

STRIKE TO DEFEND

PREFACE

Although it has been the custom over the past thirty years to push memories of our experiences during World War II to the back of our minds, I have specifically been asked recently, by my son who is now studying the period, to talk about those days.

Many recent accounts I have heard or read have, it seems, been written by younger people who have no first hand knowledge of the time, but who have tried to research and give an account of various happenings. Unfortunately, to my mind, this method creates many distortions of facts, and I am therefore endeavouring to give an authentic impression to help young lads like my own son to understand the important part that Bomber Command played in World War II.

In so doing, I would like to dedicate the following work to all aircrew of Bomber Command who did not return, and in particular to my many friends and comrades of '83' Squadron, Pathfinder Force.

In January 1942 Air Chief Marshall Harris, Commander-in-Chief of Bomber Command was sure enough of the growing strength of R.A.F. Bomber Command to make the following prophetic statement:

"Cologne, Lubeck, Rostock, those are only just the beginning. Let the Nazis take good note of the 'Western Horizon', there they will see a cloud as yet no bigger than a man's hand, but behind that cloud lies the whole massive power of the United States of America.

When the storm bursts over Germany they will look back to the days of Lubeck and Rostock and Cologne as a man caught in the blasts of a hurricane will look back to the gentle zephyrs of last summer. There are a lot of people who say that bombing can never win a war, well, my answer to that is that it has never been tried yet and we shall see! Germany, clinging ever more and more desperately to her widespread conquests and foolishly striving for more will make a most interesting initial experiment. Japan will provide the confirmation".

The following gives an account of the preparation for and carrying out of a typical 'maximum effort' raid by Bomber Command which was initiated at H.Q. by the selection of a TARGET city:-

Together the planning Air Staffs were advised on weather conditions affecting U.K. Bomber bases, route, and target area. Selection of specific targets and the mass of detail, concerning target photographs, German defences, route out - home, codes, fuel loads, bomb loads - target marking techniques with pyrotechnic colour codes and from this mass of specialist information was evolved an OPERATION ORDER sent in code to all concerned Bomber Groups and Squadrons which on receipt at a Squadron was called the 'B' (bombing) Form and summarized thus:-

1. Intention
2. Method
3. Execution

On receipt of an Operation Order at R.A.F. station level there was an immediate security clamp placed on Entrances/Exits, also all telephone lines were disconnected, - except for those coded and scrambled 'tie lines' to Bomber Group and Command Headquarters.

The whole R.A.F. station was alerted, and aircrews detailed to Air Test specific serviceable aircraft. Each aircrew member made a thorough detailed check on the ground against specially prepared Master check lists, i.e.:

<u>Pilot:</u>	Pilot and Static Vent covers "OFF"
<u>Flt. Engineer:</u>	Combined check of all aspects of aircraft externally, including Propellers, Airframe, Engines, Tyres, Brakes Control surfaces, Trimmer Tabs, Oil, fuel and hydraulic systems.
<u>Navigator:</u>	Combined check of all navigation equipment, bomb bay, bomb sight and navigation electronic aids.
<u>Bomb Aimer:</u>	
<u>Wireless Operator:</u>	Check Transmitter, Receiver, Trailing aerial gear. Radio jamming equipment, A.I. equipment I.F.F. (Identification Friend or foe), also Verey Cartridge codes and pistol - and finally <u>Bomber Code for the day.</u>
<u>Gunners</u>	Check Mid-upper, Front and Rear Turrets, associated electrical Gun Sights - Machine guns, ammunition and Turret heating.

These checks by the individual specialist aircrew members followed intensive work by the skilled ground crew tradesmen who themselves had followed scheduled servicing programmes supervised by Senior N.C.O. Master technicians.

On the air-crew ground checks being completed, - control surface locks and Jury struts were removed; Ground Electrical power plugged in, and the Aircraft's Master Electrical switch switched from FLIGHT to GROUND.

Each crew member took up his respective position in the aircraft, then a further check list carried out embracing in detail all aspects of readiness for the ensuing Night Flying Test (N.F.T.). The check list continued from all positions while switched to "Ground electrical power" - when complete to this point the O.K. to start engines was indicated to waiting ground crew:- e.g.

- No.1 (Port Outer)
- No.2 (Port Inner)
- No.3 (Starboard Inner)
- No.4 (Starboard Outer)

With all four engines started the order Ground/Flight switch to Flight was given and "disconnect external electrical service". Still on CHOCKS the "Prior to Flight" checks were continued from the Master Check list. These included:-

- (i) All controls - freedom of movements
- (ii) Engine temperatures, pressures normal.
- (iii) Each engine in turn revved up to Max R.P.M. and Boost e.g.
Lancaster 3000 R.P.M. 12lbs. sq.in. Boost

- (iv) All 8 Magnetos checked, in turn.
- (v) All engine oil pressures - steady at 90 lbs. sq.in
- (vi) All engine temperature normal
- (vii) All Fuel Pumps 'ON' and showing 12 lbs.sq.in
- (viii) All superchargers set 'M' medium gear.
- IX . All propellor pitch controls, controlling - Full coarse to Full Fine - and Set Fine.
- X Bomb doors closed
- XI Pilot Heater 'ON' (Air speed indicator)
- XII Brake Pressure 350 lbs. sq.in
- XIII Hydraulic Pressure 3000 lbs. sq. in
- XIV Master Gyro Compass - check reading (by rear door) and compare with:-
 - (a) Repeater compasses "on"
 - (i) Bomb Sight -
 - (ii) Navigators -
 - (iii) Wireless Operators -
 - (iv) Pilots Instrument Panel
- XV Check Magnetic P.4 Compass for deviation
- XVI Check Altimeter setting for code Q.F.E. airfield at Zero height or Code QNH - height above sea level as required.
- XVII Check all crew restraint harnesses secure, Oxygen 'On' Masks 'On'
- XVIII Flight Engineer checks Fuel Cocks selected for Take Off (No.1 Tanks Inboard)
- XIX Pilot signals "CHOCKS AWAY" - when clear, rolls a few feet - checks "Brakes ON" and Pressure maintained.
- XX Pilot taxis to Take Off Runway in use by using outboard engines for steering with touches of "differential" braking to either Port or Starboard main wheels as required. The differential was achieved through an air valve connected to the rudder bar - with a single lever on the control column.

When given clear to do so (Green light from runway controller), the pilot turned onto the runway, ran forward a few yards (to straighten the Marstrand Ribbed Tail Wheel) - then applied full brake - opened throttles to gate position, - Power noted, Magnetos again checked in turn - for Rev drop. If O.K. Flaps selected 20 degrees down, radiator, shutters auto, Captain called crew - "Take Off - Brace".

Against brakes, throttles were opened, leading with starboard engines (to counteract Propellar Torque (which tended to cause a swing on Take-off) - and as the aircraft accelerated and the tail came up - all four throttles to the 'Gate' position. At this point the pilot had directional control via the Rudders and then dependant on speed required and wind direction - called for "Full Power" to the Flight Engineer. The Flt. Engineer responded and

called out 'full power 3000 Plus 14" when indicated.

Once airborne, a further series of checks covering all systems and controls was completed. Any technical defects noted for advice of ground crew on landing. Such N.F.T.'s took from 20 minutes to 40 minutes, and on landing any defects were reported as "Snags" to be corrected immediately. The aircrew returned to their respective Flight Commanders to report 'Serviceability'. In turn this information was passed through Squadron and Group Commanders to H.Q. Bomber Command as the percentage of Squadron strength serviceable and available for operations.

Meantime, the Engineering and Armament Officers would have been advised of

- (a) The Fuel load in gallons (Lancaster maximum 2154)
- (b) The various bomb loads required, together with photo flash sizes, Barometric bomb fuse settings - delay settings - Target Indicator - Code colours and further varied Bomb release switching permutations over the 15 available bomb slips plus 3 Flare Chutes.

Depending on the Operation Order, - Target - alternate target - or other possible variables, the time for Main Briefing of crews was usually released as soon as possible in order to allow rest before the trip. Possibly, due to tactics for spoofing or fooling the German defences systems en route, it could be that Pilots, Navigators and Bomb Aimers were required to attend on initial Pre-briefing where maps and charts were prepared according to detailed instructions for the proposed bomber raid. These crew members were joined by the remaining crew members, i.e. Flight Engineer, Wireless Operator, Mid-upper and Rear Gunners - and all crews seated, - seven men to a table.

At Briefing time screens were removed from the large scale map of Europe showing, usually in red tape:

- (i) Route outbound to Target with turning points
- (ii) TARGET - and Alternate if required
- (iii) Route Home to mythical 'Gate' position in North Sea - (Gate for 83 Sqn. was 7 miles east of the Wash and 4 miles wide North to South)
- (iv) Route from Gate position in-bound to base at Wyton - usually down the 'Bedford Rivers to St. Ives - (ground beacon) before joining Wyton airfield circuit - Anti-clockwise.

A typical briefing took place in the Airmens' Dining Hall under strict security conditions - only aircrew detailed on the OPERATION ORDER - plus only Aircrew Section Leaders and the concerned specialists - i.e. Photographic Armament, Engineering, Electronic, Radio, Intelligence, Weather (Meteorologists) were present; all other personnel who did not need to know were excluded.

After an introduction to the Target by the Station Commander, and an outline of the major factors concerning the chosen Target, each Specialist Leader gave detailed information as required, e.g.

Met. Officer: - Weather at base for Take Off, on route, Target forecast, and base on return.

Navigation Leader: - Take-off and climb, timing details, route in detail giving turning point co-ordinates. Timing explicitly to the second cruise speeds, - final Heading to Target with Height to Bomb - exact heading. Also, instructions for ground or air turning points, or ground/Air Markers colour Code changes at specific times as advised by Pathfinder Master Bomber.

Bombing Leader : - Covered specific detail of make up of bomb loads - and which Flare Chutes were loaded with requisite coloured flares. Also Bomb sight and Camera settings with emphasis on correct heading on final run-up to target with ~~the~~ "minimum Jinking" request to pilots" on run up - and emphatically, speed steady at 143 knots. (This latter always met with a laugh, but was usually adhered to by crews).

Flight Engineer Leader: - Covered 'all up weight' for Take Off, climb, and cruise, with estimated engine settings required; emphasising, need for economy of fuel, accurate engine instrument checks, also up-keep of Log Sheet every 20 minutes to cross-check fuel consumption. The aim for a Lancaster being to achieve 1.2 miles per gallon.

Total fuel capacity was 2154 gallons in six tanks, (3 in each wing), numbered Port 1, 2, 3 out from centre and starboard 1, 2, 3 out from centre.

The final word of warning was not to exceed maximum operational climb revs, boost and time limits, viz. 2850, (revs), + 9 lbs. (boost) and 1 hour (time). A warning to especially watch coolant and temperatures also oil pressures when using these operational settings was added.

Wireless Leader: - Gave details of frequencies to be used, codes applicable, with changes hourly if necessary. Also possible broadcast frequencies over enemy territory that may be used for radio direction finding by use of the D.F. Loop System. Stress was also placed on each wireless operator's search frequency band which had to be 'swept' continuously to pick up possible interception vector instructions to enemy night fighters, then instantly 'JAMMING' (these orders by means of our 'WOBBULATOR DEVICE' - (The Wobbulator device was a metal plate mounted on a spring, insulated from the PORT side of the fuselage. It acted as a variable tuning capacitor due to vibration resonance and 'strobed' either side of the frequency to be 'JAMMED')

This amplified the sound of one of our exhaust stubs by means of a carbon microphone and re-transmitted on the night fighters' frequencies - effectively 'Jamming them'.

Gunnery Leader: - General search pattern and dedicated vigilance, especially from directly below, also ensure before pre-trip rest that all guns were sighted correctly, and 'Harmonized' to a 400 yard 2 feet diameter cone with a final reminder to switch guns from SAFE to FIRE - when aircraft engines start - you are 'ON OPS'. When taxiing before take off seek captain's permission to fire short burst from all guns into target sand pits, and finally, "good shooting".

Squadron Commander: - Final detailed instructions to Pilots with particular reference to timing at turning points - keeping the 'cork-screw' evenly either side of track - vigilance, particularly overhead, and dead below for collisions and fighters, - minimum of inter-com 'patter'. Also known enemy ground defence 'Hot-Spots', watch out for predicted (radar directed) flak while within an apparent 'box barrage'. Finally, strict R/T procedures when reaching the gate on return. Radio silence absolute on R/T until then! - and Good Luck.

Duty Pilot - Air Traffic Controller: - Gave briefing concerning R/T silence and the precise timing for each crew, e.g.

1. Time for transport to Aircraft and Dispersal points
2. Individual timing for each aircraft to 'Start UP' - usually by flashing an Aldis Lamp signal by compass vector from the Control Tower.
3. Once started up, a further Aldis Lamp signal to the captains of each aircraft to 'Taxi' out to TAKE-OFF point in their turn, as briefed.
4. Runway controllers signal to each aircraft "CLEAR TO TAKE OFF".

When main briefing was completed, all crews were warned again that the Target and all details were SECRET and then dismissed to:-

- (a) Pre-flight meals, and if time permitted -
- (b) To rest, prior to assembly at Squadron H.Q. to dress in flying clothing, collect parachutes and flying rations consisting of sweets or chocolate, chewing gum and 'an orange'.

OPERATION ORDER FOR OPS - 6th SEPTEMBER, 1942

The operation order for 'OPS' on the night of 6th September, 1942 arrived at Wyton at 10.00 hrs and called for a 'maximum effort'. Night flying tests were ordered immediately; one of which in LANCASTER MK 1 R5669 'E' (for EDWARD) was carried out by 'A' flight Commander, Sqdn. Ldr. Roy Elliott and crew who landed back at Wyton after a 30 min. trip, at 15.10 hours, reporting 'Fully Serviceable', - no snags, - to the ground crew. Briefing was detailed for 18.00 hours and the forthcoming trip would make the 15th for the crew since joining the squadron at Scampton earlier in the year.

(As part of Bomber Command's reorganisation for the increase in offensive action the C in C had ordered the formation of a new Bomber Group - No.8 - to specialise in "pin-point" target marking techniques, to enable the MAIN FORCE aircraft to achieve the concentrated delivery and saturation of the required targets.

Air Commodore Donald Bennett was appointed to form the new No.8 Group - PATHFINDER FORCE - and during the last week of July, 1942 he ordered the assembly of all aircrew of No.83 Squadron in No.5 hangar at R.A.F. Scampton. As the Air Officer Commanding No.8 Group, Don Bennett addressed the whole of 83 Sqdn. (at that time belonging to No.5 Group) outlining the proposed Pathfinder Task and Marking Techniques - pointing out that, regardless of trips already completed, crews would be expected to complete 45 trips (two tours) with Pathfinder Force, - he then requested volunteers. Virtually to a man, the whole Squadron volunteered and 83 Sqdn. became the first Pathfinder Force Squadron, transferring to R.A.F. Wyton, Huntingdonshire in formation on the afternoon of 15th August, 1942. Squadron ground personnel travelled down by road with all heavy equipment and within a few days the Squadron was again at 'Operational Readiness' in it's new PATHFINDER role).

By 18.00 hours all concerned crews were seated in the briefing room and stood up as the Squadron C.O. entered. Curtains pulled away from the large scale map showed DUISBURG to be the target, and red tapes pinned to the board showed the route out, and home. The C.O., Wing Commander Crighton-Biggie remarked that most of the assembled crew had been to Duisburg about six weeks before on the night of 23rd. July while the squadron was still with No.5 Group. It had been a very heavily FLAK defended target then, and certainly would be a tough one tonight, especially as some of the senior crews would be Marking the Target and make 2 or 3 runs each to replenish special Target Indicator Marker Flares.

Detailed briefing by each specialist Aircrew Leader followed as previously outlined. The main points were:-

- i. Stick to planned course exactly
- ii. Ensure accurate time of arrival at each turning point and DO NOT CUT CORNERS
- iii. Bombing heading across Target is from the South heading 020°
- iv. Bombing height 20,000 feet
- v. Zero hour on Target 03.00 (7.9.42)
- vi. MARKERS - crews detailed separately commence marking Target at 2 - 6 minutes with sticks of three Green Marker Flares each run.
- vii. Estimated total time of trip, 4 hours
- viii. Fuel load 1,500 gallons - ample for six hours including 1½ hours at combat revs and boost of 2,850 rpm + 9 lbs. if necessary
- ix. Strict R/T silence (radio telephone) until reporting at 'GATE' position on return when instruction for a 'Stream' landing will be given.
- X. First aircraft takes off 01.00 hours
- X1. Pre-Flight meal 22.30 hours

The briefing was completed by 18.45 hours and the squadron dismissed to rest.

Sqn.Ldr. Roy Elliott and his crew collected a packet of 'escape money' each from the WRAF Flt. Officer (Intelligence) as they left the briefing room. This crew, in Lancaster 'E' Edward had been detailed to be first aircraft on Target at Zero Minus Six Minutes (02.44 hours) and their bomb load 12 x S.B.C.'s GREEN MARKER FLARES. This meant four separate runs across the target - DUISBURG - which from previous trips the crew had called - "The worst for heavy flak" other than Essen.

After resting, the crew met for the pre-flight meal of eggs and bacon, (a rare delicacy in war-time Britain), and were on the way to the Hangar to dress in flying clothing by 23.10 hours. By midnight, dressed and ready to go the crew were collected by L.A.C.W Nancy Smith (M T driver with her one ton truck, and driven to 'E' Edward dispersal at the southern edge of RAF Wyton aerodrome.

It was a warm evening, still an hour to take-off, and the skipper suggested a last smoke and '5 minutes' tactics, before commencing aircraft ground checks. Following crew custom, Flt.Lt. J.H. Dunk (navigator) spread a map

out showing pencilled the route out - across Target - and home. The crew saw that their route was WYTON - N east to Cleethorpes, then east to Den Helder (South of Texel Island) then S. east across the Zuider Zee (now Issel Meer) heading directly to ARNHEM in Holland. Beyond Arnhem they turned due east for 20 miles, then sharply due south - short of EMMERICH which would be 6/8 miles on their port beam. Remaining on course 180° until the town of WESEL was 10 miles on the Port beam, then again altering course - (as a feint or spoof manoeuvre) south east directly towards Dusseldorf, which lay due south of Duisburg and to the south east of KREFELD. Finally when past Duisburg and six miles south west of the target - turn sharply onto 045° (north east) directly for Duisburg - confirm aiming point visually and on 'GEE' radar - altering course to Bomb Run heading as briefed on 020 $^{\circ}$ for aiming point on DOCKS. (The return route was 50 miles north and parallel to the outward route)

The time was now 00.30 hours and the crew quickly ran through the external checks; a final word from 'Chiefy' and his ground crew who wished "GOOD LUCK" - skipper Roy Elliott signed the serviceing F700 and called, "All aboard".

Once in crew positions all internal checks were completed by 00.50 hours when the Green Aldis flashed from the Control Tower signalling 'E' Edward start-up. The ground crews were given thumbs up, plus 1 finger, and engines started in sequence:-

- No.1 Port outer
- No.2 Port inner
- No.3 Starboard inner
- No.4 Starboard outer

When all four were running the wireless operator switched from 'Ground' to 'Flight', and the flight engineer gave the crossed arms sign to ground crews to:-

- a. unplug ground electronics
- b. chocks away

Roy Elliott held the aircraft on brakes awaiting the 'taxi' signal from the tower; the time 00.57 hours. Meanwhile ground running checks of engine propellers, fuel selection, pumps, instruments and master compasses were completed.

The runway in use was 36 (due north) only 300 yds. from 'E' Edward's dispersal

and at precisely 01.02 the double green Aldis flashed the 'taxi' signal on to 'E' Edward's cockpit, the brakes were released, the skipper pressed his inter-com button ordering, "Check guns on 'FIRE', we are on our way!", and taxied to the runway controllers' hut on 36, rolling forward to straighten the tail; then BRAKES FULL ON:-

- a. CHECK No.1 - OK - Fully Fine
CHECK No.2 - OK - Fully Fine
CHECK No.3 - OK - Fully Fine
CHECK No.4 - OK - Fully Fine
- b. Fuel Pumps ON - OK
- c. Flaps 20° - OK
- d. Radiators automatic - OK
- e. Navigator - give me Gyro and P.4 Compass check - OK
- f. Brake pressure 350 lbs. - OK

Precisely at briefed take-off time the runway controller flashed a green torch- (time 01.10 hours). Roy Elliott opened up, released brakes and 'E' Edward roared into the night and once airborne in about 2000 yards climbed up steeply heading north for Cleethropes on the east coast. Once airborne, Roy Elliott called, "Flaps up" - then "Climbing Power" and the flight engineer responded after completing the action: - "Flaps are up" - "Revs 2850 boost + 9 lbs. sq.in - throttles locked, temperatures and pressure normal".

'E' Edward continued to climb at 1200 ft. per minute and the Captain again pressed the inter-com button saying:-

"ATTENTION ALL CREW, DUISBURG IS VERY MUCH A HOT SPOT ON THE NORTH SIDE OF THE RUHR; IT IS HEAVILY RINGED BY ANTI-AIRCRAFT GUNS AND HAS NUMEROUS BEATS OF SEARCHLIGHTS. THE RUHR DEFENCES AS YOU ALL KNOW EXTEND INTO E.HOLLAND SO IF WE ARE CAUGHT OR CONED WATCH OUT FOR NIGHT FIGHTERS - ESPECIALLY IF THE FLAK EASES UP AT ALL! I WILL BE WEAVING A CORKSCREW PATTERN EITHER SIDE OF OUR MEAN COURSE, ALSO DIVING AND CLIMBING CONTINUOUSLY BETWEEN 18000 ft and 20,000 ft. I WILL BE BANKING ALMOST VERTICALLY ON TURN, SO SEARCH BELOW AND ABOVE EACH TIME. EVERYBODY KEEP YOUR EYES PEELED! - OUT" ...

This was a little more than usual admonition from the skipper; afterwards the crew wondered if he had a premonition?

'E' Edward reached Cleethorpes on course - height 12,500 ft and turned onto a new heading, (corrected for drift by the navigator) of 080° for DEN HELDER, still climbing. Both gunners reported other heavy aircraft level and to the rear on approximately the same course. At 13,000 ft boost pressure had dropped to 5 $\frac{1}{4}$ lbs. sq. in. - the flight engineer requested, "Change to 'S' gear Supercharger". The skipper indicated O.K. with right thumb; the flight engineer first throttled back switches to 'S' gear which was felt as an audible surge, then throttled back to the 'GATE' position. Operational height of 20,000 ft was reached at 01.45 hours and the skipper announcing this ordered, "Cruise power"; the flight engineer complied, altering propellers to a coarser pitch and synchronizing engines at 2650 revs boost + 4 lbs. sq. in.

Within a few minutes the bomb aimer called on intercom, "Enemy coast ahead, I can see Texel and the Zuider Zee!"

The navigator replied, "O.K: I have a 'FIX' - Skipper, we are about two minutes early, can you reduce speed to 180 knots? I know we are No.1 to bomb but we don't want to be too far ahead or we will be for it!"

"O.K." the skipper responded, and eased the throttles back until 180 knots was indicated on the A.S.I. (Air speed indicator), in so doing, the boost gauges all dropped to show only $\frac{1}{2}$ lb. sq. in. boost and flame from the unsilenced exhaust stubs subsided to a dull red tinged with blue, about 18 inches long.

Using the bomb sight, the bomb aimer gave a precise time, as we crossed into the Zuider Zee altering course to 135° for the long leg towards ARNHEM. As we turned the mid-upper gunner reported an M.E. 110 night fighter 5000 ft. up and heading west toward Texel; he had not seen us!

The skipper warned again, "KEEP ALL EYES PEELED - OUT"

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When about the middle of the Zuider Zee it was obvious that things were hotting up as search lights searched behind us from Texel and Den Helder with bursts of flak, and signs of air to air tracer, indicating German night fighters were up to our altitude early and also scoring hits on our main force of Bomber Command as yet barely one hour out from base.

By 02.15 hours we had passed over the Zuider Zee onto the Dutch mainland still heading 135°, speed 180 knots for ARNHEM, when at 02.22 hours with Apledoorn on the port beam we were caught by a brilliant 'Blue' master searchlight which must have been 'tracking' us while 'shuttered'. Immediately, 20 to 30 other searchlights came on to us and we were 'CONED'.

Roy Elliott called, "WATCH IT EVERYONE - FULL POWER", and pushed 'E' Edward into a vertical dive - on track; meanwhile the flight engineer adjusted prop-ellor pitch controls to prevent overspeeding the engines and as the speed rose and altimeter unwound, pulled the anti-glare shield over the skipper's head and flipped the skipper's tinted shield down on his goggles. Then:-

SPEED 280	Height 18,000
SPEED 300	" 17,500
SPEED 330	" 16,000

Flt. Eng. "Watch it skipper, they are firing at us now"

SKIPPER: "Aye, I can see it; pulling up now"

Then the sudden change in 'G' forcing us into our seats - still blinded by searchlights - Edward bucking in the shock of flying through grouped shell bursts - the acrid pungent smell of explosive - the altimeter hands winding up like mad as the aircraft regained precious altitude, although the speed slackened gradually. The flight engineer was altering throttles and pitch control lever setting, (akin to a 'Concert Organist') except that for 'E' Edward and crew it was a cacophany of OPS against the enemy, and possible death. This the crew knew well, but did not speak of it. Instead, the laconic, terse, inter-com patter, until suddenly Roy pushed the control column hard forward and reached to open the throttles as 'E' Edward shuddered level at 19,500 ft but only 110 knots indicated.

- But still held in the searchlight cone, and so it continued. Flak sometimes very very close and rattling down the fuselage like ball bearings in a dust-bin, with a terrible smell. At other times dull 'crumps' in a circle ahead and 'E' Edward shuddering as we went through the shock waves. Roy Elliott continued to weave, in a random pattern corkscrew, so violent at times that the crew afterwards agreed it was the worst 'ride' ever to date, and wondered too how OL (Sq. Code) 'E' Edward ever stayed in one piece.

Despite all the violent evasive action Roy Elliott had maintained his 'weave' fairly evenly, fifteen degrees either side of 135° true, and as 'E' Edward approached the 'SPOOF' turning point beyond Arnhem the searchlights petered out one by one. There had been no fighter attacks despite being held 'naked' in the searchlights for what seemed an eternity, but evidence of fighter activity abounded aft as following aircraft were similarly 'coned'.

NAVIGATOR: "Turn LEFT onto 090° due east for 7 minutes if you can hold 180 knots Skipper"

SKIPPER: "O.K. Navigator, how are we for time?"

NAVIGATOR: "I have a 'GEE' fix! Looks O.K., perhaps 30 seconds late at this point, but we should make up when we turn due south in a few minutes because we will have a good wind. I will give you a correction later".

SKIPPER: "Roger - out".

The flight continued uneventfully as we turned onto 180° (South) for the 'Spoof' Leg to a point between Duisburg and Krefeld and heading directly for Dusseldorf.

WIRELESS OP: "Have been jamming over my briefed strobe frequencies skipper, there are a hell of a lot of night fighter instructions coming up".

SKIPPER: "O.K. all crew WATCH IT - out".

----- - Then immediately:-

REAR GUNNER: "Three fighters 1000 yards aft Skipper and UP 2000 ft. Don't weave, cut your throttles back. Don't think they have seen us".

Skipper complied -

SKIPPER: "Roger Bob, watch them".

Seconds later -

WIRELESS OP: "Skipper, fighters on our course 2000 ft. up, vertically"

SKIPPER: "Roger, Arthur, I see the bandits now, they seem to be scooting to Dusseldorf. Opening up to 180 knots again navigator, let me have a timeing check please".

NAVIGATOR: "Roger, Skipper, in one minute". - On track but 10 seconds early, I have a good 'Gee' fix! In fact this 'Gee Box' is working so well I think it would be a good idea to feed in the Gee Plot target co-ordinates!"

SKIPPER: "Have you got them"?

NAVIGATOR: "Yes"

SKIPPER: "O.K. then let's give it a try!" "Bomb aimer, what does the ground look like to the east?"

BOMB AIMER: "Looks clear skipper, if they don't start up a smoke screen too early"

SKIPPER: "O.K." "Navigator, we will run in on 'Gee' X-Y co-ordinates and let the bomb aimer do a visual double check on our first run up for about 2 minutes, or, say ... 6 miles reasonably level - and I will drop speed to 143 knots for the final run in; take photo on the first run! - Bomb Aimer, make sure you know which 3 switches you are going to select on each RUN, we don't want to overshoot and go round more often than necessary. O.K.? - OUT"

At 02.37 'E' Edward turned on to the final Dog-leg 'run in' to Duisburg heading 025° true. The navigator said:-

NAVIGATOR: "I have both blips on 'Gee' now, I think we are east of track!"

SKIPPER: "Bomb aimer, how does it look down there?"

BOMB AIMER: "Yes, we are east of track and drifting, alter course 10° port, --- that's better! Bomb door open - LEFT - STEADY, 143 knots please - STEADY - am clearing the camera now - STEADY - search-lights seeking us now - STEADY. Target 4 miles and tracking down the bomb sight - STEADY NOW - Flak coming up! - watch for the red 'spots' - STEADY - RIGHT A LITTLE - STEADY - Flak bursting ahead, below us! - STEADY - Marker flares fused! - STEADY - I can see the aiming point".

NAVIGATOR: "Yes, Bomb aimer, I have the blips on 'Gee' very close together".

BOMB AIMER: "30 seconds to go Skipper, hold her steady - RIGHT - STEADY - 'FLARES GONE' - FLAK! - they are throwing it up! - STEADY for the photo! - STEADY - STEADY - FLASH GONE - O.K. SKIPPER DIVE DIVE - Flak straight for us - TURN RIGHT IN THE DIVE - CRIPES - THAT LOT BURST ABOVE US!".

SKIPPER: "Quiet now, I can see it! - Navigator, I'm down to 18,000 and will orbit starboard to the east!
Bomb aimer, can you see our MARKERS?"

BOMB AIMER: "Yes Skipper, they are in a tight cluster, smack over the sheds, about 200 yds east of our pin-point target".

SKIPPER: "Good! - all crew keep a sharp look out as we re-join the stream on 020° true!

BOMB AIMER: "Main force must be a little early, they are thumping 4000 pounders onto our markers now."

SKIPPER: "TIME CHECK PLEASE"
02-58 hrs. - log that navigator. They are two minutes early!.

BOMB AIMER: "Three Green Target Markers backing up on ours!"

SKIPPER: "How long do they burn for?"

BOMB AIMER: "Six minutes"

SKIPPER: "Good! there should be enough light for us on our next run; coming onto 020° True now.

BOMB AIMER: "Bomb doors open--- my God, the flak is very heavy now --- solid you could almost land on it!"

SKIPPER: "How are we going, Bomb aimer?"

BOMB AIMER: "Coming up just fine--- about 4 miles to go --- 2 miles --- STEADY, dead on track --- STEADY --- STEADY --- Lancaster caught in searchlights 1 mile ahead --- DOWN --- he's been hit --- he's on fire! ---HELL --- he's gone - 'Blown up' --- no chance!"

SKIPPER: "LOG TIME"

BOMB AIMER: "Steady --- steady ---left --- a bit more --- STEADY ---STEADY --- damn! searchlights got us --- STEADY SKIPPER, - HOLD IT STEADY - 30 seconds - flak a'coming --- STEADY --- markers fused --- STEADY --- markers gone --- WEAVE SKIPPER - FLAK GOT OUR RANGE ---Hell's teeth, I can smell it --- FULL POWER!!! --- Speeds the answer now ---
'THUMP' --- 'CRUMP' --- 'RATTLE'

BOMB AIMER: "We've been hit aft"

REAR GUNNER: "We've been holed by the Elsan"

SKIPPER: "O.K. SPEED 280 - Height 15000 and going down - HELL WE'RE VERTICAL - --- give us a heave engineer".

ENGINEER: "O.K."

SKIPPER: "Speed 320 --- 13000 ft. --- Cut power"
ENGINEER: "O.K."
SKIPPER: "Give me flap 15 degrees - HEAVE --- Speed 360 MAXIMUM
11000 --- Trim the tail engineer".
ENGINEER: "ROGER"
SKIPPER: "Speed 380 plus - OFF THE CLOCK! --- height 8000 ---
Navigator, check on position, I'm over to the east on
055 degrees.
NAV: "O.K."
SKIPPER: "She's coming out now - speed 360 - height 5000 --
HERE IT COMES!"

The fiery tracer from multiple light flak hoses piped up at the aircraft, at first seemingly slow, then viciously whipping past.

REAR GUNNER: "Searchlights aft, searching for us"
SKIPPER: "Can you hit them Bob?"
GUNNER: "Will do ..."

The rivetting hammer of 4 Browning's firing 1200 rounds per minute opened up. - Within seconds:-

GUNNER: "GOT TWO"
SKIPPER: "Good show Bob". "Navigator, how far east are we?"
NAVIGATOR: "No good skipper, 'GEE' won't pick up this low down, can you climb and circle?"
SKIPPER: "Willco". - (Order to Flt. Engineer - "2850 revs + 9 lbs. - M Gear")
BOMB AIMER: "We dropped on the second run at 03.11 and it is now 03.29
SKIPPER: "She's climbing like a barn-door - 12,000 ft. coming up
- watch out for fighters, they must know we're in trouble!"
FLIGHT ENG: "Skipper, engines are getting hot, I think we over-speeded on the dive, suggest drop R.P.M. to 2650 and 'S' Supercharge!"
SKIPPER: "O.K. - I think 'E' Edward is feeling the strain and it's asking for it to circle here. Navigator, how far west is Duisburg now?"
NAVIGATOR: "About 17 miles"

SKIPPER: "Right, I'm at 13,500 ft. now and we are only struggling to get higher. I propose to turn onto 270 degrees and go across at about 220 knots, O.K. Navigator?"

NAVIGATOR: "O.K. Skipper, but you need to be about 262 degrees".

SKIPPER: "Roger! --- (then to crew) - We will be at right angles to the tail-end of the attack, most aircraft will be up around 20,000, but we might be level with the Stirlings or Wellingtons - if we get caught again I shall use some height to speed things up. How are the engine temperatures engineer?"

ENGINEER: "Cooling off now, skipper - I see we've lost three of our spinners from numbers 1, 3 and 4"

SKIPPER: "Have we!"

BOMB AIMER: "We've lost the bomb-doors too"

SKIPPER: "Hell! no wonder we're flying like a 'pregnant duck! - how's the fuel?"

ENGINEER: "Tanks appear O.K. and check out with computed log".

SKIPPER: "How much left?"

ENGINEER: "About 900 gallons"

SKIPPER: "Good, should see us home. Bomb aimer, how far to target?"

BOMB AIMER: "About 9 miles on track and heavy bombs and incendiaries still pouring down --- flak doesn't look so heavy".

SKIPPER: "O.K. we're going straight through and drop the remaining six marker flares to the north of Duisburg - - not so many fires there!"

BOMB AIMER: "O.K. Skipper, about 5 miles now, alter course starboard - a little more --- steady now that's about it".

SKIPPER: "Heading now 267° True

ROGER

"STEADY AS YOU GO"

"BOMB DOORS OPEN"

"THEY ARE BLOODY OFF CLUT!"

"SORRY"

"STEADY - - STEADY"

"ALL MARKERS GONE, N.W. CORNER DUISBURG - TIME 03.47

JUST 3 MINUTES BEFORE THE LAST AIRCRAFT IS DUE ON TARGET"

SKIPPER: "LOG THAT NAVIGATOR"

NAVIGATOR: "GOT IT SKIPPER"

SKIPPER: "Engineer, pour the coal on 2850 revs + 9 lbs. and let's get out of here before they take more notice!".

ENGINEER: "Roger"

NAVIGATOR: "I've got 'Gee again, and a course correction to 271° true if you reckon to go through those searchlights!

SKIPPER: "O.K., turning onto 271° - speed 240 knots and weaving; how are we for time at the first homeward turning point?"

NAVIGATOR: "Just a minute, - we will be about 7 minutes late, but if you hold this speed we will be about right by the time we cross the Frisian Islands".

SKIPPER: "O.K. we'll do that".

The return flight passed uneventfully until 04.16 hours heading west over the Dutch coast. Sporadic air to air firing was reported to Port (south) of track.

BOMB AIMER: "We are crossing one of the Frisian islands, look like Terschelling!"

NAVIGATOR: "Thank you, yes it is Terschelling, about the centre!"

BOMB AIMER: "Yes, O.K."

NAVIGATOR: "Skipper, I have a fix! Can you alter course now 8° to port onto 263° true?"

SKIPPER: O.K. Navigator, how long to the 'GATE'?"

NAVIGATOR: I'm just working it out - hold on - . We should be at our 'Gate' position at 04.55 and in Wyton circuit 15 minutes later at 05.10. We have made up lost time now, in fact, we're 2 minutes ahead".

SKIPPER: "O.K. Thanks"

A quarter of an hour passed and then the skipper called again to the crew:

SKIPPER: "I see air to air tracer about 10 miles ahead and down near the sea. Now verey lights - RED, GREEN, RED - there's an air-craft on fire! Can you see it Bomb aimer?"

BOMB AIMER: "Yes skipper, it's a Halifax and looks like it's 'bought it' and going in".

WIRELESS OP: "I've just got a 'Ditching Distress Mayday' signal' - they are still transmitting, I'll try to get a fix! I make it about 2° to port on the D/F loop".

SKIPPER: "That is the one we see just ahead now and very low, plot this position navigator. I'm going to orbit here and let down a bit. Can you send the co-ordinates through to base on W/T wireless operator?"

NAVIGATOR: "This position is 2° 42 minutes East and 53° 3 minutes North - - wireless op, have you got that?"

WIRELESS OP: "Yes, O.K."

BOMB AIMER: "That Halifax has gone into the 'drink' - didn't look like a 'ditching' from here!"

SKIPPER: "Add that to the co-ordinates wireless operator for Air Sea Rescue ~~Arthur~~"

WIRELESS OP: "WILCO"

SKIPPER: "All crew, keep your eyes peeled - I'm returning onto course 263° true; obviously a German night fighter got that Halifax and there are probably more about. Navigator, it's now 04.47 and I'm going to let down to 5000 feet for the 'Gate' position".

NAVIGATOR: "O.K. Skipper"

WIRELESS OP: "Skipper, I have just taken an urgent 'Q' signal from H.Q. BOMBER COMMAND, will de-code it in a few minutes --- I have the message now, it reads:-
"FROM HEADQUARTERS BOMBER COMMAND TO ALL HOME-BOUND BOMBER FORCE --
Time of Origin: 04.43 ~~hr.~~
Message: BANDITS - REPEAT BANDITS ACTIVE MID - NORTH - SEA
STOP ALSO EAST ANGLIA AND FENS STOP STRESS
VIGILANCE STOP MESSAGE ENDS

SKIPPER: "All crew acknowledge in turn that you got that, starting with you in the rear turret Bob".

The crew did so.

SKIPPER: "Fair enough, now really 'WATCH IT'.

AT 04.49 hrs.

NAVIGATOR: "Skipper, we lost a couple of minutes orbiting and we are at the 'Gate' now".

SKIPPER: "Roger, I'll call Base! Bomber Common Frequency is No.2 button tonight, isn't it wireless op?"

WIRELESS OP: "Yes Skipper"

SKIPPER: "CAPTAIN TO BASE - OL-'E' EDWARD AT GATE POSITION - ANGELS 5000 FEET REQUEST JOINING INSTRUCTIONS PLEASE?"

BASE -

to 'E' EDWARD: ADVISE BANDITS ACTIVE THIS AREA IN PAST 30 MINUTES KEEP A GOOD LOOK OUT. LET DOWN TO ANGELS 2000 feet and SET COURSE FOR BEACON. THERE ARE 3 - REPEAT 3 - AIRCRAFT AHEAD OF YOU. CALL AGAIN AT BEACON - OUT

SKIPPER: "CAPTAIN TO BASE - MESSAGE RECEIVED - OUT"

NAVIGATOR: "Skipper, new course 258° true - we should be at the Beacon in 15 minutes"

SKIPPER: "Roger!"

"CAPTAIN TO BASE: - 'E' EDWARD overhead Beacon

BASE

to 'E' EDWARD: WELCOME HOME - RUNWAY IS 36 - JOIN QFE 1017 - CIRCUIT ANTI-CLOCKWISE. YOU ARE No.2 TO LAND LET DOWN TO ANGELS ONE THOUSAND DOWN WIND LEG - TURN FINALS AT 2 MILES. WATCH OUT FOR APPROACHING AIRCRAFT USEING WARBOYS CIRCUIT - USE NIL - REPEAT - NIL - IDENTIFICATION LIGHTS - OUT.

SKIPPER: "CAPTAIN TO BASE CONTROL - UNDERSTAND No.2 TO LAND - OUT

Then the skipper's instructions to Flight Engineer:

SKIPPER: "Wheels down - Props Fine

FLT. ENG. "Wheels going down - Wheels down and locked - 2 GREENS - Props Fully Fine"

SKIPPER: "Flaps 15"

FLT.ENG. "15 degrees Flap on - skipper, we may need a little more speed on landing due to no bomb doors and spinners gone!"

SKIPPER: "Yes, I can feel it on the controls - call out speeds from OUTER MARKER to TOUCH DOWN! I.L.S. ON"

FLT. ENG.: "Roger"

SKIPPER: "Flap 25° Turning finals now!"

FLT. ENG: "25° Flap ON"

"OUTER MARKER BEACON - NOW"

FLT. ENG: "HEIGHT 800 ft. - SPEED 130 knots"
"HEIGHT 600 ft - SPEED 130 knots"
"HEIGHT 300 ft. - SPEED 120 knots"
"INNER MARKER NOW"

SKIPPER: "FULL FLAP"

FLT. ENG. "FULL FLAP GOING ON -
HEIGHT 150 ft. - SPEED 115 knots"

SKIPPER: "I have GLIDE ANGLE 'GREEN'"

FLT. ENG: "HEIGHT 100 ft - SPEED 110 knots
"HEIGHT 50 ft - SPEED 105 knots"

SKIPPER: "Over the hedge! CUT POWER"

FLT. ENG: "ROGER - - - Wow! a 'daisy cutter' - we're down"
There is another aircraft 600 yds ahead of us turning off
the run-way to 'B' dispersal"

TOWER TO 'E' EDWARD:

"Turn left at runway intersection and continue to your
dispersal. There is another aircraft touching down behind you"

SKIPPER: "ROGER Control, turning off; - flaps up engineer"

The aircraft was beckoned into 'E' dispersal by one of the ground crew signalling with 'dim' orange coloured torches then turned through 180° to be positioned 'NOSE' towards the perimeter track after which the signalling 'wands' indicated an 'X' motion for 'STOP ENGINES'. The time on arriving at dispersal was 05.20 hours.

After the crew had run through the 'Shut down' checks ensuring all switches and circuit breakers were 'OFF' the pilot called down:

SKIPPER: "Chocks in position fore and aft of main wheels"
(then released the brakes).

"O.K. everybody, that is our fifteenth trip completed, let's have a check for flak damage before we leave dispersal for de-briefing. Be sure to bring your maps navigator".

Checking externally around 'E' Edward the crew found a jagged 4" hole in the floor near the door and also, apart from the missing spinners and bomb doors that had been ripped off during their dive out of the searchlights, there were fifty+ holes peppered by flak fragments.

The captain signed the 'Serviceing F.700':

"SLIGHT FLAK DAMAGE, AND CHECK ENGINES AND PROPS FOR
POSSIBLE SNAGS DUE TO OVER-SPEEDING".

Dawn was just breaking as the crew boarded the bus for transportation to the hanger-locker rooms to change out of flying clothing prior to de-briefing.

'E' Edward's crew entered the de-briefing room and were greeted by Air Commodore Don Bennett, (A.O.C. 8 Group) - "Had a good trip chaps? Glad to have you back!"

SKIPPER: "Good, but rough Sir, we're all ready for a rum and coffee".

Then with a pint sized cup each, the crew were beckoned to a spare de-briefing table where they were awaited by an intelligence officer and his WRAF assistant, together with the squadron navigation leader.

The time and co-ordinates of the suspected 'ditching' of an aircraft in the north sea were first given by 'E' Edward's navigator. The Skipper, Roy Elliott then highlighted the night's work and answered the many questions concerning the route IN/OUT, every searchlight and flak position being pin-pointed on the aircraft's plotted route. Finally, as details of the 'Marker' runs across the target were given, an airman from the photographic section arrived with the developed prints taken on the first bombing run. These showed without doubt that the flares had burst over the pin-point DOCKS TARGET and about 60 yards east.

Air Commodore Bennett, who meantime had joined the group surrounding the crew congratulated them on the aiming point photograph afterwards remarking, "Off to breakfast chaps, it's gone 06.30 and you could be 'ON' again tonight, so get some sleep".

CONCLUSION:- WAS IT ALL WORTHWHILE?

Hitler and Nazism were thoroughly evil and the British people had no choice but to oppose this to the best of their ability as the Germans advanced and occupied other nations of Europe.

The Nazis hatred of the Jews and their determination to destroy them was proved when the horrors and atrocities of the concentration camps became known. Millions of people died in gas chambers (including little children) and it can only be concluded that Bomber Command played a vital role by bombing armanent works and factories, railways and docks etc. in the slowing down of the German offensive thereby assisting the advance of the allied armies.

Whilst in retrospect it is possible for new generations to feel cynical with regard to damage to great architectural and historic cities, at the time of such a reign of horror and terror their destruction was a small price to pay in return for the freedom of so many people who were once again given the opportunity to live as human beings. Many difficult decisions and tasks had to be carried out by men of great fortitude and integrity; their only aim was to help liberate fellow men in captivity and distress. They themselves had nothing to gain from their terrible tasks in the air except the knowledge that they fought tirelessly for mastery of the air and for the doom of the Hitler tyranny, which in the words of Winston Spencer Churchill, "Would bring about a safe and happy future for tormented mankind".

In 1939 Hitler's power was immense when he confidently set out to conquer and subjugate the nations of Europe. The youth of Britain backed up by the faith, hope, determination and co-operation of their parents and grandparents, (which became known as 'THE WARTIME SPIRIT'), inspired by their great leader Winston Spencer Churchill, had no choice but to accept the challenge, although at that time seemingly weak and helpless. With such a spirit of determination, and everyone united in a common cause, the wheels were set in motion to fight and win. All were in the front line all the time and life was not easy, but slowly, it became possible to 'hit back', with Bomber Command playing a very essential part during this period of time. Surely then, there can be no question of doubt as to whether or not the work of Bomber Command was worthwhile in the part played. Indeed, were it not for the success in conquering and destroying Hitler and his armies, Britain might also have been occupied with little or no hope of survival.