

Torfrida Cox, née Boosey

Stanmore, Wavendon House, Eastcote, Gayhurst Manor September 1942-August 1945. Bombe operator. Mrs Cox's wartime memoir has been kindly provided by her son, Robert Cox.

When I joined the WRNS in 1942, I had romantic ideas of becoming a Boats crew Wren. Sadly, there were no vacancies in that category so, not wishing to be cooks or stewards a group of us were persuaded to sign the Official Secrets Act and join a category known as Station X but later, for security reasons, changed to P5.

It is obvious that, particularly in war, secret messages have to be sent in code and by the mid 1930's German scientists had perfected what they thought was an unbeatable method using a machine called ENIGMA. Throughout the Second World War the Germans used Enigma machines for their Top Secret messages for military communications on land, sea and air.

These Enigma machines were very complicated with rotors, a scrambler, and interchangeable wiring with a keyboard which could produce over 17 million permutations for every letter typed. No wonder they thought it absolutely secure.

Fortunately, Polish cryptanalysts had followed the development of Enigma machines and anticipating the invasion of their country in 1939 passed over to us all their findings, including an Enigma machine. It was by then necessary to have a new intercepting and decoding centre and this was set up at Bletchley Park – a country house 47 miles North West of London. By 1944 over 12,000 people were employed at Bletchley including some of the most prominent mathematicians and intellectuals plus thousands of WRNS and RAF and other technicians. Around Bletchley, which was the hub of the activity, were a number of outstations. During my three years I did the round of these outstations and ended up at Eastcote with the exalted rank of L/Wren! My favourite time at being billeted was Crawley Grange, a charming Elizabethan house, with a RAF fighter squadron based at nearby Cranfield and a sympathetic motherly 1st officer in charge. Other memories of Crawley include playing Planchette and discovering the names and lives of early occupants of the house.

But back to what we actually did.

Encrypted messages from German Enigma machines were transmitted in Morse. These transmissions were listened to at Bletchley and elsewhere, called Y Stations, when intercepted were sent by despatch rider or teleprinter to Hut 6 at Bletchley where the mathematician boffins produced what was called a menu. This menu was a diagram of settings for large electro-mechanical machines known as Bombes.

These Bombes, and there were hundreds of them, were the heart of the code breaking activity. Their purpose was, by trial and error, to find out what settings the Germans had used on their Enigma machines. Once we had that the German messages could be decoded.

A Bombe was a large rectangular box about 6ft high and 3ft deep, with rows of interchangeable coloured drums with lettering in front and wiring at the back which had to be plugged up as well as setting the drums. The whole thing was driven by an

electrical motor with a sort of fan belt, which frequently wore out due to continuous use.

We WRNS worked the Bombes, I suppose it was like a factory, in three eight-hour watches night and day. We had 'music while you work' and the tea trolley came round at intervals, but as we were in artificial light this did cause some eye problems. Having set up the Bombe with the menu settings it was started up and chugged away, stopping when a possible match was found. The stop was then taken to the office for checking on a Typex machine, which had been modified to emulate an Enigma machine. If it turned out to be a match it went off in the decoding room.

Once the German Top Secret messages had been decoded by Bletchley they were known as ULTRA messages and were, of course, of the highest security and very limited distribution.

Security was absolutely vital and the whole operation trembled on a knife edge, for if the Germans had come to believe that their most important ciphers were being broken the disaster for the Allies would have been immeasurable.

As an example of ULTRA information on 23rd October 1942, just before the Battle of Alamein started in North Africa, General Montgomery knew the strength and dispositions of the German army, notable shortages, morale, and the absence of its commander; for Rommel was in Germany unwell.

By the end of 1943 the wizards of Bletchley had devised another bigger and better monster called COLOSSUS, which being almost wholly electronic, was accurate and could produce results quickly and precisely. Once the correct key had been found it could decipher all further traffic in that key. Later, Colossus Mark II was invented, and this could be said to have been the very first computer. It was ordered in February 1944 and went into action on 1st June 1944 just in time for D Day-a tremendous achievement.

Thereafter the Bombes and Colossi continued to clatter and hum away until VE Day when they all fell silent for the first time in four years...

On our return from VE Day celebration leave, we all sat down with screwdrivers and destroyed all the drums. The Bombes were also dismantled and disappeared but Colossus, with the new technology it had pioneered, was pressed into further use in different ways but, sadly, when computers began being developed openly everywhere, the originals disappeared without trace.

It is only now that Bletchley Park is being preserved as a Museum that efforts are being made to rebuild Colossus and, I believe, a Bombe.

To sum up-ULTRA was the most effective system for reading the enemy's mind ever employed in war. It was used by Allied Commanders throughout the war and particularly in the Evacuation of Dunkirk, the defeat of Rommel in North Africa, the Battle of the Atlantic and the Invasion of Normandy.

Churchill described those who worked at Bletchley as 'the geese who laid the Golden Eggs but never cackled'.

