



# IN THE BEGINNING...

## EMBRYONIC FLYING CONTROL

In July 1941, since I was already an Air Traffic Control Officer in the Air Ministry, I was privileged to be granted a Direct Commission as an Acting Pilot Officer. Imagine my surprise when I was instructed to report to HQFC at Bentley Priory.

Needless to say, when I reported to the Adjutant he was mystified as no-one else seemed to have reported there on direct entry. After much telephoning around he told me to report to a certain Wing Commander's office at 1400 and in the meantime to make myself at home in the Mess. Rarely have I felt so small (I am more than six feet tall) to find myself with just one thin ring on my sleeve amongst so many sleeves heavy with rings.

All was to be revealed when I reported to the office, as Squadron Leader Pryce was there. He had been in the RAF prior to becoming a Civil ATCO before the war and he had been recalled to the Service in 1940, to

take charge of training new Flying Control Officers. As far as I can remember, he had set up the first school for FCOs at West Malling but had moved and was currently at Middle Wallop, where I spent a week before being posted to Valley.

At that time Valley was very new and was troubled by blown sand wherever anyone went; even the beds were full of it.

I think I should explain here that I was one of those unlucky people who were often accidentally and innocently 'putting my foot in it'. My first example was one day when the Station Commander was in the Control Tower when a small single engine aircraft flew into the circuit. It looked similar to a Magister but had struts supporting the tail. I remarked that I thought it was a Messerschmitt and was severely choked off before I could add 108 - it was! More trouble later from the PMC when I did not pay my Mess bill. The RAF had not got around to paying me for quite some time and I had no intention of starting my career in the 'red'...

Before long, I was instructed to report to the Controllers' Training Unit at Woodlands under the jurisdiction of HQFC where Colin Pryce had started his third school. The object of the move here was to give Sector Controllers and FCOs the chance to get to know one another and to explain the duties of each function.

Initially, the plan was to provide Flying Control only at the night fighter airfields. With this in mind, each airfield was to be provided with a mobile VHF DF which would be located close to the threshold of the Runway In Use. My task was to instruct the 12 pupils on each course the skill of 'ZZs' - a really accurate QGH\* directly onto the landing runway. A 'ZZ Approach'\* was in use in civil aviation before the war, with W/T as the communications medium.

I had a Link Trainer as my instructing tool so was able to show the pupils in a simulated way what was really going on. I had to fly the Link and took three pupils at a time with one

controlling whilst the other two passed hearings. I was pleased at the end of the course to know that each pupil was fully capable of conducting an accurate approach and direct landing.

On the second course, to my horror, Colin said he now wanted me to start lecturing. Having never in my life stood up in front of people to give a lecture I was very worried. However, he insisted and gave me just one piece of advice on lecturing - avoid mannerisms at all times, do not wave your arms about, do not pick your nose and do not scratch your b\*\*\*\*s! Fortunately, my first lecture was successful and stood me in good stead for days yet to come.

I instructed on four courses, returning to Valley between each course. After the first course I was promoted to Flying Officer as it was considered that as an Instructor I should be senior to the pupils who were all Pilot Officers - but no extra pay!

At an end of a course party to which we had invited the Wing Commander, knowing that I had paid a visit to the Tangmere Control Tower, he asked me what I thought of it? My reply was "bloody awful". Colin quickly warned me "You've put your foot in it again." Asked what was wrong with it, I replied that the Control Desk was tucked away in a corner as far as was possible from the windows making it impossible to see any runway. He replied by asking me why I would want to see out as Tangmere was a night fighter airfield. I responded that having already seen in broad daylight a collision between a Spitfire and an An taking off at right angles to one another, I was quite certain that control by day and night was essential.

Shortly after my return to Valley I was alerted early one morning by the Sector Operations Controller, who said he had just received a call from the Observer Corps who had just reported three separate explosions out to sea.

A possible explanation was that some Hurricanes had been catapulted off some 'banana boats'. One Hurricane came into view so I fired a Verrey Light which, fortunately, the pilot saw and came in to land - my first humble success at assisting an aircraft. The pilot said that his brief had been to go and land on Anglesey; he had seen nothing of the airfield so was very grateful to see the Verrey Light. Regretfully I believe both of the other pilots came to grief.

In February 1942 I was posted to 60 OTU (a night fighter OTU) at East Fortune near North Berwick. The FCOs there were very elderly and the task was rather beyond them. I was to be in charge and was permitted to choose three Pilot Officers from the courses on which I had instructed at Woodlands.

On my way to East Fortune I stopped for the night at Acklington where I met a Wing Commander whom I had previously assisted at Dyce in 1940. On learning where I was going he said "You poor b\*\*\*\*, that's where they kill 'em."

On reaching East Fortune I discovered that there were Miles Masters, Defiants, Oxfords and Blenheims in use for the training of night fighter pilots. There was a Wing Commander Training and four Squadron Leaders, one in charge of each of the four Flights.

The Masters and Oxfords did not have any VHF R/T but soon after my arrival the Masters, Defiants and Oxfords were quickly phased out to be replaced by Blenheims, all of which were fitted with VHF; some positive control therefore became possible.

Many years later when I was at LATCC, I was showing around visitors from the Royal Aeronautical Society when one of them said to me "I suppose you too say that radar was the best thing that ever happened to ATC," to which I replied that it came second in my book to VHF R/T which gave us the ability to talk clearly. I added that I did not think we would have won the Battle of Britain without it. He replied, "That's what I have been saying to Watson Watt for 20 years..."

Shortly after my arrival at East Fortune on a bitterly cold frosty night, the Instructors said that flying was becoming dangerous as windscreens were frosting over making landings particularly hazardous. The Wing Commander was present that night and decided that he would go up and see for himself. I asked if I could go up with him but he said he would fly in a Master. I said I did not think it would be a reasonable test with a nice hot engine in front of him. When he moved off to dispersal the Officer in Charge of night flying said, "Now you've put your foot in it - the Wing Co. does not fly twins."

The moon was brilliant making it almost daylight, so the Wing Commander decided to perform some aerobatics including slow rolls over the flarepath at low level. However, after landing he cancelled night flying. Happily, I was not on duty the following night when he repeated his performance and crashed upside down on the runway.

About a fortnight later his replacement arrived and, amazingly, it was the Wing Commander from Acklington! I asked him if he remembered the words he had said to me and he replied "Yes", so I said it was up to the two of us to stop the rot. I think we did - more on this later.

Soon after my arrival, I went out with the Station Commander and the Clerk of the Works on an airfield inspection and once again put my foot in it, hopefully for the last time. Firstly, I

pointed out that there was something wrong with the taxi track and secondly, on turning onto the main runway, I said that the VHF masts should never have been put on top of a hill directly in line with the take-off path, whereupon the CO agreed with me. When we got to the end of the runway I remarked that the 'Totem Poles' were not properly positioned. He then turned around and to my utter astonishment said, "You know more about this than I do so take over with the Clerk of Works and only come to me if you really need to."

Before my arrival the Control Tower had been taken over by OTU Sector Operations whilst awaiting the construction of their own Ops Room. The poor Flying Control staff had a small construction on the balcony - not nice! At night the control staff moved to a trailer alongside the runway close to the touchdown point.

I managed to get an 'octagonal glasshouse' erected on the roof of the tower building but it was not the usual octagonal shape, as its frontage to the airfield was at least twice the length of its sides. I was saddened recently to find that it did not appear in a book some researcher wrote describing RAF 'Glasshouses' as I am fairly certain that it was unique and one of the very earliest.

East Fortune could be a busy place.

The flying training commitment was divided into four Flights which were headed by a Squadron Leader. Each flight normally put up four aircraft at a time for details of two hours with six aircraft being confined to circuits and landings, and six being handed over to Sector Ops for interception practice - two would practise shadowing one another and the other two would practise homings.

We regularly achieved 30 take-offs and landings per hour by night with a completely clear runway for every movement, with this figure being frequently exceeded by day. My personal maximum achievement was 160 movements in exactly four hours.

Eric Mathews

*The second part of Eric Mathews' wartime Flying Control recollections will appear in the Autumn issue of 'Transmit'*

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\*The term QGH came from the prewar International Q code for civil aircraft. QGH followed by ? (question mark) meant "May I descend below cloud?"

A ZZ Approach also came from civil aviation but was a precise approach based solely on DF bearings. It was an accurately timed procedure which included instructions to descend at intervals of 500 feet before landing straight ahead.

# IN THE BEGINNING...

## EMBRYONIC FLYING CONTROL

### Part 2

There was a lot of work still to be done at East Fortune; two runways were being extended, Mark 1 airfield lighting was being installed and was only partially working, whilst glim lamps were being used on the taxiways. Simultaneously, Drem Mark 2 lighting was being installed under a different contract which did not make much sense to me. However, the excellent Clerk of the Works said he could not cancel the Mark 1 contract without a signature - so I gave him one. *No one has yet caught up with me for this misdemeanour.* I persuaded him to install the Mark 2 taxiway lights only on those parts of the taxiway system which were normally used and this he did. There was an initial Ministry allocation of only 100 taxiway lights for any airfield, so later we put in a requisition for 100 more and got them. The whole of the 'Contact Strip Lighting' was installed before I left the station.

Our airfield red flashing Identification Beacon was located approximately three miles southeast of the airfield; we also had a bright yellow Sodium Light pointed directly at the Identification Beacon. This allowed flying to continue in some quite poor weather conditions: the drill after locating the Identification Beacon was to turn onto a heading of 360 degrees, then to make a rate one turn around the Sodium Light onto a heading of 280 degrees to turn directly into the 'Funnel' Lights.

We were going to have to close the airfield for two days to enable the camouflage experts to paint the intersection of the main and one subsidiary runway. I therefore visited the Station Commander with a slightly unusual request. The first anniversary of the Station's

opening was imminent so I made a request that the airfield be closed for two days, the first day being allocated for a decent party with the second day for recovery. He approved my request so the necessary camouflaging was completed in time.

I was at East Fortune for a total of 10 months; looking back it is quite astonishing to realise how much was achieved in such a short space of time.

Regrettably, we were not free of disasters with five pilots being killed; one spun in the vicinity of the Identification Beacon whilst the other four lost their lives in various parts of the Scottish hills.

I am quite sure that the Wing Commander, who unfortunately died quite recently, did an enormous amount on my behalf after he had a long talk with me and found that I had already got more than 800 hours' flying experience behind me in civil aviation, having also had a pilot's 'A' licence.

My next posting was to Bridgenorth to where the School of Flying Control had moved from Watchfield. Before moving to Watchfield this school was under the jurisdiction of Bomber Command and was located at Brasenose College, Oxford. The reason for the move to Bridgenorth was, apparently, due to the enormous expansion of training to increase the number of controllers; Watchfield did not have the capacity to house the numbers involved. The new requirement was for six courses of 50 pupils on each course, each week with one course departing and a new one starting.

After reporting to the CO on arrival I was handed over to the Chief Instructor. Naively, I thought I would be lecturing on Fighter Command topics, but not a bit of it; he opened a drawer and pulled out just one piece of paper with 25 odd subject headings and said "You will

*lecture on all of this."* This was the only piece of instructor material provided.

Each course had 50 pupils divided into two classes of 25 each. I had the good fortune to have just 25 pupils on my first course so had only half the work to do compared to the other instructors. There was one other instructor from Fighter Command whilst the others were from Bomber and Coastal Commands. Each course had an allocation of one ATC Instructor plus one Navigation and one Signals Instructor.

The courses lasted some six weeks, four weeks being allocated to lectures, the remaining two being for revision, etc., with some flying experience in Ansons undertaken at nearby Halfpenny Green. However, after a relatively short time the School moved back to Watchfield where extra buildings had been provided for the return.

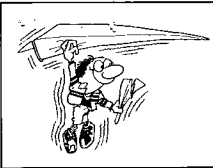
On one of my courses I had 25 Americans in one classroom and 25 Englishmen in the other. Having been given a packet of 200 cigarettes by the Americans I naturally smoked them whilst in their classroom and switched to English 'fags' in the other!

My luck was in when one of my pupils - a Regular Officer - mentioned to me that he would not mind becoming an instructor at the School. With a little effort, I managed to get authority to allow him to join and for me to depart, even though there were several instructors with longer service at the School than me.

I was then posted to Portreath, 280 feet above sea level on the north coast of Cornwall: a truly wonderful location.

*Eric Mathews*

*Part 3 will appear in the Winter edition of 'Transmit'*



# In The Beginning...

## EMBRYONIC FLYING CONTROL

### Part 3

Our only Fighter Command Unit at Portreath was an Air Sea Rescue Unit comprising a couple of Ansons and a Walrus. One afternoon I heard my one and only "Mayday" call, the words used being, "What you want chum is Mayday" which I think was said over the aircraft's intercomm whilst its transmitter was left on. A few moments later I had a call from an army gun post asking if we had seen an aircraft ditch just off the coast. A search with binoculars revealed the tail of an aircraft which looked just like an Anson. Since our Anson had been airborne but did not respond to my calls, and our Walrus was airborne about ten miles to the west, I recalled him and directed him to the Anson, the crew of which were by now safely in their dinghy. On seeing the Walrus they fired a flare - real copybook stuff - and the Walrus landed and picked up the Anson crew. It was now far too heavy to take off so had to taxi about four miles to Portreath Beach where it remained for at least a week waiting for the surf to calm down sufficiently to re-launch.

Portreath was not an easy airfield to control. We had four runways; the East/West was 1800 yards long and the shortest was just 1000 yards. It had many fighter-type Blast Dispersal Pens which prevented any twin or larger aircraft from using that part of the taxi track. Virtually nothing could taxi behind the control tower which was just over 100 yards from the main runway.

Fortunately, the grass surface had superb drainage through the local schist so by day most taxiing was done on the grass, but at night this had to be done on the runways with attendant switching of the appropriate routing of each individual aircraft from the control tower lighting control panel; unfortunately, all lights had to be turned off before the 'control wheel' which operated the system was allowed to be turned.

One of my WAAF staff met up with an American captain who was in charge of a 'pioneer' type of unit which was located close by awaiting what was subsequently to become D-Day. They had bulldozers, grab cranes, lorries, etc., and at least 100 men. She introduced him to me and I asked if he would like some practice with all his equipment to keep his men busy; he agreed. The subject was broached with Portreath's Station Commander who approved himself, but considered that he really ought to get authority from a higher level.

He referred it to 10 Group who in turn referred it to Command Headquarters. No-one was prepared to give their personal consent and passed it back to the OC. Fortunately, he agreed to the proposition so in less than 48 hours we had the Americans clearing away the Blast Dispersal Pens and one 'pillbox' which was directly in line with the shortest runway.

Two or three weeks after completion of the work, we had a Liberator that was

desperately short of fuel which landed without any R/T contact on the short 1000 yard runway. The pilot overshot the end of the runway, leaving wheel tracks where the 'pillbox' had been. At the last moment the pilot had to ground loop to avoid hitting a wall, but nevertheless was able to fly back to his own base during the afternoon. The OC was very pleased and so was I.

In the overrun of two runways we maintained the wall to write off undercarriages and prevent aircraft from falling over the cliff into the sea, 280 feet below. Our new Flight Commander brushed the top of the wall whilst taking off in a Mosquito. He later came to the control tower, very angry, and demanded the removal of the wall at once. He was, however, persuaded to come out and have a look for himself; there he saw clear evidence of three aircraft having run into the wall. One was before my time, another saved a Beaufighter which had had brake failure and the third was caused by a Boston which had an engine failure on a full-load take-off; the crew stepped out safely from this latter disaster. I then asked the complainant to turn round so that he could see that the wall was well below the level of the runway and he immediately saw the point of keeping the wall intact.

Another interesting situation occurred when a returning and damaged Mosquito was unable to lower the wheels or flaps. The pilot reported that he could not control the aircraft below 140 mph and much persuasion was required to get his CO to allow me to tell the pilot to put his aircraft down on the runway and not on the grass which was pretty rough. The pilot of the Mosquito made a superb low level approach and successful landing with no injury nor any sign of a fire. On another occasion I saw a Mosquito in trouble with its wheels up, and not in communication with Flying Control, land on the grass; this caused considerable damage to the aircraft.

Portreath Flying Control's tools of the trade compared to modern days were severely limited. Our control desk had one VHF channel, one HF channel on 6440 KHz ('DARKY')\* and one HF channel on 2110 KHz (the Coastal Command Common frequency). We also had a VHF D/F station.

HF R/T was notoriously difficult with the problems of night time 'skip'. On one occasion we had a loud and clear 'DARKY' call so alerted every other airfield we could think of via 10 Group Headquarters. After some time and receiving no response to our calls we heard the pilot respond to a callsign which was subsequently discovered to be in North Africa.

On another occasion I had a rather desperate call on 2110 KHz from a pilot with a pronounced American accent stating that he was desperately short of fuel and requesting help. We did not have any D/F facilities on 2110 KHz but did have a Transport Command D/F on one of its training frequencies which was located close by, so I asked the D/F Operator if he could tune his receiver manually to 2110. He said it was possible but under no

circumstances was he allowed to move off his assigned frequency. However, he very reluctantly acceded to my instruction to retune to 2110 and provide a D/F service. Bearings indicated that the aircraft was over the sea to the north of us. As the cloud base was reasonable I told the pilot to descend to 2000 feet and in due course hoped he would see land. I had no means of knowing how far away he was but fortunately, some 10 minutes later, a Dakota appeared on the horizon. The pilot plus passengers were delighted to land in one piece with virtually no fuel remaining; there were eighteen passengers aboard.

It is almost unbelievable but several weeks later I had to explain to Transport Command why I had instructed its D/F Operator to change frequency. It seems that a training aircraft had failed to get a bearing during this period. However, thanks to the D/F Operator following my instruction he undoubtedly helped to save an aircraft and several passengers.

We had several other occasions when we gave considerable help to pilots.

Our Coastal Command long-range Beaufighter pilots did not reckon on doing much night flying. On one dark night the last of four returning aircraft came plummeting out of cloud directly in front of the tower. Fortunately, I knew which pilot it was and just said on the R/T "Puppy" (his nickname) "ease back on your stick". He levelled out over the sea almost at aerodrome level and then circled round to land safely.

On another occasion, I carried out what could only be described as a climbing QGH. At the time the clouds were literally on the hills just south of the airfield but the airfield itself and the sea to the north were clear. On this occasion I can say that my past experience of accurate 'ZZs' paid off. On the inbound leg I finally brought the aircraft down to 200 feet whereupon the pilot reported at 200 feet over the sea so I advised him to climb until he could see the cliffs and then make a tight circuit and land.

I had not remembered which pilot it was but had one of the most satisfying experiences about five years ago when I ran into Doug Turner in South Wales. He shook me warmly by the hand and said, "Ah, the man who saved my life at Portreath."

On one other memorable occasion I carried out four individual QGHs at the same time when a flight of four Mosquitos was unable to land at Predannack owing to adverse weather. Predannack was 18 miles south of Portreath so the aircraft had to remain in cloud until overhead Portreath followed by a descent to a position below our cloud base at about 1000 feet before coming in to land. My D/F operator, a WAAF, did an absolutely splendid job.

In those days we only had a four-channel VHF set so Predannack and Portreath being on the same frequency had a certain advantage. Predannack took care of any D/F requirements to the south of Cornwall and we looked after the north. We could also provide a limited fixer service which proved very useful when one day Predannack had a Typhoon en-route to them from somewhere up country and the pilot said he had engine trouble and could see an airfield in the distance ahead of him. Fortunately he was at about 10,000 feet. Our two arm fix from an 18-mile base line showed

FOLLOWS (A) OVER

him to be to the north of Plymouth. We made a quick call to Harrowbeer to alert them to keep their runways clear and this paid off when the pilot landed safely a few minutes later.

I remember another occasion when I was able to help a pilot in unusual circumstances. The pilot in a Beaufighter failed to land after two approaches in normal conditions. I do not think he was very well, he confessed his inability to judge his height and asked if I could talk him down. All went well and he landed safely.

Portreath's height above sea level right on the edge of the cliffs was again useful one night when a Wellington with a rough running engine was forced to return. The pilot was about to make a very late touchdown when he elected to go round again. He promptly disappeared over the edge of the cliffs and we were all certain that he was in the sea until suddenly someone said "*There's his tail light*";

this was hard to believe but was nevertheless true and the pilot came round again and made an excellent landing. He said later that he had *minus* 200 feet on his Altimeter.

With the build-up to D-Day, our Transport Command commitment was both heavy and continuous. We frequently had some thirty to forty aircraft arriving daily with the same number departing the same night or early the following morning. To give a rough idea of our overall numbers of aircraft of all types on the airfield we had a maximum count of 140 a month or so before D-Day which was rather a lot for a small Fighter Command airfield; during one night alone 76 aircraft departed to Gibraltar and possibly some airfields on the African Coast.

After D-Day, Portreath became much quieter and I was transferred to Transport Command, spending odd weeks at Croydon, Down Ampney, Blakehill Farm and

Perranporth whilst awaiting a posting to the Continent. However, my RAF Flying Control days were virtually over as I was sent to Patricia Bay on Vancouver Island to attend an Airways Course with the RCAF. We arrived long before we were expected and were subsequently moved on to Seattle to learn about Airways Control from the Americans; VE Day came whilst we were there. I later spent a month at Edmonton at the RCAF Airways Control Centre. On returning home to the UK I was posted to the 'Continental ATCC' at Uxbridge until I was demobbed; after weekend leave I reported to Heathrow, finally retiring after almost 42 years in aviation of which 38 years were in air traffic control.

*Eric Mathews*

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*\*The Emergency Fixer Service*