John Beisly 1944
An Introduction to 6 Group Bomber Command
1 Trained at St Athans, South Wales as a Flight Engineer on Halifax Bombers from September 1943 to May 1944. Attached to the RCAF 1659 HCU at Topeliffe in July 1944. Joined RCAF operational unit 433 Squadron at Skipton on Swale in August 1944.

During the next eight months I took part in 30 operations over Europe part of the time as F/E on a Halifax and part on a Lancaster. Some 'trips' were quite 'hairy'. I remained in the Air Force until March 1947.
On the 5th August 1944 having completed training at 1659 Heavy Conversion Unit,RCAF,Topcliffe, where I had been assigned a crew. We were posted to 433 Squadron Skipton on Swale. Having just reported to Squadron Offices we proceeded towards our Nissen huts situated in a field about half a mile away next to the river Swale. Almost immediately as we approached the village, a Halifax returning from a bombing mission damaged and on three engines, crashed at our feet about 50 yards away. The pilot had been given red flare warning him to go around again, whilst doing so a second engine failed hence the crash.

The Pilot and Flight Engineer were killed also a small boy in the village. The rest of the crew were seriously injured After a Squadron Reunion in Toronto in October 1982 a committee meticulous planned, with generous contributions, a dedication and plaque honouring the Squadrons who served at Skipton on Swale, recording the crash incident. On the A19th May 1984 the ceremony
took place many veterans attended. The plaque was placed on the spot where the Halifax had come to rest having struck an elm tree. During the ceremony the last flying Lancaster flew over the site. The elm tree is no longer there but in its place stands a maple tree brought over from Canada. Probably one of many similar incidents, however I felt it was worth placing on record.

## busy November night in 1944

It was early in November 1944 when My RCAF crew (I was the English Flight Engineer) took off on a bombing raid with our Halifax 111 and several more from 6 Group Squadrons based in North Yorkshire. The Target was Bochom to bomb at 17,000 feet..This was to be our 10 th 'rip' it was our 7 th in ' $G$ ' George and we were becoming attached to him/her.

The first hour or so was normal, gaining height and forming up over the North Sea to create the 'main stream', heading towards the target and checking all systems were working OK. There was a constant need to ensure the radial engines didn't overheat and he oil sump didn't freeze up by making adjustments to the engine controls and
synchronising the propellers. This was done by keeping a log of engine performance and what adjustments were made. The rest of the crew were busy with their alloted duties.

Over the Target the Bomb Aimer guided our skipper in his usual calm way and 'gave bombs' away. We turned for home and almost immediately there was a loud bang and a large hole appeared in the fusilage next to where I was standing just behind the pilot, in front of my instrument panel. A large piece of shrapnel had penetrated and destroyed most of the cables running along the starboard side the plane feeding most of the instruments connected with the engines instruments etcetera. There were many blue sparks but no evidence of fire. There was from that time no communication by intercom for any of the crew. I exchanged hand signals and notes necessary with the Skipper and crew.

First I had to go down to the rear of the plane (oxygen bottle attached) and make sure that the flash bomb at the rear end of the plane had deployed when the bombs dropped. If not, it was necessary to push it out with the axe handle. If it had not gone down its shute it would be a fire hazard. Also checking the bomb bay in which a couple of bombs were still 'hung up' these were to remain and return home with us. The sight of me also gave the crew some assurance to the rest of the crew that we were still functioning.

It was soon apparent that one of the engines was 'not well' and needed to be feathered to reduce drag however it continued to revolve very slowly. The lack of instruments meant it was necessary to rely completely on calculating the fuel consumption by dead reckoning using a small instrument similar to a slide rule but circular. There were several different size fuel tanks in each wing each would empty in different time scales. My hope was that none of these were damaged as there no way of knowing until an engine 'coughed'. With one engine not working it meant that the trim of the aircraft had to be adjusted and engines worked harder. Fuel would have to be balanced by switching engine supplies around and running engines of different wing tanks. To make sure all the fuel was used from a tank I had to sit half way down the plane next to the levers controlling the source of supply and when an engine' coughed' quickly switch to another tank. We trundled on the way home for about two hours and the skipper decided we would have to land at the carliest opportunity. When we hit the coast of England our navigator suggested the 'crash drome' used by people 'like us'. It was situated on the north side of the Thames estuary. We made a direct approach intending to flash our navigation lights with the morse code for ' G ' George. This was not to be, there were no lights. It was necessary for me to fire the Very pistol with the 'colours of the day' from the position to the right of the astrodome. This was replied to with a very welcome 'Green' and we flew straight into land 'no messing' with a welcoming convoy of ambulances (meat wagon) and fire engines racing along behind us. Needless to say poor George was extensively damaged in many places and we returned to base next day by delivering a different aircraft back to its base and lorry from there.

Note:-Feathering was a method of altering the pitch of the propeller blades to face the thin edge into the wind. When there was no power to drive the propeller if you didn't do this the momentum of the plane would try to drive the propeller which made it very hard work for the rest of the engines and dragging the plane sideways and downwards. Regards JB.

## The Unexpected

Very Pistol is a signalling pistol which was used for many situations, when fired it sent a burning coloured wad similar to a 'roman candle' several hundred feet. One situation could be to identify your aircraft to Airfield Control when returning to base or to attract their attention should your normal method not be available due to enemy action or some other hazard. The shells could produce various combinations of colours. This meant that different colours could be used for identification at different times or days. The basic colours were Red for example 'don't land' or Green for 'can land', should you ask for permission to land by some means or other.

When on operations or training flights the F/E was issued with shells with the 'colours of the day'. The unused ones were returned to the issuing stores, after the flight.
One of the after flight duties of the F/E was to unload the Very Pistol and do this. Changing the 'colours ' each day was security a security measure to prevent un-authorized signals being used.

The Very Pistol was stored in a holster on the starboard side of the aircraft near the F/E's position in my case. As soon as the aircraft had taken off and was on course it was the practice to install the pistol in its operating position in the roof with barrel pointing through an aperture It would then easy to quickly load the pistol if necessary.

On this particular day I had only several hours flying training but was now a fully trained F/E just needing the experience which could only be gained 'in time'.

After we had levelled off and set course and the Skipper relieved me of my 'second pilot' duties required for 'take off'.
I returned to my position just behind he Skipper whereupon I removed the Very Pistol from its holster to install it into its operating position.
The Pistol immediately discharged and fired a round of its flaming contents directly into the front of the aircraft whereupon it set light to the blackout curtains which enclosed the Navigators position.He tried to beat out the flames with his hands at the same time beating a retreat to the rear of the aircraft, followed by the Bomb aimer who had been setting up his instruments. The interior of the aircraft was engulfed in thick white smoke. I grabbed the fire extinguisher situated under the pilots seat next to where I was standing and went towards the flames which were fortunately soon extinguished. For few minutes the Skipper kept control of the aircraft and was in effect flying in the dark engulfed in white smoke. Windows were opened and the smoke dispersed. The Navigator and Bomb aimer nursed their burnt hands and a request was made for our return to base which we did safely.

The subsequent enquiry established the Very Pistol had not been unloaded after the previous trip this was confirmed by the shell being the colours of a previous day. Thus causing an unexpected hazard which fortunately had no lasting effect.

## Flight Engineer's Duties

For Halifax 3 and similar for Lancaster 1/3. The main difference between the two, were the engine power. The Halifax had four Hercules 16 radials, air-cooled the Lancaster (the ones I also flew in) had four Merlin in-line liquid cooled. Fuel supply, Halifax six tanks in each wing, Lancaster three tanks in each wing. After the Crew Briefing when the crews on the Battle Order are given their destination. I would proceed to the crew room and put on Flying gear it was designed to protect from up to -40 deg , collect parachute, Very pistol shells which would be the colours for the day, survival pack for if landing in enemy territory. A truck would drive out to dispersal where the aircraft waited. I would walk round the aircraft and using a check list, look for any obvious faults such as landing gear faults, leaks, tyres, check that the tail lock was off.
Then the crew would get on board and all work through check lists for equipment at their posts. The Pilot and I would prepare to start the engines using an external battery source. then sit and wait for orders from the Control for Take Off,
My duties were as follows, Assist Pilot with take off hold four throttles open as required, lift undercarriage and flaps as ordered. Similarly on landing assist with flaps and undercarriage. Once airbome retum to my position behind the pilot and under the astrodome. Thereafter a log was kept at regular intervals of the fuel consumption, oil temperatures for the four engines for which adjustments were made if overheating was seen, by opening engine gilis to increase the airflow around the engines, this of course was monitored because the open gills created more resistance and thus more use of fuel. (slightly different for the Lancaster)
Fuel calculations were made using a manual table, there were 12 fuel gauges six tanks in each wing (Halifax). The tanks were shaped to fit into the wing shape and therefore held a different quantity in each one. It was usual to record 15 gallons of fuel for each engine at each take off.
There were many other gauges to monitor performance. Cowling Gills. Cylinder Temperature,
Oil pressure, Fuel pressure warning, and other switches and One each for each engine. Regular recordings were made of the position the indicators on a standard form called Flight Engineers Log. This would be used for the records as well as current situation. It was usual to make maximum use of the fuel tank contents. To do this, when is was calculated that a tank was getting near to empty. There were levers halfway down the aircraft in the rest position, the Engineer would advise the Pilot and proceed with oxygen bottle plugged in, to the rest position and wait until an engine coughed then switch to another tank with the appropriate lever position this would ensure that the tank was drained. When above $10,000 f$ the crew plugged into an oxygen supply at their post, if on walk about which the F/E often did, an oxygen bottle with about 10 minutes supply was clipped on.
After the bombs were dropped the Engineer would clip on the oxygen bottle and proceed towards the rear of the aircraft, on the way check that all bombs had gone and clear hang-ups if possible, check the Flash which should fire as the camera recorded the arrival of the bombs on the target. If the Flash had not fired it was a fire hazard and had to be pushed down its barrel out of the aircraft using the axe handle. Returning from the target meant constant monitoring of the engine performance especially if there had been damage by enemy action and being generally observant of all things.
If an engine was out of use which could often happen. The fuel had to be used in away
to make sure that the trim of the Aircraft was maintained, because the fuel was being used at an uneven rate from the wing tanks. This was achieved by juggling with the supply source of fuel to the engines by use of a transfer lever in the rest position. Using this made it possible to use more fuel from one wing or the other.
Other situations arising would be dealt with by initiative.
By John Beisly Photographed below.


