SECOND WORLD WAR | CODEBREAKERS

Beth's



For the first time, former WRNS Beth Davison reveals her work with the intrepid and often forgotten 'Y' Service, which played an essential role in a secret war of spying, codebreaking and cryptology during the Second World War. **Melody Foreman** reports.

CODEBREAKERS | SECOND WORLD WAR

hen a bright young woman named Joan Elizabeth 'Beth' Featherstone joined the WRNS (Wrens) in 1944, the astounding intelligence work of the Bletchley Park codebreakers was already proving a major force in the Allies' push to win the Second World War. Of course, at the time 18-year-old Beth knew nothing of the genius and highly secretive work of Alan Turing, who had devised techniques at Bletchley with which to crack the sophisticated German Enigma messaging system. She had zero knowledge of the vast network of spies and SOE agents operating around the world who also formed part of the 'secret war'.

Turing, though, along with other brilliant mathematicians and cryptologists including Gordon Welchman, Josh Cooper and Dillwyn 'Dilly' Knox were among thousands of secret personnel whose brilliance, it is suggested, shaved at least two years off a war.

The top teams at Bletchley were well aware of the Enigma machine, which had been created by a German engineer named Arthur Scherbius at the end of the First World War. This extraordinary device, which looked like a typewriter with its two layers of keyboards, one which lit up, had been used to send and receive encrypted messages since the 1920s. Certain German texts enciphered on Enigma had already been broken at the end of 1932 by leading Polish cryptologists of the time, who were working for their country's military intelligence. By the time Hitler's Nazis marched into Poland in 1939, Turing had

already set aside his academic work at Cambridge University and installed himself in a cottage in the stableyard of the former Victorian stately home known as Bletchley Park. His ultimate boss was the great cryptologist and scholarly Commander Alexander 'Alastair' Denniston CMG CBE CB RNVR, who was operational head of GC&CS (which was later to become GCHQ) from 1919 to 1942. His second-in-command, later taking over the top role, was Commander Edward Travis, who helped transform the administration and management of intelligence.

BETH'S STORY

In the meantime, a mere 18 miles away in Bedford, the high-spirited teenage Beth Featherstone was 'mad keen' to join the war effort as soon as ➤ FAR LEFT 'Y' Service Wren, Beth Featherstone, aged 18. (ALL IMAGES VIA AUTHOR UNLESS OTHERWISE STATED)

BELOW Machine Room Hut 6.



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ABOVE

A decryption from Bletchley Park. showing part of a communication from Berlin to Army Group Courland on 14 February 1945. (USAF)

RIGHT

From top, Wrens Beth Featherstone, Jane Sands, and Wyn Fielding.

RIGHT Wrens busy working in Duddery Hut 6. possible. She had no qualms about this as she had grown up in an atmosphere of 'everyone doing their bit' to fight the Nazis. Beth was born in Egypt on 13 May 1926. Her father taught English there but as a toddler she returned to England with her mother and brother Jack.

"I know my mother wanted us to

all-girls school. All I knew was I was

I left and as soon as I was 17 I chose

the Wrens. I chuckle now about my reasons. It was quite simply because I liked the uniform! I'd no real sense

someone told me they were connected to the Royal Navy. The idea of what I would be signing up to eventually never occurred to me," she recalls. "I just wanted to be part of this big effort

So in the early months of 1944, as a lively Beth and her friends filled out forms and waited to hear about interviews to join their chosen service, the war itself had reached a tipping point with D-Day on the horizon for 6 June. Prime Minister Winston Churchill was fully aware the secret work of the codebreakers was in serious demand and the interception of German transmissions was of vital importance. Knowledge was power

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going to join one of the services when

have a British education and so we

lived in Bedford and I went to an

and any early indication of a strike by enemy forces gave the Allies the upper hand.

But Bletchley and the storming achievements of all its intelligence staff who formed 'Ultra' (a designation adopted in 1941 for wartime signals generated by encrypted enemy radio communications) owed a great deal to the silent operators working around Britain and across the world. It was these secret listeners – the little known and seldom heralded members of the 'Y' Service – who were the backbone of the Bletchley operation. Signals Intelligence, 'SigInt', was important and Radio Intercept units were vital.

Within weeks of leaving school Beth was to become one of thousands of young recruits to the 'Y' Service, but she was almost barred from joining the WRNS because at her medical interview she had to reveal she had suffered from pleurisy twice. She says: "They shook their heads and told me I'd have to have an x-ray. Fortunately, the results came back clear." Her mother was by this time doing voluntary work and her brother Jack, who was older, had already enlisted in the King's African Rifles.

'Y' STATIONS

Bletchley Park had around 40 'Y' Stations throughout Britain and some dated back to the First World War. They were used mostly by the Marconi Company, Royal Navy, Army, RAF and Foreign Office intelligence agencies (MI5 and MI6).

It was on the battlefields of the Great War that the realisation dawned that transmissions made by the enemy could be intercepted, decoded and translated to enable counterattack that would be far more effective than any other method of warfare. Therefore the security of signals also become more vital and secret cyphers and codes were used. Cyphers substitute every single letter or character of a message with another and were mostly restricted to Morse. Codes substituted certain words or phrases for ones that have a different meaning. For example, when Pearl Harbor was attacked by the Japanese in 1941 the phrase to strike was not 'Start the attack' but 'Climb Mount Niitaka'. It meant the same. but as it was coded it meant nothing at all to anyone listening in who didn't know the code.

Beth, now 91, explains: "There were two types of 'Y' Stations for tuning in to signals and identifying exactly where they were coming







from. There was usually a direction finding or DF hut somewhere behind the main building. It had to be some way away in order to keep any signal interference at a minimum.

'There was a huge old house called Arkley View in north London that served as a data collection centre and from there 'Y' Service staff also filtered interceptions ready for Bletchley. The work of 'Y' Stations was also backed up by VI personnel, who were volunteers with knowledge of radio operation. Most of the messages intercepted in the early days of the war were sent pronto to Bletchley via motorcycle couriers. This system of transportation was later replaced by the arrival of the teleprinter. Some of the old DF stations were essential in locating U-boats. Many of these little

huts were surrounded with tall, special magnetic-style poles, which went into the ground to pick up signals. These buildings were placed in remote areas near beaches or even farmer's fields."

Some of the Wrens at 'Y' Stations recalled listening in on German pilots who knew that they had eavesdroppers. Sometimes these Luftwaffe aircrews would address affectionate greetings to their invisible listeners. When they were shot out of the sky by the RAF, it remained disturbing to hear their final and terrified words.

German R/T traffic also revealed the Luftwaffe had started using a series of navigation beams to guide their bombers to targets. 'Y' Service operators then decoded the language used in test and operational flights. Countermeasures were soon devised and the beams were nicknamed 'Headache' by the British and a jamming system was codenamed 'Aspirin'. Within days Headache units were set up to administer Aspirin and the operation in force was known as 'bending the beam'.

A WAAF (Women's Auxiliary Air Force) operator working at a 'Y' Station in north Kent would often call out to amused chums about 'Little Screw': "There he is again. I've got him loud and clear. He's playing around with his little screw again." Listeners could tell it was a problematical training flight with new equipment which was frustrating the pilots! When this happened their radio discipline disappeared and they started talking in plain German. Later it was discovered that 'Little Screw' was a controlled night-fighter system using aircraft, beams and searchlights. The codewords 'Emil, Emil' turned out to mean airborne night-fighting radar fitted to German night-fighters.

HARD BEGINNING

Beth was not launched into the secret world of Bletchley Park and its 'Y Service support network immediately on joining the war effort. She makes a face at the memory of those very early days as a 'pro-Wren' or trainee. She says: "I was sent to Mill Hill, north London, as a pro-Wren. This is where we were treated like slaves. We had to clean, scrub floors and work in a kitchen for two whole weeks. Then if you didn't like it you could leave. There was no lovely uniform just horrid old blue overalls. I was so disappointed but I knew if I threw in the towel and left I would have >>

LEFT Peter Davison meets Winston Churchill

BELOW A view of Bletchley Park Mansion, taken by Antoine

Taveneaux.



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RIGHT

German U-boats a few months before the war. Breaking German naval codes was a vital factor in defeating the U-boat menace. (PA ARCHIVE) been called up to do something else... possibly even similar!

"But after that fortnight of those arduous domestic duties and having spent 24 gruesome nights in tiny bunkbeds in rooms full of 23 other girls who had also been put through the maid syndrome of early starts and hard labour, I was finally offered two choices of job. Oh good. I thought, this is more like it..." And the choices? "It was very clear... I could be a cook or a wireless telegraphist!"

Not a second of dithering was needed, Beth immediately selected telegraphist. Within hours she had abandoned her apron, mop and bucket and was dispatched to Finchley Road in north London for training. She also got to wear that dark uniform and real black stockings she had so craved.

The Women's Royal Naval Service, which celebrated its centenary last year, trained women in a number of jobs including wireless telegraphists, radar plotters, clerks, cooks, air mechanics, weapons experts and range assessors. One of the well known

RIGHT A HRO machine similar to that used by Beth

Featherstone.

воттом

A Sunderland Mk.I watches over a Canadian troop convoy sailing into Britain. Protecting the vital convoys was a priority task for codebreakers.

Featherstone the most bore the slogan 'Join the Wrens and free a man for the fleet!'. But the minute she arrived for training a Chief Petty Officer appeared to drum home that the work was highly secretive. "Well I thought all that was jolly exciting. We were told all the time never ever to speak about anything we did or learned. So we didn't. I didn't worry about any difficulties learning Morse Code because we were all in the same boat at Finchley Road. I just got on with it, listened to what I was told and it all began to sink in very quickly. I can still remember it all and if I need to ever send a message in Morse I wouldn't have a problem today!

recruitment posters for the WRNS

that impressed the teenager Beth

"After a few weeks at Finchley Road I was sent to Soberton Towers near Southampton in Hampshire. It was here the training led me to become a full-time telegraphist with the 'Y' Service. I was listening in by now for German transmissions from ships and submarines."



Soberton Towers was built in the late 19th century and completed in 1901, as a private residence and then a school. In 1943 it became the headquarters for Wrens serving with HMS *Mercury*.

"At Soberton Towers each Wren sat in front of a special device which was tuned into a different frequency and we turned a dial in front of us in an attempt to pick up enemy messages from ship to shore. The submarines had to surface, however, before they could send out any messages. Whenever I detected enemy activity on the wireless I had to press a red button, which would alert my Petty Officer who would then send the communication through to Bletchley Park for decrypting," Beth adds. "The Army, RAF and Navy were all doing the same thing so the German radio activity was seriously monitored around the clock to give the Allies a fair chance.'





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The busy young Wren also learned German code procedures. DJ Ubar meant Denmark and she remembered how she knew where the messages were coming in from because she knew the German codes. "I knew too if the code came from a destroyer and if it came from a ship I had to yell out. At that second Bletchley would know from me and they could take the bearings of a ship." The machine Beth used was an HRO and she wore an ear-set all day long.

A MOVE NORTH

After several months at Soberton Towers Beth was sent on to Scarborough in Yorkshire, where the 'Y' Station also housed Wrens who worked as radio mechanics. On days off Beth and her friends could drink coffee in Rowntree's, buy material for woolly knickers from Johnson's, and visit the Royal Hotel for tea dances and socialising. All this only happened once they'd spent the day recording every blip of a U-boat or deciphering Morse code.

"I had been so glad to join up and enjoy my work that I became terrified the war would be over before I had really had a chance to do my bit. Imagine! I did get a chance to be promoted to Leading Wren but it would have been 'dead man's shoes' as by April 1945 the war was over in Europe. Also there was already a Petty Officer in charge of my Watch. "I do remember well

the four Watch shifts for Watch IV at Scarborough in 1944 and 1945 - 1pm to 4pm, 4pm to 11pm, 11pm to 7am and 7am to 1pm. I used to get time off but travel was limited. The furthest I was allowed to officially go was to York but I ignored this rule one day and visited my mother in Skipton. I was found out and was given a serious dressing down by some Naval chap. I have little doubt we were often followed when we weren't on shift.

"Scarborough 'Y' Station was HMS Pembroke 3 Special Operations. I stayed with other Wrens in quarters at what was known as The Chatsworth Hotel. The Wrens at the Boats' Crew who dealt with the Royal Navy sailors were perceived as toffeenosed but I didn't meet any girls who behaved like that."

Being in the WRNS wasn't great for meeting eligible men. "We were weary after a lot of intense training. The men at Scarborough were in a big room with the civilians in one half and the Navy in the other. I did meet a Canadian pilot and went out with him for a few times but then that came to an end."

At the end of the war Beth signed on for another year. She became 'Writer G' at a Royal Naval Station in Harwich, Essex, and did secretarial work for a 'grumpy Navy surgeon' and his assistant. "I got on well with the assistant, who was very kind and yet terribly embarrassed about me knowing all about sailors' medical complaints!" she recalls.

> In 1947 she left military service and went to secretarial college in London to learn Pitman shorthand and typing. She soon got a job with the Conservative Party Central Office working in Public Relations with the likes of Anthony Eden. Three years later she worked for Marcus Morris, editor of *Eagle* magazine and

> > SPRINT

creator of the adventurous, heroic RAF pilot Dan Dare. Beth married Peter Davison in 1952. Davison had spent his war with the Artists' Rifles and



continued to support his old regiment for many years after his marriage. A photograph of him meeting Sir Winston Churchill takes pride of place in Beth's home in east Kent.

VEIL OF SECRECY

Describing her war work is a new concept to Beth, who only very recently, almost 75 years since the end of the war, felt she could break the code of secrecy which had been so intensely installed in her outlook. The historian and novelist Sinclair McKay once explained: "The reason, really, for such long silences about Bletchley Park and the 'Y' Service stemmed from the knowledge the code-cracking technology that Bletchley pioneered was still in use in the post-war years. And throughout the bitter years of the Cold War, it was imperative that the Soviets were kept as far in the dark as possible. The consequence of this, however, was that those who worked at Bletchley had no means of re-living and sharing their memories.

"They were denied the reunions, the bonding get-togethers. It's a tragedy that it took so long for veterans to receive any sort of official recognition. But now, just as the profound impact of Alan Turing's genius and work has finally been understood, so it is that the work of all of Bletchley's young people is now being properly celebrated, and indeed the work of all of those thousands of 'Y' Service operatives in the Bletchley outstations too." ⊙ ABOVE A WRNS Certificate of Service.

LEFT Wren veteran, Beth Featherstone, pictured today aged 91.