

NECESSITY IS THE MOTHER OF INVENTION

Another strange title and how often we have heard this saying quoted! Yet many of us have never had the opportunity to put it to the test. On this occasion, I think Father overcame the problem easier than Mother would have been able to.

In the summer of 1940 when we carried out the first night bomber raids over the Alps to Italy to attack the Fiat works at Turin, about twenty five or thirty Whitley aircraft from Dishforth and Linton-on-Ouse participated. I and my crew were on this raid with Whitley P.5020. We were all a little concerned about this trip. Firstly about the weather for it was important to have good weather with no storms or icing and secondly because to climb up to 17000 feet with a full bomb load of a ton and a half of bombs and a large quantity of fuel imbodyed a hard slog for the two Merlin Rolls Royce engines operating at almost 85% power. Also this was the first occasion that any of the crews were required to use oxygen on operations. Normally our targets were bombed at 8000 feet, but tonight we were really up in the sky. Fortunately, the weather was very good and we managed to get to 17000 feet without difficulty, and with about 1000 feet to spare we passed over Mount Blanc - and it was a wonderful sight to see the mountain tops covered in snow and looking very threatening.

It had been very cold at 17000 feet with freezing temperatures so we were very glad to descend to our bombing

height of 8000 feet. Turin seemed to be very quiet and as the night was clear we could quite easily pick up the outline of the Fiat works. There was very little Anti Aircraft fire and no visible fighter activity. In fact everything seemed very quiet. Evidently we were not expected, so we carried out our bombing and set course for home. So I put P.5020 in a nice gentle climb to get over the mountains, and in a few hours we were home.

The following morning when we were all together in the crew room discussing our flights over the Alps, it came to light that three of the aircraft had not been able to climb over the Alps on the return journey, because after the aircraft had dropped their bombs, when the pilots moved the propellor pitch controls forward to increase the revs, they failed to work. The propellers were still going round alright, but only at an average speed normally between 1800 revs, but to climb over the mountains we required 2300 revs. This was caused by a small pin leak in the copper pipes which carry the oil under slight pressure to the base of the propellor blades. The cause of the pin hole leaks was due to the intense cold and then sudden change in temperature from 17000 feet to 8000 feet which caused the pipes to become brittle. This meant that the crews had to fly South West into France. Some landed to refuel and repair the leaks but these were few in number. But next time we had our own remedy and we took a $\frac{5}{16}$ or

$\frac{3}{8}$ spanner which we could use to undo the nut securing the pipe to the pitch control lever and we would pour our coffee into the pipe by means of a paper funnel, but then one "genius" said he was not going to do that as it was a waste of good coffee and he had a better alternative!

So a few weeks later I was on another trip to Turin, again to the Fiat works and fortunately the weather was good. I had a young co-pilot whose job it was to get my coffee and biscuits and sweets - flight rations! from the mess and I said to him to bring that spanner just in case, get it from the Engine Fitter after briefing. Later, about 7 pm we all met in the crew room and were making our usual preparations for our flight. We picked up the truck which dropped us at dispersal. There was old P.5020, all waiting for us so we got aboard and settled ourselves down and in a few minutes I started up and waved to the two battery cart airmen to pull the chocks away and we were off, taxiing slowly close to the airfield perimeter with a number of slow moving Whitleys ahead, each waiting their turn for their signal to approach the flarepath. After about 10 minutes, we were called to the Taxi Post and in a few minutes we were airborne. I forgot to mention we had flown down the previous day to RAF Harwell, an airfield near Abingdon, and as our course to Turin was roughly South East, by going to Harwell we had already saved ourselves 180 miles.

We left Harwell about 8 pm and set course for Paris which I had hoped to see, usually there is a haze over most cities, and as the night was clear, we should see this. We were climbing steadily and I noticed as we crossed the coast the oil temperature on both engines were in the "Red for Danger" quadrant, but they remained in this position until we got to 1700 feet. We were climbing at about 110 mph with 2300 revs - it was a long haul. We saw Paris and our course South East would take us over Geneva, then to Mount Blanc and just over the Alps was Turin. Geneva was a great land mark, all lit up like a christmas tree. The Alps seemed to be right beside us now, we could see all those treacherous snow laden peaks watching us as we passed overhead. Soon we were over with Mount Blanc safely behind, so I throttled back and started our glide down, and at 11000 feet we took off our oxygen masks - very uncomfortable things to wear. Alabaster, our navigator, was now in the front bomb airman's cockpit and was guiding me towards the target which we could see ahead. The Italians were putting up a better show of resistance than they had done on our previous visit but it was never a danger. Alabaster calls me on the intercom to tell me he would like to do a dummy run in order to check the wind speed and direction. Usually we had not time to do a dummy run, but as there was very little Anti Aircraft fire and as it was generally quiet with no fighter aircraft about, I told him to go ahead. He then lines the bomb sight drift wires on the target and puts on

the wind direction and speed and tells me to fly at 120 mph on a course of 136° magnetic at 8000 feet. This I do - it is very important for me to keep the aircraft absolutely steady at this speed and height and to keep the compass needle steady on 136° magnetic. He calls me up again to tell me he is coming up on the target so now I listen carefully for his final instructions. He calls again, "Left - Left - Steady!" I put a little pressure on the left rudder. He calls again "Right - Steady", then in a few moments, calls again and says that OK Skipper, the wind and direction is good, so I go round again and he calls me in to make our final run on 136° magnetic at 120 mph and 8000 feet. He calls again "Looming up, Skipper" and I concentrate watching my air speed course and height very carefully. He gives me only one more call "Right - Steady" and in a few moments "Bombs gone" and adds "That looks good!"

Well, let us get home now so I open the throttles, put my course home on the compass roughly North West and finally moved the pitch controls forward to increase the revs to 2200. The port engine responded immediately and the revs shot up but the starboard engine just did not respond and I could tell by the slackness in the pitch control lever that we had trouble. The maximum revs I could get was about 1800 so it looked very much as if we were going to have to use our precious coffee after all. We had a quick chat and decided that we would keep and drink our coffee and use nature's natural water supply with

which we were all gifted! And this was the better alternative mentioned by the "genius". I passed the spanner to the co-pilot, and he took off the nut at the base of the pitch control and I held it - I did not want to lose that! He then took a couple of sheets from the aircraft log and made himself a conical cup which he asked Alabaster to hold. He then found himself a very unstable perch standing with one foot on the pilots seat platform where I was sitting, the other foot or leg rather, was stretched across the cockpit to the other side where the other seat (co-pilots seat) was. This was a temporary, collapsible seat which at that time was folded up and secured to the side of the cockpit. He put his other foot resting on the framework of the collapsible seat.

I looked back with a quick glance and said "Are you alright there?" "Yes, I think so" he said. Then he went in search for this precious source of water. It was easier said than done. This precious part of the anatomy was temporarily lost in a mass of woollen underwear, woollen shirts, uniform jacket, inner lining of his flying suit and outer lining of his flying suit, all pulled together with his parachute harness. To add to the confusion, every time he looked down to see if he was in the right place, the two intercom cables attached to his helmet were swinging to and fro always getting in his way - I glanced back and said, "Hurry up! What's the matter?" He said "I've lost it, Skipper". "Well," I said "hurry up and find the bloody thing!" He did eventually find his

watertap but the excitement of the occasion was too much for him for when he did, the first I knew was a quick burst of "champagne" spraying the instrument panel all over my hands which were on the throttles. But he was able to save half a coneul in the paper cup. Well, we got it poured into the pipeline and when we put the nut on and tightened up, it worked. The revs came up to 2000 but I decided it was too risky. If we had another fracture or pinhole in the pipe we could find ourselves in serious trouble, especially over the mountains, so I decided to take a course home first South West to get me out of the mountains as I had done once before flying towards Lyons, then North West heading for Paris on to the coast keeping south of the channel just in case these fighter boys were around.

We arrived at Harwell safe and sound at 3.30 am after an hilarious flight. It was all quite a serious business - we were not laughing and making a joke of it, but it was a complicated procedure and in future I had decided all we wanted was a little oil can and a spanner. But we all had a good laugh when we talked about it afterwards.