

Royal Australian Air Force



Pilot/ Flight Engineers

1945 Trained at RAF ST ATHAN
(South Wales U.K.)



by

Leslie R. Jubbs

Electronic Version of this book.

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Leslie R. Jubbs



This Lancaster is one of the many historical aircraft housed in the Royal Australian Air Force Association **Aviation Heritage Museum** located in RAAF Memorial Estate, Bullcreek, Western Australia. Currently many new historical aircraft surround this aircraft, one of only two in Australia.

Permission to publish this photograph was provided by the Curator, Mr Al Clarke.

Foreword

It was only in recent months that I really had an inkling of the part taken by the then young Australian Pilots, who arrived in England during 1944, and through many frustrating and disappointing months waiting to continue Pilot training with the Royal Air Force, finally volunteered to under go a **Flight Engineer Course at RAF Base St Athan** in South Wales.

Through a close friend, Mr Bill Connolly, (did I first learn about this training) a former RAAF Pilot, who completed the Flight Engineer Course in 1945 and went on to join a Lancaster Crew just as the war in Europe ended. He was involved in flying into Europe to bring back Prisoners of War to England. These Australian Crews continued on training although the war in Europe had ceased..

Bill Connolly had briefly told me about this period in his RAAF career and showed me an exercise book containing excellent notes and diagrams made during his time on Course at RAF St Athans. Those notes have been misplaced along with his records.

Because of the recent death of Mr Bill Connolly I decided it was necessary to assemble as much information as possible from some of those ex RAAF Pilots, with whom I could contact. This small book is to acknowledge in small way the very important contribution to the war effort by these ex RAAF Pilots. On many occasion these men gave up trying to explain to “doubting Thomas” that Pilot /Flight Engineers did actually join RAAF Combat Squadrons in England during WW2. Ultimately all these Australian Crews, known as **“Tiger Force”** would have flown Lancasters or the newly built Avro Lincoln Bombers (enlarged version of the famous Lancaster 4 engine bomber) out to the Pacific to carry on the war against the Japanese.

The dropping the of the Atom Bombs and the surrender of the Japanese Forces brought about the end of WW2 in the Pacific and the disbandment of Tiger Force.

I therefore dedicate this small book to the **Memory of ex Warrant Officer Bill Connolly.**



Warrant Officer Bill Connolly

Acknowledgments

To all those ex RAAF Pilot/Flight Engineers, who provided their recollections from 1944-45 era during WW2, and for their photographs and Log Book details.

Mr Neville Bell, who forwarded from England, a copy of the B/W Flight Engineer's Instrument Panel.

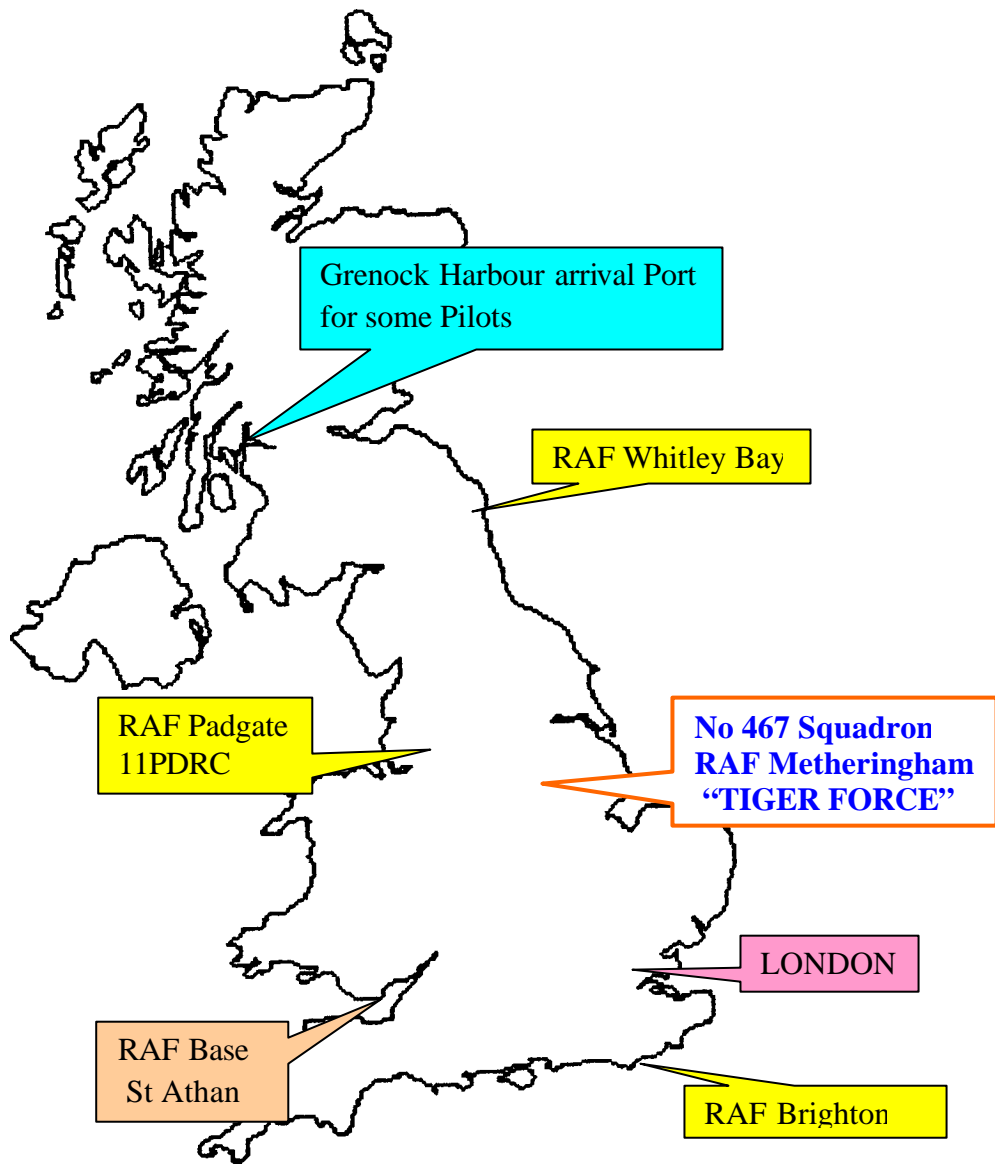
Ms Yvonne Oliver, of the Imperial War Museum Photograph Archive, who gave permission to use the eight photographs showing RAF Flight Engineer Cadets under going training at RAF St Athan in 1944.

Mr Warwick Hughes, who provided a great many photographs and historical details.

Mr Al Clarke, Curator of the RAAF Association Heritage Air Craft Museum, Bullcreek, Western Australia for permission to photograph the Museum's Lancaster.

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**RAAF Pilot/Flight Engineers
1944-45**

RAAF Pilot/Flight Engineers

by
Leslie R. Jubbs

No, this heading is NOT an error, for it is correct, because during WW2 in England, young, newly Graduated Pilots from Australia arrived in the United Kingdom where there was already a great over supply of Air Crews. Because of many, many months of frustration, filling in time, being moved from one RAF Base to another practically month by month, volunteered to retrain as Flight Engineers and joined Squadron Crews at Heavy Conversion Units or Squadrons and went on to a Squadron flying Lancasters.

United Kingdom in 1944

Perhaps it would be advisable to now look back as to what contributed to this massive over supply of Air Crews in the United Kingdom. Now on reflection, it probably started the day No 41 Course of trainee pilots arrived at No 4 Service Flying Training School, GERALDTON, Western Australia, during October 1943. An over enthusiastic Sergeant Drill Instructor greeted this group of 50 enthusiastic, would be pilots, straight from graduating from Tiger Moth Elementary Flying School with some 60+ flying hours in their official Pilot Log Books, by ordering us to form up in one line. He then consulted a Clip Board and proceeded to call out 25 + names then ordered those so named to take a step forward.

Being accustomed to being bellowed and ordered at, the Group wondered innocently as to what was in store for them. A moment later the whole group was un-sympathically informed that the front row (those who had stepped forward) would henceforth be known as No 41 Course. This was hardly enlightening for they had been known as that for months but in the next breath informed all the others that they would be known as No. 42 Course. The immediate reaction was “so what!” but then came the bombshell, “and you will NOT be commencing flying for another four weeks!”

The stunned silence was then broken by all being allocated separate accommodation huts and to take up residence.

This I gather happened all over Australia at the RAAF Training Bases but no explanation was given but to the No. 41 Course, but great exhilaration and relief, but to the No. 42 Course only stunned disbelief for they would endure another four weeks of filling in time with mundane tasks like filling in rabbit holes all around the airfield.

In far away England the great **Prime Minister Winston Churchill's** relentless eye for detail noticed in July 1943 that Fighter Command had on strength 945 more Pilots than it had aircraft. He immediately began to probe further and demanded to see what another Command position was. Bomber Command had some 338 complete Crews he was informed.

During December 1943 the RAF decided to close eight of its Training Centres.

By that time 670 Australian Air Crews were arriving in the United Kingdom **every four weeks.**

By June 1944 Australia was advised that no more Air Crews were required in England yet many Air crews were already on their way to the United Kingdom aboard ships and some due to land in Scotland at that time. This then was the state of affairs causing the great over supply of newly Graduated Air Crews.

(These details were found in John Mc Carthy's book, "A last call of EMPIRE" Published in 1988)

What now?

On arrival in Scotland mid June 1944 Pilots were posted to RAF Base Padgate, No.11 Personnel Disembarkation Reception Centre in Lancashire where, soon after settling in, the Base Commanding Officer addressed everyone announcing that they would not be required for a month. The immediate response was great disappointed for it had taken nearly two months since departing Australia to arrive in England. Every one was highly motivated to move onto the next step towards a Squadron.

How naive everyone was for the reality of an over supply of Pilots would not be evident until some time later.

The RAF Padre then welcomed everyone then suggested to come and see him if they should ever be given leave for he could assist selecting where to go as guests of a great many people throughout the United Kingdom. This very large group of people belonged to the Lady Frances Ryder Scheme. This Lady had set up this organisation during WW1 to provide accommodation for COLONIALS Servicemen. There would be occasions when Australians would be referred to as colonials but situations often dictated their response.

Sure enough leave was granted to everyone then individuals or groups set about deciding what to do while others decided to try the Padre as a first option. So successful was this decision that many Aussies would often take an advantage of this wonderful organisation while some would return to a Host Family on more than one occasion. With occasional Australian Comforts Parcel containing tins of fruit etc was a wonderful gift to carry to the Host Family as a small token for their generosity.

On their return from this first leave came a ready description as to how everyone spent their nine days. Some had visited relations, others to London and other regions while those, who had utilized the Lady Frances Ryder's hosts were delighted with their reception and experience vowing to use this method in future.

There was a stirring of malcontent among these young eager Pilots, which was temporarily stifled when many were sent on a Commando Course to Whitely Bay. There it was mentioned that there was every possibility they would be sent to far away Burma and this training was essential for survival in that tropical environment.

Once again they returned to Padgate then on to Brighton Reception Centre for Australian Air Force Personnel, located in two famous hotels: "GRAND" and METROPOLE" on the south coast of England. There every day they could witness very large flights of USA Flying Fortresses departing for Europe at great heights but only evidenced by the long vapor trails showing their presence. Hours later many of these aircraft would come staggering back across the coast at low altitude where silent engines were plainly evident indicating badly damaged aircraft.

Some reality of the war in the air was there for RAAF Air Crews to come to grips with, but no such evidence was to be seen regarding the Royal Air Force Armadas that set forth on night bombing missions. Enormous losses were suffered every night on these missions yet details were not available to the public. Any reports, either by radio, newspapers, or Cinema newsreels were greatly censored and only positives promulgated.

In Brighton daily Postings to Royal Air Force Stations would be announced and these young Pilots would then discover they would often arrive at the RAF Base on their own or there meet up with another Pilot, who was completely unknown to them. One of the first Posting was often to an Elementary Flying Training School to once again fly Tiger Moths. Immediate response was disappointment but being brought up to the reality of flying from an airfield close to London where, once you took off and viewed the countryside with its enormous range of topical details was mind-boggling. The wide expanse of Australian landscape was in marked contrast to what was now beheld. Multi railway tracks running in all directions, multitude of roads, towns, villages and fields of green was before them in a confusing abundance.

Map reading was paramount if a Pilot wasn't to become easily lost so it was clearly evident to become very familiar with the immediate area around the EFTS. Venturing away was for another day and that was usually on short excursions to nearby villages or towns. This in reality was a great introduction to what flying in the British Isles could be really like especially in these hugely built up areas near London.

These Pilots would not remain long on the first RAF Base for they would then occasionally return for a short period to Brighton from where they would again be sent to another RAF Station but usually with another Pilot or Group. They would be constantly be moved but always with others but not with Pilots they had trained with. It seemed a policy of some remote, Posting Officer or Posting Clerk to keep these Pilots forever on the move and never to allow them to congregate as a group for other than a short period.

This was the environment that these young men found themselves and a certain amount of concern crept into their minds as to what purpose had they come 12,000 miles. Some would find them selves on Operational Squadrons acting in an Air Traffic Control capacity, but often in a minor role. This situation often drifted on for many months so some would seek out how best they could be better employed while other happened to be in the right place at the right time to hear about other capacities they could volunteer such as Glider Pilots or Flight Engineer.

The following article appeared in the Air Crew Association Magazine published in the Spring Edition, 1993. It had then been acknowledged through the permission of SQNLDR Phil Coulson, Editor of "Air Engineer" (The Journal of Air Engineer Branch) The Author has been unable to locate Eric Mayall for permission to use his Report.

TRAINING FLIGHT ENGINEERS

by
Eric Mayall
1993

Origins

The formal establishment of the aircrew category of flight engineer within the Royal Air Force was enshrined in Air Ministry Order A/190/41, dated 20 March 1941. This covered the 'provision of Flight Engineers for certain types of heavy bomber and flying boat aircraft'.

Originally, 'Flight Engineers' in the RAF can be traced back to the pre-World War 2 practice of flying boat squadrons of employing engine fitters and flight mechanics from their ground crew complements to assist in monitoring engine performance during (comparatively) long-distance flights and, if necessary, to carry out engine repairs in the case of failure or shut-down.

It should be recalled that in the inter-war years, the range and duration of most aircraft was very short compared with modern standards and it was only the larger flying boats of the RAF's Coastal Area and overseas squadrons that were able to carry out long-distance flying. Many of these flights were made into areas far removed from RAF bases, so that some provision for technical assistance had to be made for pilots and observers, who comprised the aircrew of that period. In addition, the aircraft engines of the time were far from reliable.

There was one further aircrew category in the inter-war years, one, which originated in World War 1. the Air Gunner.

During that conflict, as soon as flying became an established aspect of war and guns were carried by aircraft for both defensive and offensive purposes, the practice of using Ground crew in the Royal Flying Corps as airborne gunners became widespread. No formal status was given to the volunteers, who undertook these duties and they received no promotion or other enhancement.

Even before the outbreak of World War 1 there were pilots, and the well, known "Pair of Wings" badge was formalised as their insignia in February 1913. The war was only one year old when Observers were recognised with the award of a "Half-wing" with the letter 'O' at its lower end. This latter badge became the pattern for all other categories of Air Crew in due course.

The Air Gunner was eventually recognised, in turn, but not until 1923. At that time arm badges were authorised for both "Aerial Gunners" and Physical Training Instructors! The Gunners arm badge was a winged bullet. Gunnery training, still for Ground Crew volunteers, was carried out at squadron level, and on passing out, an extra 3d per day was granted, plus 6d per day for each day spent on airborne operations. This state of affairs, whereby all gunners were in effect "part-time", endured until 1939.

The event, which triggered off the requirements for additional air-crew categories was the decision to build heavy bombers in the mid-1930s. The first of the relevant specifications was B12/36 for the Short Stirling. This was followed almost immediately by P13/36, the specification, which, initially produced the twin-engined progenitor of the Handley-Page Halifax and Avro Manchester. These two types were unsuccessful in them selves, but were developed into the four engined Halifax and Lancaster respectively.

Obviously, these comparatively huge aircraft would require far more crew than the “heavy” bombers of the 1930s (mainly biplanes) and more than the generation of bombers that were coming into service around this time, such as the Handley Page Hampden, Armstrong-Whitworth Whitley and Vickers Wellington, collectively known as ‘medium’ bombers.

The immediate call was for more Air Gunners and, in January 1939, the concept of “part-time” Air Gunners was abandoned. At the same time, the requirements of radio communications were recognised and the commitment for air gunnery training was passed to the wireless trades, leading to the establishment of a “Wireless Operator/Air Gunner” aircrew category.

A year later the initial meeting to discuss a further aircrew category was held at the Air Ministry. In the introductory remarks, the concept of **Flight Engineering** was expressed as follows: It is also desirable, with a view to obtaining the best possible performance from engines, to have someone watch the engine instruments

It is proposed that this duty should be undertaken by an additional member of the crew, who would receive special training in the running of engines. Additional duties for Flight Engineers were also discussed and it was envisaged that they would also be trained as Air Gunners. Although the introduction of the new heavy bombers was a high priority in 1940, the German offensive in

Europe which led to the fall of France and the evacuation of Dunkirk all influenced the pace of expansion of commands other than Fighter Command where top priority had, perforce, to be given.

It was not until March 1941 that the formal establishment of the Flight Engineer was enshrine in the Air Ministry order A190/41. Even then the position was not entirely clarified. As early as December 1940 the question of a distinctive flying badge for Flight Engineers was raised within the Air Ministry. This would have been a simple modification of the single wing Air Gunner badge, which was, in turn, based on the Observer's badge. Flight Engineers were to undergo a three week gunnery course as part of their training in order that they might take over a turret or gun if an Air Gunner were to be killed or wounded. **It was decided, therefore; that the Air Gunners badge would be adopted for Flight Engineers.** This decision is difficult to understand, and it probably reflected entrenched opposition within Air Ministry to a breach of the ‘Pilot/Observer’ basic aircrew structure, with any other aircrew members regarded as part-time and auxiliary.

This outmoted concept could not possibly be allowed to continue and the whole Air Crew structure within the RAF was changed by Air Ministry order A746/42. While naturally retaining the Pilot category, the Observer role was dropped.

The following categories of aircrew were then established:

1) Navigator - with sub-categories of Navigator (B) (Bombing); Navigator (BW (Bombing Wireless); Navigator

(4) Air Gunner - with sub-categories of Air Gunner (Wireless Operator Mech) Air Gunner (Flight Mechanic)

(W) (Wireless); Navigator (Radio).

(2) Air Bomber (*see Note One).

(3) Wireless Operator (Air Gunner).

(Primarily for Coastal Command
(Operations).

(5) Flight Engineer.

This reflects the concurrent decision to do away with a two-pilot arrangement for heavy bombers. This was regarded by that time as being wasteful with heavy aircrew fatalities, the loss of two pilots was thought to be unacceptable. In smaller aircraft like the Wellington the Air Bomber became a second Pilot/Pilot's Mate and in larger aircraft the Flight Engineer would perform this function.

Distinctive badges for the new categories of aircrew were introduced in the latter part of 1942.

Flight Engineer

Duties and Training

With the formal establishment of the Flight Engineer as a separate aircrew category it required a clear definition of both responsibilities and the training required to perform them. These were enshrined in Air Ministry order A978/42 dated 15 August 1942 and were as follows:

Duties and Responsibilities

1. To operate certain controls at the Engineers station and watch appropriate gauges as indicated in the relevant Air Publications.
2. To act as Pilot's Assistant (as required of Air Bombers - see above).
3. To advise the captain of the aircraft as to the functioning of the engines and repairs during flight. the fuel, oil and cooling systems.
4. To ensure effective liaison between the Captain of the aircraft and the maintenance staff, by communicating to the latter such technical notes regarding the performance and maintenance of the aircraft in flight as may be required.
5. To carry out practical emergency repairs during flight.
6. To act as stand-by Gunner.

Training

It should be borne in mind that initially all Flight Engineers would be drawn from Fitters and Flight Mechanics. This concept was soon abandoned and direct entrants accepted.

Selected candidates will be required to undergo the following training:

- | | |
|--|--|
| <ol style="list-style-type: none"> 1) The Junior NCO course, if appropriate. 2) A course of approximately five weeks at an Initial Training Centre. 3) A three-week course of Air Gunnery training. | <ol style="list-style-type: none"> (4) A course of technical instruction, which may include a course at the manufacturer's works. For Fitters (Air-frame), additional instruction in engines would be provided. |
|--|--|

Broadly speaking, both Fitters and Mechanics were divided into Engine and Airframe categories with the Fitter having the superior trade status to the Mechanic. For the latter, an additional course would be taken to convert this status to Fitter. This Air Ministry order also covered the question of Rank and Commissioning. To ensure that all aircrew received reasonable treatment from the enemy

should they fall into their hands as prisoners-of-war, a minimum aircrew rank of Sergeant had been established.

A single commissioned post on each squadron or operational training unit would be established for an officer of the rank of Flight Lieutenant or below.

4) To ensure effective liaison between the captain of the aircraft and the maintenance staff, by communicating to the latter such technical notes regarding the performance and maintenance of the aircraft in flight, as may be required.

Technical Training, RAF St Athan

A contract for the construction of an RAF Station at St Athan in Glamorgan, Wales, was signed in 1937 and work commenced immediately. The first party of airmen arrived at the camp on 1 September 1938: The initial unit to be based there was No. 4 School of Technical Training (SoTT) which was tasked with the training of Flight Mechanics and Riggers as well as Drivers.

The initial trainees had come from No. 2 (Training) Wing at RAF Henlow from whence came a quantity of Ground Instructional Airframes including Harts/ Furies, Fairy IIIFs and Gordons, Avro 504Ks and some Blenheim Is. There was also a flight of 4 Miles Magisters for air experience. The station was mobilised for war on 2 September 1939.

Other tenants of St Athan were Nos. 19 and 32 Maintenance Units, both of which were established during 1939.

In June 1942 St Athan was chosen as the location for the training of Flight Engineers, and No SoTT as a Training establishment. This made sense in that the training of Engine Fitters and Mechanics had been underway for 3 years or more, but Flight Engineers then became the cuckoo in the nest and displaced both Fitters and Mechanics by September 1942. It must be remembered, however, that there were already many Flight Engineers in operational flying duties with the Royal Air Force.

The Short Stirling entered service in August 1940 with No. 7 Squadron and by February 1941 the squadron's operational record book mentioned some Leading Aircraftmen (LAC's) on crew lists as 'Engineers/A.G.'. These were former Fitters who had been given training at Airframe/Engine Manufacturers on the type of aircraft/engine combination on which they were to serve.

For some time the training of Flight Engineers at St Athan was confined to former Fitters/Mechanics, but **direct entrants were soon accepted**. This partly reflected the vast numbers required due to the continuing expansion of the Royal Air Force, but also the need to retain experienced Ground Crew, so that not too many of the latter were lost to flying duties.

The first course at St Athan commenced on 30 May, 1942, and comprised 60 trainees following a syllabus which had only been drawn up in April. The initial 2 courses were of 3 weeks duration, the following 2 of 4 and 5 weeks duration and the fifth and subsequent courses took 6 weeks - the planned length. The number of personnel planned for each course was 100, but did fluctuate from time to time. Some delays occurred in the Complementary Gunner School Courses, but this requirement was dropped in around mid-1943 and progress improved thereafter.

On arrival at St Athan, the current requirements for individual aircraft types were assessed and the course was split accordingly, with training following on that specific type alone although some general tuition was also given.

Air Ministry Order A707/42 dated 16 July 1942 allowed direct entrants to be trained as Flight Engineers. Obviously, additional training would be required for those entrants and so a longer course of 24 weeks was established in 1943 when the full impact of Direct Entrant Recruitment was felt. This led at times to an output of over 500 men in one week and a total population at No. 4 SoTT of over 5,000! This level of output was principally aimed at replacing the very heavy aircrew losses of Bomber Command, with Coastal Command requiring comparatively smaller numbers.

From March 1943 onwards a new customer was Transport Command, formed on the 25th of that month.

In addition, as the course of the war raged on, the Second Front for invasion of Europe drew closer and it was anticipated that aircrew losses would increase dramatically in the months both before and after that momentous event.

Early in 1944 St Athan could not cope with the sheer volume of training required and the Engineers' course was split into two, with the first 10 weeks being given to No. 5 SoTT at RAF Locking, and the remainder of St Athan. The first course at Locking commenced on 17 February 1942 and the last finished in the winter of 1944/5 - possibly as early as November 1944. '

By this time it was realised that D-Day losses were much less than had been feared. Another element in the reduction of Flight Engineer Training requirements was the 1944 decision of the Royal Canadian Air Force to train its own Flight Engineers.

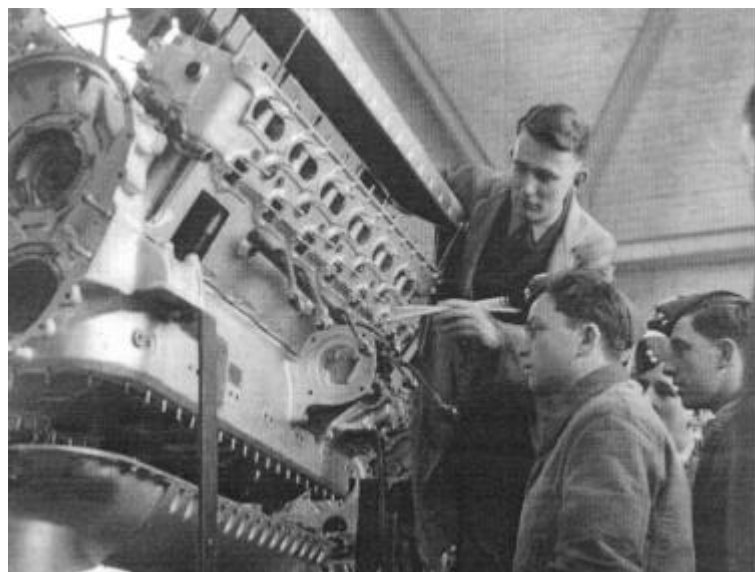
As the war moved to its close in the early months of 1945, the numbers at St Athan dwindled to almost zero but training did not entirely cease with the end of the war. By then, over 25,000 Flight Engineers had graduated from the School and the Station and these had seen active duty on every front.

The **Imperial War Museum Photograph Archive** have provided the following photographs, that were taken during 1944 and depict the areas used to training Royal Air Force Flight Engineers at RAF ST. ATHAN. These same facilities applied to the RAAF Pilots, who commenced their Flight Engineer Course during 1945.



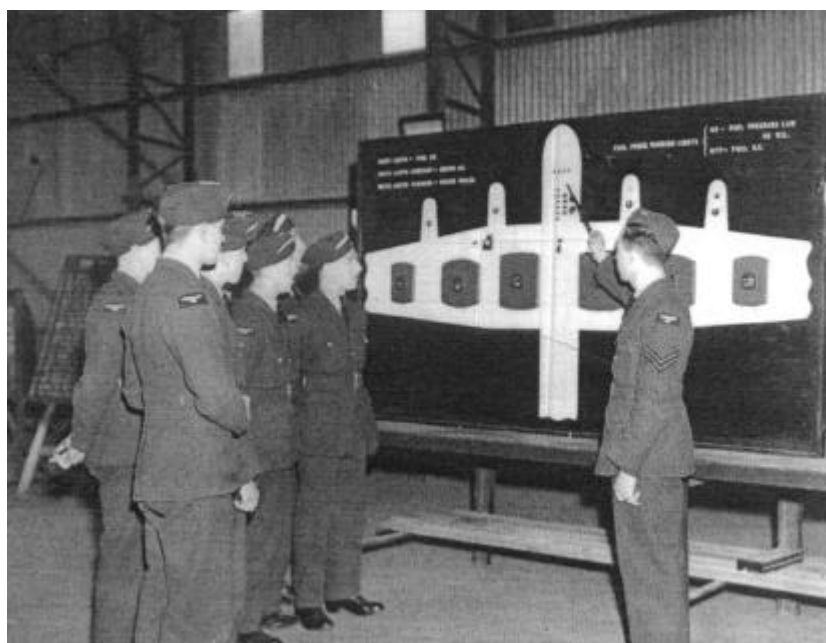
Intensive training for these RAF Direct Entry Flight Engineer Trainees was done in small groups by experienced Ground instructors. Perhaps all RAF Ground Staff were trained at St Athan long before four engine bombers were brought into the Service. Theory played an important role but the emphasis was on practical application in every facet. CH.12466

A thorough knowledge of engines was essential for every Flight Engineer as it was a high priority in the syllabus. Many engine components had to be assembled, while blind folded as part of this intensive training.
CH. 12466





Air frames and Instruments formed an important part of the course and this Group was here being introduced to “GEORGE” the important automatic pilot that the Skipper could, at his decision, to utilize.CH.12472



One of the very important responsibilities of the Flight Engineer was a complete mastery of the fuel system. In a number of emergency situations could divert fuel, when, through enemy action, engines or tanks had sustained damage. They also had the responsibility, through a set of instruments under their control, monitor and record all fuel being used.CH.12473



The first time the Trainee entered the cockpit of a Lancaster and was introduced to the array of instruments and the duty of assisting the Pilot, under his direction, the many ways he could expect to assist during take off and landing and shutting down engines

CH12468.



Although it is evident the aircraft is still on the ground this simulator can provide all the realism of an actual flight. The Flight Engineer is at his control panel where he is monitoring engine performance and recording it in a special Flight Log. To add to the realism in this “simulator” he is wearing full flying gear, including oxygen mask and parachute harness.

CH. 12469



Throughout the lecture areas and hangers there were a multitude of charts, models, displays as well as details on this “gen” board where Cadets were expected to study the extra information. CH. 12470



All RAF Courses invariably ended in assessment of each Cadet and their suitability to join a Crew. The “Examination Board” was conducted on a one to one basis, and, in conjunction with written examinations results determined whether the Cadet took part in a “Wings Parade” and received the coveted Flight Engineer Wing. CH. 12471



Flight Engineer Trainee, RAAF Pilot, Flight Sergeant Malcolm King

On 16 June 1944 I arrived at 11 PDRC Padgate (near Warrington) and my memories there are of five weeks of summer twilight and the first sight of bombing damage in Manchester.

On 22 of July 1944 I was posted to Whitley Bay (near Newcastle). The Course there was intended as a toughening-up exercise with much simulation of living rough. There was route marching and a range of survival exercises meant, I was led to believe to prepare us for action in another theatre of war.

22 .8.44 I arrived in Brighton. This was to be the first of five postings to this resort. However the environment of this city militated against anything more than use as a holding operation between postings. As I remember, there was some perfunctory instruction in such things as aircraft and ship recognition.

29.8.44 RAF Base Fair Oaks (near London). This was the first English flying experience was delightful as not only was there valuable experience in map reading and flying in conditions vastly different to those in Australia; but the area was so rich in history. Within a wide circuit area could be seen such places as Sandhurst, Aldershot, Windsor castle, Henly, Twickenham and of course outer London.

There was prototype jet fighter (strictly out of bounds) on the Base.

3.11. 44 No 3 EFTS Shellingford (Berks). Here there were more flying experience in Tiger Moths. This time Canadian Navigators did the map reading occupying the front cockpit. At nearby RAF Swindon there was training provided in parachute landing technique.

9.1 45 No.18 PAFU Snitterfield (near Stratford-on Avon). This was less pleasant.. Here for me in mid winter was no flying- dual of passenger, as the aim was to learn basic flying-control operations. Unfortunately the instruction lacked structure with only casual supervision. Perhaps there was a feeling that this was only time filling at best.

This brings me to Brighton and the first intimation of the creation of a new flying category.

FLTSGT Mal King

The rationale for the creation of the Pilot/Flight Engineer Category could be summarized as:

“D” Day and post “D” Day losses were fewer than expected so this meant large numbers of EATS Pilots (Empire Air Training Scheme) and Navigators in the United Kingdom were difficult to cater for in the productive sense.

The three so called Lancaster Squadrons were crewed by Australians except for the RAF Flight Engineers so that:

- a. It would be a staffing problem to have the RAF Member volunteer for further duties in another theatre and:
- b. Then inclusion of RAAF Pilot/Flight Engineer would validate the boast of all Australian Crews and Squadrons.

The end of the European war was imminent, which meant that there would have to be a re-organisation of crews and squadrons for Pacific deployment.

At the time it was felt by some RAAF Pilots waiting in holding units such as Brighton or at Elementary Flying Training Schools or in other time filling experiences, that in volunteering for the Flight Engineer Training programme the opportunity was there at last, to join a Squadron. However the offer of conversion to Pilot/Engineer did not appeal to everyone some feared failure in the course and subsequent loss of Wings!

I was at Brighton at the time and the opportunity or publicity for this change of Service Career was given by word of mouth and did not seem to be promoted by the Administration in any way. I suppose there were orders posted somewhere but my first knowledge of it was all casually gleaned.

RAF St Athan

Arrived on this RAF Base on 21 January 1945 and left on 21 June 1945.

RAF St Athan (at the time the largest station in the United Kingdom is near Bridgend in South Wales.

Together with the RAAF Pilots on Course (about 30 or 40 I think) there were also some New Zealanders so I assume all N.Z. Crews were being formed. There were Canadians all over the place but it was hard to make out their purpose at the Unit; they seemed to spend an inordinate amount of time throwing an American football to one another.

There was provision at St Athan for leisure: basketball was popular as was swimming. This swimming complex eventually was used for the 1948 Olympic Games water events.



RAF St Athans was rumored to be the largest Base in the United Kingdom. Thousands of Ground Staff received their training there.

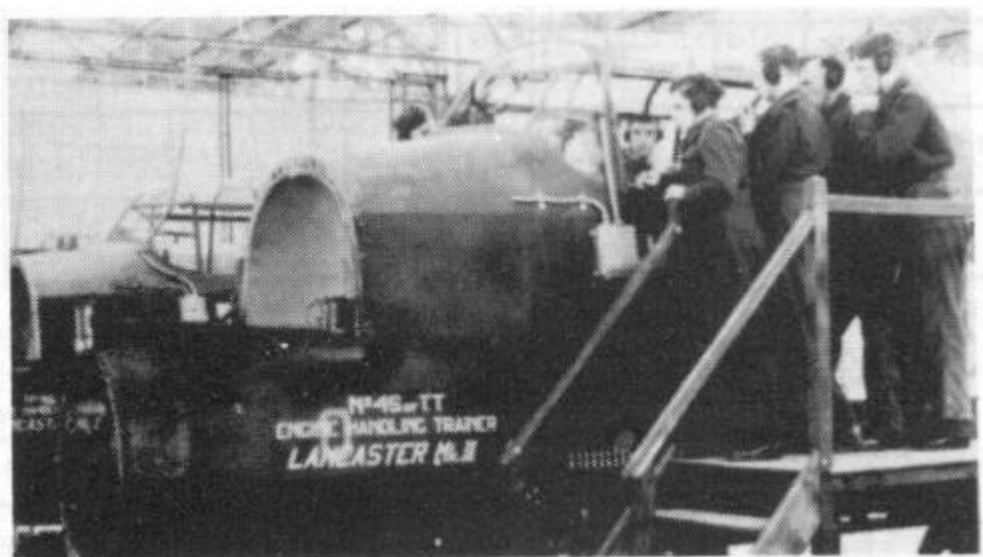
The Course

There was daily (Monday-Friday) instruction given by N.C.O. Ground staff in every aspect on the Lancaster 1 and 111. Nothing was omitted in providing every detail of the nose to the tail structure and operation of the aircraft, except for navigation and gunnery specialties.

The instruction was given seated as in a classroom in front of a Lancaster (one of the many in the hanger) together with displayed separate sections of the A/C's engines or anything else that could be presented in isolation- much as one sees in the RAAF Association Bullcreek Aviation Heritage Museum (WA).



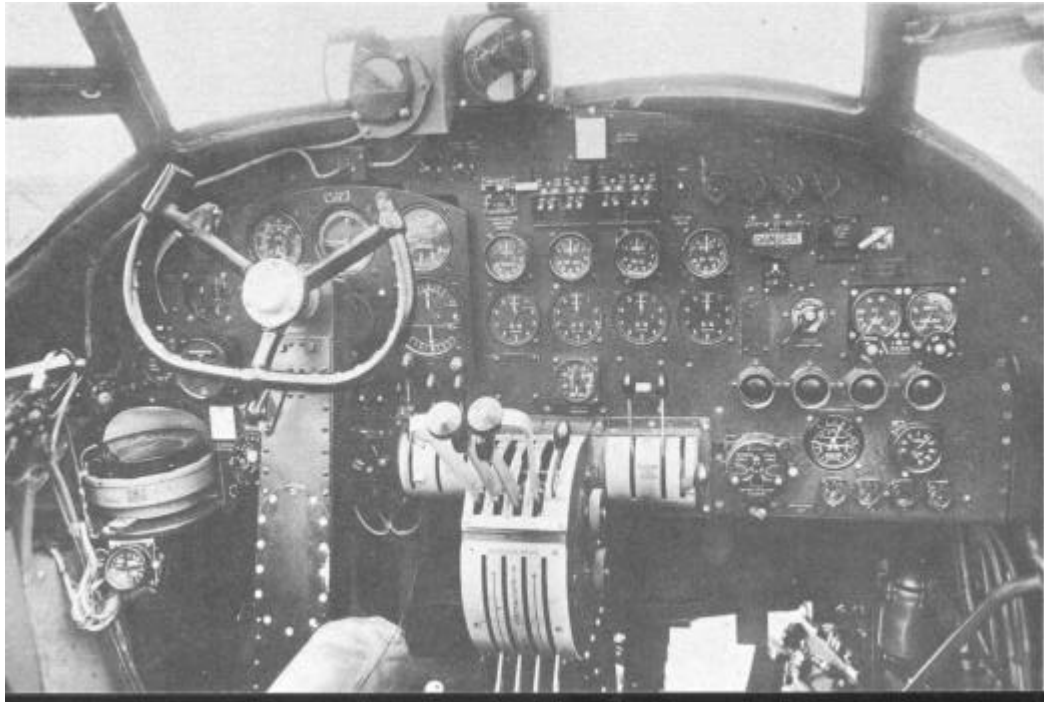
The diversity of aircraft operated by the Royal Air Force is evident by the sections of fuselages in this large hanger.



The first opportunity to look into the cockpit of an Avro Lancaster was somewhat daunting by the multiplicity of instruments for a four engine aircraft.

Some aspects of the course come readily to mind: the content, of necessity, was demanding yet interesting. I remember clearly the fascination of carburetion: the change from S.V.carbs of the Mk 1 to the sophisticated Stromberg in the Mk 3. Instrumentation too was very interesting; it was the first time I'd seen the principle of the gyro explained and employed as in the automatic pilot (George).

I still remember realizing how much 'on the ball' a Flight Engineer had to be if an engine was knocked out. For example if the port engine was lost the whole hydraulic system would be lost.



For Australian Pilots trained on twin engine aircraft there was a familiarity but for any who trained on single engines this view must have been daunting.

Probably the most important aspect of instruction was the Pilot/Flight Engineer's responsibility for, and competency in fuel management of six tanks and redistribution of fuel in the case of engine failure/loss.

I would have to say that we were saturated in every aspect of flight engineering. There was seriousness to all this instruction, without the levity you'd expect from such a group as ours in a different environment.

At the conclusion of the course there was a comprehensive examination- written and oral. The oral I found more demanding; the questioning, one to one was on the various sections of the Merlin engine and airframe previously described. The examination was by one of the Instructors, but not the one who was our regular.

I've omitted to mention that NOT once were we able to see inside a real flying Lancaster. There must have been a reason but this escapes me. (Not related to any of the previous but on the

25 April there was a very successful ANZAC Day Ceremony held in a Cardiff Hotel and attended by Australian and New Zealand Course members.)

RAF Station Binbrook

21 June 1945

Binbrook in Lincolnshire (inland from Grimsby) was the base of no. 460 Squadron. It is to this day a permanent RAF Station. From memory about 30 of us from the RAF St Athan Course were directed here, by passing the Heavy Conversion Unit or O.T.U.

On arrival we were immediately involved in Crew formation beginning with our pairing with an established Air Craft Captain, in my case a Joe McNamara from NSW. This teaming simply involved writing your name against any name on a printed list of pilots. (The only exception was to be the one who had to volunteer to fly with Squadron Leader Swan, who was to be in every sense our Squadron Commander. This I imagine would be very daunting pairing with one so experienced and decorated.) The RAF Flight Engineer had left leaving this our **eventual Crew**, the one on every flight undertaken. The new Crew shortened from the normal seven of Operations in Europe was occasioned by the new "corkscrew" manoeuvre, which made less gunnery necessary.

Crew

Joe Mc Namara (Pilot) ? Wright (Navigator) ? Furlonger (Wireless operator)
? Tuchin (Rear Gunner), and Self (Flight Engineer)

I forget how many operations the Crew had made, but they were certainly seasoned and from what I could gather had experienced some "hairy" event involving emergency action by the RAF Flight Engineer.

Now all thoughts were on where and when to the Pacific.

Binbrook Flying

June 29 1945: Post mortem Operation was along the Rhine River to see among other things blackened Cologne and completely devastated Hamburg.

July 1 1945: The Flensburg Operation was undertaken in wartime format with full briefing and debriefing. Flensburg in Denmark was the location of a heavy German radar set-up and its operation was to be evaluated. We were told that the German Officers would be demonstrating with "guns at their backs".

27 July: At the farewell from RAF Binbrook we paraded with the RAF Flight Engineer Leader, as from now on we were on our own. Up till now the leader would be there before and after flights to act as a mentor or troubleshooter.

East Kirkby Station

28th July 1945

The Squadron's planes had quite a send off from Binbrook; the Staff lining the tarmac to send us on our short flight to East Kirkby (No.460 Squadron is a proud Squadron with many distinguished operational successes and awards.

Just when and where in the Far East was the subject of rumor: that the Australian Squadrons were joining the reformed No. 617 Dambuster Squadron as "**Tiger Force**" and the destination was Okinawa. The former was found to be correct, but I don't know to this day about Okinawa.

The September 14 operation to Bari (Italy) was to bring back from the Italian theatre, British Servicemen. The trip was memorable in that I was given control of the Lancaster aircraft so that the Skipper could go to the back of the plane and have a good look at Vesuvius crater.

One day I was walking to the showers and I met Doug Graham: "They've dropped an atomic bomb!" he said.
And that was that.

After East Kirby

An exercise in futility:

A criticism of a training programme, which took place almost sixty years ago.

The category was Pilot/Flight Engineer not Flight Engineer. The Piloting background of the new mustering was not utilized. Instead of being a plus providing an extra dimension to the plane's crew, it seemed that the tradition role of Flight Engineer was being preserved. I feel that then should have been some basic dual piloting instruction to give the Pilot/Engineer some confidence in handling the aircraft in case of emergency such as the incapacity of the Pilot- a realistic possibility in war- time. (I still dream of flying the Lancaster- successfully, but in my dreams).

On reflection I feel that of all the Crew there seemed to be less specificity for the role of the Pilot/Flight Engineer. However more could have been done in training as it was not until we arrived at the Squadron that we learned on our first flights the basic routines of our task.

Perhaps more orientation was provided at the O.T.U., which we by passed.

Comment: A friend of mine was a Stirling Pilot and he did not find out until 50 odd years after the war that his Flight Engineer had never been up in an aircraft before their first trip at the Heavy Conversion Unit. (L.J.)

Flight Sergeant Ron Sloan

Flight Sergeant Ron Sloan, together with his group disembarked from the ship in the Port of Liverpool on May 15 1944 and was move by train to nearby RAF Padgate (Warrington). There the RAF provided all new flying gear, which added to the anticipation of resuming flying.

After two months the first posting was to posted up north to Whitley Bay to take part in a Commando Course but on August 7 Ron found himself moved to a Pre-AFU at Derby to fly Tiger Moths. Although this was a lot of fun he longed for the day to get to an operational aircraft. This episode only lasted a short time and returned to Padgate before moving down to Brighton to the Metropole hotel arriving there on 24 August.

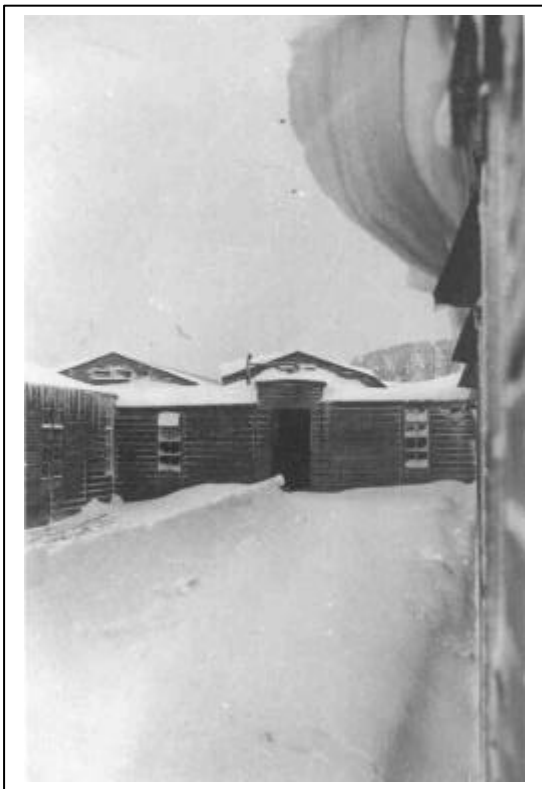
August 30, it looks as if the war will soon finish and our trip to Blighty will be all in vain.

October 19, another EFTS at Worcester, weather is bad and don't get in much flying.
January 3, posted to Wigtown in Scotland as Duty Pilot, definitely not what I travelled 14,000 miles to do. Do a bit of flying in an old `Agy' (Avro Anson) and do a forced landing in Ireland.

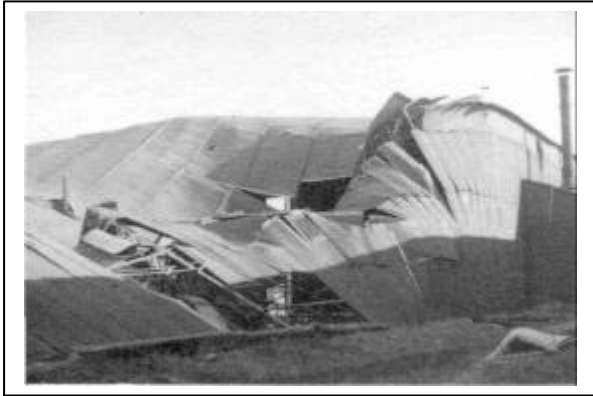
January 19, Cheers!!! Posting is through. Back to Brighton.

NB. This was the posting to 4 STT St. Athans. I have made no entry previously as to how or when I found out about the Pilot Engineers Course or when, to get operational quicker, I volunteered to do it.

January 24, Arrived St. Athans. Snow all the way. Up to 18 inches thick on arrival.



St Athan provided the first introduction to winter snows to these young Australian Pilots and its freezing conditions.



This damage was the result of the enormous weight of snow that had initially fallen on St Athan on this occasion.



Just two Australians with these two Canadians.



Some of No 22 Pilot/Flight Engineer Course, which comprised mainly Canadians and a few Australians.

February 16 to 20, was taken up with revision. If I top this course I may get an early posting to a squadron and get a few trips in before the show packs up (war ends!). Have got my fingers crossed.

February 21, I get an `A' Pass in Lanc Airframes.

February 23, we start on Lanc engines. Other than the normal Aussie critical comments about English weather, what ever it was, it was. Ron's whole focus was on doing anything and every thing to get "on opps". Bad weather was just a negative that stopped me from flying. During this time it was extremely cold as the "stalactites" from the gutters show.

10 March.

There was a Lancaster in a dispersal bay and we went through the starting up and running procedure (a testing procedure) the Lanc's engine, just as was done for a preflight check.

20 March.

This was the time for going before "The Board" where a "Selection Committee" that had before them your examination marks and Instructor's Comments. They were to make a final assessment as what sort of person you were.

29 March.



A **Flight Engineer's Wing Parade** was held for the newly Graduated Flight Engineers. Ron had topped the Course with "A" Pass of 76%, which was considered pretty good. The Station made the usual congratulations and pinned on the single Wing of an Flight Engineer

7 April

While on leave an extension was sent by telegram but Ron wished a posting would soon arrive as he believed the war was near ending.

10 April.

On this day a posting to the best Australian Lancaster Squadron, No.460, arrived advising him to report at 1800hours on the 12 April.

12 April

Ron recalled that the new Pilot/Flight Engineers were left as spares on the Squadron for a short time before being allocated to a Crew. It was probably during this time the RAF Engineers were posted away. Ron considered at that time the war in Europe was obviously already won and believed they were already setting up crews for "TIGER FORCE" and because the longer range of the Lincolns, they felt they needed to have a trained Second Pilot.

19 April

Ron joined a Crew and then went on a three-hour trip around England.



FLTLT	Murray Nottle	Skipper
WO	Reg Hall	WOP
PO	Bill Morrow	Bomb Aimer
PO	Ron Sloan	Flight Engineer
SGT	Bill Brown	Gunner Mid Upper
FO	Blue Neville	Navigator.
		(Ron Sloan)

29 April

Ron attended lectures on intelligence and escape techniques.



On 21 & 23 April Ron's Crew made two trips around England and Wales.

(Ron Sloan)



Ron's Crew leaving the English coast on their way to Rotterdam to drop food to the starving Dutch people. This was Ron's first trip over enemy territory. Thousands of Dutch turn out to wave as some 300 Lancasters as they fly over the City at 500 feet to drop not bombs but food containers. (Ron Sloan)

3 May

Other Squadron aircraft bomb Berlin, Bremen and Berchesgarden today but "M" Mike failed to return. "I missed out but if the war lasts I will make it soon"

5 May 1944.

Ron was so darn keen to get into it, and he made it known he was happy to fill in anytime. Not very bright in retrospect, but then they were young weren't we?

8 May 1944

"VE DAY" "Every one on the Station is celebrating but I am alone in my room and as I lie on my bed my thoughts wander back, way back"

12 May

Weather today is duff. All flying is scrubbed. I volunteer for Very Long Range Force of Lancasters bound for the Far East. They think it will be about September before we finish special training and head out. Rumour was that it will be Chunking in China. I hope so and soon.

17 May

I we do a four hour trip around Wales and a bit of bombing.



Flight Sergeant Jim Bradshaw and Ron take turns in monitoring and instructing from the control table of a Link Trainer while a Pilot practises Blind Flying and Beam Approach. (Ron Sloan)

31 May

Today we do an approved low-level trip over Germany. Our route is Binbrook, Skegness, Den Helder (Holland), Heligoland, Cuxhaven, Hamburg, Brunswick, Kassel, Mohne Dam, the Ruhr Valley and back across Holland over Rotterdam to Base. It is amazing to view the complete destruction.

23 June

We have been doing very little lately and have spent a lot of time on leave in London. Today we do another low level trip over Germany, mainly down the Valley of the Rhine, which is very beautiful country. We fly right down low on the river having to lift the aircraft up to skim over bridges which are all wrecked. From Base we go to Southwold on the coast and then Munchen, Gladbach, Krefeld, Duisberg, Geilsen, Kirken, Essen, Dortmund, Wupperal, Dusseldorf, Cologne, Bonn, Remagen, Koblenz, Wiesbaden, Mannheim, Ludwigshaven, Heidelberg, Karlsruhe, Phfirzhein, Saarbrucken, back over the Siegfried Line, across Belgium to Southwold and Base. A good trip- nearly seven hours airborne. "Jerry's" countryside certainly looks alright, but what a mess elsewhere.

26 June

Go to Flensburg in Southern Denmark, fly North up through Denmark and then back to Base. Hundreds of Lancs have their bomb bays full of aluminium foil to test the captured "Jerry's" radar that had been captured intact.

29 June

To Flensburg again today but not much cloud this time. Denmark is just a mass of small farms.

1 July its off to Flensburg again but conditions very bad. Climb through cloud to 26,000 feet and stay there. Temperature is 47 degrees. Rime icing all over the windscreen. Ice on the oxygen masks. Glad to get home.

4 July

Flensburg again. Weather is perfect. Denmark looked swell.

Over the next week or so do cross countries, bombing, air to sea firing and a trip around England. Go on leave.



14 July arrive back from leave and find our Crew is down to do a bombing and fighter affiliation . We take off at 13.45 and complete the bombing except one bomb is hung up. We took for granted that it was secure. We contacted the Spitfire and the fighter affiliation exercise commenced. While engaged in the second corkscrew we heard a loud bang and the old Lanc shuddered. A few seconds later the fighter Pilot called up on the R/T, "You are on fire underneath, get down as soon as possible as you can. We all looked around, but could see nothing as the fire was underneath and to the rear of the kite.

Just then the Spitty Pilot came back, "Get Out, Get Out!" and the abandon aircraft was given. Almost back smoke and fumes poured from the bomb bay and soon it was a black night inside the kite.

I did not take many seconds to get my parachute in place and saw our "bomb dropper" go and I fell out after him and immediately became unconscious.

(Ron Sloan)

I had a funny dream of floating along on a magic carpet and then completely oblivious. The next thing I remembered was opening my eyes and making out the green fields and the hedges of old mother earth below. My 'chute was open, although I don't remember pulling the rip cord. "JC" must have looked kindly upon me and guided my hand. I look up just in time to see our "gen" kite hit the deck in a burst of flame. I turned myself round, dreading the thought of only counting a few other 'chutes and I was not to be disappointed, for there here were only three besides myself. I carried out the few necessities we had been taught in the event of a jump and stopped the 'chute from oscillating. The ground came up pretty quick and I hit pretty heavy.

I was fairly close to a road and an Army truck pulled up almost immediately and I got him to rush me to the kite about a half a mile down the road. When we arrived the ammunition was going off and the kite was an inferno. It soon burnt out and I picked my way through the few remains. I found charred bodies of two of my mates- again which two?

It was not pretty and just then Bill (Bomb Aimer) arrived and we decided to head back to the aerodrome. An ambulance passed us and we stopped it. It was Murray (Skipper) and blood spattered his face and he was pretty dazed. We started again and as we got to the little village of brig we saw a crowd of people and pulled up.



Our Rear Gunner Buck Rogers had landed in a small lake and drowned. He could not swim.

That left three out of six (our mid upper Gunner did not fly that day.) Blue, John and Buck were dead. We could do nothing so headed back to RAF Binbrook. The WAAF Driver did not waste any time. On arrival we reported to Flying Control and then to the Doctor. It all had happened so quickly we could hardly realise it.

Then followed an investigation. We got new gear and went on leave.

24 July

We returned to Binbrook and found that the Squadron was shifting to RAF East Kirkby on the following Friday to start training for “**TIGER FORCE**”

25 July

Today we meet our new Navigator Blue Neville and Wireless Operator, Reg Hall, who seem to be pretty nice chaps.



27 July A briefing was held followed by an inspection in front of the whole Station personnel. Ron Sloan now WO is 4th from the right. It seems Aussies have gotten under the skin of everyone and don't seem to like to see us shove off. There are rosy speeches and thanks for a job well done. We take off at 1000 hours and everyone gives us a great send off as we take off. We touch down at RAF East Kirkby and the 'drome is as dispersed as hell.

(Ron Sloan)

The next week or so we do feathering and three engine overshoots, bombing, attending lectures on “Radio Range” (new Nav gear) and get vaccinations for Italy. We were to convert to the bigger, gawkier, long range Avro Lincoln Bombers as part of Tiger Force, which was being assembled for the far East when it folded without “my approval!”

August 15, VJ Day - we join the seething masses and generally have a good time. Have been having dizzy spells all day and am a bit off colour. Have lost a half a stone in weight since the prang.

24 & 25 August , we are told we are going to do some trips to Italy to bring back British troops. It means malaria tablets and we draw tropical kit.

30 August , I am recommended for a Commission.

31 August, we do a night trip around England and Scotland. It's good to see the lights on everywhere again.

8 September, an Aussie comes up from Kodak House and tells us the squadron is breaking up next month and we are heading home!!!

25 September, see our C O Wing Commander Swan. Says he will recommend me to the Group Commander and it looks OK.

28 September, we do a trip to Italy, flying over the D Day beaches, Corsica, the Anzio beaches, Rome, Naples, down to the crater of Vesuvius . Then on to Bari. We bring back 20 Brits, who certainly looked forward to getting home.

4 October, the big disbanding parade and all the “big wigs” are around. They read out the glorious record of the Squadron throughout the war. It’s a pretty good effort. I am put in a Holding Flight to wait my Commission and go on leave.

October 18, my Commission is through. On leave most days.

November 22, joined the select **Irvin Parachute Company's `Caterpillar Club'**, reserved for anyone who has saved their life by parachute. The badge is a small gold caterpillar with ruby eyes.



November is also saying goodbye month to people who have come to mean a lot to us, always making us feel at home.

November 26, our trunks and deep-sea kit go to the boat and on November 30 1945 the Athlone Castle that brought us safely across the U Boat infested Atlantic, slipped out of Southampton to take us home.

437799 Ron Sloan

The Avro Lincoln Heavy Bomber



The Lincoln was to have been the new heavy bomber manned by Royal Australian Air Force Crews and flown out to the Pacific. With the dropping of the atom bombs and the Japanese surrender “**Tiger Force**” was disbanded.

(Ron Sloan’s pics)

The Irvin Air Chute Co

The Irvin Air Chute Co. started the Caterpillar Club in 1922 and the practice of awarding the tiny gold Caterpillar Pin to anyone who saved his life by parachuting from a disabled or flaming aircraft. Each recipient of the Caterpillar Pin is living testimony to the life saving ability of the Irvin Type Air Chute. The Caterpillar is symbolic of the silk worm, which lets itself descend gently to earth from heights by spinning a silky thread to hang from. Parachutes in the early days were made from pure silk.

In 1919 Leslie Irvin, a 24-year-old stunt man from California, demonstrated the first "free drop" parachute. He had made the chute himself on a borrowed sewing machine. Flying safety experts were so impressed that the American Air Force and British R.A.F. promptly adopted the parachute as standard equipment. Later the same year, Irvin established his first factory for the mass production of parachutes in Buffalo, New York. In 1926 the first European factory was established in Letchworth, England.

During the height of World War II, production of parachutes at the Irvin Air Chute Co. factory in Letchworth, England reached a peak of nearly 1,500 parachutes per week. By late 1945 there were 34,000 members of the Caterpillar Club.

It is estimated that at least 100,000 peoples lives have been saved by Irvin parachutes.

The Irvin Aerospace Ltd. has kept all the old records, so if you need a replacement Certificate or Caterpillar Pin you way contact the following:

Elizabeth Johnson, Director, Marketing and Sales, Irvin Aerospace Canada Ltd., (613) 967-8069 E-Mail: marketing@irvincanada.com

Flight Sergeants Frank Hamilton & Bob (Barney) Herbert

These two RAAF Pilots arrived in the U.K. in May 1944 and would later commence the Flight Engineering Course together so have combined their recollections of that period.

Frank Hamilton had completed his Pilot training at No.3 Service Flying Training, Calgary, Canada and was awarded his Pilot Wings. After the usual period at 11 PDRC RAF Padgate in England proceeded through the usual refresher Courses on Tiger Moths and other Duties before arriving in Brighton.

Here in Brighton during the beginning of February 1945 both men accepted the opportunity to train as Flight Engineers as a means to advance to a Squadron to get on Operations.

After a long train journey, 40 Australian and 6 New Zealander Pilots assembled at RAF St Athan on 7 February. There is some recollection that there may have been a height restriction to 5 feet 7 inches. (one Pilot I know was 5ft 11inches, Author). Bob Herbert recollects that St Athan was the largest RAF Base in the UK but their area of concern was near their barracks and incorporated the large hangers and lecture areas. The weather was dreadful, cold, and frequent snow falls with the occasional reasonable day.



Aussies & Kiwis on Course together at St Athan. Frank first (back row) NZ then Bob (3rd)



Outside their hut on a fine day. Frank Hamilton standing at back.

<i>Herbert</i>	
FLIGHT ENGINEER COURSE	
NO 4 S. of T.T. R.A.F. St. Athan	
Type of Aircraft	LANCASTER I & IIL
Examination Result	66.2. %
Passed	Failed
Date	11 APR 1945
	<i>Will Johnson PL</i> Chief Instructor

Bob Herbert's Examination Certificate

AIRCRAFT		Pilot, or 1st Pilot	2nd Pilot, Pupil or Passenger
Type	No.		
<i>Hamilton</i>			
FLIGHT ENGINEER COURSE			
NO 4 S. of T.T. R.A.F. St. Athan			
Type of Aircraft	LANCASTER I & IIL		
Examination Result	66.3. %		
Passed	Failed		
Date	11 APR 1945		
	<i>Will Johnson PL</i> Chief Instructor		

Frank's result created some rivalry.

Bob recalled that 10 class areas were set up within a hanger with Groups of 10 Pilots allocated to each. Lectures usually lasted one hour then the Groups would move around. On occasions they would each crawl through a Lancaster fuselage studying "every rivet!" In this way they certainly became aware of every facet of the layout. There were many displays of equipment and charts about cylinders array of pumps oleo legs etc relevant to the knowledge and understanding expected to be learnt by each trainee.

For weeks their training carried out by RAF Ground Staff Lecturers was intense culminating in Written Examinations and assessments during an oral Testing. Successful Trainees had their Log Book endorsed with a special St Athan Stamp on which the Result % was shown.

Both recollect vividly one FLTLT Lecturer explaining that his expertise was in the Theory of Engines but advised everyone to ignore his explanations BUT to pay extra attention to the well informed and highly experienced Ground Instructors. Many of these Lecture sessions, with this FLTLT, discussed politics as that was his expertise back at the University from where he had been seconded. On the eve of the Examinations he had on a blackboard a whole range of questions that he indicated could represent the possible range of questions most likely to appear in their Finals.

Being industrious young Pilots they all dutifully devoted their time to copying down these questions and later combined their collective knowledge and found answers. The Examinations were held and the questions presented were the same. In reality they taught them selves by diligent study using all the practical work they had undertaken along with the written theory.

After successfully graduating as Pilot / Flight Engineers on the 8 May 1945 they were sent on leave and there to await their Postings. Flight Sergeant Bob Herbert departed to the Heavy Conversion Unit (HCU) RAF Wigsley while Frank went on to:

Frank Hamilton to No.467 Squadron, RAF Base Waddington

Frank's recollection to being Crewed up was as he was walking along on the Base when Flight Sergeant John Mc Kenzie called out to him: "What are you doing here?"

"I have been posted here as a Flight Engineer" Frank replied.

"Well, I am the Rear Gunner in FLGOFF Norman Jodrell's Crew so come along and meet him," was John's immediate response.

This Crew at been formed when they we at OTU but after completing that part of their preparation they then moved onto No. 1169 Heavy Conversion Unit at RAF Base Langer during November 1944. There the Crew met up with a new Member of the Crew, R.A.F. Sergeant Sydney Shorthouse their Flight Engineer. Their aircraft there was the Halifax and the Base was located in Lincolnshire.



The Halifax Crew at No 1669 HCU RAF Langer.

L to R W/O John Mc Kenzie (Rear Gunner) W/O George Ashford Wireless Operator
 P/O Jim Quinn (Navigator) W/O Ken Winstanley (Air Bomber) SGT Sydney Shorthouse
 Front Skipper F/O Norm Jodrell W/O Bob Brazell Mid Upper Gunner.

No 467 Lancaster Squadron, RAF Waddington



The same Crew

Back:

Ken Winstanley Norm Jodrell (Pilot)
 & John Mc Kenzie.

John Quinn, Syd Shorthouse, George Ashford
 & Bob Brazell

Front Norm Jodrell Pilot/Skipper.

Flight Sergeant (later W/O) Frank Hamilton would from now on be the Pilot Flight Engineer in FLGOFF Norm Jodrell's Crew. A wholly Australian Crew in an Australian Squadron.



Rear	Frank Hamilton	Ken Winstanley
Front	John Mc Kenzie,	Norm Jodrell, George Ashford
Missing from this group is Jim Quinn.		



When it was decided that Australian Squadrons would be involved in the War against the Japanese in the Pacific this meant that RAF personnel would have to be replaced.

It was for this reason that Australian Pilots would undergo Flight Engineer training.

All RAF Flight Engineers were posted away.

Flight Sergeant Sydney Shorthouse had been an invaluable Member of this Crew and had been on bombing raids with the Crew before departing to another Squadron.



It would appear that Jim Quinn (centre) was a popular person with the two AGs for small urgent personal loans. John McKenzie



There was always some time to fill in and cards fulfilled the occasion for avid players.



The famous Lancaster, with its bomb doors open, awaiting the arrival of the Armourers. Bomb loads varied greatly depending upon the target



An enormous array of incendiaries surround the “cookie” in this cavernous Lanc. bomb bay



Hundred of Lancasters filled the night skies over Europe and towards the end of the war adopted day light raids. Bomber Command lost an enormous number of aircraft along with 55,000 Air Crew personnel. A great number of men were wounded and maimed for life.



These ex Air Crew P.O.W.s were here being briefed before flying back to England. Some of these Air Crew had been Prisoners of War since the early flights in 1939/40.



No 467 Squadron Crest

Warrant Officer Frank Hamilton's Log Book Evidence

YEAR 1945 Month / Date	AIRCRAFT		Pilot, or 1st Pilot	2nd Pilot, Pupill or Passenger	DUTY (Including Results and Remarks)
	Type	No.			
R.A.F. STATION <u>SWINDERBY</u>					
21/5/ 22/5/	Lancaster LINK	A	P/O McKinnon	Passenger	
R.A.F. STATION <u>467 SQUADRON</u> <u>METHERINGHAM</u>					
June 13.	LANC.	PO-V	F/O Jodrell	Self	Lowon Stodge - Incand. Jett.
- 16	LANC.	PO-U	- "	"	Waddington - Metheringham.
	LANC III	PO-U	- "	"	Metheringham - Corraghoy.
					Total Month Ending 29/6
SUMMARY FOR JUNE 1945.					
TYPE - LANCASTER.					
DATE - 29/6/45					
Signature <i>F.H. Hamilton</i>					
<i>Douglas</i> <i>J. B. Boyd</i> 467 Sqn. O.C. B. Flight. Sig. 467 Sqn.					

Frank's first page in his Pilot Log Book provides evidence as his part in the Crew of FLYOFF Norm Jodrell's Lancaster Crew.

YEAR 1945 Month / Date	AIRCRAFT		Pilot, or 1st Pilot	2nd Pilot, Pupill or Passenger	DUTY (Including Results and Remarks)
	Type	No.			
Totals Brought Forward					
27-8-45	LANC.	N.	F/O JODRELL	Self.	Bomb Jettison. 9 x 1000 lbs.
28-8-45	LANC.	V	F/O JODRELL	Self.	CARDIGAN Bay. Flying Check.
Summary August '45.					
Type :- LANC.					
Date :- 1-9-45					
Sig. <i>F.H. Hamilton</i>					
9-9-45	LANC	U	F/O JODRELL	Self.	Metheringham - Tbanham.
9-9-45	LANC.	U	F/O JODRELL	Self.	Base - Italy (Bari)
13-9-45	LANC	U	F/O JODRELL	Self.	Italy - Base
13-9-45	LANC.	U	F/O JODRELL	Self.	Metheringham.
Summary September '45					
Type - LANC.					
Date :- 30-9-45.					
Sig. <i>F.H. Hamilton</i>					

Warrant Officer Frank Hamilton has 69.35 hours on Lancasters & during those hours he flew under Dual Instruction with the Skipper to gain experience.



Through out the War in Europe Bomber Squadrons had to disperse their aircraft in remote sections to guard against enemy intruder raids. It was in these same locations that the Ground Staff (known affectionately as ERKS) serviced “their aircraft” in bitterly cold, snowy, windy and wet conditions to prepare aircraft for final test flight. In makeshift huts they had erected from waste materials was their only protection from the elements. Often they would wait there for the return of their aircraft from a raid incase of needed repairs before the next bombing raid. Their contribution is readily acknowledged

Commemorative Acknowledgements



No 467 RAAF Squadron formed in Nov.1942 at RAF Bottesford then moved a year later. to RAF Waddington Its bombers raided some 138 different targets including 24 to Berlin.

In June 1945 No.467 Squadron moved to RAF Metheringham to begin training as “Tiger Force” destined to serve in the Far East .



Over 100 Lancasters were lost on operation and every aircraft carried 7 Crew Members the cost from this one Squadron was high. Surviving members had these two Memorials built to acknowledge those young Airmen who gave their lives.

Royal Air Force

Flight Engineers dropped from RAAF Crews.

Flight Sergeant Syd Shorthouse



Syd Shorthouse entered the RAF on 20 December 1943 as an Air Crew Trainee Flight Engineer. After the usual Initial Training School at RAF St Johns Wood he was posted to RAF Locking in Devon for 10 weeks of Air frame Training. This was followed by moving to RAF St Athan in Wales for engine training, hydraulics, electrics and engine handling.

RESULTS OF AB INITIO COURSES AND REMARKS	
FLIGHT ENGINEER COURSE	
HQ 4 S. of T.T. R.A.F. St. Athan	
Type of Aircraft	HALIFAX III.
Examination Result	78.5 %
Passed	<input checked="" type="checkbox"/>
Failed	<input type="checkbox"/>
Date	20 SEP 1944
	Chief Instructor

The ground Training and examinations were completed on 20 September 1944 after nine months.

Syd's Results are shown in his Log Book Certificate.



Along with six other "Sprog" Flight Engineers, Syd was posted to RAF Langar a Heavy Conversion Unit **where he joined RAAF Norm Jodrell's O.U.T Crew. Syd was 2nd Engineer** for the first flight on 19 October 1944 flying a Halifax MK II. After three more flights he was accepted as a fully "fledged" Engineer.

On 4 January 1945 the Crew was posted to RAF Syerston No. 5 Heavy Conversion Unit to convert to Lancasters. On about the 16 January, because of their excellent results were offered a posting to a Path Finder Squadron. This offer was declined so they were then posted to No.463 Squadron then located at RAF Waddington. Unfortunately during early February the Pilot, Norm

Jodrell broke his wrist but the Crew was kept together until the wrist healed around “VE Day”. On occasions some of the crew flew with other crews.

Because a decision had been made to replace all RAF Flight Engineers with the newly trained RAAF Pilots, who had completed the Flight Engineer Course at St Athan, Syd made his last flight with Norm Jodrell’s Crew on 24 May 1945. RAAF Flight Sergeant Frank Hamilton then joined the Crew and they were posted to RAF Metheringham as “Tiger Force”

Flight Sergeant Syd Shorthouse then found himself in Jack Blair’s Crew at RAF Skellingthorpe with the remnants of No. 467 and 463 Squadrons. The final “Cook’s Tour” was made with this Crew on 27 August 1945 with a flight over Germany in their Lancaster.

This was followed by a posting to No. 9 Squadron then based at RAF Waddington along with No. 617 Squadron. There he joined RAF Pilot (New Zealander) Niel Svendsen’s Lancaster Crew. Shortly afterward they were posted to India with a new, white painted Lancaster. While in India they were known, ironically, as “Tiger Force” They were there for 3 ½ months during the Partition period. Because of the heat the Lancaster’s undercarriage had to be left down after take off to allow it to cool down.



Both No. 9 & No. 617 Squadrons returned to RAF Binbrook where they undertook a Lincoln Bomber Conversion Course at RAF Lindholme. Syd was the Flight Engineer with Brian Churchill’s Crew from 10 th July 1946 up until he was Demobilised in June 1947 ending his Flight Engineer career in the Royal Air Force.

Flight Sergeant Bob Herbert

Bob Herbert finally arrived at RAF Waddington where he joined a Crew as Pilot/Flight Engineer. His Crew, had already been on Operations with a RAF Flight Engineer, as was normal up until June 1945 when it was decided to make all Australian Crews to be formed into "Tiger Force" destined to fly out to the Pacific to carry the war to the Japanese forces.



The Skipper of Bob's crew was FLYOFF Ken Miller, but unfortunately no photographs of the entire Crew was ever taken during that time. (B. Herbert)

The Crew

Pilot	Flying Officer Ken Miller
Bomb Aimer	Flying Officer Ray Kiernan
Navigator	Warrant Officer Bob Hodson
Wireless Operator	Warrant Officer Bob.....
Rear Gunner	Flight Sergeant "Bluey".....
Pilot/Flight Engineer	Warrant officer Bob Herbert
No Mid Upper Gunner now part of the Crew.	



The Wireless Operator was on the Port side of the Lancaster. The Morse Code Key is attached to the (right) of the table while the Marconi Transmitter & Receiver is directly in front of the Operator.



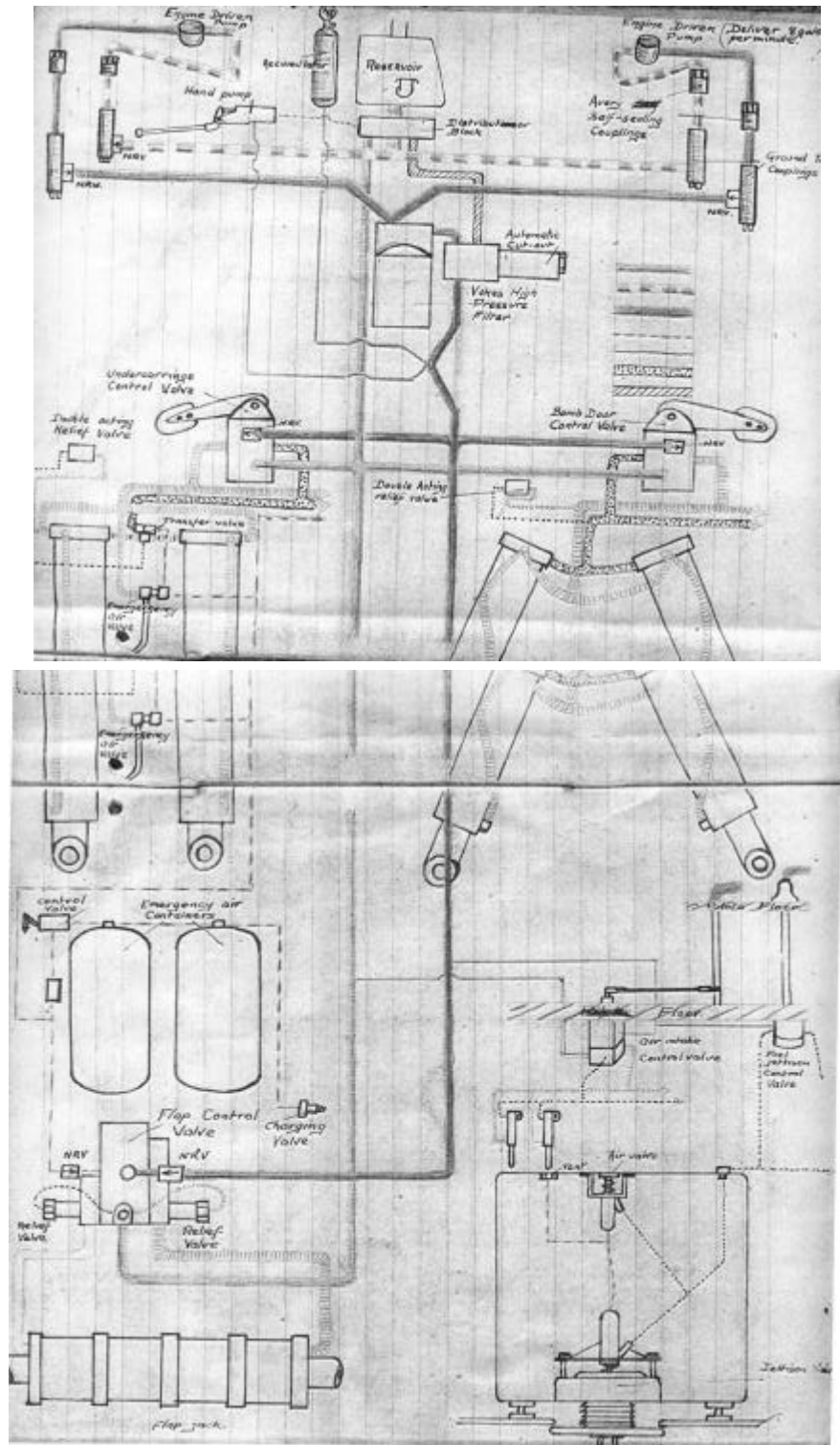
The Navigator's position was located opposite the Flight Engineer's Control Panel and directly behind the Pilot. Navigators had to be highly skilled to guide the Pilot to a Target in all sorts of weather in the darkness of night. The return journey could be hazardous as the aircraft could have suffered anti-aircraft or night fighter damage yet still had to make the long trip back to Base.



The Flight Engineer's seat is along side the Pilot where he was able to lend assistance, under the direction of the Pilot, during take off and landing. All the instruments, switches etc of his Control panel were on the Starboard side of the fuselage behind his seat. L.J.



The Bomb Aimer was located in the nose of the aircraft and it was from this position he assisted in map reading in addition to directing the Pilot to the target during the bombing run. A high degree of skill was required to accurately place the bomb load on the designated section of the target marked by the Pathfinders.



Taken from two pages of drawings made by Bob, that originally matched perfectly but not quiet in this scanned case.

Form 700 A — Travelling Form 700 —

Section 1. Aircraft			Section 2. Aero Engines										
Type	Mark	Number	Type	Mark	Number								
Lancaster	IN	L2560	Martin	XV11									
Section 3. Fuel oil and coolant													
Oil (Stores Ref/No)			30% Glycol 10% Antifreeze										
Coolant													
Section 4. Flying hours. Periodicity of minor inspections. 15 hrs.			Next inspection due -										
Daily Inspection Certificate													
Date	Air Frame	Engine B.I.	Engine P.O.	Engine S.I.	Engine S.O.	Instru. Meters	Electrical Equip.	Wireless Equip.	Radar Equip.	Arm. B.	Arm. G.	Time in Air Completed	Signature of NCO. IA
3-3-45	F/E	F/E	F/E	F/E	F/E	F/E	F/E	WOP	WOP	B/A	G	10:00	Captain
Section 5. Flying Times			Section 7. Fuel oil and coolant Certificate										
Date	Up	Down	Time in air		Fuel put in A/c.	Total fuel in A/c.	Oil put in A/c.	Water in A/c.	Coolant State	Signature of airman responsible		Signature of Pilot	
3-3-45	11:45	11:55	hours	mins.	Gals.	Gals.	Gals.	in A/c.	Full	Full	Herbert		Herbert

All Flight Engineers had to maintain an accurate Log of all the Systems under his immediate control along with other duties required by the Skipper. He was also the direct liaison with the Ground Crew (Bob Herbert)



During 17 flights Bob Herbert made in Lancasters, his training at RAF St Athans well prepared him for the responsibility to carry out emergency drills when simulated, along with the ordinary duties of a Flight Engineer.

One of the very pleasant “trips” made by Bob’s Crew was to fly out Barri (Italy) and again re-experience swimming, but on this occasion, in the beautiful Adriatic. When a group of British Soldiers had been assembled they were flown back to England as part of the repatriation program.

YEAR 1945		AIRCRAFT		Pilot, or 1st Pilot	2nd Pilot, Pupil or Passenger	DUTY (Including Results and Remarks)
Month	Date	Type	No.			
Totals Brought Forward						
June	13	LANCASTER	"K"	F/O Miller	Self	inc. Dropping H2S x country
	16	LANCASTER	"N"	F/O Miller	Self	To Nottingham.
<div style="border: 1px solid black; padding: 5px; display: inline-block;"> Summary for June Type Lancaster Unit 467 Squadron Date June 30th 1945 Signature <i>[Signature]</i> </div>						
o/c 467 Sqn						
July	3	LANCASTER	"W"	F/O Miller	Self	H2S x Country F/A
	5	"	"O"	F/O Miller	Self	H2S x Country
	6	"	"S"	F/O Miller	Self	H2S x Country
	12	"	"P"	F/O Miller	Self	H2S x Country F/A
	13	"	"S"	F/O Miller	Self	H2S x Country
	13	"	"Q"	F/O Miller	Self	H2S x Country (incomplete)
	20	"	"W"	F/O Miller	Self	H2S x Country
	24	"	"N"	F/O Miller	Self	Air Check
	25	"	"N"	F/O Miller	Self	Bombing F/A Quick Landing
	30	"	"S"	F/O Miller	Self	Loran 6 Astro x Country.
<div style="border: 1px solid black; padding: 5px; display: inline-block;"> Summary for July Type Lancaster Unit 467 Squadron Date July 31st 1945 Signature <i>[Signature]</i> </div>						
<i>S. J. White</i> o/c 467 Sqn <i>[Signature]</i> o/c 467 Sqn						

YEAR		AIRCRAFT		Pilot, or 1st Pilot	2nd Pilot, Pupil or Passenger	DUTY (Including Results and Remarks)
Month	Date	Type	No.			
Totals Brought Forward						
August	2	LANCASTER	"V"	F/O Miller	Self	Petro x Country Denmark
	3	LANCASTER	"Y"	F/O Miller	Self	Greenston Lodge - Base
<div style="border: 1px solid black; padding: 5px; display: inline-block;"> Summary for August Unit 467 Sqn. Date 28.9.45 Signature <i>[Signature]</i> </div>						
<i>[Signature]</i> o/c 467 Sqn						
September	2	LANCASTER	"C"	F/O Miller	Self	Base - Toulouse - Capri - Rome - Naples - Bari H2S return via Tilsen det.
	12	LANCASTER	"V"	F/O Miller	Self	Base - Nishan - Calcutta - Dindigul Coxs Teer (Dindigul - Kottayam - Madurai - Madurai - Dindigul - Dindigul - Kottayam - Madurai - Madurai - Dindigul - Dindigul)
	20	LANCASTER	"O"	F/O Miller	Self	X Country
<div style="border: 1px solid black; padding: 5px; display: inline-block;"> Summary for September Unit 467 Sqn. Date 27.9.45 Signature <i>[Signature]</i> </div>						
<i>[Signature]</i> o/c 467 Sqn						

After joining the Crew Bob made 17 Flights all relative to training to prepare them for the incredibly long flight to their ultimate destination, the Japanese island of Okinawa.

Much to the pleasure of the Ground Staff at RAF Waddington they were taken on a “Cooks’ Tour” over Europe where they saw for themselves the great devastation wrought on Germany during the long RAF Bomber Command raids.

These same hard working men and women of the Royal Air Force and RAAF had, through their tenacity under trying conditions of rain, bitterly cold winds and snow storms had to maintain the serviceability of the aircraft under their care. This was done in the open fields where aircraft had been dispersed, protected by only the shelter they could erect from scraps of materials. A great debt of gratitude is owed to these men and women for they also experienced the sad loss of Air Crews they had served when “their” aircraft failed to return. How often they experienced the loss of an aircraft must have played on their future mental health, for they were only human having often made friends with the Air Crews.

A great deal of flying done during this time when the war in Europe was over was devoted to a wide range training exercises for the Crews were hearing rumours about the “**Very Long Range**” (VLR) bombers they were to fly. These aircraft would be devoid of camouflage and left shining silver with extra 500 gallon inboard fuel tanks. No longer would there be an Upper Gun Turret but the rear gunner turret would be their only defence. Whether there was any truth in these rumours is not known, but the belief was that the aircraft would be the Avro Lincoln. None of these aircraft arrived before the “Tiger Force” Group was disbanded.

There were occasions when the Lancaster was loaded with bombs and taken out over the North Sea and dropped as a means of disposal for the huge stock- pile now no longer needed in this region.



Bob Herbert was promoted to the rank of Warrant Officer before joining FLGOFF Ken Miller’s Crew. He had 76 hours on Lancasters when the Squadron was disbanded.

Flight Sergeant Peter Bremner

Peter arrived in the United Kingdom during May 1944 and spent some time at RAF Padgate then some leave before being posted to Whitely Bay to complete a Commando Course. Then followed in numeral postings to RAF Bases including flying Tiger Moths. The Tiger experiences were certainly invaluable for it was an introduction to map reading over a countryside completely different to the Australian country sparse with detail.

On one occasion Peter, together with another group of Pilots tried to volunteer for the Royal Navy Fleet Arm but were told, “they should have been there yesterday!”

Eventually Peter Bremner was in Brighton when the details were announced at a morning Parade that a Course to under go Flight Engineer training. Many of the assembled Pilots were by then “browned off” (a term then used regarding boredom) so a number saw this as an escape to perhaps get to an Operational Squadron. This filling in time had been going on a great many months.

Soon afterwards, on 29 January 1945, a group of twelve Australian Pilots arrived at RAF St Athan in South Wales. There were many sporting facilities available including an Olympic size hearted swimming pool, which Peter often used.

Peter’s recollection of the intensive practical training was often conducted with a test using a blindfold to see if Trainees could strip and re-assemble a piece of equipment. One particular RAF Ground Instructor, who after a session about carburetor would then proceed to provide these young Pilots an explicit introduction to the Do’s and Don’ts of sex. By the end of their three months they knew considerably more about sex that the Merlin motor.



Contrary to the rumour, as this photograph clearly shows, there were sunny days at Whitely Bay because the one in the bathers is Peter Bremner.

The Course was very thorough and testing was constant. The participants had to do all the preflight checks on a Lancaster with NCO Instructors by their side constantly supervising and correcting if necessary. They were shown every moving part of a Merlin motor so when a problem occurred they would have every chance of fixing it, or could correctly report the problem once back on the ground. Every facet had to be learnt thoroughly because once in the air they had that responsibility. A great deal of the time was “hands on” dismantling and reassembling.

After a written and Oral Examination Peter passed with 69.7% on 18 April 1944. He then probably went on leave to await a posting.

<i>Briemner</i>	
FLIGHT ENGINEER COURSE	
NO 4 S. of T.T. R.A.F. St. Athan	
Type of Aircraft:	LANCASTER I & II
Examination Result:	69.7 %
Passed	<input checked="" type="checkbox"/>
Failed	<input type="checkbox"/>
Date:	18 APR 1945
	<i>Baylis s.l.</i> Chief Instructor

Peter's diligence to the Flight Engineers' Course is clearly reflected in his examination results. Little did he know that his ultimate Skipper would see this result and resist the SQDLDR gaining his services.

On 11 May 1944 Peter arrived **at No.1661 Heavy Conversion Unit RAF Winthorpe**. He made his first flight as Pilot /Flight Engineer with FLTLT Pennington on a 5.35 hour cross country under the scrutiny of an Examining Instructor as part of the hands on test. Two days later Peter was Crewed with SQNLDR Manager and set off on a night cross country, which took them over the North Pole. This trip was for 6.30 hours and again the accompanying RAF Flight Engineer simulated potential operational problems. On one such test the fuel was turned off from a motor and Peter had to demonstrate the correct procedure. On another time he was told a shell had holed a Port fuel tank and fuel was leaking and there was a high fire risk.

Peter had to isolate that fuel tank and feed fuel to the other motors from their tanks. The motor had to be shut down in the likely hood of a fire, and then feather the propeller. The self-sealing tank would have stopped the fuel escaping. If the leak stopped the motor could be restarted and then balance the fuel load. The fuel system was such that fuel could be transferred to any and from any of the four (4) main tanks to one of the motors. In each wing tip was a smaller tank of 112 gallons, which could be transferred to another tank.

There were many scenarios that could be injected for the unwary and time went by Peter gained the confidence of his Crew. Another flight over the North Pole and the objective was to prove they could see the sun for 24 hours. Once there they circled the Pole and during the seven hours observed the sun while they were in the air. As they were approaching their Base the sun was rising.

Through this trial period Peter passed with flying colours and he was transferred direct to No. 467 Squadron at RAF Waddington where he was **crewed with FLYOFF Morris as Skipper and an all Australian Crew**. They were all from the Eastern States but a record of their names has been lost. They had all been on Operations over Europe and on one occasion had lost their Tail Gunner.

It can be readily recognized that as an experienced Operational Crew the Skipper was looking for the right person to take over as their Flight Engineer, and Peter being a Pilot was an added bonus.

RAAF No.467 Squadron, METHERINGHAM

Shortly afterwards the Squadron moved to RAF Metherham, a satellite airfield where training began in earnest. Peter's crew was in "B" Flight and the Officer Commanding was SGNLDR Ron Douglas, who had been a Student a head of Peter at the Albany High School. There had been a possibility that Peter could have been in his Crew but Crews could not be altered once they had been established.

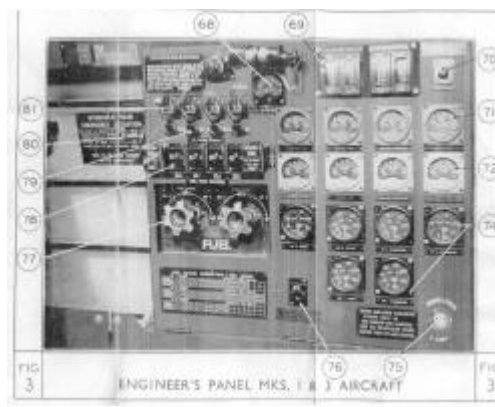


During "Circuits and bumps" Peter had the opportunity to gain experience, under the scrutiny of his Skipper, to learn to take off and land a Lancaster an essential skill for a Pilot/Flight Engineer. Further flying experience was gained on Cross Country exercises and recorded as dual instruction. This experience certainly added his stature within the Crew.

Hours flown during training on Lancaster Mark 1&111, as 2nd pilot 35.35 hours, Dual 17 hours, Night 13.5 hours as **Second Pilot and Dual 2,30 hours**.

Then commenced an enforced and intensive training schedule. Bombing practice, Cross Country flights, Astro Navigation exercises, Formation Flying and new changes in evasive manoeuvres. On most occasions there was an Examiner on board to check the working of all Crew Members. Formation flying was usually carried out when three aircraft “happened” to be in the same area.

The Flight Engineer’s “Office”



Flight Engineers were a vital Member of every Crew for their expertise in emergencies was often the reason that many aircraft returned to their Base, or over Europe, and made emergency landings.

Having successfully completed their Training Course it was learnt that the Squadron’s destination was the Island of OKINAWA via North Africa, with maintenance and refueling in India and other sections onward.

New modifications for tropical conditions were being carried out to the **Lincoln bombers**, that were shortly due to arrive at **RAF METHERINGHAM**. All Crews were put on alert to be ready to move out at 24 hours notice. (no mention of conversion to the Lincoln, Author) As zero approached an Order from the Air Ministry to “stand down” until further notice arrived on the Station. All Crews had to remain on the Station. After six days the Crews were told the Aircraft were ready for delivery.



An Avro Lincoln

Comparative sizes of the Lincoln & Lancaster

Lincoln Wingspan	120 ft	Lancaster	102 ft
Length	78.4 ft	Length	69.6 ft
Height	17.4 ft	Height	20 ft
R.R. Merlins	85	R.R. Merlins	20

Excerpts from Peter's Log Book
No 1661 Heavy Conversion Unit WINTHORP

YEAR 1946	AIRCRAFT		Pilot, or 1st Pilot	2nd Pilot, Pupil or Passenger	DUTY (Including Results and Remarks)
	Type	No.			
MAY			1661	H.G.H.	Totals Brought Forward WINTHORP
"	20	LANCASTER KB-L	F/LT PENNINGTON	SELF	No 19 X Country
"	22	"	NBL	S/L MANDER	No 16 X Country Night
TOTAL FOR STATION					
Signed A. H. Napier					P/O for the Ldr.

SINGLE-ENGINE AIRCRAFT				MULTI-ENGINE AIRCRAFT						Pas- senger	WEATHER/CLLOUD FLYING (as in com. (1) to (16))	
DAY		NIGHT		DAY			NIGHT				Pass- enger	Dust
Dist	Flyer	Dist	Flyer	Dist	1st Pilot	2nd Pilot	Dist	1st Pilot	2nd Pilot	(11)		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)			
45-15	48-05	5-05	50	64-25	45-35	12-50	10-20	4-20		34-50	29-30	37
										5-35		
										6-30		
										12-05		

YEAR	AIRCRAFT		Pilot, or 1st Pilot	2nd Pilot, Pupil or Passenger	DUTY (Including Results and Remarks)							
	Type	No.										
					Totals Brought Forward							
467 RAAF VLR. 3004 METHRINGHAM.												
JUNE	10	LANCASTER	X	NO MORRIS	SELF	1st. METHRINGHAM - METHRINGHAM						
JUNE	20	LANCASTER	28.614	NO MORRIS	SELF	1st. BRIS - LINDSEY - WISLEY - BRIS						
Summary for Month Ending 30th June 1945												
Unit: 467 SQU.												
Date: 29th June 1945												
Signature: J. H. Napier												
SINGLE-ENGINE AIRCRAFT				MULTI-ENGINE AIRCRAFT						Pas- senger	WEATHER/CLLOUD FLYING (as in com. (1) to (16))	
DAY		NIGHT		DAY			NIGHT				Pass- enger	Dust
Dist	Flyer	Dist	Flyer	Dist	1st Pilot	2nd Pilot	Dist	1st Pilot	2nd Pilot	(11)		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)			
48-13	48-05	5-05	50	64-25	45-35	12-50	10-20	4-20		37-00	29-30	37
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)

Peter Bremner flew throughout May, June, July, August and September 1945 culminating in 52 .15 hours Day and 17.30 hours Night. This was in addition to 11 hours Dual and 11.10 hours as Second Pilot.

Year	AIRCRAFT		Pilot, or 1st Pilot	2nd Pilot, Pupill or Passenger	Duty (Including Results and Remarks)	
	Type	No.				
					Totals Brought Forward	
SEPTEMBER	18	LANCASTER	5	1st PNRBNS.	SELF	1/2 COAST TOWN
	21	LANCASTER	5	1st PNRBNS.	SELF	1/2 X. COUNTRY
	22	LANCASTER	2N-U	1st PNRBNS	SELF	1/2 BARR - BARR.
	27	LANCASTER	2N-U	1st PNRBNS	SELF	1/2 BARR - BARR.
<p>SUMMARY FOR MONTH ENDING 30th SEPT 1945. UNIT. 467 SQDN DATE 29th SEPT 1945. SIGNATURE</p> <p>SIGNED <i>Peter Bremner</i> 3/10/45. O.C. 467 SQDN.</p> <p>SUMMARY FOR 467 SQDN. DAY. 52.15 HRS. NIGHT. 17.30 HRS.</p>						

BESSER-ENGINE AIRCRAFT				MULTI-ENGINE AIRCRAFT				Passenger	INSTRUMENT FLYING (Incl in (11) & (12))		
DAY		NIGHT		DAY		NIGHT			Dual	Pup	
1st Pilot	2nd Pilot	1st Pilot	2nd Pilot	1st Pilot	2nd Pilot	1st Pilot	2nd Pilot	(11)			(12)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)		
45.05	48.05	5.05	30	70.25	40.35	36.55	12.30	4.20	13.00	47.55	28.30
				2.30		2.40					
				30		1.30					
				4.00		3.30					
				4.40		3.30					
				11.00		11.10					

On 14 August 1945 the Atomic Bomb was dropped and Japan surrendered shortly after the second bomb. The Squadron then flew a low level: Cook's'' Tour over Germany observing the devastating bomb damage. The area that impressed Peter was the appeared as approximately 40 acres of the might Krupps Engineering Factory had been completely demolished.

No. 467 Squadron then flew to Italy to bring back the Mediterranean Forces back to the United Kingdom. On one occasion the weather closed back at Base, which gave the Crews time to enjoy the Italian weather and swimming in the temped water. Considerable amount of bartering took place with Peter claiming that he was a millionaire with 1,000,000 Lire in his kit bag. The Crew made 585 pounds Stirling profit, once back in England.

So ended Warrant Officer Peter Bremner's period as a PILOT/ FLIGHT ENGINEER on Lancasters in the Royal Australian Air Force Squadron.



Warrant Officer Peter Bremner, (although not wearing an Official Cap) was here relaxing during a day ashore in Port Said before continuing his ship voyage back to his home State of Western Australia.

Flight Sergeant Ron Daymond

Ron Daymond arrived in England in August 1944 and took up residence at RAF Padgate (near Warrington) where, after some leave, was posted to undergo a Commando Course at Whitley Bay. The unique evidence Ron has is proof of having attended this Course is in this Group Photograph, which, to all others who went through this grueling period, never had such a photograph taken.



Flight Sergeant Ron Daymond is in the front row second from the left, but why such a photograph was taken for this particular Group is not known but it does indicate the abundance of surplus Australian Pilots. (R. Daymond)

Following this Course, meant to prepare one for Service in the Burma Region, as it was rumored. Ron continued on with the usual routines of filling in time at a number of RAF Bases as well as accumulating hours on Tiger Moths and experienced the look of the English countryside and its immense detail of features.

On Thursday of the 19 April 1945 a Posting to RAF St Athans was handed to him, which momentarily caused him to suddenly consider if he had made the right choice to volunteer to undergo training as a Flight Engineer. He considered it was at least doing some thing having come 12,000 miles to serve some useful purpose.

Along with a Group of other volunteers, departed Brighton at 10.10 am on 25 April 1945 (an historical day) bound for Southern Wales. This was to be a tiring day arriving at RAF St Athan at 2100 hours (9pm) tired and hungry.

The usual procedure the day following comprised of gathering some 20 signatures to be admitted to this, the largest RAF Station in the United Kingdom. Any one, who has gone through this procedure, is fully aware that when it comes to depart the Base you have to do the whole thing again to be allowed to leave. By months of previous experience behind Ron he accepted the reality.

From discussion with others, already on this course for Flight Engineers, he discovered that the whole experience was what you personally made it, for it could be dull, interesting depending on ones mood. The only one complaint was that the billets (huts) were a long way from the lecture Rooms.

By Friday 27 April Lectures commenced on the Technical aspects of the Lancaster Bomber, which was the aircraft they would concentrate for their entire Course. A serviceable Lanc was suspended on jacks in the hanger and it was in fully working order.

On the following day (Saturday) they attended lectures on the Theory of Flight then informed they were not required after 1300 hours so they were free until 0700hours on the Monday morning. Some Pilots would leave the Base to venture into Cardiff or surrounding villages but Ron decided he had more pressing duties.

Apart from the necessary exploring the camp facilities and discovering the Olympic size swimming pool and a host of sporting equipment he spent a relaxing afternoon. Sunday morning did not commence until placing his feet on the floor until 1100 hours he then proceeded to join a game of pontoon. This resulted in 14/- (14 shillings) of winnings. Spent part of the afternoon writing many letters (this would appear, from his diary, amounted to an obsession) then completed the evening after dining in the Sergeants' Mess followed by having a "good hot bath."



Although the weather was often reported as awful this would appear far from the truth in this posed pic. There are flowers at their feet and the sun appears to be shining brightly for this completely relaxed, would be Pilot/Flight Engineers, at RAF St Athan. Ron is on the far left. (Ron Daymond)

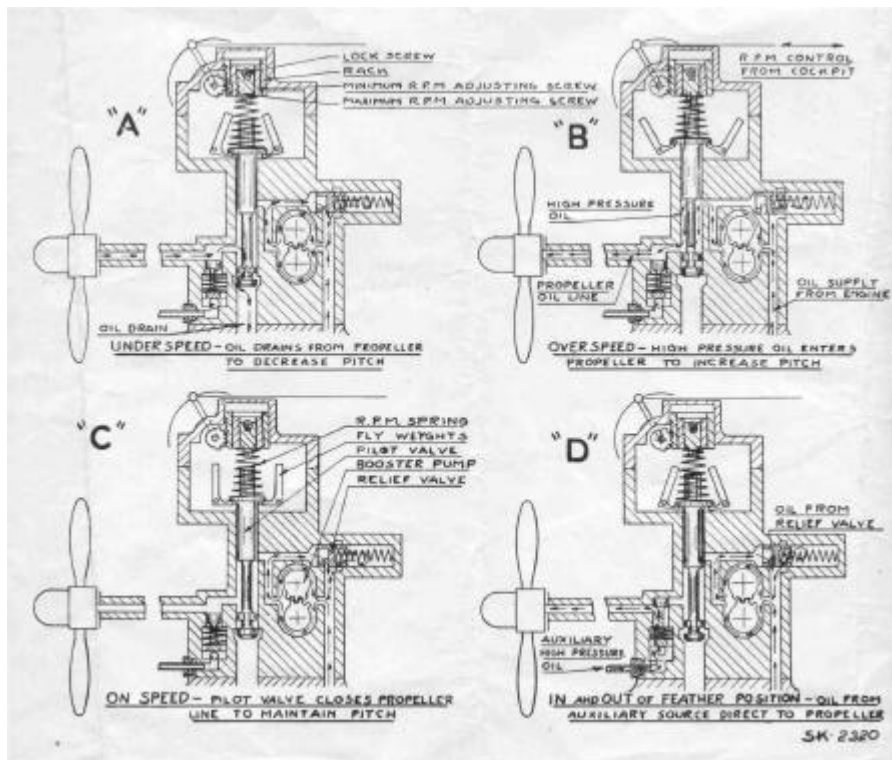
One of the rumours circulating was that if you failed this Flight Engineer Course you would be sent back to Australia without the Air Crew Mustering.

(Possibly initiated by one of the Staff, Author)

One of the irritating RAF routines was the insistent requirement for these Senior N.C.O.s to polish the barrack floors. This appeared to be regular activity much objected to by the Course participants yet it still had to be complied with. Another requirement on occasions was the compulsory Church Parade held in the Base Cinema.

The state of the weather was a regular feature in Ron's Diary he kept during this period, for rain and storms figure repeatedly. By then, on the rare occasions when the sun appeared, he had a sudden urge to divest as many of his clothes as possible and absorb as much radiation as possible and revel in the slightest sign of sunburn that would enhance the possibility to gaining a resemblance to tanning. There appeared to be no suggestion to gaining an extra dose of vitamin D only a glimmer of brownness.

Practical and relevant work on the Lancasters continued until on 7 May rumours were rife on the Base so much so that all lectures ceased but that evening it was announced that the War in Europe had ceased. The Commanding Officer announced that the Base would Stand Down. A Church Service was held and the Cinema was packed. Much over celebrating was the order of the day but two days later it was back to the regular routine by completing the Airframe section and commencing Electrics and Instruments the following day. There was another War still operating in the Pacific and the objective this Pilot/Flight Engineer Course was for these young RAAF Pilots to join the Australian Squadrons to be posted to the Pacific region.

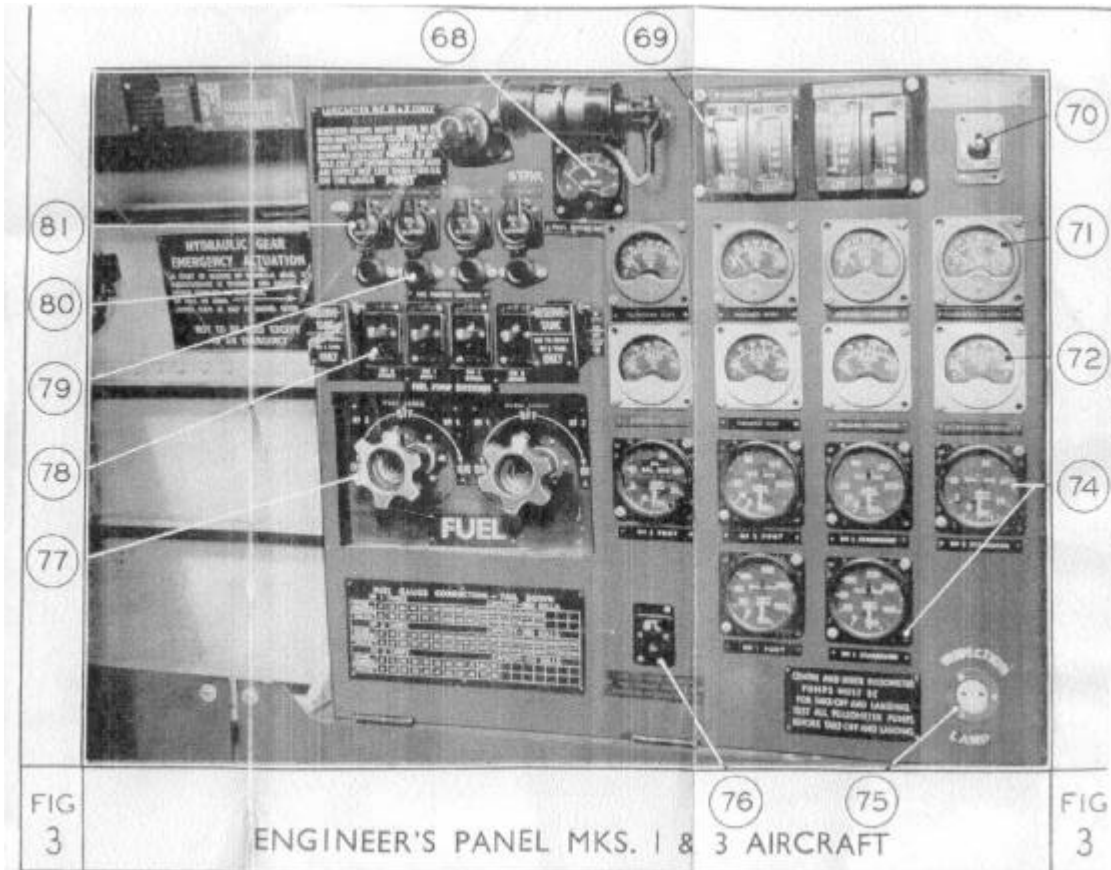


All around the Instruction Hangers were many charts and working models of equipment that were relevant to the knowledge to be learnt by Pilot/Flight Engineers.

Another rumour circulating on 10 May was that 8 Heavy Conversion Units would NOT accept these Pilot/Engineers on Graduation. How such a rumour was started is not known but in reality there were already Aussie Pilot/Flight Engineers operating in Crews both at HCU and Squadrons as recorded elsewhere in this account.

Ron's assessment of the Electrics & Instrument Lecturer was that "he didn't have a clue" but whether in regard the subject or his teaching technique is not clear.

All the Courses were called out for a Drill rehearsal in preparation for a Victory Parade to be held on the following Sunday 13 May.



This Flight Engineer's panel held most of the instruments, and control of them the Flight Engineer had at his disposal to rectify many of the problems that may occur during an operation over enemy territory. The skill of the Flight Engineer frequently enabled the Pilot Skipper to return to England and carry out a successful landing.

According to Ron's comments regarding the Victory Parade through Cardiff it was "a bonzer parade" but the powers to be slapped these Flight Sergeants on duty as Patrol Guards.

Hands on work in the hanger in regard to instruments proved to most interesting especially the details regards "George" the automatic instrument that flies an aircraft, is ingenious. It appears that no more Australians will be coming to St Athan but there again this could be another rumour. During mid May the evening light was so bright that a newspaper could still be read up to 10.30

pm in the twilight. The Instructor advised the Group that an Oral Examination would commence in one week

Meals at St Athan were considered were terrible during this period. (it was amazing to what lengths the Americans could provide for their Air Crews as experienced by the Author)

All areas of the United Kingdom was experiencing the cessation of the war for incredible as it was a “Test Match” was conducted between the Australians and an English Team, which created a great deal of speculation in the daily newspapers and radio. After long years of was this was a sign of normality creeping in but the people of the United kingdom would still have years of rationing and shortages to face because of the financial cost of the war to the Nation.

“Browned off” was Ron’s comment about the Course but he was determined to do his best even more so after attending a lecture from a Liaison Officer who announced that if they did not pass they would be dropped from Air crew. Ron received a “B+” mark for the Oral Exam.



The cockpit instrument layout was crucial knowledge for the Pilot/Flight Engineer. All controls for flying the aircraft were located here and the Pilot delegated to the Flight Engineer those controls he could operate. Perhaps the four throttles during take off as an example. (L.J.)

Some how the weather by the end of June was fine for the Aussies found the time and energy to play cricket at the “nets” for St Athan’s had many facilities and equipment for the sports minded.

A match was organized between the English and the Aussies with the latter winning but no results were recorded.

It appears that there was a “synthetic Lanc trainer” (what is now referred to as a simulator) which was a true fuselage complete with all the wiring and gauges that were ingenious for it must have been a great saving in fuel. Then the engines were started and gradually ran through the run up procedure, which made it very realistic. This was followed by real Lancasters, which when all their four engines running, created an incredible din to un-accustomed ears.



With the Flight Engineer's seat lowered he could spend much of his time there monitoring the engines performance while keeping his own special Log up to date. His control Panel was near at hand. (L.J.)

Examination on the Theory and Calculation paper was held and much to Ron's relief was relatively easy. Then followed the “Board Examination” but the waiting for two hours to be called was like the waiting for a dentist examination. He passed this ordeal

DAYMOND	
FLIGHT ENGINEER COURSE	
NO 4 S. of T.T. R.A.F. St. Athan	
Type of Aircraft	LANCASTER I. & III.
Examination Result	69.1 %
Passed	<input checked="" type="checkbox"/>
Failed	<input type="checkbox"/>
Date	27 JUN 1945
	J.C.J. [Signature] Chief Instructor

Now commenced the usual RAF procedure to gain clearances in preparations for being Posted off the Base on Leave to await a further Posting. His **Pilot Log Book** was handed back to Ron showing his endorsement as a Qualified Flight Engineer with a pass of 69.1 %, which incidentally was top of the Course.

On Friday, when fully cleared, paid and packed ready to depart there came a bomb shell in the form of his leave being held and a notice indicating he was required as a witness for an inquest. Ron then had to contact Mrs Liver, a lady he had already informed he was coming to stay and break the news that his leave was delayed. While everyone was away enjoying their leave one other person with Ron had to remain at RAF St Athan to wait to be called. This state of affairs lasted for two weeks culminating with NOT being called.

No appointment to a Heavy Conversion Unit or a Squadron eventuated for, during this period, the Atom Bombs were dropped and the War in the Pacific against the Japanese ended.

Shortly afterwards came an opportunity for Australians to go on permanent leave and seek employment if they so desired. Incredible as it now seems that some even became “extras” during

the filming of feature movie films at a famous Production Facility, but Ron went to work for the famous Kodak Company near London.



Ron, far right front, was not the only Aussie employed at Kodak. When his final departure arrived there were some very kind expressions expressed.



In due course a great many Australians ended up at RAF Millom waiting further instructions to return them to Australia when ships became available. Ron was promoted to Warrant Officer during this period.

Conclusion

This project has been most enlightening to me to discover the demanding course that Pilot Flight Engineers had to cover, to equip them to carry out their demanding role as Second Pilot/ Flight Engineer. I, particularly appreciated the time taken by each contributor, who had to endure my inquisition of questions, for many were reluctant to write directly about what had happened fifty seven years ago incase of being considered a “line shooter”.

It was probably not a viable alternative to endeavour to locate all the Pilots, who under went the war time Flight Engineer Course at RAF ST Athan, because of the time frame and their whereabouts in this vast country of ours.

My objective is to record for posterity that those RAAF Pilots of 1944/45 did volunteer to undergo this demanding Flight Engineer Course, some of whom operated as Members of Tiger Force destined to the war in the Pacific. Others had completed the Course but were not posted because of the dropping of the Atom Bombs.

Copies of this book will be deposited in Libraries and Commonwealth Departments for future generations of researchers.

Leslie R. Jubbs
Ex RAAF Pilot of that period.
February 2003.