

MEMORIES OF A CANADIAN AIRMAN

First of Five Parts

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FOREWORD

ONE of Canada's greatest flyers of all time is Air Vice Marshal Raymond Collishaw, CB, DSO, OBE, DSC, DFC, who left his native Nanaimo, B.C. in 1915 to become a top-scoring allied fighter "ace" in World War I. He was more than a courageous and skilful fighter pilot. More significant than his personal victories was his leadership. Whether it was a flight or a squadron, any formation under Collishaw's command rapidly gained a wide reputation for high morale, efficiency and an unquenchable determination to press the attack.

Collishaw stayed in the RAF after the war and saw more aerial combat, against the Reds in South Russia and in Persia, and in operations against rebellious tribesmen in Kurdistan and Iraq. He served aboard a Royal Navy carrier and took a five-squadron force of bombers out to the Sudan at the time of the Abyssinian crisis.

He was in Egypt when Italy entered World War II and as commander of the RAF operational squadrons there he showed that the wiles he had learned and developed as a fighter pilot had not been forgotten. Commanding a numerically inferior force, he kept the enemy's air force on the defensive by a series of stratagems and attacks. He retired from the RAF in 1943, closing a distinguished career in military flying that, for its combination of brilliance, length, and operational service against the enemy, is matched by few, if any, other Canadians.

Much has been published about Collishaw's career as a World War I fighter pilot. Little, though, has ever appeared in print about his subsequent service, including his nightmarish experiences in South Russia. In the following story Collishaw sketches his own career. He passes lightly over his numerous aerial combats and makes little mention of his many awards. He refers to the French Croix de Guerre that he received early in 1917, but makes no reference to the DSO and Bar, DSC, and DFC that he won before the war's end. Neither does he mention the Czarist Orders of St. Anne, 2nd Class with Swords; St. Stanislas, 2nd Class with Swords; and St. Vladimir, that he was awarded by the Russians, during his service with Denikin. Nor does he mention the OBE that the British government gave him after his South Russian service, or the CB that he was awarded for his work during World War II.

Born in Nanaimo in 1893, Collishaw served aboard vessels of the Fisheries Protection Service of the Naval Service before World War I. When the Royal Naval Air Service began a limited recruiting campaign in Canada in early 1915 he was accepted as a pilot candidate — subject to his learning to fly at his own expense. He attended the Curtiss Flying School in Toronto but the school closed for the winter before he could begin his training. As it turned out, the RNAS accepted a group of candidates caught in this situation, Collishaw being one of them. Commissioned a temporary probationary flight

sub-lieutenant, he sailed from New York in January 1916, and attended RNAS ground and flying training schools in England. It is at this point that Collishaw's own account of his career begins.

Now living in West Vancouver, B.C., A/V/M Collishaw is as active as ever, having been busy — and successful — in mineral development in British Columbia.

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FRANCE AND BELGIUM – 1916-18

AFTER completing service training in England in 1916 I was sent to an RNAS station in Yorkshire, where I flew night patrols against raiding German Zeppelins. Navigational aids were primitive, resulting in some odd occurrences. On one occasion I spent eight hours above the clouds with another pilot, hoping to spot a Zeppelin in the bright moonlight. When we went down through the clouds at daybreak we saw a coastline with the sea extending to the west. We thought we were over the Danish coast, but then I spotted a fishing village which was familiar. It was Tintagel in Cornwall, where I had spent a holiday, and we landed at a nearby airfield.

In mid-1916 I was sent to Manston, in Kent, where the RNAS was assembling a special bomber force to operate from bases in the Vosges area, in northeastern France, against German industrial targets. Almost all the pilots were Canadian and the force flew *Sopwith 1½ Strutter* bombers and fighters. The bomber version was a single-seater with a Vickers machine-gun synchronized to fire forward through the propellor arc. The fighter version was a two-seater, and in addition to its forward-firing Vickers, the rear cockpit had one or two Lewis guns mounted on brackets, which were fired by the gunner. Both versions had an endurance of eight hours or more. While at Manston a friend and I were looking forward to a date we had made with two young ladies from the nearby town when orders came through for us to fly out to France within a matter of hours. Anxious to let our lady friends know we would not be able to keep our appointment for that evening, we flew over the town to drop a note in their back gardens. We were at 50 feet, between two rows of semi-detached houses when the engine cut, and down we came. We tore down a series of garden walls, and the rear of the house in which our "dates" lived. I am afraid that they and the neighbors were not pleased!

No. 3 (NAVAL) WING

No. 3 (Naval) Wing was based at Luxeuil-les-Bains.* Arriving there in August 1916, I was on hand for the wing's first big raid (against an arms works at Oberndorf on October 12) and I flew one of the fighters which provided protection for the bombers. My formation encountered enemy fighters near the target and my *1½ Strutter* was hit. I had to limp home with a damaged engine, running a gauntlet of ground fire as I passed through a gorge in the Vosges mountains.

* ROUNDEL, July-Aug. '63.

After several months at Luxeuil No. 3 Wing moved to Ochey, a few miles south of Toul, which put us closer to our main targets, the steel works in the Saar area and northern Lorraine. I was detailed to

ferry a new machine from Luxeuil to the new base and took off without a gunner in the rear cockpit. En route I was jumped on by enemy fighters and a bullet passed through my goggles, temporarily blinding me. Diving into German territory, I shook off my pursuers momentarily, but they caught up with me and I flew deeper into Germany in an effort to shake them off. Finally I did so and, after flying back towards French territory, prepared to land at an aerodrome I saw below. I put down and taxied in among the aircraft parked on the ground, and then it dawned on me that they bore the German iron cross markings. I jammed the throttle forward and managed to take off, although I clipped off the tops of two trees close to the field.

By now I was completely lost. As I passed over a series of trenches everyone on both sides took pot shots at me, riddling my machine. It was raining so hard I could hardly see and when I arrived over another aerodrome I decided to land, whether it be theirs or ours. Happily it turned out to be French, located within a few miles of the lines behind Verdun.

No. 3 Wing employed two different methods of bombing: formation and in-line. For the first method the squadron formation leader used a periscopic sight and led the bombers over the target in formation. As the leader released his bombs, so did the pilots of the other machines, the result being pattern bombing. The other method was for the leader to break off formation, the others forming in line behind him. Each bomber released its bombs singly, as it passed over the target.

Some of the pilots became horribly lost as they returned from bombing raids. The "championship" was held by one pilot who was determined to avoid landing on the German side of the lines. He kept flying to the westward, not realizing the strength of the following wind, and when he put down he found he was on the Spanish frontier, where he crashed his machine on a race course. He was posted missing and it was two weeks before we learned what had happened. A working party was sent to repair his aircraft and a month later he was able to take off. He got as far as Paris and crashed his machine again, at another race course. More repairs followed and he again took off for his base. Halfway to base he crashed at yet another race course! This time he hit and killed a race horse. It was a mare, in foal, and he had to sign a statement admitting that he had in fact killed *two* horses.

Although No. 3 Wing continued its operations until April 1917, I was selected with several others in January for new fighter squadrons that the RNAS was forming, to help the hard-pressed RFC on the western front. We were told we could select the type of fighter we wished to fly. Some of us chose quadru-planes, some triplanes, and others better-known types. Alas! When we arrived on the Somme front we found we were to fly worn-out *Sopwith Pups* and there was no hope of getting new fighters for many months to come.

While flying with Three Wing I had gained considerable air-fighting experience and had destroyed three or four enemy aircraft and damaged a number of others. I was perhaps a bit over-confident, and although I knew that air operations over the Somme front were more intensive than those we had experienced, I was not prepared for the tempo that prevailed.

THE SOMME BATTLE

I joined No. 3 (Naval) Sqn. on the Somme front on 1 Feb. 1917, at a time when the enemy held the upper hand in the air. The new German *Fokker* fighter was superior to any of our machines, and while

strong numerically our quality was poor. Our tactics were to maintain offensive patrols over the enemy's lines, and when the Germans had counted our numbers they were able to send up a stronger force to engage our machines. We usually found ourselves outnumbered whenever any serious engagements occurred. My squadron's prime task was to escort RFC reconnaissance machines, which flew deep into enemy territory. The reconnaissance plane flew usually at about 12,000 ft., with the three flights of the protective fighter squadron deployed above them at intervals, up to 19,000 ft. It was a point of honour with the escorting fighters not to allow any of the reconnaissance machines to be shot down by attacking enemy fighters, and in fact few were so lost. On the other hand, the fighters lost more heavily.

I had a considerable number of air combats during this period with No. 3 (N) Sqn., but my stay with the unit was cut short by a severe case of frostbite. On one flight my "*Pup*" was badly damaged by an enemy fighter's bullets, and my goggles were smashed. I had to take them off, as well as my helmet, and when I reached base my face swelled so badly that I could not see properly. Given sick leave, I went to England and while there I was told that I had been awarded the Croix de Guerre with Palm by the French, for the aircraft I had shot down while with No. 3 Wing on the Vosges front. I had destroyed several enemy planes while flying with No. 3 (N) Sqn., before my frostbite, but most of my combats were indecisive.

SPRING 1917

After sick leave in England I was given command of a flight in No. 10 (Naval) Sqn. in Belgium, operating on the North Sea front. It was quiet by comparison with the Somme front and the work was mainly escorting bomber squadrons attacking naval targets. These included the Zeebrugge and Bruges lock gates, to keep the enemy from using Bruges as a submarine base. During this period of comparative calm I had the opportunity to train a sizeable number of inexperienced pilots, and to show them how to operate as a team. Later on we enjoyed considerable success, flying the new *Sopwith Triplane*.

In mid-May 1917, we were shifted to the Ypres front, where both sides were very active in the air. The RFC, to whom our naval squadron was attached, was striving to gain air superiority in preparation for the Messines battle. The five British armies in France had a number of fighter squadrons allocated to them, to operate behind the enemy lines on each army front. Normally each squadron provided a flight to fly at maximum height on offensive patrol, 10 miles over the enemy lines, for a two-hour period. It was simple for the enemy to count our numbers and as convenient, to send up superior forces to engage us. We usually found ourselves outnumbered when an aerial battle evolved, and our casualties were heavy. The newest and least experienced pilots often succeeded one another as casualties, falling to the enemy's fighters before they had chance to learn the skills and wiles of air combat.

It was the experienced flight commanders who led their formations into combat. The advantage normally went, of course, to the formation at the higher altitude. As two opposing fighter formations sighted one another they would each struggle to gain altitude. Then, once having gained a height advantage, it would dive on the enemy, who turned to meet their attackers. Often, as both formations realized that maximum altitude had been reached with no appreciable height advantage for either, they would turn towards one another and a head-on engagement resulted. As the two formations

approached, the enemy's tracer bullets seemed to be aimed directly at one's eyes, and there was a temptation to lower one's head as much as possible, just peeping along the sight to aim the guns. There was always the fear of collision. Each pilot would hold on until the last second, pouring fire at the enemy, and there was always a feeling of surprise that one's plane had not smashed into one of the enemy's.

DOG FIGHTING

After this initial assault the combat between two fighter formations broke into the so-called "dog fight", or series of individual combats. Pilots selected individual opponents and the pair became "waltzing partners", each manoeuvring to gain a position on the enemy's tail. This usually went to the pilot whose machine had the tighter turning capability, assuming that they were more or less equally matched. I do not mean to imply that the dog fight was a leisurely affair. Far from it. Decisions were made in split seconds, and a pilot had perhaps only a fraction of a second when his enemy appeared in his gun sights. These dog fights often came down to low altitudes and were watched by thousands of troops on both sides.

Fighter operations were intense during this 1917 period and pilots were constantly called on to fly at least three patrols a day. Almost all these patrols resulted in air combat.

While offensive patrols were usually flown by flight and/or squadron formations, fighter sweeps were carried out in which as many as 175 of our machines took part. While they swept the enemy planes from the sky — temporarily — they failed to produce large German losses. The enemy planes simply disappeared when our over-size formations came in sight. Furthermore, these fighter sweeps weakened the normal patrols flown on that day, and they did not really achieve any material success.

During June and July 1917, when the air battle was raging, No. 10 (N) Squadron was credited with shooting down some 70 enemy planes, and "B" Flight, which I led, was fortunate enough to put up a good show. Our losses increased, though, and it was sad as one by one my old comrades, many of whom had flown with me on the Vosges front, disappeared.

THREE TIMES LUCKY

I was shot down three times. On one occasion my controls were shot away at 16,000 feet and my triplane went down in a hair-raising series of cartwheels and dives. We had no parachutes and there was absolutely nothing I could do. Just as it was about to crash into a hillside on the front line it took an upward swerve. I climbed out of the wreckage bruised and shaken but intact.

On a second occasion I had to take violent action to avoid a collision and I was flung right out of the cockpit. Somehow I managed to grab on to the centre section and I clung there as the machine, with its engine on full power, went through a series of breath-taking dives, climbs and falling leaves. It fell 10,000 feet before I managed to climb back into the cockpit and regain control. I felt a much-shaken flyer, but it was an awe-inspiring experience.

My third experience was gentler, but it seemed to last a long time, and provided for earnest reflection on one's past. The circular engine cowling and the metal fuselage side plates of the *Sopwith Triplane* were held in place by a cable. A burst from a German anti-aircraft shell cut the cable on my machine and one of the large side plates blew back, to lodge vertically across the front of the three starboard wings. This caused the triplane to go into a spin to the right, and about all I could do was to vary the rate of spin. The aircraft came down from 15,000 feet, spinning slowly, and it took nearly half an hour to reach the ground. It was a toss-up whether I would land in our territory or behind the German lines, and I knew that as I reached a lower altitude I was going to be greeted by a barrage of anti-aircraft and small arms fire. I discovered, though, after a little experimenting, that by putting on throttle as the machine turned in the direction of French territory and by reducing engine speed as it faced the German lines, I could make some sort of gradual headway. Although the triplane crashed heavily, I escaped with no more than a bad shaking, and I was behind our own lines.

LIVING IT UP

In 1917 fighter squadrons in the Messines and Passchendaele battles normally enjoyed a half-day holiday each week. These breaks provided an outlet for high spirits and the tensions of combat flying. On these "early closings" pilots of a squadron were driven to a nearby town where a spree usually developed. At a late hour the pilots were mustered, usually with some difficulty, from establishments respectable and otherwise, and returned to base. But they had to fly the inevitable dawn patrol, which was always an interesting event for those just back from a night out.

Suffering from hangovers, the pilots took off and followed their flight commander over the enemy lines, the flame of warlike spirit but dimly flickering, and most thinking of getting back to breakfast and bed. But if an engagement with the enemy resulted, and it often did, the excitement of the battle dissipated the hangovers, and the animated pilots who returned to their mess bore little resemblance to the dispirited and glum group who had taken off two hours before.

"A short life and a gay one" was truly the outlook of the fighter pilot of those days. Few thought much about the future, for the life of a fighter pilot was too delicately balanced on the scales. Yet the circumstances resulted in a state of brotherhood, unselfishness and generosity, quite foreign to the normal peacetime outlook and behaviour of the men concerned.

Our aerodrome at Droglandt had runways, which few fields boasted, and it was probably the first field of its type. The rotary engines which powered the triplanes were overhauled every 30 hours in the squadron workshops, and to meet the demands most of the squadron ground personnel worked at night, leaving only a small day party to handle the planes as they took off and returned. There was a good deal of opposition in the RFC to speeding up the rate of fire of the machine guns. It should have been obvious that a rapid rate of fire at the proper moment would produce the best results, but the armament advisors were obsessed with the idea that an extended fire endurance was essential. I assisted in producing a gadget that speeded up the rate of fire of our guns and it was stealthily fitted to our machines. I feel that this boosted fire power played a large part in our successes. Later on I fitted .5 calibre French machine guns to my plane and used tracer ammunition, and I am sure that this was responsible for much of my own success.

It was the custom in France for army commanders to encourage fighter pilots with personal telegrams congratulating them on particular exploits or successes. One army commander issued an illuminated document whenever a pilot was mentioned in his dispatches, and these were highly prized. The daily RFC communique summarizing events was known as "Comic Cuts" — a reputation ill deserved. These communiqués emerged after fantastic stories had been published during the early stages of the war concerning the exploits of various flyers.

The principal difference between the German and the allied fighter squadrons in both major wars came from the German policy of selecting pilots of outstanding ability for special units, used to gain local air superiority needed for the success of particular army aspirations. The allies did not do this, on the ground that it was better to sustain an average value. Under the allied system, some squadrons quite outshone the others and keen young pilots always tried to be posted to the better squadrons. A remarkable feature of the allied policy was that the most experienced and distinguished fighter pilots constantly advocated the formation of special squadrons, but the idea was frowned upon by higher authority. Nevertheless, the German policy was very successful. In both major wars, the allies were able to produce overwhelming numerical strength and it is fair to say that it was the "big stick" that succeeded, rather than the policy adopted.

By the end of 1917 air fighting tactics had developed along lines which tended to assure success to the more experienced and able individualists. Until then, only a few fighter pilots had distinguished themselves and there were few who were outstanding. By the end of 1917, though, the competitive spirit had entered into the lives of the high-scoring pilots, and by 1918 the competition to lead the field became intense. In 1917 fighter pilots generally operated as a team whereas in 1918 the aspirations of individuals caused some flight and squadron commanders to use their formations to screen the leaders while they added to their scores by personally destroying successive aircraft.

As the casualties in Naval Ten increased there was an inevitable weakening of what had been a well-trained and experienced squadron, and its eager fighting spirit declined. Gradually the burden of leadership and responsibility rested more heavily on my shoulders, and I began to feel the strain. Fighter pilots having finished an operational tour in France were at this time given a rest period, and Canadians were permitted to return to Canada on leave. So it was that in early August, 1917, I came home for a rest, leaving behind me the air battles over the front. By this time I had fought 80 air combats and had been personally credited with having destroyed 31 enemy aircraft, with some 38 possibles.

I stayed in Canada for several months and visited as many families as possible who had lost pilots in France. Little was known about flying in Canada then, and I had a lot of silly questions put to me. One old lady, whose grandson was in the RFC, asked me how high I went up in my balloon. There was, though, much enthusiasm for aviation and large numbers had volunteered for the two British flying services.

NORTH SEA INTERLUDE - 1917-18

AFTER returning to Europe from Canada in December 1917, I was given command of the RNAS sea-plane defence squadron based in Belgium on the North Sea coast. Our job was mainly to discourage enemy aircraft attacks on the North Sea fleet and to escort our bombers during their raids against Zeebrugge and Bruges. We usually flew two patrols a day over the fleet and to locate the ships we had to navigate 50 miles off shore. The ships knew we were coming, but invariably we were greeted by a barrage of anti-aircraft fire. We complained frequently but we always got the same treatment.

Later on the unit became No. 13 (Naval) Sqn. and its functions were changed to bring it into action against enemy aircraft. During this phase the squadron was called on to provide air protection for RNAS planes spotting for a fleet bombardment of Zeebrugge and Bruges. The naval objective was to destroy the Bruges lock gates, and everything hinged on the spotting planes being able to remain in position, without hindrance to direct the fire from the ships' guns.

This operation took place at daybreak on a very cold day and when I tried to fire my guns to keep them warm, which was normal procedure, I found that they were frozen. As leader of the formation I knew that we had to keep the spotting aircraft from being interfered with by enemy fighters, and so continued the patrol, relying on the other aircraft in the formation in event of any trouble. We patrolled over Zeebrugge for several hours and a number of German fighter formations approached, but sheered off as I headed my formation towards them. When we landed at our aerodrome I found that *everyone's* guns were frozen. Not a machine in the formation could have fired a shot had we found ourselves in a fight!

At that stage of the war the RNAS operations in Belgium were comparatively gentle by contrast with the ferocious struggles for air superiority over the various army battles, and were mostly tip and run affairs. Military aviation was generally looked on as a useful handmaiden to augment the requirements of the army and navy. The airman who suggested the development of air power as an independent striking force, and indicated the results that could be obtained, was frowned on as a visionary with extravagant ideas.

THE GERMAN OFFENSIVE - 1918

In February 1918 I returned to No. 3 (Naval) Sqn., this time as squadron commander. It was then operating on the Belgian front, between Ypres and the North Sea but in March we were shifted to Mont St. Eloi, near Arras, to replace another RNAS fighter squadron which had been helping the RFC on the western front. We arrived at our new base in time for the great German offensive which was launched on 21 March 1918.

We seem to have had plenty of warning of the attack. The General of the Staff, 4th Army, told us at least a week before to expect the assault and he was able to forecast the date. For us, the battle opened with a shelling of our aerodrome at Mont St. Eloi and an adjacent ammunition dump. As the German offensive developed, the military situation on the British 4th and 5th Army fronts became increasingly vague. Either the army commanders were out of the picture or their staffs failed to pass adequate intelligence information to fighter squadrons. Orders for us to participate by attacking German troops

were issued in the vaguest terms and it was extraordinarily difficult for fighter pilots to discern who was who on the ground.

The sudden change from offensive patrols to ground strafing operations placed the most practised and skilled pilots equally vulnerable to ground defence fire, with the merest novice. Indeed, more distinguished pilots fell than novices, but it was probably because they pressed home their attacks with more resolution. Fighter pilots from the 4th Army front were sent more than 100 miles to intervene on the 5th Army's disrupted front, where they could scarcely identify friend from foe.

Only when the military situation had become stabilized on the 4th and 5th Army fronts, were orders issued for fighter squadrons to resume their struggle to gain air superiority over the German air service. I frequently flew into these areas, and in addition to bringing back information to our headquarters, had some success in destroying enemy aircraft. Most of our fighter pilots were so busy ground strafing that the German flyers became a bit careless. My score mounted and by May I reached the 50 mark. This brought a shower of congratulatory telegrams, including messages from all the army commanders. It was an excuse, too, for a celebration by my squadron but there was little time for festivities.

DISPLAY FOR THE TROOPS

When the centre of gravity shifted from the Somme area to the 3rd Army front my squadron was moved there, and we carried on with our low-level strafing and bombing. One morning, with another pilot, I shot down a German plane over Vimy Ridge, and after returning to our base we drove by car to find the crash, hoping to salvage any special equipment we might find. I misread the scale of the map we were using and thought we were about half a mile behind the lines, although we did notice that all the troops we saw were in trenches. We had just started to examine the wreckage of our victim when the Germans opened up on us with machine guns and artillery. A bullet whipped through my white naval cap and we hastily took refuge in an adjoining trench until the fireworks stopped. Then we went back to our aerodrome, all interest gone in possible trophies. We realized we had been within a few hundred yards of No Man's Land, and the soldiers were delighted to have seen a pair of naval officers strolling about so stupidly. They were highly amused, too, by the way we dived into the trench when the barrage opened.

The struggle for air superiority on the western front in the 1914-18 war was conducted principally over the heads of the front line troops. Stultified in fixed positions over long periods, the opposing troops and particularly those in support, had plenty of time to use the sky as their theatre. Indeed, to tens of thousands, it was the only thing they could see. They became remarkably astute in distinguishing friend from foe and, to them, the struggle in the air was symbolic of the war. When an air engagement ensued, the troops thought of the scrap in terms of the boxing ring - "that is our boy on the right". The fighter pilots knew that they were somewhat like actors upon a gigantic stage and that tens of thousands of spectators would scan their every move. Each contender had to put up a good show. When one or the other fell, the troops on the winner's side would feel elated; while the others felt non-plussed.

Out of this background, heavy casualties ensued to both sides, which proportionate to the numbers engaged, were much higher than those in World War II.

It was obvious to fighter squadron pilots that the chances of surviving the war were dim. The good squadron commanders always saw to it that a special effort was made to make life gay in the officers' mess and any tendency of individuals to mope or brood in their quarters was discouraged.

AMALGAMATION OF THE RFC AND THE RNAS

On 1 April 1918 the military and naval flying services joined to form the RAF, the merger having followed General Smuts' committee recommendation to prevent indiscriminate competition by the two separate services for equipment. The RAF came into being with a greatly increased prestige over that which the RFC and RNAS had enjoyed as separate forces. This made it possible to create an "independent air force" within the RAF to carry out strategic bombing on the enemy's home front, to reduce his output of war material and to retaliate for his bombing of Britain by airships and aircraft. This force operated from the same region of northeastern France as had the old RNAS No. 3 Wing, and its success led to the establishment and maintenance of air striking forces by the major powers after the war's end.

The merging of the RFC and RNAS resulted in many comic elements in the new service. The Air Council's policy of rapid assimilation soon provided a mixed bag of pilots and airmen in the RAF units. Every RAF mess included officers who wore Naval, RFC, Army, and RAF uniforms. The new RAF uniform was not favourably received, for while majors had "brass" hats, the caps of lieutenants and captains bore metallic stripes, quite foreign to the British forces.

It was a sad moment when my squadron had to strike the Royal Navy ensign under which we had served, and which we had proudly flown, even when we were serving with the army on all its fronts. Quite naturally, in the merging of the two flying services, considerable unfairness occurred in allocating the seniority of officers in the graduation list of new RAF. The naval pilots suffered severely in this respect.

Promotion was slow for the active service pilots, by comparison with officers on the home establishment. As the RAF expanded - with surprising speed - it assimilated its various components and by the war's end hardly any of its members regretted the merging of the two flying services.

MOBILITY IN FRANCE

The fighter squadrons in France were constantly on the move to fill operational requirements as they arose at various points. Each of the five armies was provided with a fighter wing, whose strength depended on the battle situation. As a battle developed at a sector of the line, fighter squadrons were concentrated in the area by both sides and, naturally, the best squadrons had the most moves. The German squadrons moved in special trains while ours used the army wing's pooled transport. It was common practice for a squadron to be enroute to a new field within the hour of orders for the shift being received. I served at 21 different aerodromes in France and Belgium.

Competition was keen amongst the squadron commanders to have their individual units always engaged in the battle area - proof in itself of the squadron's prestige. Squadron commanders resorted to all sorts of artifices to obtain reinforcements from the best of the pilots leaving the training schools, and to get the pick of the experienced flight commanders returning to active service after a period of rest at home. Only a few squadrons managed to maintain a high prestige over a long period of time. In most cases a squadron's reputation rose and fell, dependent on the work of a few outstanding individuals, and to a large degree rested on the prestige and virtues of its commander. First-class pilots naturally tended to gravitate towards such "top" units.

British fighter squadrons were always at a disadvantage in the struggle to gain air superiority in France, because of the policy of sustaining so-called offensive patrols for hours, 10 miles beyond the lines. Observers on the ground reported the strength of these patrols and the Germans were able to send up numerically superior forces. The result was that a so-called "offensive patrol" often found itself on the defensive. The greatest danger to British squadrons on patrol was an unseen and surprise assault from above. To offset surprise, the squadron was "stepped up" through perhaps 5,000 feet and the upper echelons were required to weave constantly to sustain observation and vigilance. The national objective of these sustained offensive patrols was a policy of attrition, designed to wear down the hostile air force, on the grounds that the allied air strength was increasing beyond the capability of the German potential.

It was, therefore, vital for our fighter patrols to obtain results. To accomplish this role in my particular case, the squadron was organized in the air into four formations. The most skilled and practised pilots were in the lowest assaulting formation. It was this section which had to accomplish the desired results. The other formations, in the upper reaches of the sky, were required to safeguard the assaulting section from interference from above. Thus, the assaulting team was free to descend to engage hostile aircraft flying at lower levels, with a reasonable assurance of security from counter-attack, when an assault was imminent. This policy really converted the operation into an offensive patrol and it accomplished the desired results. After the 1914-18 war, I had the opportunity to discuss these tactics with some German fighter pilots who had been subjected to them and they expressed themselves as being fearful of assaults in this fashion.

TURN OF THE TIDE—1918

On 8 August 1918 the Canadian, Australian and Guards Corps, supported by a maximum force of fighter squadrons, assaulted the enemy along the Roye Road from Amiens. My squadron and others attacked the German infantry and the battle, which raged for several days, ended in our greatest victory of the war. Ludendorf described it as "Germany's black day".

The fighter squadrons, though suffered heavily and the whole Roye Road was strewn with hundreds of crashed aircraft, as well as derelict tanks. As the fighter pilots flew to strafe and bomb the German troops, they could see below them the debris of other RAF machines and they were met by a hail of fire from the ground. The German aircraft flew on similar strafing operations and often opposing

fighter formations passed one another on their way to attack each other's ground forces. Both sides felt the weight of these strafing attacks and diverted some of their fighters to provide aerial protection. The Battle of Roye Road was the first time that air forces had been ruthlessly employed, the bulk of the fighters being used to give close support to our infantry assault.

During the 1918 spring battles the air force had been used defensively, our backs then being to the wall. While I was elated by our military successes in the August attacks, I felt the loss of the many pilots who fell during these strafing operations, without the chance of ever having selected "waltzing partners" in mortal aerial combat.

MARCH TO VICTORY

After the August gains everyone felt that victory was near. It was extraordinary how the feeling of depression and defeatism felt during the spring had changed. Our air force had gained numerical superiority, enabling a bolder policy to be adopted. The air force eagerly adapted itself to the close support operations that helped to drive the enemy back.

The final onslaught against the enemy was inspired by a belief in victory. The enemy flyers, though, seemed to lose their one-time valour and it became increasingly difficult to seek out and destroy them. My own score had gradually mounted through the summer and autumn months until I reached the 60 mark. During the latter stages of the war there were more individual combats, resulting from chance meetings of aircraft flying on special missions, although the enemy pilots were alert and difficult to bring to combat. Many of the combats that did take place were indecisive, and did not count towards individual scores.

By this time nearly all my distinguished contemporaries had vanished from the scene of action. Most had fallen during combat, while others had succumbed to accidents or other mishaps. By the war's end I had completed 26 months of operational service in France, and had thus lived out, by the grace of God, several normal operational lifespans.

CANADIAN INTERLUDE—1919

I went to Canada on leave early in 1919 and was amazed at the Canadian calm, after life in London in the wake of the armistice. Canadians had reverted rapidly to peacetime conditions and outside of the receptions for returning soldiers there were few signs that the country had so recently been at war. The mass of the Canadian troops overseas had not yet returned, owing to shipping limitations, but the urge to get home was strong. Most of the men overseas were anxious to get back before the available jobs had been filled.

After the 1914-18 war, when I had access to German records, I was somewhat astonished to learn that the aggressive spirit that had animated Richthofen's "Circus" and others had its mainspring embraced in a policy of permitting pilots to conduct fighting patrols on a voluntary basis. This was the policy

adopted by the best naval fighter squadron commanders, when operating in France outside RFC control. Fighter pilots were permitted to fly as much, or as little, as they desired, but they knew that the acid test of remaining in a good squadron was vested in the need to produce results. The general result of this policy, in both cases, was that the eager and keen pilots prospered as volunteers, while the laggards were removed.

This policy was in sharp contrast to the system of operation control sustained in the Royal Flying Corps, wherein operation orders always originated in the command above the squadrons. Detailed "dawn and dusk" patrols were the rule. The general result was that pilots became fatigued and sometimes dispirited and unable to sustain the individual buoyance and aggressive spirit, so essential to a fighter pilot. The same policy was adopted as a legacy by the RAF in France in 1918.

South Russian Adventure – 1919-20

THE WAR with Germany was finished, but as it turned out, it was not the end of the fighting as far as I was concerned. In the spring of 1919 a counter-revolution developed in Russia, various White armies being raised to fight the Bolsheviks. The Reds had abandoned the Allies during the war and had made a separate peace with the Germans. When the war ended the Reds remained hostile to Britain and, after General Kornelof's White Army had gained some successes in the Caucasus, the British government decided to send an air force contingent to support his forces. British troops were by that time already fighting in North Russia and Siberia in support of White armies in those areas.

I was chosen to command the RAF combatant detachment for duty in South Russia. All ranks had to be volunteers and I visited many RAF units in Britain to select members for the force. I was able to put together a fine body of men and we crossed through France aboard a special train and took ship in Italy for the Black Sea port of Novorissisk in South Russia. By the time we arrived General Kornelof had been killed and General Denikin had assumed command. His forces had met with sweeping successes and had occupied the major part of South Russia. We were the only British combatant force there and provided the only air force available to Denikin, whose forces were organized into three separate groups of armies - the Kuban Cossack Army on the Stalingrad front, the Don Cossack Army between Stalingrad and Kharkov, and the Volunteer Army in the Ukraine.

Our aircraft were DH9 and DH9a two-seater bomber-reconnaissance machines and Sopwith *Camel* single-seater fighters, all drawn from the aftermath of the war in the Middle East. They were formed into three separate flights, and as the flights were successively formed they were despatched to the far distant fronts. By the autumn of 1919 the front line of Denikin's armies extended for a thousand miles across South Russia and success seemed assured. Our headquarters was established at Krasnodar, and from there the three flights operated from special trains which took them to the various fronts on which they were employed. The different flights were usually located so far apart from one another and so far from the headquarters base that they seldom, if ever, met, but went ahead with their operations as best they could in cooperation with the local White Army commander.

Most of our flying was bombing and strafing attacks on ground targets and reconnaissance, and there was little of the fierce aerial fighting of which I had seen so much in France. A few German fighter

pilots in German aircraft appeared with the Bolsheviks but they were soon shot down by our pilots, and thereafter we met with little aerial opposition.

Early in the campaign a fierce struggle developed for the possession of the strategic town of Stalingrad on the Volga, which the Whites had captured. The Reds had a river flotilla on the Volga and they massed a force of some 20 gunboats to shell the town, the idea being that an infantry assault would take the point while it was being bombarded. One of our bases was only 12 miles from Stalingrad and we operated a shuttle service, our planes landing and remaining only long enough to refuel, take on more bombs and ammunition, and then taking off again. I conceived the idea of using 230-pound anti-submarine bombs against the river vessels, and instructed my crews to try for near-misses rather than direct hits. These tactics worked well, the terrific under-water blast being extremely effective against the light gunboats. We managed to sink or disable most of these Red river craft and the remainder withdrew. Our attack on these ships was probably the earliest outstanding success by aircraft in sinking vessels by bombing.

On the Kuban Cossack Army front many thousands of cavalry were employed by both sides, and cavalry became the principal target of our machines in ground strafing. On one occasion one of our pilots was shot down in the midst of thousands of hostile cavalry, and while the observer kept them at bay with his machine gun, a second aircraft landed alongside and rescued both pilot and observer. As the Reds lacked an effective air force, the RAF detachment constituted a serious danger to them. They replied to our successes by announcing the frightful things that would happen to any of our flyers who might be captured. Some of the tortures that they promised would be the lot of any of our men taken prisoner were too dreadful to repeat in print.

Our attacks on Red cavalry on the open steppes, as well as on infantry, caused the Bolsheviks serious losses and there is no doubt that the rapid advance of the White armies owed much to the work done by my detachment. The White Army commanders were alert to the operational value of an unopposed air force, but they had little understanding of our limitations. We were thus frequently given tasks which were beyond our capacity.

The employment of masses of cavalry resulted in a front that was in many sections extremely fluid. Advances or retirements of as much as 70 miles a day were not unknown. This resulted in odd, and at times embarrassing, situations. On one occasion the Kuban Army commander proposed to employ a cavalry striking force against a Red base some 80 miles east of Stalingrad, and named a zero hour for our co-operation. I arranged to set up a temporary air base about 20 miles from the Reds, where our planes could be refuelled and re-armed as they returned from their attacks. We began our attacks at the appointed hour but there was no sign of the White forces with whom we were supposed to be working, and after several hours we broke off and prepared for a meal. A short time later a cloud of dust arose from the direction of the enemy and a hurried aerial reconnaissance showed that thousands of Red cavalry would very soon be all around us. Immediate action saved us just in time, and the aircraft were able to keep the Red cavalry at bay until we had withdrawn our motor vehicles. In the meantime, the White forces had disappeared.

While carrying out a reconnaissance flight on the Stalingrad front in the autumn of 1919 my machine was hit by a rifle bullet and we had to make a forced landing. My observer and I had to walk six miles to the nearest railway and then travel with some soldiers in a freight car. I must have been bitten by

lice from the soldiers for only a few days later, after my return to Stalingrad, I came down with fever. It was not diagnosed as typhus, but the service doctor decided to send me to our main headquarters base as a precaution, with two walking-case sick airmen. It was five-day rail journey, and both the airmen had to take to their beds with dysentery. This was unfortunate for me, for I developed a full case of typhus, and there was no one to look after me. I was in a bed in one of the luggage vans and soon I was delirious. When the train halted at a village midway between Stalingrad and Krasnodar a refugee countess heard of my plight and had me moved from the train to the cottage she was occupying. I knew nothing of this, of course, and was unconscious for several weeks, while the old lady nursed me through a crisis. When consciousness came back I was extremely weak and only very gradually revived. As my strength began to return I found myself at a loss to account for my surroundings and as I could speak no Russian, and my benefactor no English, we could not communicate.

I had been missing from the RAF for six weeks when one of our aircraft landed nearby, and hearing of a British flyer who was ill in the area, the pilot sought me out. Soon another machine was sent to pick me up and take me to convalesce at our main base. Unfortunately, I was never able to express my thanks to the countess, as the Reds occupied that part of the country before I recovered and she disappeared. Anyone with a first-hand knowledge of typhus, and what it entails, will be able to imagine what she must have endured as an act of grace in nursing a strange, unconscious man for several weeks in a one-room cabin.

At the beginning of winter, 1919, Denikin's armies had reached their maximum point of advance and had occupied a vast area. Everywhere the White Armies had been victorious, and these successes had been repeated by Kolchak in Siberia and by the White Army on the Baltic. The chances of a general White victory seemed good. Alas! Rumours began to circulate that the policy of the White Army after victory would be to restore the ancient regime, with the landlords taking back possession of their estates. There was a perceptible weakening in the determination and will in the White Armies, while the Reds redoubled their efforts and their propaganda. The home front behind the Volunteer Army in the Ukraine declared for the Bolsheviks and General Denikin resigned, his command being taken over by General Wrangel. The Volunteer Army collapsed and while the Kuban and Don Armies resisted the Red advance for a few weeks, in a short time the masses of White troops, with their families and friends, joined in a mad rush for the sea or into the Caucasus.

During the retreat of the Volunteer Army which culminated in the final debacle, I was in an RAF train which gradually withdrew from the neighbourhood of Orel over a distance of 500 miles into the Crimea. We operated our aircraft from the open country adjacent to the train in winter conditions of snow and ice. As the whole of the Volunteer Army was in desperate retreat, our arms sometimes constituted the only real defence in the area. Aircraft serviceability gradually fell and then finally collapsed, and we were forced to save what few machines we could by despatching them to the rear.

Conditions on the railways were almost indescribable. There was neither fuel nor water for the locomotives. The people along the route had become intensely hostile and anxious to welcome the Reds. Forces of hostile irregulars were operating freely across the lines of communication. There were no trains going in the direction of the enemy - all were making their way as fast as they could in the other direction. The RAF train was armed with aircraft machine-gun turrets mounted on the roofs of some of the cars. The normal train crews had gone over to the Reds and airmen served as engineers and

firemen on the two locomotives that pulled our train. As an act of mercy we had taken aboard several hundred Russian officers' wives and children and they now became a source of embarrassment to us. Typhus had broken out and they hid their dead on the train, rather than throw the corpses on to the edge of the right of way as I had ordered. This was perhaps a brutal order but it was necessary, for we could not afford to stop and dig graves in the hard-frozen ground.

Officers stood on guard, fully armed, night and day, in the locomotive cabs and on the roofs of the cars. Our lines of escape into the Caucasus had been cut off and there was a grave risk that we would also be cut off from the Crimea, our only other point of safety. As we passed through the towns we had to send out armed parties to commandeer wood for fuel. Water for the locomotives was obtained by the women holding out their skirts to be filled with snow, and then dumping it into the water tanks. The rail lines were congested and progress was slow, and day after day we crept along at some 10 miles an hour. I knew that the Bolsheviks were operating an armoured train armed with a 9-inch gun on the rail lines behind us, and when it was reported only a few stations away this increased our frustration over our slow progress.

While our train was halted for fuel at Balshoi Tokmak the enemy managed to release a run-away locomotive down an incline and it smashed into the rear of our train at high speed. Our train was turned into a shamble. The wooden trucks were telescoped but the steel coaches withstood the shock. Herculean efforts were required to thrust the smashed trucks off the rails and to join up the surviving steel coaches. Somehow it was done and the remnants of the train moved safely into the Crimea. Other RAF trains reached Novorossisk, having made it safely over the railway bridge at Rostok.

The RAF took over a Russian aircraft depot in the Crimea and we soon had enough aircraft for one squadron, which we assembled from our reserves carried on the train. Soon afterwards, while flying a reconnaissance over the country north of the Crimea then in Red hands, my aircraft was damaged by ground fire. The engine would not keep the machine in the air and we had to make a forced landing. The engine would still turn over enough, though, for us to taxi for miles over the frozen surface, and then across the frozen, intervening sea, and to reach the Crimea.

The Russian general in command in the Crimea was an unstable character, and whenever the Bolsheviks broke through the Perekop Neck defences all he could think of was to order the RAF detachment to repel them. On one occasion he issued written orders that all RAF pilots were, if necessary, to destroy themselves by diving into the ground, in the hope that this would inspire the White defenders to a final and supreme effort. Happily, I was able to interpret the order liberally. By this time - January, 1920 - the RAF squadron was split into two portions. There was the one portion which I had taken into the Crimea and the other, which had managed to get into the Kuban country and on to the main base at Krasnodar. We continued the fight against the Reds as best we could, but at the end of March the British government withdrew the squadron. We went by ship to Constantinople and then on to Britain. Our South Russia venture was ended.

Between the wars 1920 – 1939

AFTER the South Russian adventure (described in Part 3) and a spot of leave in Canada, I was sent out to Mesopotamia - or Iraq as it had by then become known. I took with me reinforcements for the RAF units there, and I spent some three years in the area, seeing action in North Persia, Iraq and Kurdistan.

On paper it sounds very romantic, all tinkling fountains in courtyards, orange groves and other exotic eastern trimmings, with perhaps the odd spot of flying thrown in. In fact it was nothing like that. Flying conditions ranged from those approximating a Canadian winter, with deep snow, to nearly 130° in the nonexistent shade, with dust, dysentery, thirst, and other discomforts. During flights over hostile Arab areas our crews carried letters written in Arabic, Syrian and Turkish, known as "blood chits". They promised that a ransom would be paid to those who aided the airmen should they be forced down. This was in the hope that hostile tribesmen would be greedy enough to desist from their normal practice of turning such captives over to the women, "to cut up what remains" as Kipling put it. Not unnaturally, our flyers fervently hoped that should they be forced down they would find themselves in the hands of tribesmen both greedy and literate.

Persian Interlude - 1920-21

When I left South Russia I thought that my flying against the Bolsheviks was finished, but this was not to be. In the winter of 1920-21 I was given command of the RAF detachment which flew with the British forces in North Persia under General Ironside. They were there to discourage Red encroachments and when I arrived winter had set in, preventing either side from making any decisive moves. My detachment contented itself with desultory bombing and reconnaissance.

One of our main difficulties was keeping our aerodrome, free from snow, and when the mountain roads leading to Iraq were closed for the winter some 5,000 army pack camels were without employment. We used them effectively to pack the snow hard on our field. Our machine maintained communications with Baghdad and it was odd to take off from three feet of hard-packed snow and land in Baghdad with the temperature 120° in the shade!

The British forces withdrew from North Persia in 1921 and I was sent to Baghdad. Iraq had become a British mandate and we were responsible for keeping the peace. When Feisel was placed on the throne he was welcomed by only a minority of the Iraqi Arabs and trouble followed. My squadron was called on to undertake punitive action against the rebels, and we were able to seek out the hostile Bedouin in even the most remote and inaccessible regions. The rebellion was soon quashed with only a few casualties.

A combination of aircraft and armoured cars did the job quickly and cheaply, in place of the large number of garrisons and costly troop advances that otherwise would have been necessary. We were also able to quash rebellions with little loss of life. Warning of impending bombing attacks was normally given, and the tribesmen had plenty of time to evacuate their villages.

I was in command of No. 30 Sqn., near Baghdad, in 1921 when a plan was put forward to form a Baghdad Cairo airmail service, and we were made responsible for establishing half the route, 400 miles from Baghdad to the Syrian desert. A party of desert cars staked out landing grounds and each

day our aircraft flew in food, fuel, and water. Landing grounds were marked by driving the cars in a circle until the desert crust was sufficiently broken to be plainly visible from the air.

ACTION IN KURDISTAN

Kurdistan is a region in northeastern Iraq, extending into parts of Persia and Turkey, and the Kurds are a brave and hardy people who dislike the Arab. The RAF did a lot of flying against the rebellious Kurds in an effort to maintain order. So much so, that their chief, Shaik Mahmoud, was often spoken of in RAF circles as the Director of Air Force Training.

Mahmoud had led his feudal levies in an abortive attack against the British in Mesopotamia in early 1915, and in 1919 he was captured and imprisoned. By 1922, though, there were difficulties with Turkey over the northern frontiers of Iraq, and Mahmoud was released from prison on his promise that he would rally his tribes and resist the Turkish pressure. He broke his promise and resumed his struggle against us.

Largely through the efforts of the RAF, precarious order was restored in Kurdistan but in the summer of 1923 Mahmoud proclaimed himself King of Kurdistan and began a series of raids. Encouraged by the rebellion of other sheiks, he declared a holy war against the British and the Iraqi rulers. The Turks sent arms and political agitators into the region and the British were forced to take decisive action.

Some 12,000 British and Indian troops were concentrated at Mosul, with RAF units, to make a show of force and discourage any overt act, and it was decided to send a column into Kurdistan. I was named RAF liaison officer with the army forces at Mosul and I accompanied the column on its wintertime march into the hostile area. This was an arduous undertaking, and the RAF played an important part in the advance of the troops. Landing grounds were cleared as the column advanced and supplies were flown in. When the terrain was too rough for this, they were parachuted.

I marched with the advance guard and, in co-operation with the appropriate army officers, selected the landing grounds. The day before we captured Ruwandiz, the general in charge of the column and I set off together on horseback and we entered the town thinking it had been occupied by British troops advancing over a different route. It had not. We moved about boldly amongst the hostile and surly tribesmen, looking much more confident than we were, and they must have been amazed to see two British officers appear thus in their midst. Fortunately for us, the troops soon arrived.

This expedition was the first deliberate large-scale effort by any air force to supply an army, and its success encouraged those who foresaw the possibilities of using aircraft to move large bodies of troops and to provide supplies for offensive operations. Unfortunately, the lessons learned failed to bear fruit, for until the Second World War we neglected to obtain the type of transport aircraft needed for this role.

Returning to Britain from the Middle East, I was given command of RAF Stn. Northolt, where we received the first of the new aircraft made available after the war's end. Then came RAF Staff College, followed by a staff position at Headquarters, Air Defence of Great Britain. I headed the Department for Operations and Intelligence under Sir John Salmond.

WITH THE NAVY AGAIN

From 1929 to 1932 I served aboard HMS Courageous as Senior RAF Officer and the Flag Officer's Staff Officer. This was at a time when the controversy went on as to whether the RAF was to continue flying operations at sea or whether the RNAS was to be revived. The Senior RAF Officer aboard a carrier found himself in a delicate situation. The naval thesis was that naval flyers could do better at sea than those of the RAF. If he did not support this, he was reactionary and anti-Navy. If he did, he was in the bad books of the Air Ministry.

Life aboard a carrier in those peaceful years was interesting. We visited all the principal countries in the Mediterranean and cruised to others more remote. In 1929 I was in command of the Fleet Air Arm disembarked during the Palestine crisis, which was for all of us an interesting experience. Later on we flew air displays over various foreign cities, and I organized special features which included a massed flight over Constantinople, portraying the Star and Crescent, and the towing of a large Portuguese flag over Lisbon. This flag was 50 feet square and we towed it over the city practically at house-top level, 5,000 feet below the aircraft pulling it.

During my carrier days I served with five captains and an admiral. In a ship the senior officers are much more closely associated than in the services on shore, and the interlocking of the naval and flying duties was inclined to make the Senior RAF Officer's task a tricky one, particularly as King's Regulations and Admiralty Instructions made no provision for him to exercise any disciplinary powers, notwithstanding that he was officially in command of the RAF aboard ship.

In the early stages deck landing training was a precarious business. Most of the RAF pilots knew little or nothing about the navy, and they had to make their first landings on board with no dual training. During my carrier service the preliminary deck landing system was reorganized and I introduced dual deck landing instruction, using the normal elementary training aircraft and instructions. This procedure brought about a rapid increase in Fleet Air Arm flying efficiency.

I tried to introduce ship-destroying large bombs and bigger torpedoes, but the commanders of the fleets did not want lethal air weapons to develop at sea. They wished the airmen's role restricted to wounding enemy ships, which thus slowed down could be destroyed by naval gunfire.

BOMBER COMMAND IN THE MID-30S

When I left the carriers I took over the Bomber Command station at Bircham Newton. I had commanded two bomber stations before this, so the experience was not new. By now I had experience in command of units in the most important branches of the service - fighter squadrons, seaplane defence squadrons, bomber squadrons, and the Fleet Air Arm. This wide experience was of inestimable value to me later on, while in command of the RAF in the Sudan and the Western Desert.

The Bircham Newton bomber squadrons were the only mobile ones in the RAF, and they were organized and trained as special service units, in readiness for mobilization as reinforcements abroad as circumstances dictated. This plan was put into effect during the Italian crisis of 1935 and the squad-

rons were successfully mobilized and sent to the Sudan with scarcely any flaws showing in the arrangements made years before.

Sandringham was near Bircham Newton, and the Royal Family frequently used the aerodrome. Their Majesties also regularly passed by the station on motor outings. My small daughters were thrilled at the prospects of seeing the King and Queen, but they were somewhat nonplussed and disappointed to find when they did see them that they were not wearing their crowns. The King visited the station several times and in 1934 attended a flying display and inspected all the different types of aircraft and equipment then available. This was the first large-scale royal inspection of RAF units, and it indicated the increase in RAF prestige which developed with the expansion of the air defence of Great Britain.

My three years at Bircham Newton were perhaps the dullest in my service career. The world economic crisis had weakened our national resolve to strengthen our armed forces and the RAF was in the doldrums. Stringent financial restrictions were imposed, and seriously hampered, operational training and deprived us of vital material. There was a tendency towards complacency, and the formula of "no war for 10 years" was popular.

In 1935 I took over command of the bomber station at Upper Heyford, where the two squadrons of the short-lived overseas Canadian Air Force had been formed in November, 1918. I had been there but a few months when the Abyssinian crisis developed and I was sent to the Sudan, in command of air reinforcements. War seemed imminent and the squadrons ordered to go from Upper Heyford and other stations feverishly packed their equipment and went off as secretly as possible. Two of the five squadrons which went with me had been under my command in England and it was interesting to see how their mobilization, despatch and arrival was carried out in accordance with Air Ministry instructions for these special service squadrons. The result was a tribute to good staff work and the units were sent abroad secretly without a hitch. The squadron members did not know their destination until they arrived in the Sudan.

By 1936 the international situation had improved and the RAF squadrons were withdrawn from the Sudan. I was then appointed to command RAF Stn. Heliopolis, in Egypt. In 1938 I was temporarily in command at HQ RAF Middle East, and early in 1939 I became Air Officer Commanding, Egypt Group, which meant that all the operational squadrons in Egypt were under my command. When the war began Egypt Group became the Desert Air Force and we eventually had Australian, South African and Fleet Air Arm squadrons merged into the force.

Beating the Italian Air Force – 1940-41 and Postscript

THROUGHOUT the first nine months of the Second World War there was little that the RAF in Egypt could do except to prepare as best it could for what might come. As the Nazi blitzkrieg rolled aside the allied opposition in Europe, it became evident that we were going to be fighting the Italians, and when Mussolini did enter the war, dazzled by dreams of empire, our plans had been made and we were as ready as we could be.

I was by then an air commodore and was in command of No. 202 Group - the RAF units in the Egyptian Western Desert. It was nine minutes past midnight, the night of June 10/11, 1940, when I received word in my underground operations room near Maaten Bagush that we were at war with Italy. My orders, from Air Chief Marshal Sir Arthur Longmore, the AOC-in-Chief at Cairo, were to send out reconnaissance planes in accordance with the prearranged plan. Concentrations of Italian aircraft had been noted in the north, and the reconnaissance machines were to be accompanied by bombers. Some of my squadrons were in action at dawn, striking at El Adem, the main Italian air base in Cyrenaica.

Mussolini had been able to whip up a certain amount of martial enthusiasm amongst his people, but as the fighting began it was evident that the rank and file of the Italian forces had no real heart for the struggle. As far as the Regia Aeronautica was concerned, though, its aircrew at first conducted themselves with both courage and determination, and they outnumbered us in the air some six to one. The RAF had about 150 aircraft in the whole of Egypt and it was apparent that the shipment of additional machines and vital supplies from Britain was going to be a formidable task. The Italians had close to 300 aircraft in Libya alone, with nearly 200 more in Italian East Africa and the Dodecanese. They were in a position to concentrate as many of their home strength of 1,200 aircraft as they desired in Libya, and their supply problems were minor by comparison with ours.

ON THE ATTACK

I resolved to try to counter the enemy's superior force by maintaining the offensive and by following the advice of Stonewall Jackson, who said "Mystify, delude and deceive your enemy". At the same time, though, we were forced to avoid the temptation to risk a decisive engagement, with its perilous potential in defeat. By maintaining aggressive tactics, without committing ourselves to the possibility of a mass air action which could have gone against us, or which might have entailed losses we could not afford, we were successful in establishing a defensive mentality in the Italian Air Force.

As Graziani penetrated the Egyptian desert and built up his forces at Sidi Barrani for a decisive push eastwards, my squadrons maintained a series of blows which kept the enemy air force off balance and forced a dispersal of air protection. Although our meagre forces were unable to prevent the concentration of the enemy's ground forces, we were able to delay it. Also, by incessant bombing of the enemy we caused malicious whispers to be started within his ranks assailing the Regia Aeronautica, and the sinister image of our aircraft never left the minds of the Italian troops.

Sustained bombing operations were conducted against the Italian bivouac camps after the enemy advance into Egypt in 1940 in an attempt to undermine morale. The process was intensified, as a prelude to the blow soon to fall on Graziani. Almost pitifully weak in bombers and dangerously short of standard bombs, we had to improvise, and resorted to the employment of some ancient *Bombay* troop carriers.

A windfall produced a large stock of obsolete 20-pound anti-personnel bombs, a relic of the First World War, and these were pressed into service. The *Bombays* were each loaded with 200 of these bombs, stacked in the belly of the aircraft. Operating by night, they flew over the camp of the Italian Field Army at Sidi Barrani where the bombs were thrown out, almost promiscuously, through the door of the aircraft. The operatives had to remove the security wire on the bomb wire on the bomb

vane, and then pass the bomb from hand to hand in the darkness, the process thus occupying an interval of a minute between bombs.

The pilot contrived to maintain his aircraft over the succession of associated camps throughout the progress of the operation, sustained for more than three hours. A succession of these aircraft continued through the night; while the day bombers commenced their activities with the dawn. The *Bombays* were practically unarmed, and they had to run the gauntlet of the enemy anti-aircraft defences and the risk of fighter intervention as the crew laboured with the bombs. The fortitude and outstanding devotion to duty continuously displayed by these aircrews was unsurpassed in the war.

Before the war, we secretly constructed a considerable number of dummy aircraft of the actual size and specifications of the real ones, and they proved to be of inestimable value in the emergency. They were disposed between the real aircraft on the aerodromes, so their spurious nature could only be discovered by close examination. The Italians photographed our aerodromes and their intelligence staff was misled, to a degree which made their commander think twice before ordering a further advance into Egypt, beyond Sidi Barrani. This was confirmed, when we subsequently captured some Italian generals, who commented upon the RAF numerical superiority in the Western Desert. As mentioned, they in fact outnumbered us, six to one.

During the early part of the campaign in the Western Desert the enemy's numerical superiority and our deficiency in radar and night defences provided them with a dangerous opportunity to bombard our aerodromes and the RAF headquarters. We discovered that the Italian bombers kept in radio touch with their bases, and so to counterpoise our deficiencies, I resorted to a subterfuge.

Our radio transmitters were attuned to the Italian frequency and as his bombers approached to attack our headquarters, they fancied they could hear us marshalling our defences to oppose them. We knew from the radar plot where the Italian aircraft were, and an RAF officer born of an Italian mother spoke into the microphone in the operations room, transmitting orders in Italian, so as to direct numerous imaginary fighters into the path of the on-coming enemy. One could perceptibly see the result in the wavering of indecision, as the tracks of the enemy altered course in the operations room plotting. The artifice seldom failed to weaken the enemy determination; and later in the campaign a captured general referred to the great difficulty his bombing pilots experienced in the face of our powerful night defences!

SUCCESS IN BATTLE

My squadrons played a full share in the crushing defeat inflicted on Graziani by the offensive of December, 1940, and which ended in the taking of all of Cyrenaica and the capture of 130,000 prisoners. Throughout the attack the RAF successfully isolated the battlefield, and there was not a single instance where our troops were seriously held up by enemy aircraft. At least 1,100 enemy aircraft were destroyed, and our achievements had been attained with an RAF fighting strength of only 168 aircraft. The destruction of the Regia Aeronautica was swift and violent and Italian military aviation, although resuscitated, never rallied from the blow. Through fundamental errors of policy, it was squandered by the higher army commanders and so was forced to give way everywhere under the pressure of our sustained initiative. The destruction of the Regia Aeronautica was another of the fatal

results to be expected when a commander on the defensive tries to be strong everywhere and so allows his forces to be defeated in detail.

The British commander in the field was kind enough to issue the following order of the day:

"... Since the war began you have consistently attacked without intermission an enemy air force between five and ten times your strength, dealing him blow after blow, until finally he was driven out of the sky, and out of Libya, leaving hundreds of derelict aircraft on his aerodromes.

In his recent retreat from Tobruk you gave his ground troops no rest, bombing their concentrations, and carrying out low flying attacks on their motor transport columns.

In addition to the above you have co-operated to the full in carrying out our many requests for special bombardments, reconnaissance, and protection against enemy action, and I would like to say how much all this has contributed to our success".

At this time a German offensive had begun in Greece, and a decision was made to withdraw our strength from Libya and send it there. Had the decision been reversed, the fragmentary Italian forces in Africa would undoubtedly have succumbed to our arms early in 1941 with imponderable consequence to the conduct of the war. Our fatal decision sacrificed our forces in Greece and also our victory in Africa, and in its turn, facilitated a later offensive by the enemy, which carried him to the threshold of the Egyptian delta. Two eventful years bringing their successes and failures elapsed before we obtained sufficient strength to restore the situation and to drive the enemy out of Africa.

By the time eventual victory came in Africa, though, I was back in Britain. After the major portion of the Desert Air Force was withdrawn and sent to its destruction in Greece, I became AOC Egypt. With the advent of Rommel's African Corps and the German Desert Air Force I again took over as AOC Desert Air Force and an air war of attrition developed. We managed to grasp air superiority as new aircraft arrived from home. These included eight squadrons of *Spitfires*, as well as American-made aircraft.

At the end of 1941 Air Vice Marshal A. Coningham took over as AOC Desert Air Force and I returned to Britain, where I commanded No. 14 Fighter Group in 1942 and 1943, until my retirement from the RAF. At the end of 1943 I was then re-employed on staff duties in England until the end of the war.

POSTSCRIPT

Looking back over my service career, I find myself in sympathy with the late Sir Arthur Conan Doyle, the creator of the famous Sherlock Holmes. Poor Sir Arthur always regarded the tales that he wrote about the Baker Street detective as "bread and butter" efforts, with little literary merit, and he wished to be remembered for his historical novels. Alas! The historical novels which he felt reflected his true literary ability are today little read, but Sherlock Holmes is still known to all.

I feel that my days of command in North Africa, when we had to depend upon superior strategy, deception, and fighting spirit, faced with a numerically superior enemy, represent by far my best

effort. Yet if I am known at all to any of my fellow Canadians it is through more carefree days, when as a fighter pilot, with the limited responsibilities of a flight commander in a squadron over France, I had the good fortune to shoot down a number of the enemy without in turn being killed.

I was fortunate enough, throughout my service career, to have been able to have played some small part in the conduct of two world wars, and during the years between my career was perhaps rather more varied than most, and enabled me to see more action. I commanded seven squadrons, six stations, and four groups, and this experience in command impressed upon me one thing above all others. The commander, to be successful, must possess all the attributes taught at the staff colleges. But above all he must be able to impart to those under him a spiritual stimulation. He must keep to himself his hopes and his fears, and must instil into others a super-confidence and an implacable will to victory. In such manner do those under the commander reach their greatest heights of devotion to duty.