

INTRODUCTION

This is the World War II service history of RAAF Flight Lieutenant W H Brooker, who was decorated with the Distinguished Flying Cross, and also mentioned in Despatches.

After the War Service he was awarded a Diploma of Accountancy and was admitted to the status of AASA and is a Certified Practising Accountant.

AUDITOR 3335

He was born at Lameroo South Australia on 3rd April 1920. He completed his education in 1934 and was awarded the Dux of the Lameroo Higher Primary School.

Typed for Mr Brooker by Mrs Rhonda Cooper

MY HISTORY WITH BOMBER COMMAND OF THE RAF

I will commence at the beginning of my time on the RAAF, and my World War II service in Bomber Command.

I volunteered for aircrew in the RAAF about June or July 1940, and was called up for service about 27th February 1941. The entry at that time was called 12 Course: this means the Empire Training Scheme commenced about Jan/Feb 1940, representing an in-take each month. Training took place in Australia, Canada, Rhodesia, Kenya and South Africa. I believe some training did occur in England; but most English trainees were sent overseas, mainly to Canada. I do not think any came to Australia.

The trainees were allotted to specific courses – Pilot, Observer/Navigator, and Wireless Operator/Air Gunner. Certain numbers of Australian trainees were sent to Canada, but after some initial training of about 6 weeks in Australia. The courses for pilots were held at Initial Flying Training Schools. Observers/Navigators went to other places, and Wireless Operators, Gunners went to other places also. The whole course took each category about 6 months. I went to Pearce, WA for initial training – then Ballarat for wireless training, then to Pt Pirie for gunnery, and flew in Fairey Battle aircraft. Observers also went there for bombing training.

I believe that flying training was not undertaken in England, due to the airfields being required for offence, and defensive purposes, and probable to give the rest of the Empire something to do, and of course, the space available.

Of course another reason is the terrible weather in England, especially in the winter months, and the industrial haze. Visibility was very much impaired. In fact, flying training at Operational Training Units (OTUS) could not be undertaken for several days at a time.

The training in Australia to passing out stage, and the awarding of wings and promotion, took about 6 months. Some were promoted to the Commissioned rank of Pilot Officer, while the remainder became Sergeants.

I believe most of the newly qualified personnel were sent overseas to the United Kingdom, while a lesser number were retained in Australia, to become instructors, or go on to Squadrons, where they would have had to undergo further training on the aircraft, with which each Squadron was equipped, and of course the duties and tactics of the Squadron.

Those who graduated as in gunnery without wireless qualifications, had to go to England, due to Australia not having a need for them. Our gunnery duties were performed by the wireless/air gunner, but only in Beauforts.

Those who went to England were drafted to the Royal Air Force operational training units, for a course of instruction on the aircraft that they would be flying, on operations. These courses lasted several months due to the poor weather. In Australia it would have been about two months or less.

The main OTU for Australians was No 27, located at Lichfield in the Trent Valley. There was also a satellite airfield located at Church Broughton – near Derby.

Bomber Command had about 5 or 6 of these stations. There are located towards the midland, or centre of England, and in Scotland. In fact due to bad weather, several courses were transferred to Lossiemouth, Scotland. I should have said that on arrival in England, we were sent to holding units to live, until vacancies became available and the various OTU. Australians went to Bournemouth on the Channel coast; later this holding unit was transferred to Brighton. I spent about 2 1/2 months at Bournemouth.

I and several others arrived at 27 OTU Lichfield, in the Trent Valley, on 13th January 1942, but were immediately transferred to a satellite holding camp about 20 miles away. It was a farm called 'Kings Standing', supposedly owned by the Prince of Wales. It was very poor, cold, wet and snowed; however we were only there for about 3 or 4 weeks. You can now see that there was a terrific lot of waiting and wasting of time. It would seem that the flow of personnel was quicker, than the absorption rate and getting personnel into operations.

Eventually my group got into real training at Lichfield with classroom subjects on the aircraft, being Wellington Mark 1C, being taught the various parts and stations in the aircraft, and of course gunnery. We had a ground rear turret with two Browning 303 machine guns, with belt feed at the rate of about 1150 rounds per minute. The turret could be rotated and the guns elevated, and depressed. We did go to a firing range with turret mounted on a trailer, and being of hydraulic operation, it was powered by a Ford 10HP engine. The ammunition was stored or packed in four containers within the turret. The turrets could be used to measure the wind shift. The guns were sighted on an object on the full beam, and there was a scale on the fixed part of the turret ring, that gave a reading for the Navigator. These engines were widely used for powering searchlights, and as hauling winches for barrage balloons and anti aircraft guns.

Besides being taught gunnery, we had subjects on parachute drill, harness and handling of parachutes, and stowage; entry and exit from aircraft; aircraft identification and recognition; ditching procedure and dinghy drill; how to speak to, and answer the other members of the crew, and the correct patter, or other matters.

Ground subjects would have been aircraft recognition during day and nights. It was necessary to identify between a Messerschmidt 109, Hurricane, Spitfire, Beaufighter Mosquito, V Junkers 88, and later a US Thunderbolt and Focke Wulf 190. We were told of tactics, when caught in searchlights and anti aircraft fire, barrage balloons, and icing of wings (it changes the shape of the aero-foil). Also exits for parachuting and ditching, and getting into the dinghies.

Also getting into the aircraft on the ground and out, while the engines are running; persons were known to walk into a spinning propeller.

At the end of training at an OUT, the crews were sent on a cross-country exercise. One of the final was at St Tugwell. They flew to St Tugwell, an uninhabited small island in the Irish Sea.

The bomb aimers were able to drop several live bombs, and after that the height was reduced, so that the gunners could fire at the rocks and seagulls.

Reporting to the pilot and crew on what was observed, such as flash, searchlights and attacking fighter aircraft. Of course other categories were undergoing their specialist training, on ground subjects.

After a few weeks, pilots were told to get a crew together. This was done by approaching people they knew. First selection was probably Navigator, and then Wireless operators. At this state I must say that some navigators became bomb aimers, and had to get used to gunnery at short notice, as they occupied the front turret; and last, the rear gunner, unless he had become known to others. This made up a crew of 5.

Pilots would have had a mixture of ground subject and actual flying, as the latter would have taken longer, especially in the poor weather. The crew of the Wellington would have been made up of instructor pilot, trainee pilot, instructor wireless operator, and instructor rear gunner. The training was what was called circuits and bumps; ie take off circuits and landing taxiing, about 6 times in a lesson.

HISTORY OF BOMBING OR DROPPING BOMBS FROM AIRCRAFT

This had its beginning during the First World War. At the end of the War the British had to decide what direction the Armed Service should go, and in view of the post war reconstruction for the civil population, made it necessary to cut back in finances from the armed forces.

For example, the army commands decided that tanks were only a passing phase; similarly machine guns, and that money would not be spent on those two branches.

Aircraft had been under the command of the Navy and Army, and these two arms would like to continue that way. The Navy and Army were much against aircraft becoming a separate arm of attack or defense, even after WW1, although on 1st April 1918, the Royal Air Force was established as a separate arm. The Army and Navy were against it, probably due to the great expense that was necessary to provide aircraft and all the support activities.

It was after the war that many countries were put under the control of France and Britain. Several of these came to Britain; Palestine, Trans Jordan, Mesopotamia (Iraq) etc. The French got Syria and Lebanon, and we (Australia) got New Guinea. The three armed services were permitted to express their desire and cost. The RAF won, due to the personnel, costs and efforts. This is when aerial bombing both by day and night was developed. It created great opportunities for flying, training, development of aircraft, bombs, and of course the accuracy and development of release mechanism, and the bombsights.

The pilots who took part in these operations were the same personnel who, on their return and in the 1930's became the senior officers to command the RAF during World War II. Such names come to mind as, Charles Portal, Arthur Harris, and the Hon. Peter Cochran, Lord Trenchard.

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After passing out of the OTU the crew reverted to the various squadrons equipped with 2-engined aircraft. This was before the 4-engined machines became available in greater numbers. The type we had were Mark III Wellingtons with Bristol Hercules radial engines, with sleeve valves 14 cylinders in two rows. They were faster than we had trained on, and had 4 gunned rear turrets; and ammunition was stored in bins about mid way along the fuselage, and came along in chutes to the turret, up through the floor. These aircraft were also equipped with GEE, a radar navigation aid. This meant that the navigators had to be trained.

On arrival at the squadron at Snaith, Yorkshire, the new crew were sent on short training flights to become accustomed to the new surroundings, and the later aircraft and engines.

At OTU our crew consisted of four Australians, Sergeants and English Pilot Officer. The first operation was for the new pilot to do a second dickie trip with an experienced crew.

It was on this trip that our pilot became very sick, and had to be taken off operations. He later was discharged, but was accepted by ATA (Air Traffic Auxiliary). These pilots ferried aircraft from maintenance depots to squadrons etc. Two well-known pilots were Amy Johnson and Jim Mollinson.

These pilots became very expert and versatile and could fly many various makes and types of aircraft.

I was on the tarmac when two ATA pilots came to take two Beaufighters away – one was a woman. But the two aircraft were different; one had Bristol Hercules 14 cylinder radial engines in two rows; the other had Rolls Royce V12 engines. I heard them say, "I have never flown one of those". So they decided the woman would take the conventional one, with the radial engines. So the man got the manual out and started perusing it; then said "Well, if I get into trouble I will read it then".

This resulted in us being a headless crew; however it did not last for long, and we got an English Sergeant, who proved to be very good. He was a spare who had lost his crew when he was off; but he had about ten trips to his credit, so we had him until he clocked up his 30 trips for the tour. He was the pilot who took our next pilot on his second dickie. We were matched with an Australian, he was a Flight Lieutenant who remustered from ground duties and kept his rank.

We have better wireless equipment. All aircraft of the RAF were equipped with an automatic signaling device, known as Identification Friend or Foe (IFF). This was used over England, and after crossing the North Sea or English Channel, was switched off to prevent the Germans homing on to it. On the return it was switched on when nearing the English coast. Failure resulted in the anti aircraft batteries starting to shoot.

Our first sortie was to Emden on the night of 22nd June 1942 from 23.25 hours, for 4 hours 15 minutes uneventful.

The second sortie: 25th June 1942 from 23.30 hours for 6 hours 40 minutes to Bremen. On the way back we were caught in a cone of searchlights; at about 14,000 ft we twisted etc and lost height and I could fire at the searchlights. We were hit by light tracer flak, and sustained a hole in a petrol tank at the top.

The next operation was termed "Gardening", and consisted of dropping mines in the Kiel Canal, from about 700 feet, on parachutes so as not to damage them and keep them live, until a ship passed over them. We carried two at about 2000 lbs each. This type of attack was fairly frequent and rendered substantial results. The time was 3 hours 50 minutes after take off at 0145 on 8th July 1942.

All my operations were at night.

The next trip was on the same day, and with take off at 23.35 hours to Wilhelmshaven for 5 hours 35 minutes. We were chased by a Messerschmidt 109 but were able to take evasive action.

Still during July we went to Duisberg three times. On one occasion we sighted a Junkers 88 twin-engine night fighter, but we took evasive action. It was the tactic not to allow an attack before the range closed. Of course we did not fire; the tracer bullets would have shown our position. It was said that the Germans, on identification of the bombers, did not want to take on the four guns.

On another mission on 11th August 1942, we went to bomb Mainz from 2215 hours for a flight of 6 hours 30 minutes. We saw several aircraft go down. One was on fire and we saw 3 parachutes appear. The rest of this story had a sequel. I was sent on a gunnery course, and we were asked to tell of our experiences; so I mentioned the parachutes, and sitting next to me the person said, "I was one of them".

To continue, he landed safely in France and was rescued by the French, and he was passed on to various locations, and was back in England within 19 days. This resulted in him not being used, to fly over France and Germany again.

Other sorties were to Frankfurt; during the trip I saw a Focke Wulf 190, a single radial engine German fighter. It was the first sighting of this type of aircraft at night. All crews were interrogated on their return. My story resulted in me being called by the Intelligence Officer the next afternoon.

We went to Kassal, Saarbrucken twice, Karlsruhe, Bremen (sustained holes from flak, anti aircraft fire), Duisberg and Bremen again.

Mine laying among the Friesian Isles twice, and St Nazaire (Bay of Biscay)) twice, Saarbrucken again.

Lorient mine laying.

On 8/11/42 at 1740 hours we went to Hamburg for a flight of 6 hours and 30 minutes. You will notice that take off was quite early and this could be achieved due to the less hours of daylight. This was my thirtieth operation and resulted in me being 'screened', the term used for term expired aircrew.

The crews were quite often broken up and sent to operational trainings as instructors for a rest period. I went back to Lichfield, Staffordshire. I was sent on a specialist course at a training unit to do an air gunnery instruction course, which lasted about 2 months. On completion of the course I returned to Lichfield, but after a few days I was sent to the Satellite Church Broughton airfield, as an instructor. The station was not very large, only about ten aircraft, being Wellingtons. It was not very far from Derby. There was one activity of interest there being the testing of Gloster Meteors Mark I and Mark II, being pure jet aircraft. As an aside, there was a Wellington fitted with a jet engine in the tail of the fuselage as a test aircraft. Part of the test was to feather the two piston engines, and fly just on the jet, I believe it was quite fast.

The Commanding Officer was an Australian Wing Commander, Ken Baird from Ballarat, an early appointment of an Australian.

On 3/10/1943 I was sent on a short gunnery course of 3 weeks, mainly flying against attacking aircraft.

At the end of October, I was sent to a heavy conversion unit, to meet a new crew of Australians and one Englishman, to be trained for Lancasters. The five Aussies had just passed out of 27 OUT on Wellingtons at Lichfield. The Englishman was our Flight engineer who had remustered from a fitter. This course took about two months; part of familiarization on the ground and flying take off circuits, landing, and later cross-country, mainly at night.

In fact, our first 4-engined flight was in a Halifax for about 3 trips. It can be mentioned that the instructor pilots were, of course, screened from operations and could fly either Halifax or Lancasters. We were at two stations in Lincolnshire at Skellingthorpe and Swinderby. Our conversions finished on 23/12/1943 and we were posted to 463 RAAF Squadron at Waddington, Lincolnshire about 3 miles south of the city of Lincoln.

We were one of the foundation crews of 463, which was formed by taking several crews from 467 RAAF, and then building up to about 20 crews each. 467 had been stationed at Bottesford, which is a bit further inland, and was a new war-time airfield. Waddington was and still is, a permanent station being built up during the First World War. In fact it was an airfield before WW1. The citizens of Lincoln are very proud of Waddington airfield, and the staff have in more recent times been granted the freedom of the city.

As an aside, Lincoln has been classed as a City for several hundred years. The lord Mayor carries the title of Right Worship; even the lord Mayor of London only has the title of Worshipful. The Australian Sister City of Lincoln is Port Lincoln.

Our operations with 463 Squadron commenced on 2/1/1944; but we did not complete the mission due to icing, and could not gain the height of 20,000 feet, so we returned, as we could only reach about 12,000. So we jettisoned the load safe over Holland. The next trips were to Brunswick, Magdebur, then 4 to Berlin. On the second to Berlin we shot down a Focke Wulf 190 single engine fighter from a range of about 40 yards. The trips took about 8 to 9 hours.

Other targets were Leipzig, Stuttgart twice, Schweinfurt, Augsburg.

After these I went to the Central Gunnery School to partake in a specialist course for gunnery leaders for three weeks during the month of April.

On my return to 463 Squadron my crew was still there, they had survived about 10 operations; this put us about level in the count. They had to do 30 sorties and I only 20.

The targets now switched from Germany to France.

8th April 1944, we bombed an airfield near Brest. Other targets were Lille (railway yards), Boug Leopold, St Martins camp, gun emplacements at Cherbourg. These were coastal batteries and you can now see we were preparing for the "D" Day landing on the 6th June 1944.

It might be mentioned that larger bombs were capable of splitting the gun barrels, and more accurate.

The strategy was to put coastal batteries out of action and to hamper transport to the French coast. Also to put the Luftwaffe out of action, which was virtually achieved by D Day – done by attacking airfields and destroying the aircraft on the ground, and the facilities.

Another target was the railway marshalling yards at Saumur. We did not drop our bombs, but were ordered to return with the load, probably due to an earlier wave about to destroy the target.

3rd June we bombed a wireless station at Cherbourg. The bomb loads would be increased for those close targets, and be varied to high explosive 500 pound. The load would have probably been 16,000 pounds – 8 tons. The petrol would have been reduced from 2154 gallons to perhaps 1000 gallons.

The weather was very poor in early June; and landing barges etc were loaded, and took refuge from the high seas around Isle of Wight. The weather cleared toward the 5th June and improved further to permit the landings and flights to be made.

Our target was gun emplacements at Pierre du Mont. Our take off was at 0243 on 6th June and took 4 hours 29 minutes. After bombing we headed southwest to be clear of other operations. On the return, an American Thunderbolt fighter followed for about 10 minutes, probably a bit lost, to assess the course home.

Again on 6th June at 2319 hours we went to a road junction at Argentan, this was to delay the German reinforcements coming to counter the allied armies in Normandy.

Other sorties were to Rennes railway yards and Orleans railways. The latter on 10th June was my last of 52 missions.

Then on leave when returning to Lichfield.

Here I can mention that once aircrew personnel had commenced operations, they were granted leave of 1 week every 6 weeks, and this continued until the end of the war.

Aircrew was given a special flying meal before an operation, and a similar one on return. The menu was always bacon and eggs. Some crew members were given coffee to drink and biscuits to consume during the flight. However this was a bit difficult to handle – take off gloves, pour out into top of thermos flask in total darkness, and minus 40 degrees Celsius. Of course there was always the danger of an attack. The crew had to be on the watch and alert at all times. The gunners rotated their turrets from side to side all the time, and the mid upper could do a complete circle. The only crew member not watching the sky was the navigator, he was the only one in a lighted cubicle. The pilot would also need to watch the instruments, and the Engineer to keep checking the fuel levels, for the amount and transfer and for cross feeding. He had to complete the log.

The wireless-operator stood looking out the astrodome, if he was not required to listen out.

After take off, the strategy was to climb to our operating height of about 20,000 feet to be above the range of light anti-aircraft fire, and increase the inaccuracy of the fire from larger caliber guns, also perhaps to make it more difficult for fighter aircraft.

Depending on the route to the target, we could still be climbing over the North Sea, but if the route were over Northern France, Belgium, Holland the climbing would have been over England.

The heavy anti-aircraft gun fire was close, when the puffs of black smoke from the shell bursts were at around our level; and closer if you could hear the shell bursts above the noise of the aircraft; and a real close one when the smell of the burst could be smelt even when an oxygen mask was worn.

Oxygen masks were worn all the time, because of the microphone for the intercommunication, within the aircraft. Oxygen was put on at about 5000 feet, although no real effects would be felt until about 10,000 were reached. It was usual for the pilot to call up each crew member about every 15 minutes. If no answer was received it was usually the wireless operator who would go to the position. The mid upper gunner was able to see whether the front and rear turrets were moving.

There were small portable oxygen bottles for use when crew members had to move about.

Searchlights, which I must mention briefly, were used to locate flying aircraft and could illuminate up to 20,000 feet, to aid night fighters and anti-aircraft fire. If searchlights had locked onto an aircraft and then went off, it was a sign that a fighter attack might occur. In some instances a large number of lights may lock on; this was disconcerting, as they had a blinding effect and upset the pilots view of the instruments. The most frightening was if the aircraft was under cloud, as each light threw a shadow of the aircraft on the clouds.

Up to now you may have been wondering how it was decided as to where the targets for Bomber Command would be aimed.

There were Committees of the Chiefs of Staff of the three services, and strategists, as to what would retard the enemy and aid other forces-army-navy. Such targets would be listed. Some that can be mentioned were shipping ports, u-boat facilities, transport, war factories, oil and mining, army, navy and Luftwaffe installations.

There were some targets that may be hard to hit, out of range; others the amount of damage that could be caused and the effort to be incurred to repair it. Bombing an airfield may not be of great result unless aircraft and buildings were destroyed. Bomb craters on the airfield could be reinstated within a few hours.

Alternatively factories could be put out of action, or output was substantially reduced for several weeks, or remain as production reduced, for a considerable time.

Oil refineries would have to suffer direct hits and are reasonably small in unpopulated areas.

Populated areas did suffer damage and civilian deaths. This put a strain on other civilian activities, and caused the workers to miss out on work attendance while they attended to home type duties.

Having damaged a highly productive war production area such as the Ruhr Valley, after a series of raids such damage would take some time to repair, and bomber efforts would be directed elsewhere for some time, before it was seen to be useful to revisit those targets.

You will see that the targets that I've attacked were an attempt to retard the German war effort, and to take the war to the German people. There were some targets that were attacked that were an urgent nuisance. Like attacking the pocket battle ships as they progressed through the English Channel, and the battleship Bismark as it proceeded in the Atlantic.

The Chief of Air Staff would have a short list of targets that should be visited provided the conditions were favourable.

The Squadrons would be notified by about 10am that operations were to be prepared for; this would include petrol load, bomb load and types of bombs. Other personnel would be advised of the target and route to be taken. The routes were planned to miss the heavily defended areas, and also to avoid night fighter airfields in close proximity.

The battle order was prepared and posted, so crews knew who were involved. After lunch the pilots and navigators were called to the briefing room for a pre briefing as to target and route. The pilots left early, while the navigators took an hour or so to prepare their charts.

Depending on the time of take off, the timing of the full briefing was fixed when all crew members attended. The Wing Commander named the target and showed the route; the Navigation Officer expanded on the route.

The Intelligence Officer told of the defences etc. The Meteorology Officer (not necessarily an RAF officer) told of the weather for take off etc, along the route, at the target area, the return route and landing.

The wireless operators were given the details of call signs and wave lengths etc on flimsy rice paper so that it could be eaten to destroy it.

During the afternoon an air test of an aircraft could be undertaken, especially if an aircraft had had some special work performed on it. This was limited to some degree due to the petrol being topped up, and the bombs had still to be loaded. The aircraft should be loaded if possible in daylight to observe the blackout.

Security – as soon as the operation was announced some telephone services around the airfield were cut. Public telephones in the base and in the streets and messes were cut.

All aircraft were dispersed around the airfield to isolate them from an attack and to minimize any damage. It was therefore necessary to have buses or covered trucks with seating, to take the aircrews from the hangars or briefing rooms etc to the aircrafts.

On the return the transport picked up the crews to take them back to the briefing room for interrogation as to their efforts. Every aircraft carried a camera to photograph the result of their bombs. Flares were released to light the target as the bombs dropped, and the camera would run with shutter open until the falling time had elapsed. These photographs were assessed and the crews were told of the result.

In addition photography reconnaissance aircraft were dispatched to be over the target in daylight and take more photographs. Various aircraft were used such as Spitfires, Mosquitos etc. A Murray Bridge pilot was on one of these units, David Rice. I believe he flew a Spitfire.

Spitfires were specifically prepared, no guns, no armor plate, to reduce weight. The rivets on the fuselage were rubbed down flush to reduce drag and the fuselage polished, no paint.

We were issued with special flying underwear and heated flying suits. The pilot, flight engineer and navigator were in a heated section of the plane, so did not need anything special. We were also given an escaping kit to be used in the event of coming down in Europe. The kit contained a compass kit, buttons, war rations etc, money appropriate to the area over which the route took us.

Lectures were also given as to what to say when under enemy interrogations upon capture. The usual period of interrogation was only a day or two before transfer to prisoner-of-war camps.

If you were able to evade capture, information was given as to how to behave and of course to obey the French Resistance, as to the route to be taken and how to travel. Of course Switzerland was a haven and arrangements were made to repatriate personnel. Another place to head was Spain, but it was further and the mountain range a barrier.

Information was also given to be wary of allied persons who became friendly and quizzed of secrets etc of operations. There were several known RAF personnel who had become stool pigeons, and were given favours by the Germans for information gleaned.

One of these was an RAF man called Flying Officer Metcalf-Freeman. The story of his end was that upon his arrival back in England he was arrested and put into prison for trial. Of course the pictorial media had a field day over this. Fancy a hero, after being in a POW camp for several years, not being allowed to return home to see his wife and family etc. Who saw the film – “The Great Escape” there was an informer in that.

During 1944 Waddington had two crews who became the newsreel photographers. These were both Australian crew. The 35mm camera was mounted in the front turret and the plane carried an extra person who probably gave some instruction to the front gunner. The film was a record of the bombing, and was shown in the London cinemas the next afternoon. One of the pilots was Keith Schutz from Kapunda or Eudunda, and now resides in the Modbury area.

The bomb carrying capacity of the several bombers was:

| | | |
|--------------------|----------|----------------|
| Wellingtons | 4000 lb | crew of 5 |
| Halifax | 8000 lb | crew of 7 |
| Mosquito | 4000 lb | crew of 2 |
| US Flying Fortress | 4000 lb | crew of 10 |
| Lancaster | 16000 lb | crew of 7 |
| Stirling | 8000 lb | crew of 7 or 8 |

Now you see which aircraft was the most effective for crew number involved.

Aids to Bombers.

I mentioned GEE earlier. This was a radar device which had three transmitters in England separated by 100 miles or so. They each sent a signal that was picked up by the set in the aircraft, and the signals inspected on the screen, showed a position that could be plotted on a specifically prepared chart, to give the position over the earth. It was very accurate but its range was only 400-450 miles. The Germans devised a method to partially jam it. We were able to bomb on the position given by GEE.

Later a radar device came into being known as H2S. It was self-contained radar fitted to the underside of the fuselage and it scanned the earth like map reading. It would distinguish between water, land, and gave a picture. It could pick up ploughed fields against trees, forest or meadow. Not every Lancaster was fitted with it, and only squadrons used for marking targets.

Talking of special squadrons. There was the pathfinder force made up of well-trained and experienced crews. They went off a few minutes before the main force with the purpose of locating the target, marking it with coloured flares or bomb blasted. They then flew around to assess the marking and report to the main force by RT as to the aiming point.

Later developments were for the location and marking to be done by a Mosquito and even by Leonard Cheshire in a Mustang. These were done at a lower level.

Another development was to use Mosquito night fighters to accompany the Lancasters, with the aim of getting the German night fighters. This operation was referred to as Intruders, and was quite successful.

Some Mosquito bombers were fitted with a radar device known as Oboc. This was a navigation signaling system to correct the pilot's course over the target-bombing run. It had a system of lights in the cockpit to indicate bombing run, and bomb bay doors open, and dropped the bombs. After that the pilot closed the bomb bay doors and turned for home.

A few Lancasters in 1943 and onwards were fitted out with extra wireless and media receivers and transmitters.

They carried extra crewmembers that could speak German, and listened out to hear the German ground controllers and night fighters. They were to give countermanding messages or false messages to confound the night fighters and send them off in the wrong direction. They would have known the target and route. This was called A.B.C. airborne cigar.

Another device was called Tindal and this was a method of transmitting a noise over the German wavelengths so that the WT & RT (Wireless Telegraphy & Radar Transmission) could not be used. The noise was generated by a microphone fitted to one of the engines. Later it was fitted to the wireless operations gene motor, which was just as effective.

One of the most successful devices was called Window. This was a large number of tin foil strips cut to a certain length and about 1/16" wide. The length of the strip was cut so as to jam the enemy radar, to such an extent that the screens were a total blur of colour and could not show a target, and put the ground, night fighter and anti-aircraft radar, out of action. I think the first target was Hamburg and resulted in great destruction. Even the bitumen streets were alight. The wireless operator fed those bundles out through the flair chute when the target was being reached.

The aim was to cause the conflagration caused by the incendiary bombs. The bomb load consisted of blockbusters, incendiaries and high explosive.

Incendiaries were packed into containers about 50-60 per container.

Just a short portion on the Commander in Chief, Air Chief Marshall, Sir Arthur Travers Harris. Some people did not like him because of his manner in some instances. However, these people in high places had to be very careful what they said about him and to whom.

We must not forget that Churchill and quite a number of others recognized he was a champion. This was even agreed and echoed by Roosevelt, General Arnold etc and later by Eisenhower when he was supreme Commander European theatre.

Bomber Command was divided into five main groups and all the Commanders were well-known and proven officers and had served with Harris for many years overseas and at home.

With the defeat of the Dutch, Belgians, and French etc and after the evacuation of the British Army from Dunkirk in 1940; only one force carried the war to the German people. This was Bomber Command, especially from 1942 to D Day, commanded by Harris.

METRIC CONVERSION

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|---------------------|----------|
| Feet to Metres | x 0.3048 |
| Miles to Kilometres | x 1.609 |
| Gallons to Litres | x 4.544 |
| Pounds to Kilograms | x 0.4536 |