircraft to be flown in from the west coast by some Ferry Command 231 Squadron crews. I then went over the specifications for the aircraft, established what was to be done and we got rolling very rapidly ahead of pretty well all the U.S. airlines trying to do the same thing. In fact, we got the first airplanes out of the plant in February in airline mode ahead of U.S. airlines like American and United.

We test flew the first airplane, now in American registry, NC41895, on February 12th, 1946, at Baltimore and then flew it over to Newark and on the 15th of February we flew 35 passengers from Newark to Miami in 6 hours. This was an overnight flight and the first charter.

What we had was a number of our aircraft coming up with American registry and couldn't get them to the Argentine for some political reason so had to keep them active. We organised with a charter operator handling services between New York and Miami to set up a nightly service with our 2 or 3 aircraft and in a period of several months made enough money to pay for one aircraft. We were charging $100 one-way and business was so good that many nights the radio operator and navigators' positions were sold, and the stewardess seats were also sold, so that the stewardess we had walked all night.

While in Baltimore, I stayed at the Lord Baltimore Hotel and I had a nice office at the Martin plant where I worked nearly 12 hours a day keeping abreast of the demands of the plant and carrying out inspections as necessary to ensure that we were getting our moneys' worth.

I had arranged for Mabel to come down and visit with me in Baltimore and she did come down for a week and we enjoyed a nice holiday with a lot of fancy foods. We also went over to Newark and enjoyed a couple of days sight-seeing in New York. The charter service was going great guns and I did make the odd trip to fill in when we were short of crews.

On the 8th of March, our second aircraft, NC41896, was finished so Don Teal and I were asked to take it over to New York to pick up Dodero and a party group and take them down to Nassau for a few days. We left Baltimore in rather poor weather and arrived over in New York where it was 200 feet and a half a mile at La Guardia Airport. We were held up in the stack over New York waiting for chances to try to land. There was just the two of us in an International-rigged airplane which would normally have a radio operator to help. We had to operate three radios at the same time which became awkward. Anyway, we waited an hour or two over New York and couldn't get diverted anywhere else. We made one attempt on a low approach and missed it. By this time the airlines were also missing. We got a second chance an hour or two later and missed that again and finally got a diversion to Hartford and landed there in the early morning. During that night an American Airlines DC3 ran out of fuel and did a belly landing on the famous beach off New York.

We got fuel in Hartford and went back to New York later in the day, then carried out the flight with Dodero from New York to Baltimore, Washington, West Palm Beach and then Nassau. We overnighted in Nassau with a large party of Dodero friends and enjoyed a quite exciting evening. It was a little awkward for me because en route I had torn the seat

out of my pants and had no other replacement with me. At Nassau the vice-president of Martin Aircraft lent me a pair of his. He was a size 42 or 44 and I was a 36, so my pants were kind of sloppy, but it didn't slow us down that night. The return to Newark from Miami was made on the night of the 12th with a load of 42 paying passengers.

By mid-April, my task at Martin in Baltimore was pretty well complete so it was decided that I should head south to the Argentine with Ed Townsend, who was going to be the General Manager. In preparation for the trip we took one of the DC4s collecting materials and freight and paper work on a variety of trips including to Burlington, Dorval and Cartierville. We then started out from Newark on the 23rd through St. Louis, and Albuquerque to Burbank, California where we picked up three passengers, Frank Shields, the famous tennis player and his wife, and an Argentine movie starlet by the name of Mona Maris. We also had six engines as freight which were put in the cabin with the seats folded up. The passengers got in by the rear door and couldn't move forward and we couldn't get to them in flight. It was an interesting arrangement as we only saw them when we were on the ground. I had Matt Andrews with me as Second Engineer.

We went from Burbank to El Paso, Texas on the 26th and then from there to Mexico City on the 27th. The airport at Mexico City is at about 7,000 feet altitude, relatively short and had a pronounced hump in the runway. With our very heavy load, we were very concerned about getting the airplane airborne off the short runway and had arranged with Ed Townsend, who was Captain, that when he hollered, and if he hollered, I would throw on more wing flaps to balloon the aircraft into the air at the end of the runway. Hopefully this would get us up, and once up we could keep it that way. Well, we lined up on the end of the runway, and got take-off clearance. We could only see half the runway because of the hump and opened up to full power. Acceleration was quite slow because of the altitude and I had my head down monitoring the engines and suddenly I heard Ed holler. (God, I thought, he's hollering awful early.) I looked up as we came over the hump and there, in front of us was a donkey square in the centre of the runway and we were heading right at him! .... with not enough air speed, really to fly! I was petrified, and I didn't bang on the flaps as planned and Ed, who was a weight-lifter, literally lifted the airplane into the air and we were just hanging on the props. We went over the donkey and it took us about 20 miles of flying through the valley before we could get enough air speed to properly fly. Meanwhile, we were

screaming at the tower, ranting and raving about the donkey on the runway, when we had a clearance from them to take off. The tower kept replying in Spanish and that finished our argument.

From Mexico City we flew to Managua the capital of Nicaragua, where we spent the night. Next day to Guayaquil in Ecuador for fuel then on to Lima, Peru to spend the night in the Simon Bolivar Hotel, a very posh place! Next morning was quite foggy but we were told this would burn off quickly, it was the only source of moisture as it never rained in Lima. We headed south along the coast and were enthralled with the desert-like coast which in a few miles inland became the mighty Andes Mountains - a fabulous sight! We refuelled in Antofagasta, Chile and carried on to Santiago for the night.

On the 2nd of May we left Santiago, Chile, to fly through the famous pass in the Andes to Argentina. The floor of the pass is at seventeen thousand feet and it runs along side Mount Acongua, the highest mountain in the Western hemisphere at 22,878 feet. The pass is the only feasible route through the Andes between Chile and Argentina. A railroad follows the floor of the pass and we were told the trains couldn't go faster than walking speed on the steep grades. The pass is not more than 150 miles long but is full of turns around the mountain sides. It is also very narrow at the floor but widens out somewhat if you could maintain a height of two or three thousand feet above the floor or about 20,000 feet above sea level. With our big load and lack of oxygen for our remote passengers, we could not get that height. We entered the pass after climbing in circles over Santiago to get to 17,000 feet at that height we were about 300 feet above the valley floor. The air is so clear, distances were hard to judge, and it looked like our wing tips were almost scraping the mountain sides. A few minutes into the pass, number four engine gave a mighty belch and quite cold. We were losing altitude when I finally tried full rich mixture and the engine picked up and ran again. Investigations at Buenos Aires later confirmed the capsule controlling fuel/air ratio had failed so my action of using full rich was the only correct solution to keeping the engine running. It was all very exciting, and it was a while before our heart rates returned to normal.

It was a very interesting trip because this pass is one of 'storied areas of aviation history. They had weather stations ever twenty miles through the pass and all of them had to report in favourably before an aircraft was cleared to fly through because they had found, through bitter experience, that the weather could change in a twenty-mile distance. Many

aircraft had been lost, in fact, just a week before we went into the pass a DC3 had disappeared and many years later the crew and passengers and freight from that crash ended up at the bottom of the glacier, all perfectly preserved (having spent about thirty or more years in the ice). Flying through the pass is no longer necessary for modern jets. You can just soar over top of the Andes with ease, not half as much fun, but a whole lot safer.

I spent the next month or so trying to organise a facility to operate DC4s and other aircraft that Dodero had been buying (DC3s, Norseman, Beachcraft). I had to set up the base at an old airport called Moron, quite close to the centre of town. I was aided by quite a few of my team from 231 squadron who followed us down the east coast of South America to Buenos Aires with more of our DC-4 fleet. In fact, aircraft were arriving almost daily, so the problems were really growing. Most of the air crews were 231 Squadron with a number of ex-R.A.F. types coming in from Britain. I got about 10 maintenance men from the Squadron to come down and with their arrival, my job became a lot more manageable. We got things reasonably started and Ed Townsend decided that we should go back to North America and get some further materials moving and also arrange to get our wives down. By this time our American registered aircraft were now being registered in Argentina and we returned in LVAB1

We left Buenos Aries on the fifth of June and came back through Rio, Natal, Belem, Zandrey (in Dutch Guiana), Puerto Rico, Piarco Trinidad and then Miami to New York.

Mabel had in the meanwhile been preparing for her trip South and had organised the shipment of all our worldly possessions, so my trip home didn't require too much effort on my part to prepare for our move. We had arranged a large packing crate which stood about seven feet high and five feet wide and about eighteen feet long. All our possessions, baby clothes and what-have-you, and bits of furniture were packed for ocean shipment. These were sent on and Dodero would look after it from there through New York on one of his ships. We drove our car down to New York where we would also turn it over to Dodero for onward shipment to Buenos Aries.

Mabel always tells the story, to my chagrin, about our travelling by car to New York on the main highway and suddenly finding us crossing the toll bridge into New Jersey instead of going into New York, lost on the first effort.

We had a day or so in Newark and departed there on the nineteenth of June for Miami. We spent a couple of days in Miami and on through San Juan to overnight in Trinidad, then to Belem and Natal, where we stayed overnight again. The trip was difficult for Mabel and Ted because the aircraft were un-pressurized and had no air conditioning systems. It was dreadfully hot and rough. We, the crew, were quite used to this environment but it was not so pleasant for our wives. The accommodations in Trinidad and Natal were the old barracks which we were so familiar with but were not very pleasant for a wife and baby.

We went from Natal to Rio and then on to Montevideo and into Buenos Aires on the evening of the 23rd. That is the last flight I made as crew member for the Argentines other than going back to Canada, as a passenger at the end of our contract. I'd had enough experience to recognise real problems in the operation of what was then called FAMA (Flota Aerea Mercante Argentina). Everything was a problem - training of crews in all categories, or all skills was a very difficult task due to language limitations. Spare parts were almost non-existent in these early days and there appeared to be no real management. However, within two weeks we had our fleet active and services running to London and Rome, Los Angeles and New York, with other services using smaller aircraft around South America. We had also acquired six Sandringham Flying Boats and were running a service across the river Plate to Montevideo and these were also being used on the South Atlantic runs to Poole, in England. Seventy-five of our 231 Squadron personnel were eventually on station in Buenos Aires and most of them stayed on with the airline when Peron came to power a month or two after we really got going and Dodero was forced to sell the operations to the state. We were all offered contracts and a number to the lads didn't like the idea of working for Peron and their 'hoopy-skoopy government so they went home. We were kind of stuck because Mabel was pregnant with Wendy and the doctor had said she should not travel until after the birth of the child, so we were, in effect, welded to the Buenos Aires area until Wendy came on the scene.

With this sort of pressure on us, I decided that I would take a two-year contract with the State, however, I refused to take a responsible position and I was made Chief Technical Advisor to offer advice and guidance to engineering, maintenance and operations departments. This was a reasonably happy arrangement; the pay was good and I had no basic responsibility other than to try to guide them in the operation of an airline. I had a staff, keyed by people from our squadron. Vic Cole was my first

assistant and Vince Cockran, Jimmy McRobb and a whole flock of others operated at the airport. I also had a staff of Argentineans under training (who I found very difficult to communicate with). I did have a man secretary who spoke four languages and had the championship in typing and shorthand in the Argentine. He could receive my dictation in English while typing what I said in Spanish - quite a capable young lad!

Mabel, Ted and I stayed at the Lancaster Hotel in Buenos Aires for the first month or so and immediately faced a culture shock. We found that one never ate dinner until after eight o'clock in the evening and that everybody had a siesta from about one until three every day. This made it very difficult to arrange a proper feeding schedule for Ted and also to get the proper food. He immediately got dysentery from the rich foods.

Our home in La Lucila, Argentina

My first task was to find accommodation. With the help of one of the girls from the FAMA office, we located a brand-new home out in La Lucila, eighteen miles from the centre of Buenos Aires along the surface-electric railway and along the river Plate. The home was one and a half blocks from the river. It was a nice three-bedroom, two bathroom house, with maids' quarters on the first floor consisting of a bedroom and a bathroom. We were on a corner lot with nice landscaping. Vic was able to get a home about a hundred yards down the same street from us, next to a market garden area. Our house was at 397 Vicenta Lopez, in La Lucila. I think we paid 50 to 60 dollars a month rent. It was unfurnished, of course, and I had to immediately rush out and get basic furnishings so that we could live in the house until our big crate arrived from Montreal. We were able to get a maid, Sylvia, right away and she couldn't speak a word of English, but over time, Mabel was able to communicate with her as they both developed a Spanish without verbs.

Vic and I walked down the hill to La Lucila station where we caught the express service into Buenos Aires. It was about a four-block walk. We could time our watches with performance of the electric railway system. It operated beautifully, controlled and operated by the British. We would ride the train into Ritero Station, where, getting out of the train, we went right on to an escalator which took us underground to a subway

which was excellent. Three stops later, we would get off at our office building in the centre of Buenos Aires. We were sixteen miles out and could be at our desk in 18 minutes - a superb operation! - which maintained its' schedule until the day Peron nationalised the railway. From that moment on, nothing ever ran on time.

The first four or five months in our new home, we were the first people of our group to have a home and have a complete family there. The rest of the fellows were several months later in getting their families and finding homes with the result that they spent their free time with us and pretty well every evening we had guests who never seemed to know when to go home.

At work, I was busy doing various studies on different types of aircraft, supposedly required by the airline, and trying to prevent the various Directors of the operation from making the wrong purchase. I failed miserably in this regard and apparently each director took his Mistress-Secretary and went tearing around the world buying airplanes and I had, for the next two years, the task of cancelling many of these orders. As an example, one man went to France and bought a six-engine LeQuoia Flying Boat which was on the drawing board and had never flown. It took me several years to get that one cancelled. Another went to Britain, to Avro and bought the Tudor-2 and when I asked him what he planned to do with the airplane, he said he was going to fly the Atlantic and South Atlantic with it on the London route. When I asked him how he intended to get it across the Atlantic, because it didn't have enough fuel to make more than about three-quarters of the way, he hadn't though about that - so we cancelled that airplane. One man bought some DC6s and I congratulated him.

We, at that stage, had acquired a total of seventy-four four-engine aircraft, 12 DC4s, six Sandringham Flying Boats, some Lancastrians and Yorks, DC3s, Bristol Freighters etc. We were operating services to London and to Rome and New York, Los Angeles and to various countries around South America. We started a series of accidents which continued through the life of our contract. We had a crash on an average of every nine weeks, every one of them needless. I suffered a bit because I was called in on the inquiries and investigations on each of these accidents. It was very hard to take - the stupidity that was involved!

At the same time, Peron decided that we needed a new airport at Buenos Aires and started a competition to select a designer and specifications had to be prepared and I was questioned quite extensively

on this project and had a large part in determining what equipment and facilities were to be provided at the ramps. Eventually, the airport was built, and it was certainly a world leader - a superb operation (Asesa, by name). It was designed by a brand-new graduate from the University at Cordova, not yet twenty-one years old who had never been out of the country!

I should mention that when I decided to stay in the Argentine and work with the government, Dodero called me and made a nice presentation of several thousand dollars and offered his thanks and pleasure for my services, it was most welcome because we had just bought most of our furniture for the new house. Our maid cost us ten-twelve dollars a month (Canadian funds) and her keep. We had a gardener who kept the grounds in shape and he charged something like five dollars a month (Canadian funds) - and did a beautiful job. We had a constant flower garden which produced some of the biggest Sweet Peas I've ever seen. We had a hedge of Sweet Peas that went up to about eight feet high and each bloom was two or three inches across. We had Geraniums that went up six feet high and magnificent blooms.

Mabel was becoming more and more obviously pregnant and we had to search out Doctors and a place for the confinement. We did get a Doctor Volenweider, a Swiss Doctor who spoke English and a few other languages. He organised Mabels' entrance to the Pequnia Company D'Maria, a little company of Irish nuns near Belgrano, so that all prepared, we sat and waited.

A few months after we moved in to La Lucila, we met an Anglo-Argentinean couple who lived down the street, Redge and Elsie Banham. We became great friends. Our relationship continues today with Elsie still active visiting us occasionally as we have visited her, near London England. The Banhams made our life a lot easier, particularly with basic living and management of maids. Redge was an Anglo-Argentinean, born of British parents. Elsie, a true Brit, who met Redge while she was in school in England. They had a great, big, old M.G. car, which, as Mabel said, had ten feet of engine and four feet of cabin space. It would hold four, the two in the back seat with difficulty. In this, we wandered around the countryside. Our car had not arrived from Montreal. It showed up about a year after we were there and by that time I had decided never to drive in the Argentine. Buenos Aires was a very large city of over three million at that time and had no stop lights or stop signs or other basic travel aids. It handled traffic on the British system, driving on the left-hand side. They

also had an interesting situation with respect to accidents: if you had an accident and someone was injured, the residue from the accident, the damaged cars, what-have-you, had to stay in place until the court sat on the case to determine responsibility. This loaded the court system so much that it often took a year until the courts could sit on a particular case. All the cars etc. sat there rusting away with a police guard. These wrecks all over the city causing more problems with traffic movement. Every corner was a big gamble. You were always frightened, and the right of way was never, ever considered. When our car arrived, I got it home and put it up for sale and it sold immediately for 1100 dollars more than I had paid for it new five years earlier. So it was the best car deal I ever made.

The first winter in the Argentine in our new house, was very cold. The only heating was with a small fireplace where we burnt Argentine Cobracho wood, which burnt beautifully, but with a large home, provided very little heat unless you sat immediately in front of the fireplace. Everything was terribly damp. The marble floors in the living room and dining area were always damp. Our clothing would gather mildew and shoes would turn green, unless kept in a cupboard with a 100-watt light bulb burning continuously to keep it dry or drier. The first few months, Mabel tried to operate our kitchen and food in the same manner as we did in Montreal, but this proved most difficult and kind of expensive. The maid went shopping down at the open-air markets and she was able to bring home a filet mignon at a cost of eight cents a pound. The first major shopping effort of this type, our butcher came around to the door every other day and Mabel ordered some bacon, liver, steak and ordered it in pounds and it arrived in kilos so we had enough meat for a family of four for quite a few weeks and the whole thing cost her much less than a dollar. Our eating habits changed to recognise the late evening feeding and the household became a much happier place. We ate an awful lot of meat though. Wines were great, the Argentine red wines were absolutely superb and were, at that time, very low cost. My principle pay was based upon U.S. dollars and paid in pesos into the Royal Bank in Buenos Aires. With a good income (my pay at that time was six hundred a month) one could live very comfortably (one could live very well on two hundred monthly then). We were able to send money home each month to our bank in Montreal. This worked well for the first year, until Peron came up with new plans and restricted foreign exchange to the total of twenty-five dollars a month. This was quite difficult for us because we had to hold our

savings in the Argentine, in pesos, in the hopes that when we left finally, we could get it all converted.

Shortly after we got the airline started, I received a call from Carlos Miranda, the head of the Central Bank in the Argentine and the number-two man in the country. I went over to the bank and met him, and he explained his problem. During the war, all Argentinean funds were confiscated or held up in both London and New York and after the war they were released. They were held because of the Allies concern about support from Argentina to Germany, so Carlos had great funds of gold to move from New York to Buenos Aires. He was moving this by ship and could only carry fifty million dollars gold per ship because of insurance limitations. This was not moving fast enough for his liking. He asked me if we could fly gold and I said sure although I didn't know how we could handle it but I'd like to see what the gold looked like. Well, he took me down into the bowels of the bank and showed me bars of gold (roughly a hundred kilo bars) and I worked out an arrangement of a little barrel that would contain the gold in sawdust. The barrel was to be strapped with a seat belt on to the regular airliner seat and I did some sums and felt we could carry just over ten million dollars of gold each flight from New York. We couldn't carry any passengers, of course, because that was the full payload by weight. So, we got a contract to haul gold and flew at least one schedule a week from New York via Trinidad and Natal to Buenos Aires. We overnighted the airplane in those two airports with no guards and nobody worried about it. After four or five months, we got the schedule up to about two a week. It was good training for the crews and we weren't selling passenger seats anyway - nobody wanted to fly with the airline. After a few months, people started to be concerned about the safety and thievery, so we had to put on a couple of armed guards and this reduced our payload by their weight. They sat aboard the airplane in the stops at Trinidad and Natal. We had just finished up the gold transfers after about nine-ten months, when again, I received another call from Miranda and I went to see him. He said:

"Now, I'd like to make another contract with you to haul the gold back. We spent it all!" and they had, so we got another contract to haul gold back to New York.

We hauled, I don't know how many, millions of dollars, but it was a monstrous sum and we never lost a cent of it!

One of my earliest tasks was to lay out and furnish a facility to do aircraft engine overhauls as there were none capable in the Argentine. So,

I had the pleasure of creating a whole new facility at a cost of eleven million dollars. It became the biggest and finest engine overhaul facility in South America. We could handle Pratt and Whitney, Wright, Rolls Royce, and Bristol engines and it turned out to be an excellent facility surprisingly very capable.

At just about the time we were expecting the birth of our second child, great strikes took place throughout the Buenos Aires area, particularly taxi drivers and the basic bus transportation system. With this strike action, we were quite concerned about how we would get Mabel to The Little Company of Mary and on one Sunday, Mabel woke up saying:

"It's time to go."

I was able to get a taxi from out in the suburbs and we rushed her in to the hospital (some 14-15 miles) and the doctor checked her over and said:

"False alarm!"

So, I brought her home. The following Sunday, it happened again. This time, with more difficulty, I was able to get a cab and just got her to the hospital in time. The nurses took Mabel and rushed her up to the delivery room, while another nurse hurried me to a room and outfitted me in a green gown and hastened me in to the delivery room. I was able to be there, just as Mabel had given birth to our daughter, Wendy. As Mabel came to, she looked at me and said I appeared to be as green as my gown. It's quite an experience, I must say!

The Little Company of Mary was quite an interesting place. I could have stayed there in a bed in the same room with Mabel if I had wished. She could entertain there, when people came to visit (as a few of the girls did). They could have tea parties. All in all, a delightful place and apparently, well run. As required, by law, I went to the government office to register our daughter and when I filled out the form and turned it in, the lady in charge of the office said no, no, I couldn't name my daughter Wendy. It had to be an Argentine name. I got pretty upset and got nowhere, so went over to the Canadian Embassy and was told that, yes, this was the law in the Argentine and that as they had Napoleonic-type law, with no precedence in the law, you had to fight each case and they told me I could fight my case and win. It would probably take me about three or four years and cost me five or six thousand dollars. Then I would get to name my daughter whatever we wished. Remembering Mabels' adage to me, always that you catch more flies with honey than with vinegar, I went back to the original office and persuaded the lady in charge to show me the list of

acceptable names. There were about two hundred. I went over the list and came across the word Flora, which of course is flower in English and I registered our daughter as Flora and it was acceptable. She later walked to her Christening in Montreal and was Christened Wendy Flower Baker. We also registered Wendy through the Canadian Embassy and her details were placed on Mabels' passport. Her birth, in the Argentine, caused problems throughout the next twenty-some years and these problems, all well known in the family, need not be repeated here.

One of our other lads, Bud Scouton, one of the captains, had a son born at roughly the same time as Wendy was born. He went through the same process but had a little more difficulty in that when they departed the Argentine after contract completion, he had to post a bond of one thousand dollars so that the son would return at eighteen years of age to serve Military service at which time the bond would be returned (with no interest). Everyone had to serve in the Forces and we saw cases, while there, of men who had avoided the draft and were caught and still had to serve two years plus two additional years regardless of their age. Normally in this case, they would have to serve four years. Nobody escaped. Just in the last few weeks in March 1993, I was advised that Bud Scouton had died in 1992, still trying to claim his bond money back from the Argentine - and still failing! So, even if he had won, the pesos he would have got back would be worth nothing because inflation took over from a few months after we arrived in the Argentine and gained speed at a great rate after we left the country. When we arrived, it was just under 4 pesos equivalent to a U.S. dollar and when we left, it was about 6 pesos to the dollar but now those original pesos have been compounded to a point where I believe those original pesos are worth something like a hundred thousand to the dollar.

Our crate packed in Montreal and shipped to Buenos Aires finally arrived. Shipping had been delayed for months on end in the harbour at Buenos Aires because with Perons' ascendancy to the presidency, they went mad in spending all the gold that had been held for years in United States and Britain. They bought everything and anything and of course, had it shipped, and this caused a jam up of freighters in the harbour. As an example of their purchases, they bought thirty Lancaster and Lincoln bombers from Britain. They bought almost a hundred Gloucester Meteor Jet Fighters and at the time they had only nine pilots capable of flying the Meteor Jet and the first operations with the aircraft, the pilot crashed and killed himself. The rest of the airplanes sat on the airports rusting away.

The Bombers in a similar category never were really used ever. It was sheer waste!

With the arrival of our packing crate, we now had all the baby clothing for Wendy, which we really didn't need because she had grown past the stage when she could have used them. The rest of the furnishings in the crate, we brought into the home and made it a little more comfortable. When we left the Argentine, we sold everything and made a profit on it - even our used clothing was sold at a profit.

In looking back now, I can believe we really enjoyed ourselves. It was an easy life. The food was excellent, and the wines were great. We had help and we lived very comfortably. For the second Christmas we were there, which is the summer holidays in the Argentine, we worked out an arrangement with the Banhams and the Coles and rented a nice place at Miramar, one of the famous beaches south of Buenos Aires. The Banhams would stay for a month, the Coles and ourselves would stay two weeks each and separately. We really enjoyed that experience. The beaches were gorgeous, the water quite pleasant and we took our maids, so the work wasn't too onerous. On Christmas day, we laid on the beach while the maid ran back and forth from our cottage to the beach with cold champagne which was excellent and of local manufacture, and very, very, reasonably priced. We tried to have a turkey dinner but found it was much too hot to really enjoy it.

We went by overnight train to Miramar and our first experience with sleeping cars on the Argentine railroads. The berths were athwart-ships or cross-wise in the car and we found it quite pleasant.

On the first anniversary of Perons' ascension to the presidency, he had declared a national holiday to take place on the Tuesday. On the Wednesday, he got up in the square in the centre of Buenos Aires and announced to the Descamisados (the shirtless ones) that the holiday was so good that it should carry on through Wednesday and Thursday. On the Thursday, he again went to the square and announced his gift to the people (what is called the Aginaldo - a full months' salary, tax-free to be given to all employed people in the land on the first of December, each year. Also, he declared that Friday should also be a holiday. Here we were trying to operate an airline and build up a system when the President of the country absolutely wrecked the economics of it and also any ability to maintain any kind of schedule. That week, we had one working day, but had to pay everybody for a full week, and also, out of the blue, everyone got an extra months' salary each year. I couldn't object too much because I got an extra

months' salary without income taxes and really what this did was pay my income tax for the year. So, my original salary was tax free. Income taxes at that time were 8% of income, very simply calculated. His gift to us, then, was worthwhile, but it started an inflationary flow which never stopped.

One of the more interesting tasks I had was to organise the trip made by Evita Peron to Europe and this required a fair bit of planning and logistical preparation. She would use two DC4 aircraft - one to carry her baggage - racks of furs and dresses and shoes - the other for herself and personal staff - hairdresser, and physician. We had no Argentine flight crews who were fully capable and in whom we would have confidence to fly Evita, so we set up what became known as the "Shadow Crew". We selected Bob Souers, a very experienced Ferry Command Captain, an ex Wing Commander from the R.A.F. as co-pilot and Vic Sharpe, an R.A.F. Flight Engineer from 231 Squadron. These men would do the actual flying but while the aircraft was on the airport, an Argentine crew in fancy uniform would be seen in the cockpit. As soon as the aircraft left the terminal, the Argentine crew would be sent back into the cabin, while our American/British crew would take over and do all the flying. They were in civilian clothes and had to stay hidden until everyone left the aircraft on arrival at any airport. We were all given high compliments for a successful trip but Evita was not treated very well at some of her stops.

The Argentine government had a plan whereby F.A.M.A. would take over all of the local airlines who had been flying in and or out of the Argentine for many years. They would be melded into a single large government owned air service. To this end, I was required to evaluate various of the smaller operations to determine what would be necessary for them and to determine whether their equipment was of any use to us.

One of the first ones I looked at was an airline that ran up the River Platte from Buenos Aires to Paraguay with two Italian-made Macci-Bristol powered flying boats. They had wooden hulls with two engines up on struts up above the mono-plane wing. Originally designed they carried a pilot, co-pilot and ten passengers. However, over the years they had acquired so much weight from repair activity using the materials then available but of the wrong type and weight. When I did a weight and balance check on these aircraft, I found that even putting two pilots aboard, they were over maximum allowed weight. However, they had been operating for years on this River Platte service with an excellent safety

record. They were maintained by absolutely superb mechanics but their judgement in the usage of materials was highly suspect.

As time went on, it became more and more difficult to transfer our funds or our savings back to Canada and we became more and more restless and lonely. The Peron regime was encouraging almost viscous relationships with foreigners and particularly with U.S. residents. We heard of a number of cases where Americans had been killed by Argentineans for supposedly speaking derogatorily of Peron and they were not charged with the murders. As our contract came towards termination I was offered a further contract extension at increased pay but had to refuse because we couldn't stand it any longer. So, we headed home in early September of 1948. It was a nervous trip for me because it was flown by some of those Argentines that I had no faith in and I sat in the back, as a passenger, fretting the whole way. The final approach into Idylwild airport at New York, was a hair-raiser as far as I was concerned because the weather wasn't good, and our great crew wandered all over the New York area before finding the airport.

Vic, Mabel and I at our farewell dinner in Buenou Aires, Argentina

We arrived home in Montreal with nothing more than our hand baggage and no place to stay other than going to stay with the Flowers.

Before departing the Argentine, I had prepared and sent out eight or ten resumes to potential employers and received reasonable responses from all. I had determined that we would probably like to live out in the Vancouver area, where I would work for the newly started Canadian Pacific Airlines. After a few days home in Montreal, I tried to buy a car but found they were in very short supply. I finally found that Gordon Stringer had a Mercury that was a year or so old and he was anxious to sell - so we bought it! - loaded the kids and our baggage in it - and headed out to the West. The road system across Canada left a lot to be desired at that time and there was still no road around Lake

Superior, so we boarded the boat in Sault Ste. Marie and sailed across to Fort William. From there, we went on to Moose Jaw where we spent a week or so with my parents. It was nice to see all the old friends and to show off our family of Ted and Wendy to all my brothers and sisters.

After a few weeks in Moose Jaw, we headed further West and of course, found that there were no proper highways through to Vancouver on the Canadian side, so we swung down into the United States and went though the Northern Rockies and down into Seattle and from there north to Vancouver. The roads at that time were largely gravel, and going through the Rockies, there were no guard rails on narrow, two-lane roads. In some areas it was most difficult to make a turn, particularly on a curve with another car in the same curve. It was a very exciting ride and one I really don't want to repeat.

On arrival in Vancouver I went out to visit with Dick Ryan, my old boss from Prairie Airways who was then Executive Vice President of Canadian Pacific Airlines to talk about employment with them. I was offered a job, but it would have required me to go out to the islands in the Pacific, where they were setting up their new trans-Pacific route. I thought about it and felt that as we had just spent almost three years out of our country, and missed it, to go out and spend possibly the same length of time or longer in one of the islands in the Pacific, just wasn't that attractive. I told him that I wasn't really interested.

We went on to Vancouver Island and got a nice motel efficiency and met up with Doug, my brother, who was working in Victoria as a baker, in a bake shop and as a result of our meeting and discussion, we decided that we could buy a small bake shop and go into business for ourselves. We then negotiated with people who had a bakery for sale and had arranged that we would consummate the deal on a certain date. The evening before that date was very foggy and raining and I was sitting in the motel reading the evening newspaper when I heard an airplane fly over. I dropped the paper and went out front and listened to that airplane flying around trying to find the airport and I suddenly realised my whole life had been airplanes and that here I was going to change my career path and I visualised myself wrapping bread for Mrs. Brown and when an airplane might fly over, I would drop the wrapping and go outdoors and think about that airplane. I just wasn't for me. I went back into the motel, called the lawyer and cancelled the whole deal.

With that decision made, we now had to figure out what else I could do. Obviously, there weren't very many opportunities in the West

and I had hopes that probably something would turn up in the East. As Christmas was approaching, Mabel said she would like to be home with her parents, so with that, we got a ferry across to Vancouver, drove off the ferry and saw a car dealership right there, drove in an asked the guy if he could sell our Mercury and he said, "Yup!".

I said, "Well, here it is, you sell it and send the money you get to the Flowers address in Montreal."

We then boarded a train for five days and four nights with the two little kids to travel across Canada from Vancouver to Montreal arriving home in time to celebrate Christmas.

The three and a half months we had spent on the road wandering across Canada and Northern States was done to avoid declaring ourselves as returning Canadians until the end of that year. This we did at the border below Vancouver. By doing this, we avoided having to pay income tax for the whole year on our earnings from the Argentine.

For the trip we had packed a car in a manner which allowed the two kids to have a flat back seat area. We filled the space between the back and front seat with some of our luggage and then opened my sleeping bag over the whole rear seat area. They could play and if tired, flop down and go to sleep. They were actually wonderful and seemed to enjoy the whole trip. We had our problems with the car, with a little dirt in the hydraulic brake system and occasionally when I put on the brakes, they would not release. This meant that I would have to get out and get under. I would put on my overalls and get under the car and bleed the brakes to get the dirt out. Meanwhile the kids would get out their little tricycle and wander around. They seemed to enjoy that particularly.

On the run from Winnipeg to Moose Jaw, it was a gravel road and badly wash-boarded and rougher than 'hell and dusty. We had to keep going at about fifty miles and hour to have a reasonably smooth ride.

Teddy kept complaining "Daddy, why don't you drive on that green stuff at the side of the road? It looks smoother."

They were fed up with the gravel too!

We had a good Christmas in Montreal and I then applied myself to getting a job. I had sent a resume to AVRO in Toronto. This was followed up by an invitation to Toronto for an interview. I did this in the early part of January and was accepted. I was employed by the Sales and Service Department to help organise and set-up the Service Department in anticipation of selling the transport and CF-100 fighter (then in the design stage).

One other element of the job was discussed. This was that I was expected to fly as flight engineer on the new AVRO Jet Transport, then in design, and which hopefully would fly later in 1949. I did not tell Mabel that I would be doing this flying activity as she had expected that I was through with flying. However, at that stage it was a wait and see situation.

The pay was not too great and certainly far less than we had been earning over the last few years.

I went to Toronto alone and got a room in the west end YMCA and got to work out at Malton using street cars and buses. We had no automobile of our own. I also started to look for a home for Mabel and the family. After a month or so, I found a home, bought it without Mabel seeing it, at 176 Falkirk Avenue in North York for about $13,500 new. We took a $3,500 mortgage at 3% (which was very frightening, at that time). Making such a large down payment on the house, left me with very little cash to furnish it and I wasn't very smart, and have been constantly advised of this fact in all the years since. We were able to acquire enough furniture to set up housekeeping and moved in the early part of 1949. It was a three-bedroom home and it looked great to me. However, later when Mabel moved in and looked out the window, we discovered that it was a butt lot and that when you looked out any window, it looked on to a backyard. My pay, at that time, was only $300 a month, so we had little extra at any time. Mabel did, however, a great job of management and we had good friends to visit who were in the same boat. Verna and Bill Ford, who had been with us in the Argentine, moved in to a spot in North York and we visited back and forth on a regular basis. We made new friends and eventually became great pals with Fred and Joan Kruger. He was a flight lieutenant in the R.C.A.F., who lived two doors away. With us on the same flight returning to Canada had been Vic and Clara Sharpe, ex R.A.F., who arrived in Montreal with no set plans on where to live. Clara was from Cincinnati and they could live in either of three countries. They decided to try Canada and sitting in the hotel in Montreal on their first night back, got a map of Canada out and blindfolded Clara, gave her a pin and she stuck it in the map. It turned out she had skewered a little place called Lemonville near Stouffeville in Ontario, so they drove to Lemonville, which was just a crossing. On one corner of the crossing was a little farmhouse marked for sale. Vic looked it over and bought it. It included 13 acres, a little barn and enough vegetables in the basement for the rest of the winter and they moved in. We visited often with them and he eventually got a job with De Havilland and did very well in the new

environment. Clara developed a whole family of great stories about her farming efforts which really could warrant.

5

AVRO

Getting to work at Malton was quite a problem because we had no car and there seemed to be no suitable bus system which would get me to work in reasonable time and at reasonable cost. I found out quite early that an old friend from the Prairie Airways days, Fred Staines, had a farm east of Toronto and was working as Chief Inspector for the Orenda Engines division of AVRO and drove along Wilson Avenue to Malton, so I was able to arrange a pick-up by him at the corner of Bathurst and Wilson Avenue, which took me in to work and returned me there every day at reasonable cost. When I had to work overtime, further problems developed, but somehow it all seemed to work out.

My work at Malton was essentially tied to following the design and manufacture of the C102 Jetliner, studying all the systems in detail and developing ideas and suggesting modifications and changes which I felt were necessary in these various systems. This task really involved working with the specialist engineers. These were a great group of young Canadians with relatively little experience but very bright. They accepted me very well and they listened to me which of course was quite flattering. The service department functions which I was also hired to carry out, involved overseeing and checking a group of writers and artists involved in preparing all the manuals for the CF100 fighter then in design. This required me to study that airplane thoroughly to be able to read and approve every word of the manuals produced. This work carried on for the full three years I was at AVRO and I became quite an oracle on both the Jetliner and the CF100. The design team and manufacturing group led by Jim Floyd were the most enthusiastic, 'gung-ho group I've ever encountered anywhere. They forgot all hours limitations - they just worked night and day. Nobody got paid overtime and the eagerness was just extraordinary.

In preparation for flight in the Jetliner, it was important for Don Rogers, then Chief Test Pilot of AVRO and I to develop a confidence in each other in the cockpit. We crewed together on a variety of test flights then underway at AVRO. I operated as co-pilot and directed the various flight test procedures we would use in later flying of the Jetliner. We carried out these flights in Lancaster, Anson and B25 Mitchell aircraft practising to determine stability in all three axis, stick-force measurements, stalls etc. I found Don to be a very steady pilot but did have concern that he had never been faced with an emergency which left his reaction to such events as an unknown. I liked my pilots to have shown good judgement in adversity.

By June 1949, the Jetliner was beginning to look like an airplane in the factory and the engines had arrived from Rolls Royce. They were Derwents a centrifical jet of 3500 pounds thrust (the type which was used in the Gloucester-Meteor fighter) so they were reasonably well-proven in flight. Originally the Jetliner had been designed to use two Rolls Royce axial jets with about 7,000 pounds thrust. These were in development and delays were encountered to a point where the switch to four smaller older style centrifical engines was necessary. Fuel consumption would be higher but a far more proven engine for the early flying of the commercial jet was considered highly advantageous. With the engines came Harry Halstead, a young Rolls Royce service representative whose task was to aid in the engine installations and to train me in particular in their care and feeding. I underwent an intensive study period with Harry over a four-week duration, when the aircraft was then moved out of the shops to carry out engine run-ins and system proving. At the time, we were in a race with De Havillands' Comet to be the first commercial jet transport aircraft in the world to fly. During the engine run-ins, on the Jetliner, we had encountered a serious heating problem from the engine jet pipes into the wing structure which required the application of heat-absorbing blankets in the jet pipe tunnels. This work delayed us a week or so and we lost the race to be first in the world to the Comet by eight days.

I had never told Mabel I was going flying again so it became difficult to keep all this activity with the airplane quiet. In my negotiations with AVRO, I had required them to provide me with a large insurance policy covering all flying, with a copy of the policy to be in my safety deposit box before flight. The day before we were to start taxi trials the policy still wasn't available, so I refused to budge, and AVRO had to get a man over from Lloyds of London to write up a policy that night. The next morning, I had my policy and as a result, Don Rogers got one also. The insurance company

also had required a more experienced pilot to fly the first flight, so Jim Orrell, chief pilot from AVRO, Manchester, was brought over to be the Captain. We had spent two or three weeks together going over the aircraft and developing all procedures for the first of a few flights. Jim and I were to perform all control action, Don Rogers to monitor and record events and operate the radios.

The plant closed for holidays the first two weeks in August, which allowed our Jetliner team a quieter environment to conduct taxi tests and first flight. Those two weeks were the hottest I can remember in Toronto with most days in the mid 90s'. These temperatures were not good for jet engine performance. Efficiency is much better in cold heavier air. Malton airport was also being rebuilt with only one runway active - north-west/south-east - of only 5,000 feet length. We started taxiing the Jetliner around the airport August sixth and seventh, checking steering, undercarriage stability and braking action.

On August eighth we attempted higher speed runs to get a feel of flight controls. We got up to a hundred miles an hour and shut off and applied wheel brakes and all four main wheel tires blew out. We were able to keep the aircraft on the runway, but it was rough.

On August ninth we again got up to a hundred miles an hour and blew the two starboard main tires. This time we drifted off the runway a bit. With the aircraft so lightly loaded, it was hard to sense wheel lock, when braking at high speed.

On the morning August tenth, we did some further high-speed runs and decided we had better fly before we did real damage on the runway. We had been required to wear back parachutes through all the taxi tests and flights and with no air conditioning working aboard the aircraft, it was like an oven. During that week, I lost 17 pounds and ruined my parachute with perspiration.

Shortly after noon, August 10th we set out to fly the first commercial jet in North America, an historic event. The flight itself was an anti-climax to the preceding week of horror stories and frightening events. We held it on the brakes as I opened throttles, with no sound insulation in the aircraft - the engine noise was loud! With release of brakes, the aircraft at first gained speed slowly, then really started to accelerate, shoving us back in our seats. Within increasing speed, the noise level fell rapidly until it seemed to disappear entirely when we lifted off the runway. At that moment, I'm sure my heart almost stopped. In all my flying to that time, I'd always associated power with noise - the more noise - the more power available. Suddenly no

noise - wow! The aircraft was climbing away like a fighter and gaining speed at the same time. I retracted the undercarriage and flaps and watched the air speed build up. She flew and climbed better than a Spitfire. We did some control tests, a few tentative stalls at altitude and she performed beautifully. We then formatted on Mike Cooper-Slipper flying a B25 on a photographic mission to have our photo taken - another great first. I could hear Mikes' propellers were out of synchronisation and advised him, on the radio, to adjust his rpm. Imagine hearing another aircraft alongside in flight! Our cockpit was so quiet, we did not need earphones for radio work, and in later flights, were able to hear rough bearings in a gyro instrument, while in flight.

The first flight crew of the AVRO Jetliner
Bill Baker, Jim Orrell and Don Rogers
August 10,1949

We landed after an hour and five-minute flight to find the Press and Radio going mad about the event. We couldn't get away from them for days. Of course, Mabel first heard about my flying while at home listening to the radio.

Our second flight was scheduled when the plant returned to work after holidays. On August 16th, all employees were allowed out to watch us fly. We were airborne in about two thousand feet, pulled up and came around

over the crowd doing two hundred and eighty-five miles an hour, to show off. Then we went on up to eight thousand feet to do some stalls - first clean with undercarriage and flaps retracted, then dirty with undercarriage and flaps extended. We held in the first stalls getting very heavy buffet with no apparent problems - she acted like a lady with no wing drop-off during the stall. When I attempted to extend the undercarriage for the dirty stalls nothing happened. The system was an electro-hydraulic system with four ways to operate the undercarriage. In the end, all four ways failed. We advised the plant, by radio, of our problems and they, in turn, gave me guidance, particularly in tracing electrical circuits to prove out the electrical part of the gear selection system. In the final method to extend the gear I had to take up the cabin floor to get at a lever, which, when pulled, would open up the undercarriage up-locks and supposedly let the gear drop free into the slip-stream. At the same time, this opened a hydraulic dump valve to dump pressure and fluid from the system. On my first pull of this lever, nothing happened, and I was advised, by radio, to pull harder. I was lying across the floor frames with ribs against the frame. I pulled harder and finally broke a steel cable, capable of handling five hundred pounds proof-load. At the same time, I broke a number of my ribs on the floor frame. With this last failure to get the gear down, it was suggested we go over Lake Ontario and bail out. We said,

"Not 'bloody likely! We're going to land on the grass at Malton."

By this time, everybody knew that we were in trouble and the local radio station had picked up the word and were broadcasting the story. People came out to the airport in droves and within a very short time, Malton was covered by thousands and thousands of people in cars. All the roads were blocked.

With only one runway open and the airport torn up during the rebuilding process, the grass areas along the north-west/south-east runway were also chewed up and we had difficulty orienting to a long enough run on the grass for us to come in on our belly. We had reached an aircraft configuration with the main undercarriages locked up, the nose wheel locked down and no wing flaps because we had no hydraulics to get them down. The airplane was going to be difficult to slow down without wing flaps and we were dreadfully concerned that, with the nose wheel extended, when we hit the rough ground, it conceivably could break off and come up through the cock-pit and finish us off.

AVRO Jetliner with nose wheel down, mains locked up and no flaps just before belly landing

We made three attempts to get in the grass strip alongside the runway. On the first, we pulled back power over the fence on the west end and flew for a mile just off the ground across the airport. The airplane would not slow down and we came up on the main road, where all the thousands of people were watching, flying right at them. At the last second, I had to apply full power to come up over them - swearing and cursing and wondering why the 'hell they were there - they were in a very dangerous position!

On the second attempt, we cut off further back from the airport and still flew right across the airport - in fact, at one stage, I looked at our air-speed indicator and we were flying in ground-effect at the lowest stall speed of the airplane - we were only two or three feet off - it wouldn't go down - wouldn't land. Again, we went up over the crowd and I said to Jim, with this last effort, we would be lucky to get around for the third attempt because we were just about out of fuel.

This time we cut off four or five miles back from the airport, came right down over the fence, and once we got on to the airport proper, Jim started to fish-tail (swing the airplane from side to side using the rudder) and finally the tail end of the airplane started to drag on the ground and I cut the engines and pulled all the fire bottles to put out all the flames in all the engines. We slid to a stop about a hundred feet from the fence and the road on the nose-wheel and engine tailpipes, with all those people trying to make up their minds which way to run. I'll always remember that as we were sliding along the ground to that crowd, a woman in a white dress moving two steps left, two steps right and then two steps left, again, and I thought,

"Sister, make up your mind. We're coming through."

Anyway, we stopped and the aircraft had very little damage. It was probably the best configuration we could have landed in for minimum damage. We had been in the air two hours and fifteen minutes - it seemed like a year. Again, Mabel had been listening to the radio and heard all the horror stories as a play-by-play went on for the several hours that we were involved in the flight. It wasn't very good for her nerves!

I was given a week off to allow my ribs to mend and my nerves to calm down while the aircraft was taken back to the shops to find and repair the problem for further flight. It was discovered that the undercarriage had been arranged in such a way that the up-locks jammed and would not free when the undercarriage legs shortened during a heavy buffet in the stalls we had been doing. So a very simple little mod of a wedge in there in the up-lock position was made and this prevented a reoccurrence of the problem.

We got back to flying on September twentieth and did a quick test flight and approved the airplane for up to four hundred miles an hour.

We made a second flight the same day doing more demonstration work and rudder evaluations. With a serviceable airplane again we started carrying on our test programme at a much more rapid pace flying nearly every second or third day going through the various test requirements: checking all the controls and systems in turn, proving out the aerodynamics and performance, generally, of the airplane. These tests often were very exciting and also nerve-wracking. We were flying into the unknown with a brand-new airplane type and had to keep moving towards a performance point in small stages so that we would not be surprised if something went wrong and, hopefully, would be able correct it.

We had carried out a great variety of stalls in every possible configuration. Each one lulling us by their basic gentleness. We would get lots of buffet, the airplane shaking quite violently and it would generally fall off rather easily on one wing or the other, or the nose would pitch down.

We finally had a case where it caught us completely by surprise. We were taking our very first passenger - the President of Dunlop, Canada, Gordon Wheeler. He was sitting in the jump seat between Don Rogers and myself. This flight required us to take off at full gross weight, pull up as rapidly as possible over Lake Ontario, extend the gear and full-flaps and put full power on and pull it up into a stall. What they wanted us to do was to carry out this test at the highest possible gross weight which meant the earliest point in the flight (as we were flying we were burning up fuel and decreasing our weight). We pulled up over Lake Ontario, got up to six thousand feet and hauled back for the stall, meanwhile chatting away

complacently with Gordon about what was going to happen. He was quite nervous and rightfully so, but our general demeanour was supposed to keep him comfortable. Anyway, we pulled rapidly up into the stall, and then without warning, the left wing stalled completely, and the airplane rolled on its' back with the nose high. This caught us completely by surprise and put us in a very bad spot - inverted with gear and flaps extended. I started retraction of the gear and then as we pitched over with Don rolling it to the upright position, I realised that we would gain speed very rapidly and the flaps couldn't take much over two hundred knots, so I stopped the retraction and selected flaps up. Meanwhile, I was pulling back on power, while Don eventually got the thing heading straight down and we gained speed at a fantastic rate. In fact, the last I looked, the air speed indicator was something over three hundred and fifty knots and we were heading straight at the water. We finally got it levelled out and starting to climb, at not more than a very few hundred feet off the water and then began to climb very sedately to thirty thousand feet to carry on further tests. We found out later that this was an unusual stall in that all prior stalls had been done with a speed decay of about a mile and a half per second. In this case we had a speed decay of about two miles per second and this placed us in a much steeper attitude than we had ever encountered before. We weren't paying enough attention! With the steeper attitude, the stall was much more violent, and it was a complete stall which threw us inverted. We learned a lot from that. We learned to be more cautious still. Our passenger never forgave us for this incident and forever after needled us. During the wild manoeuvres, he floated all over the cockpit as he hadn't had his belt on. On November 22nd 1949, Don and I went up with Jimmy Floyd and Mario Passendo as passengers in the back. We were going to find out how fast the airplane could go. In this flight we ran into compressibility (part of the sonic barrier philosophy). We were in level flight at thirty thousand feet, Don doing the flying, and I handling the power and recording the events. I would increase the power by one hundred r.p.m. in stages, let it stabilise out and take it up another step. We had been getting about eight to ten miles an hour speed increase indicated with each rise in r.p.m. and I still had two or three hundred r.p.m. to go when I looked up and saw that Don had the stick full back into his tummy and the airplane was just started to tip down. In effect, we had run out of elevator control and had a breakaway of the airflow over the tailplane. If we had gained even a few more miles an hour, the airplane would have pitched straight down, out of control and gained speed to a point where it would have broken up. We had reached the limit on the airplane in level flight with still power available,

which indicated that the tailplane required modification in future aircraft. We did get an indicated speed of three hundred and twenty-one knots, at thirty thousand feet and when this was corrected out, true air speed was five hundred and twenty miles an hour. The airplane turned out to be at least twenty-five miles an hour faster than the design plan.

In between our test flights, we carried out various demonstration flights for various airlines, TCA (Trans-Canada Airlines), United, American, National. We demonstrated for some of the senior military people of both Canada and Britain. Demonstrations were usually carried out with people on the ground, and Don and I and possibly Mike Cooper-Slipper carrying on a rather tight exhibition around the airport showing rapid turns, short-field takeoffs and landings etc.

Mike and I did all the engine testing programmes and basic performance proving with various engine cuts in flight and on take-off. On the very first effort of this type we taxied out at Malton and Mike was pleading with me to let him know which engine I was going to cut on takeoff. This is a very critical test because at about eighty percent takeoff speed, I would cut an engine and Mike was not to know which one and he was to carry out the takeoff pulling-up as fast as possible and clearing a so-called imaginary fifty foot barrier. This allowed the engineers on the ground to measure the takeoff distance required for a fifty-foot barrier with engine failure on takeoff. On the first event, we took off with full gross weight, I cut an engine and Mike hauled back, and we got into a horrible attitude right after takeoff (nose high) when all of a sudden, fire warning lights and bells went on for the other three engines, scaring the 'hell right out of us. Mike had to try to level off and I had to make a decision whether to cut all three engines or guess, in a sense, that the fire warning systems were wrong. It turned out that I guessed right, the systems were wrong! We had a new fire warning system on the airplane which signalled on the basis of a rapid change of temperature and the jet engine was such that we could fire up, get it running to idle speed and open up right up to full power on takeoff without any warm-up necessary. The fire warming system could not handle the rapid temperature change and had to be modified as time went on. This system gave us trouble another two or three times before we were able to get it to operate properly.

On one particular occasion, at Rockcliffe airport where we were demonstrating in early March 1950, before General Alexander and Prince Bernhard of the Netherlands, it had snowed overnight and we had about four inches of snow on the short runway. We fired up and immediately went into

take-off through the snow and, of course, from a cold start to full power was a matter of a minute or so. All four fire warnings went off just as we got airborne. We had to pull back on power for a bit until the temperature control system caught up to our flight. These warning bells were very loud and they had a 'heart-stopping' effect. They certainly got your attention.

Another series of flights which were most interesting and also very difficult physically for the crew were those made to determine the basic stability of the aircraft. We were required to trim the aircraft, so it would fly "hands-off" - in effect, by itself at a steady speed at fixed throttle at about 20,000 feet. We would then push forward or pull back on the 'stick to change indicated airspeed by 15%, then release the controls to let the aircraft fly itself. When we pushed forward on the 'stick, the aircraft headed down gaining speed all the time and the dive steepening 'till we were almost vertical, before it would, very gradually, start to level off as the basic stability of the aircraft took over. The first few "phugoids" as they were called, were really hair-raising as we didn't know if the aircraft would pull out of the dive by itself and if we touched the controls, the test was ruined. We had discovered one of the more radical differences between conventional powered propeller-driven aircraft and jet aircraft. With increasing speed, the jet aircraft increases efficiency, producing higher effective power, so this, along with the pull of gravity, was demonstrating a rather unstable aircraft situation which is a problem of all jet-powered aircraft.

As the aircraft reached its' peak of climb around 20,000 feet again it would pitch over and head down again and the cycle would be repeated with each phugoid being slightly less severe. We would proceed across the sky for 20 minutes or more with the aircraft alternately diving and climbing until at last it would damp out and fly level again. All these stability test flights were carried out before we had the cabin pressurisation system working, so we had to wear oxygen masks and endure the fantastic pressure changes from rates of descent and climb far beyond what would normally be experienced by aircrew to that time. I am sure that this sort of test flying contributed to my later problems with ears and certainly was a factor in the brain haemorrhage I had in 1952.

Crew and passengers on arrival at Idlewild, New York

On the eighteenth of April 1950, we carried out the first international flight from Malton to Idlewild, New York (now called Kennedy airport). From tower to tower, was forty-nine minutes and we carried out the flight at twenty thousand feet and shook up all the airways control people en route. They couldn't believe we were a commercial transport, they figured we were a military fighter. We arrived at New York to be met by hundreds of the Press, T.V. and radio people who absolutely drove us crazy. We were given a police escort with sirens going into the city and our hotel. That part of the

ride from the airport to the hotel was much more exciting than the flight from Toronto to New York.

Flight demonstration crew at Idlewild, New York
Don Rogers, Mike Cooper-Slipper, Bill Baker and Jimmy Orrell

In the next couple of days, we did demonstrations for the Society of Automotive and Aeronautical Engineers where hundreds of Engineers from all over North America were in attendance at a major meeting. Everybody up to that point, was of the belief that a Jet Engine on a commercial transport was hopeless - it was going to burn up the runways and burn people who were around the airport and what-have-you. We had great pleasure in starting up right in front of them and immediately turning to put the exhaust directly

at the crowd and we never burnt anybody. We changed a lot of views about Jet transport at that time.

We returned from New York to Malton via Dorval non-stop in two hours, again a point-to-point record.

We carried out various point-to-point records such as Dorval to Malton in forty-nine minutes, Malton to Uplands, Ottawa in thirty minutes tower-to-tower. On November 19, 1950 we flew Malton-Chicago with some passengers from United Airlines and carried out demonstrations for United over the next few days in Chicago.

We returned to Malton on the 27th of November on three engines. During my pre-flight inspection, I found out that a bolt had come free in the engine intake area on number three engine and had whipped around and done some damage to the compressor, so I decided the we shouldn't operate the engine. We were going to take-off on three engines on one of the two runways running North-west and unhappily Don picked up the wrong one which was quite short. The longer one was seven thousand and the shorter one was about forty-five hundred feet. We hadn't realised this until well into the take-off run, when the houses began to show up very close to the end of the runway. However, it became airborne and we flew home from Chicago to Malton in an hour and forty minutes on three engines.

Jimmy Dolittle and Bill in Jetliner cockpit

On January tenth, 1951 we flew Malton to Tampa and cruised down at thirty thousand feet and set a record time of three hours. Again, we had a lot of fun with the airway controllers en route - they couldn't believe this was a commercial jet made in Canada - again, not a fighter.

We carried on to Miami and carried out a series of demonstrations for National Airlines and Eastern Airlines. National placed an order with us for aircraft as had United so we were beginning to feel quite 'bullish about the future.

We took the aircraft to Dayton, Ohio to carry out a series of demonstrations for the U.S. Army/Air Force and received a very, very good

review on the airplane and it was indicated that we could expect an order for the Jetliner for up to 20 aircraft to be used in Navigation Trainers, Radio Trainers what-have-you and executive transports for the Military service.

Even with this bright-looking order book, things were changing at home. Pressure was being applied from Ottawa by C.D. Howe to cut back or close down the Jetliner programme in the interests of getting higher production of the CF-100. These were required as early as possible for use in the Korean conflict. AVRO management really didn't fight this pressure and I could see the Jetliner project evaporating. With the slow down on the Jetliner, I felt my future was limited at AVRO and was wondering what to do and when Jimmy Floyd was transferred from Chief Engineer to Head of Production in the plant and he asked me to become his assistant. I agreed to move over from Sales/Service Department and work for Jimmy. It was interesting but again, it wasn't my 'cup of tea. I had become quite vociferous about the lack of management fortitude in carrying on the Jetliner in the corner of the hangar, with a small staff, while the rest of the organisation caught up with production of CF-100 and that at some point in the future when CF-100 was rolling along we could come back to the Jetliner project and move out with the second prototype and go into production and satisfy the demand. Well, this sort of talk wasn't appreciated by management and so much so that I was eventually fired. That is an experience - to be fired! So ended my career at AVRO.

I should now add a few of the non-flying events of our three-year period that we lived on Falkirk Avenue and some of these were kind of interesting.

I had mentioned earlier that we made good friends with Flight Lieutenant Kruger and Joan and at one stage, I guess 1950, that the R.C.A.F. arranged to have the First Annual Ball to be held at the Hunt Club facility on Avenue Road. This would be a monster-bash and there were to be ten bars, each bar representing an area wherein the R.C.A.F. operated in World War Two. It would be decorated and styled to that particular area. It was a 'white-tie and tails full-formal effort, so we were invited because of my R.A.F. background, to attend. So, Mabel acquired a nice new gown and I rented 'tails. We went to this very great affair and it turned out to be a test of abilities in that the idea would be to have a drink at each of the bars and dance in, I think there were four or five different dance areas, and we ended up at about six in the morning completely finished. The ball was never repeated so it became the first and only R.C.A.F. ball.

In the first year at AVRO, we operated without a car and desperately wanted some wheels, however we couldn't afford it. I had been working at AVRO for the sum of $300.00 dollars a month and when we got to flying a bit, they increased my pay to $5.00/flight hour, which wasn't a great deal and with a mortgage to pay, we didn't have much left, so Bill Ford, who was a mechanic at one of the garages persuaded me to buy a 1934 Ford V-8 and said it was in reasonable mechanical condition. It, I guess performed reasonably well if you knew how to do all the things that were necessary to keep it running and we did have lots of problems - Mabel particularly - she learned how to drive on that machine and we have great legends about those early events. One of the earliest ones was a plan whereby she would meet me at the corner of Wilson and Kipling Avenues, when I was dropped off by Fred Staines and drive me home. This was a matter of about eight or ten blocks. The day arrived when she was to do this, and I got off at the corner and there was no Mabel and I waited for a bit and finally started to walk home. As I came around the corner on Falkirk, I could see Mabel sitting in the car opposite the house (in those days there were no curbs) where there was a ditch and she was in the car down in the ditch (the car was really on its' belly) and there she was grinding away, trying to get out of the muddy ditch. Apparently, someone had come to her earlier on and suggested that he would help her and she had said

"Oh no, I'm just learning to drive. I'll be all right", and the man walked away shaking his head. When Mabel eventually got to drive, she had another interesting experience. She got all dressed up to go shopping on Avenue Road. When she was ready to leave, the car wouldn't start, so she decided to take out the crank and crank it herself. She got it going! I think that was tremendous!

On another day when she tried to shift the gears, the whole gear-shift handle came off in her hand. How she did that, I don't quite know, but she was able to drive it home and get it back into the garage. I required a heck of a lot of maintenance know-how to keep it operating and in the last year, we finally decided we had to 'bite the bullet and buy something different, so we bought a little Ford Prefect (a little English car). In those days it cost a sum of $1,200.00 - so we bought it, on time, and had some great trips in it. It was tiny and rough and it took us two days to get to Montreal to see the Flowers, but we did cover a lot of Ontario with the little Prefect.

6

GARRETT MANUFACTURING

When I lost my job at AVRO, I had no idea of what to do or where to go and I was beginning to feel quite desperate. However, a few days after the firing, I had a call from a fellow by the name of Ian Rankin who wanted to meet and talk with me about employment, so I invited him up to the house for dinner and Mabel put out a lovely dinner and we chatted about his plans. He was setting up a new company at Dorval to be called the Aero Sales Engineering, which would be an arm of an American operation and the plan was to represent a variety of American manufacturers in Canada and sell their products, particularly in the Aerospace Industry. He felt that I could become a Sales Engineer. I certainly would earn a 'heck of a lot more than I had been earning at AVRO. I agreed to try, so we put the house up for sale and bought another one in Montreal, in Lakeside.

We had a small office in the old Transat Building of Ferry Command at Dorval airport and Ian had hired one other lad by the name of Frank Vann and the three of us were to start up the company. We had several good manufacturers such as Air-Research and Aero-Supply and Pacific-Scientific which had products which were already being used in Canada and we could get credits for the sales they had already made.

One of my earliest sales tasks was to go over to Canadair and see a man by the name of Jack Gardener, an electrical engineer, and talk to him about some electrical equipment that we had for sale. I thought, as I was driving over,

"I wonder if this is the Jack that used to be with me in Moose Jaw?" and it turned out that it was!

It turned out that instead of me selling him any hardware, I sold him on joining us and he became the third man in Aero-Sales. (Frank Vann had resigned). Jack stayed on through all the years and retired from Aero-Sales or Garrett as it was also called.

Our house in Lakeside was quite different to anything around. It was the first home built in Canada by a builder who made houses of concrete in the Middle-East. He poured concrete into special forms fitted to the foundation which resulted in a four-inch outer wall, then a four-inch dead air-space, then a four-inch inner wall. Each pour of concrete made the walls about 6-foot high. When the concrete cured, the forms were raised to pour again. All windows and doors were fitted in and sealed so that we had a very warm winter home and a quite cool house in the summer. The problem was that in the Middle East the concrete cured in six hours, but in Canada it took several days. The builder went broke because of so much idle time and so few units in construction at the time.

My selling territory was considered to be Ontario and the West, so each week I left Montreal on a Monday morning on TCA flight #1-North Star and returned Thursday night for a day in the office. I was very successful in selling at Avro as I was dealing with all the specialist engineers who were my friends from the Jetliner days. I sold the complete air conditioning pressurisation system for each CF-100, all the circuit breakers, fuel system controls, oil coolers for Orenda engines etc. In the end each CF-100 had about $350,000.00 worth of equipment, which I had sold, and 712 aircraft were eventually delivered, so we had quite a good return. I also had projects at DeHavilland, with the R.C.A.F. and the airlines and found I enjoyed selling specialised products for aircraft.

All this travel was hard on Mabel, who had to cope with Ted and Wendy with little help from me. However, she had the car most of the time and became quite a good driver and was able to see her parents and sisters on a regular basis.

After about six months on the new job, I was sitting at home on a Saturday afternoon studying reports related to the job and Mabel and the kids were out shopping, when I was struck by the most violent pain in my head. I was blind instantly and was unable to move. I knew I screamed and screamed, but just sat there for an hour or two until Mabel came home. She got hold of the Doctor who had me put in hospital in Montreal.

I have very little recollection of how I got there and how long it was before I knew what was going on. I do remember Doctor Robb sticking a great needle into my spine and drawing off blood. The pain was excruciating and never let up. I was required to lie dead still with no movement for eight hours after each needle in the back. After some days I could see a little, straight ahead with no peripheral vision at all.

In the second week Ian Rankin came to visit for the first time and told me not to worry about my job as my pay would continue no matter how long my recovery took. This action had a great impact on me, as I had just started to worry about how I could look after Mabel and the kids with no money and no job.

After a few weeks in hospital, I was allowed to get up, but the pain did not stop, and I found it difficult to move my legs, but my vision was showing some improvement.

Finally, Doctor Robb, who was an assistant to Doctor Penfield at the Montreal Neurological Hospital, came to see me and said there was nothing more he could do in the hospital and that I could probably progress better at home. He told me I had experienced a sub-arachnoid haemorrhage in the brain and was very lucky to be still alive, let alone able to move. He said that he had studied my history and that he felt the cause to be all my exposure to extreme altitude for long periods of time and the rapid pressure changes associated with the type of flying I had done. I may have had some weakness to start with, but it was certainly not helped by the life I had led. He said the haemorrhage would reoccur at any time and with no warning. The best he could suggest was that I had one life to live and that I must live it like I was sixty years old - no straining, lifting, excitement, running etc. I was to act like an old man and if I ever reached sixty, I could then act my age. I spent a few weeks at home then back to work for a few hours a day.

My headache was severe 24 hours a day, but I found if I lay down flat on my tummy for a few minutes every two or three hours, the pain would ease a little. The Doctor said a "check valve" at the top of the spine opened and let the blood leaking in the brain down into the spine, and this decreased the pressure in the brain. I gave up all pain killers because they upset my stomach. All in all, I was feeling very sorry for myself and wasn't very nice to live with.

One evening, Mabel said, enough is enough! She told me to shape up and start living again or else!

We came to the conclusion that night, that I must live each moment, not fret about the future, but enjoy what we had now. With that decision, my life changed for the better in every way. My career improved because of my changed attitude toward people and events. I never worried about what might happen but lived each hour and day. My decision process at work improved enormously and I was a happier man, although still in pain. When we found out that Mabel was pregnant again, our joy increased, and life was good!

Covering my territory was much more difficult as I couldn't fly but had to ride the night trains to and from Toronto until TCA got pressurised aircraft. I did make the odd trip to Los Angeles in DC6s' and Constellation Aircraft with no difficulty.

Aero-Sales Engineering was very successful, so much so that our main client, AiResearch, decided to buy us out and move us to Ottawa to set up facilities for overhaul of equipment then in use on CF-100, F-86, T-33 aircraft, so we put up our house for sale and moved to Ottawa shortly after Lee was born in Montreal.

We bought an older home on Harmer Avenue, just off Island Park Drive, a nice place, but it took forever to get enough water for a bath - the plumbing would have to be changed.

The house at Lakeside sat empty for nearly a year, before it sold, one week before our Harmer Avenue house was also sold. We were moving again.

We had a lovely property and garden in Ottawa and enjoyed our stay except for the winter driving which was tough. Getting our car up the driveway and into our garage in icy weather was an exciting event for both Mabel and myself. Sometimes it took a number of runs around the block to make the grade.

TCA didn't fly pressurised aircraft into Ottawa, DC-3s only, so it was back to trains. I found I hated those sleepers as I couldn't sleep while it was moving.

Our only Christmas at Harmer Avenue created another legend in the family. We had all the Jacksons and the Flowers stay with us for the holidays - a real household. In preparation, we made special cocktails with red and green ice cubes and somehow the green dye got into the mashed potatoes for Christmas dinner. Nobody could eat them, proving that colour really does have an impact on the palatability of what we eat.

We got our first T.V. in Ottawa in time for the Grey Cup.

We also had our first indication of future problems with our new son, Lee when we caught him removing flowers from a vase and drinking the water.

After a year or so, in Ottawa, it was realised that the company would be far better off in Toronto, so we started packing again.

Our move to the Toronto area took place just after the famous hurricane Hazel. The damage along the watersheds was appalling with key bridges out. We bought the largest model being built in Applewood Acres in Port Credit on Bartlett Lane for the, then, fantastic price of $18,700.00. It was

an all-new area populated by young couples with families such as ours with large mortgages and little left at the end of the month. It turned out to be a happy place where everyone pitched in. We enjoyed our seven or eight years there, more than anywhere else we had lived before or have since.

We formed Garret Manufacturing Limited, a subsidiary of the Garret Corporation of Los Angeles and had a ten thousand foot factory erected in Rexdale and started hiring. The AVRO Arrow was in design and I was applying full time to the project, involved in every system in the aircraft and engines. When the design was complete, we had over two million dollars' worth of our own equipment on each aircraft. We were the largest supplier of systems and equipment on the aircraft and I had accomplished or directed all the sales. Most of the items came from our U.S. clients and much of it was created to meet the most advanced requirements in the Western World. The Arrow would be a huge step forward in performance and capability and required entirely new thinking for every element of its' makeup. We were working on an aircraft with Mach-3 capability, flying at altitudes never achieved before and employing computers for the first time in many systems. I was certainly involved beyond my engineering knowledge, but found I could keep up because I was dealing with people who wanted to help me achieve. The decade of the fifties was a great decade for the Canadian aerospace industry, with AVRO, Orenda, De Havilland, Canadair and Pratt and Whitney all creating and producing new designs. Our company was active in all of them. I had a staff of ten top-grade salesmen-engineers at the peak and our little factory had grown and was creating products for installation in the new aircraft being made in Canada. Ian Rankin was General Manager and I was Deputy General and Sales Manager.

Our family life at 2228 Bartlett Lane was busy and satisfying. The first few months there, we gathered with all our immediate neighbours in Harry Smiths' unfinished basement to organise a club to comprise of 50 couples to participate in self-developed entertainment projects five or six times a year. Club-50 was an instant hit with a waiting list which carried on for many years. In fact, we were invited as founding member guests to an event in late 1966. For each event, four couples would be responsible for planning, organising and staffing dances, dinners and parties of their choice. In those days we held our events in the hall over the restaurant in the Applewood Shopping Centre. We'd get a party licence from the LCBO and set up our own bar. With everybody living within walking distance, we never had a problem with the driving. The cost of our parties never exceeded $20.00 a couple and that included our drinking, food, hall rental, music etc.

Needless to say, there was usually a full house. Everyone participated and the parties were imaginative and great fun.
Prizes were different, the Nielsens winning the door prize, an actual door or the early-bird prize, a live chicken!

Ted was very happy in Scouting, Wendy in Brownies and Girl Guides and Lee into devilry. He kept us continuously on our toes, forever into some activity which we didn't anticipate. A list of the things he did could fill a book. A few items here will serve to illustrate the problems we had with Lee and bring back memories of other items not listed, such as filling the electric kettle with butter, cutting off the living room drapes at the windowsill, collecting all the Christmas trees put out for garbage collection after Christmas and filling our double garage (I had to make a number of trips to deliver them to the dump myself!) He smashed every window in a set of storm windows which were delivered and put into our garage before I got home from work, Lee and his playmate Cheryl Smith, had laid them out on the garage floor and walked through everyone. We spent a hundred dollars of scarce money to have a psychiatrist tell us he was just an active child and to buy him shoes which were three sizes too large for him so that he could move his toes and have something to do.

The first Sunday that we were in Applewood, we went to the Anglican church, St. John the Baptist, in Cooksville. The next day the Minister, Jeff Billingsley, came to visit us accompanied by the Peoples' Warden. After some discussion, he persuaded us to head up the annual Every Member Canvas. We agreed when we found out there were only fifty families registered in the church and that the budget was $13,000.00 dollars for the year. That decision started a very active seven years in the Church for us.

Our first canvas resulted in the collection of over $39,000.00 dollars and increased the number of parishioners to almost five hundred families. No one had anticipated the growth of Applewood Acres in the Cooksville area. We organised an efficient visitation that brought in hundreds of new members with such success that we couldn't get out of running the canvas for the next two years. Also, I was appointed Peoples' Warden for a number of years and then Rectors' Warden through the rest of our time in Applewood.

In the third year, I persuaded an old time church member, who had at one time had been Premier of Ontario, to bequeath a set of electronic Carillon Bells to the church. These were controlled by a quite sophisticated recording and timing system. One could set them up to play topical hymns such as Christmas carols and Easter songs at various times during the day

and week, much like the V.C.R. of today. At first, everybody thought they were wonderful and the music a Christmas was superb, then I started to get requests to cut down the volume. Then we started to get power interruptions which threw them all out of time. This, and visits from the police at our door at two and three in the morning, culminated in my going over to the church to "shut the bloody things off!". The church neighbours were getting more and more upset with the bells and eventually we had to cut them right down in volume. We even had them start up during church service which had to stop until I could shut them off. I never did get anyone to help me run the 'damn things until just before we moved. It turned out to be a nice idea but far ahead of its' time and impossible to control with the systems of that day.

In the winter of '56-57, we got a baby-sitter in and Mabel and I drove to West Palm Beach, Florida. We took, as passengers, Bert and Edie Flower. It was difficult drive, as it was long before the Interstate roads system of today. All two-lane roads and through every village, town and city with no bypasses. I drove every inch of the way, but enjoyed it. We met my Mother and Father down there, where we got adjoining efficiency rooms in a motel not far from the beach. It was a great holiday for all of us. We even had our parents in the ocean swimming. We would have breakfast and lunch, simple meals, in our room and go out for dinner every night. We visited Mothers' sister, Justine, who had a home not far from the airport at West Palm. We were just over three weeks away from home.

I was travelling a lot, mostly to the U.S. and into Los Angeles every two or three weeks, but got so fed up with the place that I rarely spent more than one or two nights there. I took Mabel with me when I had to read a paper at an Engineering Convention in Santa Barbara. Mabel was one of the very few ladies present and attracted quite a male following. We also went to Phoenix, Arizona for a few days business and pleasure.

In 1957, Dan made his entrance into our world. Our family was still growing. Our house on Bartlett Lane had only one bedroom on the ground floor and two larger bedrooms and a bathroom on the second floor. With the arrival of the new baby it was definitely becoming too small. We decided to lift the roof on the rear side and put in a dormer. This allowed us to widen the upper floor and make room for another bedroom which would be ours. We had competition from a number of builders to do this work and finally signed a contract with the appropriate penalty clauses for having the job done on time. It would cost about $7,500.00 dollars. We were in a dusty mess for weeks with very slow progress until I reminded the builder of the penalty clause that he had signed. It would cost him a $100.00 dollars a day for every

day that he went over the contracted finish date. The plaster then really was applied, and he made it right on time. The addition provided more room, but it wasn't the best plan. When we sold the house a year or so later, we sold it for exactly the $19,00.00 dollars that we had paid for it seven years earlier and got nothing for the changes.

With the cancellation of the Arrow Programme on Black Friday we were required to stop work on all Arrow projects immediately. We had to fire a wonderful staff on Monday morning. We dropped some two hundred and fifty people that day, and revised our operation to fit a new business plan yet to be developed. I spent a lot of time exploring and developing a concept for Garrett Manufacturing, which I felt was viable for the long term. I then made a number of trips to Los Angeles and Phoenix attempting to sell my ideas to the Corporate Board and to the Officers of the parent company. They really were not interested in things Canadian or the future of the company in Canada. In spite of the collapse of Arrow Project, we maintained a good and growing business and were consistently profitable but we could have done much better with a more positive approach in the Canadian company. I became more and more frustrated and I guess I expressed myself too strongly on the subject too often and was fired, given two months' pay and told to move on! Ian Rankin was also moved out of the company at the same time. We were the originators and builders of the company, but they didn't want us anymore. They wanted someone who would take over from Los Angeles and not rock the boat. The sad thing is, that about a year later they implemented my business plan and haven't stopped growing since.

7

FLEET MANUFACTURING

Lynn had arrived on the scene in April, 1960, so we had a full house with 3 sons and 2 daughters. Time to make our bet and take no more cards.

The loss of my job was quite a blow to my ego after so many years of effort and ideas given to a rapidly growing and solid company. Ian and I had brought the company from nothing to a peak of some 500 people. All was profitable and they were now selling Canadian designed and manufactured items to both the U.S. and Canadian market. I was very bitter about having worked for absentee American companies and determined to find work with a Canadian-owned firm for a change. Finding a Canadian company in trouble would also be the right approach because anything you did would look good. After all, you couldn't make it worse and previous management would be blamed.

After six weeks of looking and nail-biting, I found Fleet Manufacturing of Fort Erie, one of the oldest Aircraft firms in Canada and one which had a series of ups and downs over many years controlled by Bay Street Stock Promoters playing Fleet on the Stock Market and not understanding anything of its' business capabilities or work skills. I made a trip to the plant in Fort Erie and was shown around by the then General Manager, Air Commodore Costello. He didn't know anything about what was being done, actually got lost in the plant and was ignored by all employees who turned away during our tour. He boasted that he had some 225-plus bodies in the plant but didn't know their skills. This tour convinced me that if I could get the people at Fleet to work with me, I could turn the company around and do all right. I then went to see George Clark, who was president of Fleet and who had an office on Bay Street and had never visited the plant more than once every couple of months. We had a few hours of talk and then he offered me the position of General Manager to start the next day.

I said that I would start work but the plant must be told I was Contract Manager and that at some time in the future I would change my title to General Manager. I would, though, have authority as General Manager right from the start. Clark didn't understand this action but agreed.

I spent a couple of days in the Bay Street office going over business records and found the situation was much worse than I had bargained for. They had work for about two months at the most and not for the 225 people then employed.

I then went to Fort Erie to meet the staff there and got an appreciation of their capabilities and to explore the plant in detail. The facilities were rundown and installed machines were old and out of date. About half the plant area was in use, the rest was full of junk and un-cared for. It was a most depressing sight. I commuted from Port Credit to Fort Erie in my Volkswagen Beetle and stayed in a motel handy to the plant, where I spent twelve to sixteen hours a day going though records and discarding files. I had made an arrangement with the local Boy Scouts to take away unwanted paper and filing cabinets. It amounted to two truckloads.

The next shock was to find out that there was little cash left and none would be coming in, so I got in touch with Sam Lax, a scrap dealer in Hamilton to send some men in trucks into the plant and pick up old steel jigs and fixtures which had accumulated over the past thirty or forty years. He agreed to pay me each Thursday morning for all scrap collected during the prior week. We were able to meet the payroll over the next six weeks. I meanwhile laid off about fifty people.

At the end of four weeks, I closed the plant on Friday afternoon and got all the Fleet people in the cafeteria and told them the position and how we were going to progress. I gave the Sales Department daily targets for getting orders and the plant output targets for each week. These targets were posted about the plant and kept up to date. We had cheering sessions each day in Sales when we met or exceeded the target and the same action in the plant when our shipments exceeded the target for that week. Within days, things started to improve and the spirit and morale improved by the hour.

I had redone the overhead costs to reflect the type of job and facility involved rather than a single lumped overhead applied to all tasks. This resulted in a very competitive labour overhead rate in the market and we started to get a steady volume of business in the sub-contract market in Canada. At the same time, I was faced with negotiations with the union, plant and office. Both were I.A.M. At the time, rates paid did not reflect skills or experience. A Toolmaker got twenty-five cents an hour more than sweepers.

A typical union situation where seniority was all important, not skill, knowledge or output. I was told by the union president that it cost the same to each man for his loaf of bread, so why should anyone have more because of his efforts. No amount of talking would change this viewpoint, so I had to sign a new agreement with straight, equal increases across the board. In later months, I arbitrarily authorised increases in hourly rates to Toolmakers and other skilled people and gradually got a realistic pay scale installed in spite of the Union objections.

We were able to get some tenants to occupy some of the unused areas. These were a hearing aid manufacturer and pill packer. We also got rid of the office building to the Government as an armoury for the local militia. These gave us income for the unused area and helped reduce our overhead. We consolidated all office activity into a single refurbished area on the second floor of the main building and immediately found that by so doing, two people who had never really worked but had spent their days wandering from office to office. Controls were so bad that this sort of thing could happen. The whole effort was a challenge beyond anything I had expected but the results were so impressive that it was thrilling.

I commuted for five or six months while the kids finished their school year in Applewood, then found and moved to a house on Niagara Boulevard in Fort Erie which had been owned by a Doctor, in July. It was a lovely big place, three stories with an enormous back yard. The lot was a hundred by nine-hundred feet with beautiful trees including a very large Magnolia tree which I was later offered nine-hundred dollars for. I bought the house for Fleet and paid nominal rent to the company. A Doctor rented the offices and counselling room which was part of the house for the next couple of years, then we took over all of it. I had the company redecorate the whole place so it worked out fine.

The business at Fleet had been totally Canadian when I arrived but from that point on I pushed our Sales people into the U.S. to look for business. Our first small success was with the Heavy Military Equipment Division of General Electric at Syracuse. Then I got the idea of pushing Douglas Aircraft in Long Beach for business to aid in their sale of DC-8s to Air Canada. Finally, they gave us a contract to manufacture wing flaps and dive brakes for the A4 Navy Fighter. The order for a hundred or so aircraft sets required delivery in four months. We had to finance and make our own jigs and fixtures. I got the Canadian government to advance some money for tooling costs and the Plant worked night and day. We had our first sets on time but had to air ship to make scheduled date. More cost to us! By the time

we had shipped thirteen sets, we were ahead of schedule and everyone was happy.

The roof fell in when an Inspector in our plant found cracks around counter-sunk rivet holes in the skins for the wing flaps. This was a disaster. We stopped work to investigate while I called Douglas and told them to ground any aircraft with our flaps and not to use any of them. Douglas couldn't believe the situation, but I persuaded them to investigate anyway. Meanwhile, after forty-eight hours of straight investigation by our Engineers, we found the cause. We had used Douglas-specified process methods in hot dimpling as required by the contract, but we found that the temperatures were wrong for the aluminium alloy used in the skins. I ordered the plant to work 24 hours a day using the correct dimpling temperatures while I awaited word from Douglas.

A senior vice-president called a few days later literally screaming. They were going to close the Plant and stop work all because of our lousy work. When I finally got a word in, I told him that replacement sets were on his receiving dock that day and they were good products. He calmed down and asked what had caused the problem. I told him that it was an error in Douglas process system which we corrected. He then said it was Douglas' fault and we would negotiate new costs. I said no, that when I first talked to Douglas, I had said that we were a top quality company who knew the business, so we should have checked process method, and found the error ourselves before we started work. Replacing the 13 sets cost us some $45,000 and the Fleet Board of Directors and President wanted to fire me for taking the responsibility. Later, however, Douglas confirmed that they had the same problem when they started manufacture of the flaps in their plant, found the trouble and changed the dimpling temperatures, but never changed the paperwork. My action, in taking responsibility, had great impact on Fleets' future and more so on my own personal career. Douglas went to work in spreading the word about Fleet throughout their network of suppliers and competitors around the U.S. They opened doors for us anywhere we wanted to go for business and we got it. Within a year or so, 85% of our business was export to the U.S. and our workforce climbed to over 500 people and we were solidly profitable. In addition, on the next order for the A4 flaps and dive brakes Douglas increased our prices arbitrarily so that we got all our original loss back with a profit added. This has been a long story but a key one because it was so important to what happened at Fleet and to my eventual move to head Douglas Canada Limited.

The first year or so at Fleet was hard on both myself and the family. I got a bad case of stomach ulcers and lived on a mix of milk and cream with nothing else for nine weeks. Mabel had a bit of a nervous breakdown. Wendy got Mononucleosis. Lee, Dan and Lynn had cases of Measles and Chickenpox and the problems increased. Our Doctor O'Mullvaney was also our plant Doctor and he looked after the family. One day he got pretty fed up with us and called me to order me home to be home no later than five o'clock. He got the family all together and gave us a lecture on what we were doing wrong. He gave Mabel instructions that on my arrival home in the evening, she was to mix us both a good whisky and the kids were to depart for places away from us to allow Mum and Dad a half hour together where we could unwind before facing the family. He also ordered us to go away for at least a month and I was not to call the plant or the plant to respond to my calls. No business for a month. Through an ad in the Toronto paper, we rented a cottage on Lake of Bays, loaded up our trailered boat and headed north, with a very sickly group. We had a great months' holiday and came home fit and healthy.

Ted had completed his last year of high school in Moose Jaw staying with my sister Bert and her husband Al. For the summer holidays he had, through his Scouting contacts, obtained a summer job at the Renabee gold mines north of Lake Superior so he, to all intents and purposes, was home but very little over the next few years.

One of the more interesting contacts that were made while at Fleet and who had some part to play in our success was Judy LaMarche, a member of Parliament for Niagara district. I met her in 1961 when she was running for re-election. I felt she would win and that if she did, knowing her and she knowing something of Fleet, could be useful, so I phoned her office in Niagara Falls and invited her to visit the plant and talk to some of our employees as she toured the plant. She thought this would be a great idea and spent about three hours with me walking around. She asked many questions and from then on kept me up to date on things happening in Ottawa and in which we might be interested. In her walk-around she had acquired a very good understanding of our capabilities and demonstrated this over the next four or five years with the notes and data she sent to me. They all related to what she had absorbed that first visit. She would drop by every four or five months for lunch and talk and do a plant walk-around. The people there appreciated her interest and certainly gave her their vote when necessary. At our first lunch I had introduced her to the Argentine lunch of beefe caballeo, a steak with eggs and ever after, that was all she would order (no wonder her weight was a problem!).

At Fleet we continued to make very good progress, developing new products and capability. We could see an expanding range in the bonding business (the bonding of metal to metal) in the aircraft field and was able to persuade the Canadian government to underwrite the purchase of a very large autoclave necessary for this business. We installed this new capability and developed quite significant expertise, so much so that our business expanded quite rapidly, and we were able to turn out products which were used in the Space Programme and some of our bonded items are still in Space on U.S. and Canadian satellites.

The Canadian Navy were also interested in developing what was called a variable depth-sonar system and we were able to come up with the mechanical system which would be key to a satisfactory overall sonar system for the Canadian Navy Destroyers. This Fleet-designed system was purchased and used by other nations in the years to come and Fleet became a world recognised expert in that particular field.

George Clark, President of Fleet, never understood or appreciated what we were doing in Fort Erie and in fact very rarely showed up at the plant, spending all of his time in the offices on Bay Street in Toronto. I had arbitrarily reduced his expense account claims each month, knowing that he was cheating and he never complained about this, which confirmed my opinion. He wanted us to get into a modification programme to convert Beachcraft Bonanza Aircraft into a twin-engine craft called the Super-V. I refused to participate, so he formed a subsidiary company to do the job and we rented them space in our hangar at Fort Erie. It went on for about a year, losing some quarter million dollars, when some members of the Fleet Board asked me to become a member of the subsidiary Board of Directors. I said I would only accept on the basis of the Board s' supporting me to cancel the Super-V project. I attended one meeting where we cancelled the Super-V and closed down the subsidiary. Clark was furious and wanted to get rid of me but was afraid to take that step. From then on, he used every opportunity to create problems for me.

In the third year at Fleet, I was asked to become a Board member of the Douglas Memorial Hospital which was then in deep trouble and had lost its' Accreditation. I joined at the same time as Grant Asplin, President of Horton Steel of Fort Erie and we worked together to clean up the hospital problems. I became the layman member of the Medical Committee and in that role found out that three of the eleven Doctors accredited in the hospital were performing services for which they were never trained. They had falsified their records. I cancelled their hospital accreditation and enjoyed the

wrath of half of Fort Erie who felt I was unfair to their favourite Doctor. I found out that another, so-called Doctor working there had never trained at all - he was an impostor. He went to jail. Over the two or more years I was involved at the hospital, we made great progress and gained accreditation back and started an 85-five bed expansion project which was completed shortly after I left Fleet.

Al Bunn Junior, who had joined the R.C.M.P., after training was posted to his first station in Fort Erie shortly after we moved there. His job was to monitor betting at the local race track and to search out liquor stills in the Niagara Peninsula. He became a fixture at our house in his off-hours. We aided and abetted his courting of Sandra, a Niagara Falls girl and they were eventually married. We had all the Baker family from the West stay with us for the wedding and carried out the usual functions of the parents of the groom.

In early 1963, DeHavilland, Toronto, bid and became a participating subcontractor to Douglas Aircraft for the manufacture and supply of the complete wing and tail section of the new DC-9, design and manufacture all tools, jigs and fixtures. DeHavilland took over the old AVRO, Malton plant to do the job. Because of Fleets' history with Douglas, we were able to bid and won the opportunity to manufacture the ailerons and flaps for the DC-9, supplying them under sub-contract to DeHavilland. This was the largest order Fleet had got to date and we expected the programme to run for twenty or more years. We designed and made our own tools, jigs and fixtures and delivered our first units on time to DeHavilland. Meanwhile, they were having trouble getting their first part of the DC-9 project on schedule and on cost. The tail-plane controls were taken back to Douglas for manufacture to ease some of the problems. Then Douglas sent a team of specialists, headed by Lou Whittier to help DeHavilland along and I began to hear rumours that DeHavilland was in deep trouble.

In October 1965, Lou called me and asked if I could meet him in his office at Malton to discuss more sub-contract work for Fleet. I said I would be happy to take on more work and met with him at 10:00am the next day and there was another man in his office, a Doctor so-and-so, employed by Douglas (I don't remember his name). After we had coffee and chatted for a while, Lou suddenly said that he had to pop in to the plant for a moment and excused himself. I sat talking with this Doctor, who seemed to ask a great many questions. After almost 2 hours, Lou finally returned and said, "Let's go to lunch."

After lunch, Lou apologised and said that he wasn't ready to talk any more about sub-contract work at this time and he would call me. I drove back to Fort Erie steaming and I felt that I had wasted the whole day.

Next day, I was met in my office by Ron Fraser who had been head of a Real Estate company in Hamilton that George Clark had taken over for Fleet. He had sold out to Fleet for an issue of Fleet shares, but allowed the Fleet President to vote those shares, thus giving Clark control of some one million new shares and strengthening his hold on the Fleet company. Fraser came in with a long list of complaints about me, obviously prepared by Clark. I was a lousy manager. I couldn't get along with people etc., etc. Clark was preparing to fire me and was getting Fraser on his side.

A few days later, I got a call from Lou Whittier who told me that the Doctor that I had talked with was one of the leading consultants in the U.S. on evaluation of top management personnel. I had undergone an interview with him, not realising what it was and he had given me the highest marks that he a given to anyone before. He had said that Douglas had better hire me. Lou then asked me to fly down to Douglas, Long Beach, on the weekend to talk to Don Douglas Senior and Junior about working for Douglas. I was quite shaken by this turn of events and agreed to fly down. I spent Saturday afternoon and Sunday morning with the Douglas's in the plant and listened to them make offers. They wanted me to head up the DeHavilland plant at Malton which would be taken over by Douglas Aircraft. I would become a member of the Board and be titled, Vice-President of Operations for three months, then, Vice-President, General Manager. I told them I thought they were out of their minds as I had so little formal education for such a large operation. Don Douglas replied that they could always get all kinds of people with the best of education's, but they couldn't find many people with wisdom and that the Doctor consultant had said that I had lots of that. Each time I tried to argue, they increased the wage offer. Finally, I accepted at two and a half times that which I was paid at Fleet and agreed to start at Malton December 15, 1965. I came home and gave two weeks' notice to Fleet causing great consternation in the Plant. Fraser came down to see me and I had the great satisfaction of reminding him that his pals at Fleet thought that I wasn't a good Manager and that the great Douglas Company and its' experts thought that I was. I knew men that were willing to pay me a lot to prove it. Fraser realised then that he had been conned by Clark and was quite shaken. I then gave him a list of ten questions to ask at the next Fleet Board meeting and said that I expected that before he got to question six or seven, Clark would resign and he, Fraser, could become President and vote his own shares.

He did do this at the next meeting and Clark resigned as forecast. I had a long memory of Clarks' deeds and thievery and kept those in mind when I made up the list for Fraser.

8

McDONNELL DOUGLAS

With my departure from Fleet, the Douglas Company wanted me to go on the Board for Fleet to ensure that they remained healthy and performed well in the manufacture of the DC-9 ailerons and flaps, critical to the whole Douglas programme. So, with Clark gone, I still had a large part to play in Fleet activity over the next year or so as a member of the Fleet Board.

We had a sad parting with all the old friends and people at Fleet who had worked so hard for me and made me look so good. The executives of the office and plant unions had me in to give me unique and special awards in gratitude for my service to them. I had never heard of Unions giving awards and gifts to management before.

It was a busy two weeks looking for and buying a new house in Weston and arranging for a move which Mabel would have to oversee while I started work for Douglas, at Malton. I was going to run the operations at the two million square foot plant where I had worked before, and had been fired from, in 1952. Quite a change in fortune!

We all moved to the new home that we had purchased on Sheffley Crescent in Weston a couple of days before Christmas 1965. We used three cars containing all the kids, baggage and particularly our plants. We had to overnight in a motel in St. Catherines where we had to bring all the plants into the rooms because of the cold weather.

One further item relating to Fleet must be recorded and that was that about six months after I had made the change to Douglas, Ron Fraser called Mabel and said that the company and the employees had properly recognised my efforts in the rebuilding of Fleet but had never recognised her efforts and they must have been considerable. Therefore, Fleet wanted Mabel to go Birks in Hamilton, and select her six-piece sterling silver tea and coffee service. She had two thousand dollars to spend. Mabel did this, and we still have this

tea service which has appreciated in value many times over but represents a frustration to Mabel as none of our children seem to want it when we leave this earth.

In the original plan, my working at Douglas at Malton, I was to be supported by Lou Whittier for the first six months. He would teach me Douglas Management Philosophy and help me make sense of the chaos that then existed there. I met with Lou that first morning and he said that he was sorry but problems at Long Beach forced him to return there that night and I would have to start out on my own. He did not return to Canada until five months later. So, I was dumped into it. DeHavilland had moved out and taken with them all their management people, from sub-foreman and on up. I was starting from scratch with a large staff and it took me three months to find out that there were over thirty-two hundred people in the place with no foreman and no bosses.

With Lou Whittiers' guidance at Long Beach, he selected and sent me 110 Americans to help me get an organisation together. They were a great help as they knew the Airplane and the systems and were able to guide our people and help select Supervisory Staff to form up a new organisation. By the end of the first year, all but eleven of the Americans had returned to Long Beach. I had found quite a number of people at Malton were old AVRO employees with whom I had worked years earlier. They provided valuable contacts throughout the Plant which gave me great confidence in the decision process.

As we had no financial staff. we could not even make up the payrolls so had to contract with De Havilland to perform this tack. This carried on until Charlie Gollihar got the Finance Department on stream and was able to take over the function. We had numerous cases of people not getting their pay at the end of the week to our great embarrassment.

Our output of wings and tails for the DC-9 was lousy due to an error in Philosophy of Tooling by DeHavilland. They were a manufacturer of light aircraft structures and never fully appreciated that the DC-9 was made up of machined parts which required a totally different understanding in regard to detail tooling. So, our first efforts were applied to remaking all detail tooling and cost us about 9 million dollars before that was done. When these new tools came on-stream, our output and quality jumped spectacularly, and we were producing five aircraft sets of DC-9 components a week by the end of the first year.

We had early problems with employees stealing and when they were caught, they were fired, only to have to reinstate them after arbitration. The

judges thought the punishment we applied was too extreme. After a few were reinstated, I changed our methods and we laid charges through the Brampton Police providing them with all the evidence and the Court jailed the miscreants. The Union was out of circuit and the stealing dropped to zero within a couple of months. I also caught our Plant Doctor, who had been there many years, making false claims on his monthly billing, cheating us of some two thousand dollars a month and I fired him. These actions were noted throughout the plant and it soon became a much different and better place to work.

In the early days, our main problems related to finding Canadians who could be placed in responsible positions from Foreman and Supervisor on up to Vice President. Developing a reporting and control system which kept track of every element of the Business was most difficult to establish. Plagiarising the Systems from Douglas, Long Beach, was useful to some degree but they had to be modified to fit our unique situation. In the first year, we were able to get production really rolling and quality of our products became outstanding.

The method of shipping DC-9 wings and tail sections to Long Beach required specially designed rail cars and a circuitous routing to avoid low bridge clearances. De Havilland had designed covers for the wings while en route. The covers having a distinctive logo on each side, these attracted the gun nuts who started to shoot at our wings doing much damage before we removed covers from the shipments.

My original instructions by Mr. Douglas were to get the DC-9 shipments on schedule and on cost and not to do anything else. Once we got on schedule, by the end of the first year, I had time to think ahead and wonder what we could do in the future. I ignored my terms of reference and started a little study and planning group with Sid Young, our Chief Engineer, to meet with me weekly to think out what the next project could be at Douglas, Long Beach.

With little guidance from any source, we came to a conclusion that Douglas would head into wide-body aircraft a little smaller than the 747 then in development. We made some guesses on size and concluded that we could make the wings and be able to ship it by air or rail. We then did studies on tooling and Plant rearrangement costs for the wing. By this time, Douglas had announced the new DC-10 project and we found we were almost spot on in our estimates of wing size. We were greatly encouraged by our luck in guessing so close that I rushed our studies to get a quotation together for the cost of all tooling and production of the wing for the new DC-10 F>O>B>

Long Beach. This would be a very large project for us in Canada and would be worth billions of dollars to the export trade.

I went off to Long Beach with our proposal and found we had completely surprised them - first that we had guessed right on the size of the airplane and second that we priced the whole wing for them. They hadn't got to the stage of costing major components, so we were away ahead. They studied our proposal and concluded our tooling costs were too high, but wing production and delivery costs looked okay. If we could reduce tooling costs, we might just win the project.

Returning to Canada, I went to see Simon Reiseman, then Deputy Minister of the Department of Industry and talked to him about our problems and how valuable this project would be to Canada. He had no legislation available to allow him to help us but promised to try. I suggested a loan with no interest, repayable from profits in excess of 10%. He called me a week later and asked if twenty million would be enough. I said yes for the Series DC-10 only and as a Series 30 (a larger model) was also projected, we would need another twelve million for that later model. A couple of days later I got the loan approval and Douglas Long Beach gave us the DC-10 order. This work still goes on to this day. Many billions of dollars of export work have resulted from our early efforts carried out in spite of orders to the contrary.

I'm sure today that Douglas did not expect that I would get the financial support at no cost and that was why they had originally said that our production costs were okay. When we got our tooling costs down, they could not find a reason or excuse to turn us down.

At the same time, I had been battling with Ottawa about tariffs charged against materials entering Canada for use in our products which were all exported. After making a number of presentations to the Government Ministers, I was able to get an order in Council which eliminated the tariffs for Douglas, Canada. This meant a saving of many millions of dollars for us annually and allowed us and the customs services to eliminate about fifty people each who had been involved in the tariff controls process. Years later this tariff was removed for other companies in the export business in Canada and I got a lot of credit, around Ottawa, for this idea.

With the advent of the DC-10 project at Malton, we needed many new people and were running out of skilled tradesmen in Canada, so I sent Bill Milkes, our Vice-President of Personnel to England to hire tradesmen and he hired over a thousand men in short order, flying them to Canada in chartered Stretch DC-8s - four loads of them! Within a very few months of

these new people entering our plant, they had taken over all the Union executive positions and started to make big troubles for us.

These troubles peaked one day when I happened to be walking through on my daily inspection tour in the low bay area. I suddenly heard a roar which I couldn't make out until I looked around and saw all the people marching down the aisles to the end of the building and heading towards me. I stood up in front of them and held up my hand and hollered, "Stop!"

They did stop, crowding up all around me and I said, "Now, either you get back to work, or you're out the door and you're fired!"

Someone hollered in the back of the crowd and they surged forward, knocking me down and actually walking right over me as they went out the main door.

We had been anticipating troubles of this sort for a week or two and had stationed cameras in the rafters at strategic locations to record events of this nature. With the people out the door, we retrieved the film, got all the foreman together and viewing the film, were able to identify those in the crowd. We ended up with 1,120 names of the men who had walked out the door. Meanwhile, we were checking through the plant and found that many hundreds more had locked themselves in various places in the plant (as an example, locking themselves in the Men's bathroom) to avoid being caught up in the stupid actions then underway.

With 1,120 identified, the next day, we called the Union officials in and pointed out to them that we were firing those 1,120 men and that they need not report back to work, period! This caused great consternation and we held a hard position because the work stoppage had been illegal.

After four days of arguing, we agreed to have those people return to work with the understanding that if they created any kind of problem at all, until the termination of the labour contract, which was about two years away, we would have the privilege of firing that person and he would have no grievance rights. This gave us a pretty firm control of the situation. We were able to keep the Union at bay for the next few years. The problem never really corrected until a few years later when we were able to catch the entire Union Executive in a major lying position and fought through right up to the Supreme Court of Canada and were able to fire them and won our case. With that action, which cost many millions of dollars, we were finally able to obtain a reasonable working arrangement with the Union organisation and the problems gradually were reduced.

Our employment reached a peak of 7,200 people in 1968/69 with the development of the DC-10 wing project. Lou Whittier was back in Canada

and I was able to spend more and more time on out-of-plant projects. I had become a little disenchanted with the daily detail plant operations as required by the McDonnell Douglas organisation, who had literally taken over Douglas Aircraft. They were not as interested in our developing a creative group in Canada as I was. I wanted to develop our own product line and have some control of our future. I did not want to remain just a supplier of parts and components to McDonnell Douglas.

An example of such interest and activity on my part, was that when we heard that the new space shuttle project at NASA needed a gantry or arm to move various items while in space, we were able to get the specifications outlining the requirement and start the preparation of a bid to supply such an item. During this process, I made presentations in Ottawa to the government asking for financial assistance. This could be done under current available legislation as a defence project. Everything was going great until McDonnell Douglas got into the act and we had to step back from the project. I recommended that SPAR take up the project. They did and are still producing the Canadarm for all space shuttles and have gained world-wide fame for their efforts.

During this period, I undertook to carry out a speaking tour across Canada in an attempt to interest sub-contractor companies in our programme and to attract skilled people to join us. I spoke in most major cities from Halifax to Victoria through the Engineering Societies and the Canadian Aeronautics and Space Institute (of which I had recently become an Associate Fellow). These talk shows were accompanied by slides illustrating progress in our main projects and they seemed to be well received and favourably recorded in the local press. I was happy to get out of the Malton plant with its' day to day detail work (not very attractive to me) and I was glad that Lou Whittier was happy making parts.

With more freedom from daily concerns, I took more and more time off and Mabel and I were able to enjoy our weekends. We found and purchased a lot on Leonard Lake, north of Muskoka and got some large tents, cleared a spot and set them up. Our plan was to clear a cottage site and meanwhile, camp out weekends. This started out the happiest two years we ever had. We enjoyed those weekends with the kids - all participating and loving the outdoors. We bought a Canada Class-14 aluminum sail boat right away and all the family learned how to sail and to compete with it. We built a dock and cleared the site for the cottage. We committed to have it built, but as usual it took forever, it seemed. The contractor finished up just before Thanksgiving in 1969 and we moved in for two nights over that holiday - the

only use we ever made of the place before we sold it because of our forthcoming move to Ottawa.

I had reached the stage at the plant where I wanted to get out and made my feelings known at our quarterly Board meeting. I had been a Director from the start. Don Douglas, our Chairman, would not let me resign and suggested that maybe I would like to take on a broader role for the Corporation. He said that they could afford to pay me for a hundred years or so because of what I had done so far and that knowing me, I would find something useful to do. I asked what that job would be, and we settled on my move to Ottawa to monitor the operations of McDonnell Douglas, Canada, while remaining as a Director. I would be able to direct all Canadian sales activity of the various divisions of the McDonnell Douglas Corporation, commercial and military aircraft, weapons systems and space vehicles. Old Mac, our Corporate Chairman thought this was enough to start with and pointed out that I would be my own boss, set my own targets and generally do what I felt was right. I would also become Vice-President of McDonnell Douglas International Sales and contribute to world-wide sales activity.

We placed our house in Weston for sale and after many delays finally sold it to Billy Harris, the hockey player. I, meanwhile, had set up a shop in Ottawa, in early 1970 and commuted weekly from Toronto until our house was sold and we were able to complete the conditional purchase of 39 Mohawk, in Nepean

I had a nice office on Albert Street and membership at the Rideau Club to aid in my marketing efforts. Our new home, with a pool, on Mohawk was great for entertaining and Mabel and I gradually developed our entertaining skills with new contacts.

With the new job and location, I found much more time to enjoy other activities and interests. Mabel talked me into cross-country skiing that first winter, so we bought new ski outfits and went to Camp Fortune Ski Club for our first attempt. I tried a too difficult hill and ended up breaking my left shoulder, splitting the socket, and cracking the left humerus. Ever since that day in 1970, I have paid dearly for my stupidity in pain and suffering. For years, every time I lifted my left arm too high, it came out of the socket at the shoulder. This continued until 1981 when I talked a doctor into doing something about it or, I suggested taking the arm off! He finally operated on it, taking some of the shoulder bone away and after a year of therapy, I found I could use the arm and shoulder reasonably well.

At work, I still travelled extensively and expanded my public speaking activities. I was appointed Senior Technical Advisor to the Arctic

Resources Committee established by Prime Minister Trudeau and spent a very interesting couple of years exploring solutions for oil and gas development and transportation in the Arctic.

I became more active in the Air Industry Association, taking on various committee responsibilities over the next thirteen years.

After much pressure from me, McDonnell Douglas became a member of the Air Transport Association of Canada and I became the official representative. In this role, I gained great opportunities to meet and work with people from the airlines of Canada.

I made my first contacts with Max Ward and within three months of meeting Max, I got his order for two DC-10 Series-30 long-range aircraft. This was the first DC-10 sale in Canada. A year later, Canadian Pacific Airlines bought five DC-10, so my efforts were paying off. Attempts to sell our DC-8 and long-range patrol airplanes to the Canadian Government and the Department of National Defence were not successful and I learned from this activity of the chicanery that was involved in selling to Government. I found that my main competitors, Boeing and Lockheed were past masters at the game and were experts in buying off key government officials.

In 1972, I went to the Paris air show for a couple of weeks, spending a few days with my top boss, J.S. McDonnell, the Corporate Chairmen. We were entertained royally by various groups, particularly the Russians, who gave us full access to all their aircraft at the show. We were even invited to fly in their new super-sonic transport which was similar to the Concord. Old Mac asked my opinion on whether we should go up in it and I said no that I was not impressed with the workmanship that I had seen in the aircraft. He agreed we wouldn't fly in it and later at the show, it crashed killing everyone aboard.

Later in 1972, Mabel and I did a driving tour around the coast of England, Scotland and Wales, staying at Bed and Breakfast places. It was a wonderful trip and the first long holiday we had enjoyed together in many years.

In 1973, we did a similar driving tour through Europe for four weeks, visiting nine countries.

In 1971, we made our first presentations to the Airforce describing potential fighter solutions. This was the beginning of nine years of consistent effort on my part on behalf of McDonnell Aircraft to sell fighters. It seemed that every year, an opportunity arose for us to prepare some sort of presentation which involved great effort and significant cost on Mac-Airs' part. As time went on, it became more and more difficult for me to get money

for these efforts in the budget, but they were important, in my view, as they kept us in the forefront of Canadian Air Force thinking.

When the Air Force eventually established their procurement specifications, they were based, essentially, on our technology - a vital step up in the competition! In addition, we were all on a first-name-basis with all players (Air Force and Company people).

I still remained a Director of McDonnell Douglas Canada and was involved in a unique Union situation which resulted in enormous cost to us (in the millions) but we won our case in the Supreme Court of Canada. Our absentee rate at Malton jumped from an average of seventy-five people per day to over five hundred a day and in addition all the Union Executive booked off sick along with the others. We had some difficulty finding out what was going on but finally recognised all our Union Executive on a TV News broadcast showing the picketing of a framing plant in Toronto where the Union were trying to get a contract. When I was advised of the situation, I stated that they should all be fired immediately and pushed the plant Manager to do so. Apparently, no Union Executive had ever been fired in Canada, so it started a series of arbitration over the next four or more years, gradually getting to a higher and higher court each time. We lost some ground at some of the lower courts but continued to press our case to higher levels and each time we did, old Mac, our Chairman, would call me and plead for us to stop, that it was costing a great deal. I pointed out that if we quit, it would probably cost more, and we would have to hire them all back and pay their lost wages for all those years. We continued on to the Supreme Court of Canada and won our case. From that moment on, our Union problems almost disappeared. The Canadian Government followed the case very closely and I was required to brief them regularly as the precedent that we were hoping to establish in law was vital to labour management in Canada.

When I moved to Ottawa, I was also appointed to a small committee within the McDonnell Douglas Corporation which was responsible for selecting our presence at air shows or trade shows around the world. Each year, we met and selected those shows we would attend and authorised the type of presentation and budget. This activity allowed me to attend any show where McDonnell Douglas Corporate or Division were in attendance. Over the years, I attended most of the key air shows in the world. As an example, I led our show teams to Abbottsford, B.C., seventeen years in a row.

From my earliest days in Ottawa, I became aware of the chicanery involved in any sales activity with the Government. When politicians were

involved then deals were necessary and very often significant money transfers were made to individuals or political parties to consummate the sale.

One of the first I encountered was the odd decision of the 5 regional Air Carriers in Canada to buy the same type aircraft, the Boeing 737. We had tried to sell DC-9's to these carriers (Airlines) and as part of our efforts Don Douglas and myself went to see Don Jamieson the Minister of Transport at the time. He very clearly stated that he wanted all the carriers to buy the same aircraft and the sale would go to the manufacturer who gave the most. We couldn't play that way and the orders went to Boeing.

Once I was established in Ottawa and with time on my hands, I started to investigate the sales activity of Boeing and Lockheed in Canada. I could travel and meet people without too many problems and found various civil servants and others who were willing to talk and give me leads. Over about a year of quiet investigation I found out a great deal and even had my hands on cancelled cheques to various cabinet members as payoffs. The money could be traced back to Boeing and tied to every sale they ever made in Canada.

At one stage, before moving to Ottawa, I helped Douglas Aircraft try to sell DC-8's to the R.C.A.F. Our proposal to the government was $11 million dollars (lower than Boeings' offer for the 707), however, it was announced in Parliament that the Boeing offer was $11 million better than the Douglas offer - a very blatant statement which demanded investigation. I later found that even a number of very senior officers in the R.C.A.F. had received major money from Boeing in order to support the 707 sales.

Apparently the R.C.M.P. had noted my investigative activity and arranged a cloak and dagger-type contact with me in a special office. I was asked a lot of questions which I refused to answer and finally the interrogator, referring to his notes, started to list my contacts and visits and what I had found out in each case. I then said they knew all I knew and why bother me. I was then told they wanted my help because I knew how to put it together knowing the business and they really didn't understand it all. I told them I couldn't help, and they scared the 'hell out of me by saying I knew enough to end up in the river with cement blocks on my feet! The only way to protect myself was to record all my knowledge of events, place it in safe hands and then let it be widely known, so that if anything happened to me, it would all be published.

The day after the meeting with the R.C.M.P., I went to St. Louis and spent a day with the Corporate Legal Council dictating all I knew. My information started investigations along different paths in the U.S. by the

F.B.I. which later confirmed Boeing and Lockheed had indeed been paying kickbacks in Canada amounting to millions. It was a significant breakthrough that resulted in large fines and firings within the involved companies. As usual, however, no Canadian cabinet member, Member of Parliament or government employee was ever charged - they got away with it and with the money!

From all this experience, it is easy to see why I became soured on politicians, usually expressing it by saying "they are all crooks". I know one shouldn't generalise, there must be some good politicians! That may be true when they first get into politics, but once at the trough, they join the bad ones or close their eyes to the corruption that continues to go on!

After years of effort to sell Fighter Aircraft, the Defence Department finally got authority and funds to hold a competition before purchase. The specifications which were issued were most complex and required a very advanced aircraft as a solution. Happily, we could see much of our presentations of the past had major effect on the type of aircraft required. Brigadier General Paul Manson was appointed to head up the very large evaluation team from almost every area of Air Force and Government. This was an inspired choice of leader who very early on set the tone for the competition. His team did a very creditable job without the slightest sign of favouritism or corruption. I can't say the same about the politicians, particularly those from Quebec who used every opportunity to apply measures for the benefit of Quebec. Those pressures were, in many cases, beyond ethical standards and in some cases downright crooked! At one stage, just before the final award was announced, we were approached on behalf of 3 Cabinet Ministers who would guarantee us the contract for the sum of $10 million dollars. I got the R.C.M.P. and the F.B.I. in on the case and we set a trap at the Chateau Laurier with a room all bugged for sound and camera-covered. They smelled a sting and ran out, with the police in pursuit. In 1992, the Press ran a story about the event and identified one of the Ministers involved, but nothing ever came of it.

We finally got an order for 138 CF-18s' for $4.5 billion dollars, and I received a bonus and compliments for my efforts. This was the largest order ever placed in Canada.

With the sale of the CF-18, my role changed significantly, and I spent more and more time in meetings with government and business people. The co-ordination of progress reports, collection of progress payments, reporting manufacturing progress and explaining aircraft testing progress and problems required almost daily meetings with the Military and Government

people. The Canadian business people wanted to participate in our offset program and of work to be placed in Canada. This facet of the work was to be finally reduced for me by the transfer of a man from St. Louis to do that job. With his arrival, we moved to a new and larger office fitted out with the latest business aids.

With more help around me, I was able to ease up somewhat and Mabel and I took a 2-month trip to New Zealand and Australia.

We finally delivered our first aircraft on schedule putting on some pretty fancy air shows in Ottawa and Cold Lake. The Air Force were deliriously happy with the CF-18 as it lived up to all our commitments.

The only problem I had was dealing with the Quebec Politicians who used every opportunity to pressure for more offset work in Quebec. It finally came to a head when I had my team meeting with 4 Quebec Ministers and their aides. I caught 2 Ministers blatantly lying, told them so and proved it before the 20 or so people in the meeting! I was so mad I called the so and so's "F-ing liars!" I left the meeting and that evening went into the Civic Hospital with my heart out-of-sync.

The next day I decided that I had enough and filed for retirement. I could have stayed on as long as I wanted but I could not handle dealing with the crooked Politicians from Quebec any more! So, my working life finished February 1983. I did stay on as a Director on the Board of McDonnell Douglas, Canada Ltd. for another year. I resigned from there when I found I couldn't contribute satisfactorily because I had rapidly lost the ability to keep up with the Industry.

Retirement brought new peace and contentment of a kind that was new to me. I developed the ability to do some pieces in stained glass - a great hobby! It keeps your hands busy and your mind occupied.

Mabel and I developed our golfing skills to a point where we began to really enjoy the game and now, 12 years later, when this is written, still enjoy the challenge of new courses. We have travelled a great deal and now live in a spot where we can see our children and grand children on relatively short notice with little travel time. We should have done it 50 years ago!

If you have read along this far, I have been flattered that you were curious enough to carry on to the end. I hope I have made it interesting and not too complicated by technical details or repetitions. Above all I wanted to tell the reader that I have enjoyed a life with lots of action, lots of travel, some sorrows and great deal of love. That love given unceasingly by Mabel through all the stresses I have imposed on her grows stronger with the passage of time.

I have written this for our children and not about our children. They know they are loved beyond measure and have a Father who is immensely proud of them.

A.W. (Bill) Baker

Bill Baker *was born in Montreal and raised on the Prairies. His hobbies include reading, stained glass sculpturing, gardening and golf. Bill has five children, none thankfully living at home, and he currently resides in Tillsonburg, Ontario with his wife Mabel.*