

A TIME FOR REFLECTION - 50 YEARS ON

The Text of an Address to the Probus Club of Traralgon by the former Flying Officer H J Trevenen, D.F.C. – 16th July 1992

Several weeks ago I was asked to speak on some aspect of the S.E.C. but the reported disgraceful actions of a 30-year-old protestor at the unveiling by the Queen Mother in London of a Memorial to Marshall of the Royal Air Force - Harris - the Leader of Bomber Command in World War 2 - caused me to change the subject of my talk today.

There is an interesting story to tell ...

On 30th April 1944, our crew of six Australians and one Canadian started its tour of operations over France and Germany with RAF Bomber Command flying a Halifax 111 Heavy Bomber.

Five and a half months later the entire crew was very relieved to be safely through 39 Operations over enemy territory - each directed by the very man referred to in my opening sentence - that is, Bomber Harris.

To put our experiences into perspective I propose to speak on six main points:

1. The War Situation at that time.
2. The Role of Bomber Command and U.S.A.A.F.
3. Reference to the Joint Air Training Program (J.A.T.P.) Crewing Up.
4. The State of the Art - Air Navigation. 12 months Navigator/Bomb-aimer Training in Australia in 1942 and, the dramatic change in technology and the art by mid 1944.
5. Our Tour of Operations from the end of April 1944 to October 1944 - one month prior to D Day to 5 months after.

1. The War Situation

My Aircrew Training began in 1942 at bases at I.T.S. Mt Gambier - N.T.S., West Sale - B. & G. and Nhill Astro Navigation.

The Allied position was far from good at the end of 1942 and, in January 1943, under a cloud of security troop ship S.S. America left Melbourne full of Aircrew headed for an unknown destination. Arriving in San Francisco we were transported across America over the next four days in a troop train to Boston Massachusetts. After a month there (including a week's leave in New York), we returned to New York where we boarded the re-fitted Queen Elizabeth which took us unescorted across the Atlantic to Glasgow. There followed what became a six month waiting period from March to September 1943 spent at Bournemouth Personnel Despatch and Reception and Brighton P.D.R.C., (we were bombed out of Bournemouth by FW 190 German Fighter Bombers), 29 Elementary Flying Training School at Clyffe Pypard on the NW coast of Scotland, Map Reading Navigation in Tiger Moths, Link Training and Dinghy Drill in the Irish Sea, 4 Advanced Flying Unit, West Frew, Navigating in Avro Ansons and Commando Training. After this, what could be called 'Fair Dinkum' training really began. You are probably asking, "Why were thousands of R.A.A.F. Aircrew in England when the very shores of Australia were under threat of invasion?"

1941	Churchill and Roosevelt had to agree to: <ul style="list-style-type: none">➤ Defeat Hitler - First Strategy.➤ Defeat Italy and Germany and supply Russia
March 1942	Roosevelt pressed hard for a front on Western Europe
April 1942	British/American/Russian Conference. Molotov extracted an assurance that the Second Front would be established during 1942 - this of course did not occur
1943	Saw the North West African Campaign looking more hopeful, leading to the invasion of Italy

May 1943	Codeword <i>OVERLORD</i> was chosen for the assault on Northern Europe. The planning and preparation which took place in the U.K. in the twelve months that followed this decision was a credit to all concerned and, remember, Russia was being supplied by British convoys, often to the detriment of the Second Front
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2. The Role of Bomber Command

Following the completion of the BATTLE OF BRITAIN, the role of taking the aggression across the channel fell largely on Bomber Command - the small force of two engine bombers were slow with limited bomb carrying capacity and limited ability to seek out and identify important targets. However, by 1943 the supplies of Britain's four engine bombers which were on the drawing board in 1939, began to roll - Stirlings, Lancasters and Halifaxes.

The Stirlings weren't very successful but Lancasters and Halifaxes were modified several times in the light of operational experience and by 1944 they were extremely successful bombers.

By agreement achieved very early in the piece, the RAF was to concentrate on night bombing and the U.S.A.A.F. with their Fortresses and Super Forts on daylight precision bombing.

Whereas each RAF crew was fully responsible for its own navigation, the Americans concentrated their expertise into one aircraft per squadron and formation flying. (Their ceiling height for normal bombing was 30-40,000 ft - ours up to 18,000 ft.)

In the five long years of bombing offensive against the Axis Powers over 55,000 Bomber Command and 76,000 U.S. Air Force aircrew perished.

2a. Reference to J.A.T.A. (Joint Air Training Program) or Commonwealth Air Training Scheme began in Australia, New Zealand, South Africa and Canada early in 1940 with a new course every month. I was in 24 Course intake at Somers in January 1942 where Pilots, Observers, Wireless Operators and Airgunners were each following their own specialist courses. Twenty-one months later, in September 1943, the various aircrew streams were channelled to 27 Operational Training Unit at Lichfield near Derby in England. The crewing up process of 5 people - Pilot, Navigator, Bomb-aimer, Wireless Operator and Rear Gunner to fly twin engine Wellington Bombers was, without doubt, critical to our future well being.

I guess we all wanted to survive - we had to back our judgement that we would be compatible and could join together as a coherent team. We were most fortunate, as our later experiences proved.

Many crews had Officers and N.C.O.s from the beginning but we all started together in the Sergeant's Mess. I worked my way up from Flight Sergeant to Warrant Officer, then was Commissioned Pilot Officer after D Day and Flying Officer shortly after the end of our Tour.

Our Pilot had a more meteoric rise as he went from Warrant Officer to Flight Lieutenant in one month - an indication of the heavy losses and that we were seen as a senior crew on the Squadron at a very early period in our Tour.

Life at Operational Training Unit was testing. We were exposed to flying in atrocious weather, avoiding balloon barrages and attending Air Force funerals for crews who were killed in aircraft accidents - fellows we had trained with in Australia.

The Ack Ack defences and RAF Fighter Command were always trigger happy looking for intruders. It was therefore essential that our aircraft were fitted with I.F.F. (Identification Friend or Foe) equipment. Whenever we were flying over England or when re-entering English air space, we dared not leave this equipment switched off - if we did, we were asking for trouble.

The next major step or posting was to Marston Moor in Yorkshire where we converted from two engine Wellingtons to four engine Halifaxes. Initially they were equipped with Rolls Royce Merlin Engines but, by the time we were posted to 78 Squadron, they had four Bristol Hercules radials with upgraded performance. It was at Marston Moor that our crew grew from 5 to 7 with the addition of a Mid Upper Gunner (another Australian) and a Flight Engineer who was a Canadian serving with the RAF

3. State of the Art - Air Navigation

To successfully penetrate the German defences which consisted of highly sophisticated early warning and back-up radar systems coupled with heavy Ack Ack and Searchlight batteries and a very strong night fighter force, the RAF Strategy had to exploit surprise and deception and every ounce of skill it

could muster including radio silence, zig-zag route to and from targets, varied flying height to delay detection, the use of jamming devices to confuse the enemy - these were all parts of planning each operation.

For the best chance of survival, the bomber stream had to be kept compact. One mile either side of track within one minute of set time for each turning point and bombing time was the objective. Can you imagine 500 aircraft completing their bombing within 30 minutes, on a single target - AT NIGHT 1000 bomber raids were planned to be carried out within an hour. Pre-conceived height plan was essential - hopefully all aircraft would keep to their set height. This accuracy is very demanding in the best of conditions, but wind direction and strength not only vary with height but in Northern Europe, also alter quickly. I have flown in 120 knot winds at 18,000 ft.

The Meteorology Section did their best to provide the expected conditions on each operation. The flight plan to bomb at a set time was established. Take off time, etc, was calculated back - this was part of each navigator's pre-flight planning. Unfortunately, Met information wasn't always correct. In fact, the night before our first "Op" the wind changed unexpectedly and drove the returning bomber force over the heavily defended Ruhr. 97 aircraft were lost with 679 aircrew aboard. This drew attention to the need to utilise and update navigational detail during the course of major bombing operations. Pathfinder Force had, from 1943, the facility of improved navigation equipment that enabled them to accurately mark targets and master-control the progress of the raid.

We had the benefit of training on the most up-to-date navigational equipment just prior to going to Squadron. We became part of a special force called WINDFINDING FORCE. My navigational detail was transmitted by our Wireless Operator to Base and this information re-broadcast to the main force, most of whom didn't have the same equipment. Although this was an additional crew responsibility and meant breaking radio silence, there was one advantage in that we headed the main force and were first to bomb after the Pathfinders had marked the target. "First in - Best dressed", we often used to say as we turned for home.

The key to accurate navigation lays in making the most out of three key items of equipment.

Let me explain -

1. Gee
2. H2S
3. A.P.I.

1. Gee - Grid System Radar. One Master Station and two slave stations to each chain. Three chains were based in England and a further two were established on the Continent after the invasion and as the invasion pushed towards Berlin. The Gee system based in England was most effective for the bomber force navigators to get accurate fixes during the early stages of the operation and establish enough data on prevailing winds to allow navigators to compare these with Met winds and then establish the possible wind changes along the entire route.

The main problem with Gee was enemy jamming and distortion of readings once the enemy coast was reached. Never-the-less, Gee was excellent equipment for homing back to base when, more often than not, 10/10 cloud existed down to 100 feet.

2. H2S - The discovery of Magnetron (centimetre wavelength transmission) and development of entirely airborne H2S equipment was initially diverted from Bomber Command to Coastal Command to help in the detection of submarines in the Battle of the Atlantic. The picture tube was suited only to picking out coastline contrast and small objects on the sea surface.

Finally, in 1944, Mark 2 H2S was made available in small numbers to Pathfinder Force and Windfinder Force and was much more sophisticated and suitable. The H2S system made it possible under blind conditions to detect and identify built-up areas and natural features and accurately calculate by bearing and distance the true position of the aircraft.

The security of the H2S system was treated very seriously - all the training was done in the classroom locked and barred. Discussion was not permitted outside the unit. The navigator's first responsibility if the aircraft had to be landed or the crew had to bail out over enemy territory was to PRESS DESTRUCT BUTTON.

In the early years of Bomber Command, they were aware of the vulnerability of Halifaxes, Stirlings and Lancasters to fighter attacks from below. Coupled with the H2S equipment was a device called 'Fish Pond' which enabled the Wireless Operator to scan the whole area below up to a radius equal to the altitude we were flying.

3. A.P.I. - Air Position Indicator. As the name of the equipment implies, it enabled the navigator to establish a true air position at the same time as establishing the true ground position of the aircraft using either Gee or H2S. This combination made accurate navigation possible and we were most

fortunate to be so well equipped. For the crews who relied on Dead-reckoning navigation the Air Position Indicator was indeed a wonderful invention.

Master bombing had its difficulties also as the enemy was very skilful at setting decoy flares away from the important installations. Cloud over the target area was also encountered on several occasions. Reflections caused by the Master bomber flares under the cloud gave a false impression of the true target position. The H2S equipment we had enabled us to carry out blind bombing over 10/10 cloud without Master bomber assistance.

The technological advance in navigational equipment from Astro Navigation at Nhill in Avro Ansons in 1942 to sophisticated equipment in our Halifax in mid 1944 was nothing short of amazing.

4. Our Tour of Operations in Bomber Command

After three days familiarisation with Mark III Halifax and Squadron environment we were off on our first operation on 30th April 1944. Our first four-night ops concentrated on crippling road and rail centres between France and Germany. The last week in May found us being briefed by Royal Navy experts and flying "gardening" operations - i.e., dropping mines - designed to tie up the remainder of the German navy. Heligoland was so quiet that a couple of our crew commented the next night, "Not another- quiet night". That trip was to St. Nazaire and proved to be a more than lively Ack Ack reception. After that, there were never any comments about quiet nights.

I recall the briefing by the Naval Officer on 26th May when Brest was the target. The importance of the exercise was such that a possible Court Martial was likely if these special mines were not dropped in the right place. These mines were so big that the bomb bay doors barely half closed. The Royal Navy wanted to sink the third ship in the convoy leaving Brest Harbour. The fusing was so arranged as to allow the first two ships past before striking the third. We heard a few days later that the operation was entirely successful - no Court Martial and a further indication of the inter-service planning and working together which existed.

All leave was cancelled as June 1944 commenced. The weather across Southern England was foul on 4th and 5th but the Met. boys were hopeful of improvement and, on 6th of June 1944, Operation Overlord began. D-Day was a very long day I will never forget. We bombed coastal batteries protecting the proposed eastern end of the Allied landings at dawn. The sight of naval activity across the channel was unbelievable. I doubt if there has ever been such a concentration of shipping of all descriptions, landing craft etc. From 6000 feet it appeared that one could almost walk from one ship to the next.

Early evening, we were again preparing to bomb marshalling yards South of Paris. This meant circumnavigating well west of the beachhead on the way in and keeping well clear east on the way home. The intense activity along the whole beachhead could be clearly seen. The Squadron was pleased to receive a commendation a few days later with the news that the coastal batteries bombed in the morning did not fire one shot.

On 12th June, whilst crossing the English Channel - returning from a night Op on Amiens - our Rear Gunner reported an orange glow well below us but travelling in the same direction as the returning bomber force. This was reported to Squadron Intelligence and proved to be the beginning of the V.1 Buzz Bomb attacks mainly on London.

Reconnaissance had noted intense activity in the forest areas near Calais for some time; when permanent sites were found and bombed the Germans improvised portable prefabricated ramps which were, of course, harder to find. The threat was taken very seriously and the diversion of aircraft to these targets was immense. In a one week period late in June 1944, 6000 heavy bombers and 2000 medium bombers were diverted from attacking German industry or tactical co-operation near the battlefield. This had the effect of extending the period of the war considerably - 8,246 V.1's killed, 6,139 civilians and seriously wounded 17,239 civilians.

By 19th June we had completed eighteen night operations and then had our first taste of daylight and we didn't like it at all. Our next four Ops were almost low-level missions in support of the ground forces, which were having great difficulties. Dropping the stick of 16 x 500 lb., Anti-Personnel bombs and distinctly feeling 16 reflected shock waves below the aircraft is not a pleasant experience.

Innovation, deception and surprise were part of every operation - anything up to four dog legs between take off and target with height plan different in each leg.

Part of the deception was to disrupt the enemy radar detection systems by dropping metallised strips from bomber aircraft - this was code named *WINDOW*. These strips of foil were made up in bundles which were, despatched down a chute by the Wireless Operator according to a definite time and sequence plan.

When each bundle hit the slip stream, it broke up and unfurled about 50 or so lengths of strip metal foil, each of which would show up on the enemy's radar as another "bomber" as they fell away under our aircraft.

It was always very re-assuring to know that in the S.E. corner of England, N.E. of London and just North of the Thames Estuary there was an emergency 'drome to receive damaged aircraft or those running out of petrol. One long runway a full three times the width of any normal strip - really three separate strips - one standard surface, one soft surface like hot mix which didn't set hard for belly landings. The other equipped with FIDO - a fog dispersing device comprising huge ground flares running either side of the strip which consumed thousands of gallons of fuel per hour which were lit simultaneously to disperse fog which at times got down to 50 ft visibility. We used this facility at Carnaby once while on Ops and twice while I was instructing.

I guess it was also re-assuring to the members of many Bomber crews to know that, if the navigator lost his way, a special frequency called "Darkie" was available on the radio. "Darkie" would provide enough information for the pilot to reach the nearest suitable airfield.

By the end of July 1944, the V.1's or Buzz Bombs being launched from ramps in the Foret du Neppes area were the cause of great concern to the civilian population around London. These sites were really pasted.

Over a period of one week we did five Ops against these launching sites.

Industrial targets in the Ruhr and Stuttgart were on the list. The V.2 supersonic rocket attack took over when the V.1's ceased and presented a most difficult target. The launching sites were underground and well camouflaged thus calling for unusual tactics. Mosquito photographic reconnaissance aircraft firstly identified the troublesome sites. Being relatively close to Southern England Mosquitoes using the latest land-based equipment could be directed to mark these spots with uncanny accuracy. This was all very well but can you imagine three pairs of Halifaxes flying in close formation behind a Mosquito throttled back to our maximum air speed and our Bomb-aimer bombing the ground markers? On the first Op using this technique we were the second pair of Halifaxes and to see one of the first pair blown out of the sky by Ack Ack was not good. -On the next two trips we were lead aircraft and I am thankful to say that we made it.

The first V.2 supersonic rockets were used against London on 8th September 1944 - the huge crater-type explosions were reported as gas explosions but two months later the public was told the truth. Overall, 1115 V.2's were released against London, killing 2,855 civilians and seriously injuring 6,268.

Parallel to these attacks, 1700 V.2s were fired against Continental targets. Guided weapons, despite their great potential, had failed to achieve any notable military success.

Despite the unnerving qualities of these weapons they had far less military effect than the German aerial bombardment during the winter of 1940-41.

Returning to night Ops was more comfortable, we thought, and we flew our 39th and final operation on 6th October 1944. In all, we completed twenty three night Ops and 16 daylight.

The conduct of the Bomber Command air offensive would not have been possible without the excellent performance of the ground crews. They were key personnel in the overall effort that was evident throughout the service but reached its peak in operational squadrons.

On every operation these skilled people were there to show their support at Take Off and, irrespective of the hour of our return were there, ever eager to get first-hand reports of the performance of the aircraft and its associated specialist equipment. They would take great pride in restoring our aircraft ready for the next trip.

Another aspect which is still very clear in my mind is the unswerving solidarity of the English people in spite of the hammering they received and their devotion to the war effort. Their hospitality through the Lady Ryder Scheme was really appreciated by thousands of R.A.A.F. Aircrew. The opportunity to live as one of the family in stately English country homes whilst on leave was hospitality at its best.

After a welcome period of leave, I was posted back to 1652 Heavy Conversion Unit at Marston Moor as an Air Navigation Instructor specialising on the H2S equipment we had used. It was at Marston Moor I was advised that the King had graciously awarded me the D.F.C. My Pilot and Bomb-aimer received the same award.

Whilst most of the H2S instruction was in the classroom and on simulators, it was my task to fly with crews under training on their long cross-country flights prior to being posted to squadrons. Over a period of seven months, I endured many hair-raising experiences ironing out the weaknesses which became apparent in the air, to say nothing of hairy take-offs and landings. Fortunately, Victory in Europe was achieved at this stage and we returned to Australia via the Panama Canal in July 1945 and were on our disembarkation leave when victory over Japan occurred.

Post war, Australian Air Crew who had served with the R.A.F. over Europe became known as the "Odd Bods". The Odd Bods U.K. Association has been a very valuable link for the relatively few who returned.

Just three years ago, during a visit from Western Australia by our Rear Gunner and his wife, the Victorian Pilot, Bomb-aimer, Wireless Operator and myself, together with our respective wives, were able to attend an Odd Bods Ladies Night. The original five of the crew who had shared so much together and, believe it or not, still married to their original wives! A pretty good record in this day and age!

You can now appreciate why I reacted so strongly to the action of the protestor at the unveiling of the Memorial to Bomber Harris, Marshall of the Royal Air Force.

I thank you for listening to my rambling reflections.