

Enemy Ears are Listening - Y-stations

Bentley Priory 12 May 2017



The Y Service Memorial, National Memorial Arboretum



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Y	WI = Wireless intercept
DF	Direction finding
RSS	Radio Security Service
MI8	British Military Intelligence, Section 8, responsible for signals intelligence
VI	Voluntary Interceptor
GC&CS	Government code and Cypher School (1919 - 1946), thereafter GCHQ
Ultra	Signals intelligence obtained by breaking high-level encrypted enemy communications

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Y Service: clandestine wireless intercept stations for signals intelligence collection across Britain and overseas. It was established during the First World War and used again to great effect during the Second World War.

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Text: Stations were operated by a range of agencies including the Army, Navy, RAF, Foreign Office (MI6, MI5), General Post Office and the Marconi Company. Thousands of wireless operators – who had all signed the Official Secrets Act - many of them civilians, tracked the enemy radio nets up and down the dial, carefully logging every letter or figure. The messages were then sent back to Bletchley Park to be deciphered, translated and fitted together like a gigantic jigsaw puzzle to produce as complete a picture as possible of what the enemy was doing.

Slide 6 – Bletchley Park



Bletchley Park at its height was staffed by over 10,000 people. That figure does not include the thousands of Y service personnel, without whom Bletchley would have had no raw data to process. The work of the Y Service listeners was inextricably linked with the code-breaking machinery at Bletchley Park.

These operators spent hours receiving and transcribing Morse code at very high speeds in stressful circumstances. They worked in all conditions from cosy country cottages, military bases, huts, caravans and bunkers to Artic convoys, in Indian hill stations and on remote coral islands; in relative safety or alongside SOE operatives in enemy country. The work was by turns exciting, tedious, alarming, boring, stressful – but always secret, the listeners and clerks being given the minimum information necessary for their jobs.

Some monitored the Luftwaffe and U Boats in British skies and waters, others took down Japanese Morse transmissions in the Far East.

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The Katakana Chart: A - Kana B - Romaji C - Phonetic

COLUMN	A	I	U	E	O
LINE					
SINGLE	ア	イ	ウ	エ	オ
VOHEL	A(O)	I(O)	U	E(O)	O(O)
K	カ	キ	ク	ケ	コ
	KA(O)	KI(O)	KU(O)	KE(O)	KO(O)
S	サ	シ	ス	セ	ソ
	SA(O)	SHI(O)	SU(O)	SE(O)	SO(O)
T	タ	チ	ツ	テ	ト
	TA(O)	CHI(O)	TSU(O)	TE(O)	TO(O)
N	ナ	ニ	ヌ	ネ	ノ
	NA(O)	NI(O)	NU(O)	NE(O)	NO(O)
H	ハ	ヒ	フ	ヘ	ホ
	HA(O)	HI(O)	HU(O)	HE(O)	HO(O)
M	マ	ミ	ム	メ	モ
	MA(O)	MI(O)	MU(O)	ME(O)	MO(O)
Y	ヤ	ユ	ヨ		
	YA(O)	YU(O)	YO(O)		
R	ラ	リ	ル	レ	ロ
	RA(O)	RI(O)	RU(O)	RE(O)	RO(O)
W	ワ	ン			ヲ
	WA(O)	N(C)			WO(O)

The men and women chosen for this role had to be intelligent; capable of working under pressure; patient; mature in attitude (although many of them were very young), and able to sustain the erratic work pattern. Many of them had special skills such as familiarity with the nuances of a particular language, through education or family background.

Slide 8 Voluntary Interceptors



These are Voluntary Interceptors (VIs).

civilians recruited in the form of amateur radio enthusiasts ('hams'). They were particularly adept at reading weak Morse transmissions, and around 1,200 were recruited. Their experience of using Morse code and their technical abilities made them valuable as listeners, instructors and in developing technology. To disguise their role, many VIs wore Royal Observer Corps uniform.

Y Service stations were of two types: those intercepting the signals, and those involved in identifying where the signals were coming from (direction finding - DF). Sometimes both functions operated from the same site.

A lot of intelligence could be worked out from what the enemy radio operators were saying to each other and their locations could be tracked down using radio direction-finding equipment. But most of the important messages were in code or cipher and had to be decrypted, being sent to Bletchley Park by despatch rider, tele-printer or landline.

Slide 9 Arkley View



Radio Security Service

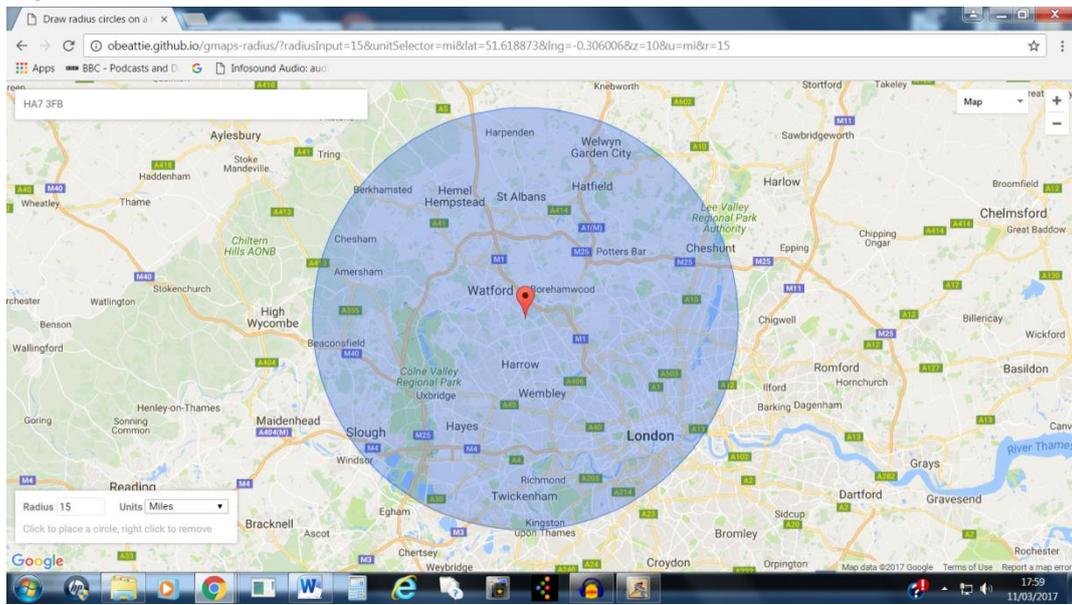
At the beginning of the war, realising that there might be German agents in Britain operating radio guidance beacons for wireless communication with Germany, MI5 set up a small department to detect enemy radio transmissions. This became the highly successful Radio Security Service (RSS), known by the cover designation of MI8(c). The volume of messages logged was so great that in late 1941 a large house called Arkley View, near Barnet, was requisitioned to act as a data collection centre, with the cryptic address of

P.O. Box 25, Barnet. Huts were built in the grounds and despatch riders stood ready

to take intercepted messages directly to Bletchley Park. It also acted as a Y station. It housed analysis, intelligence, direction finding control, and administrative departments. Hugh Trevor-Roper was senior analyst there.

So let's take a look at some of the other local sites of interest – not all of them were Y stations, but they were all involved in collecting signals intelligence.

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Within a 10-15 mile radius of Bentley Priory, we find

Slide 11 Dollis Hill



Dollis Hill GPO Research Station N London

First established in 1914 as a branch of the Post Office Engineering Department, it was initially a collection of sheds and workshops; permanent buildings opened in 1933. In the late 1930s, an underground bunker for the War Cabinet (known as Paddock) was built in the Station's grounds. In 1943 the world's first programmable electronic computer, Colossus Mark 1 was built by Tommy Flowers and his team,

followed in 1944 and 1945 by nine Colossus Mark 2s. These were used at Bletchley Park in Cryptanalysis of the Lorenz cipher.

In the same area...

Hampstead N London

This was an Army Y station and location of the Special W/T Training and Research Centre from July 1943, and also a communications research centre.

A bit further north towards Bletchley Park...

Sandridge, Hertfordshire

Home Office Scientific Development Branch

The site began in 1939 as a wireless intercept station for the Foreign Office, operated by GPO radio engineers, and was used to intercept diplomatic traffic between enemy governments and their embassies. Initially the messages were in Morse code but later Germany used high speed encryption and transmission equipment that needed to be recorded by undulators, a mechanised paper strip inking system. The results were sent by teleprinter to Bletchley Park for decryption. After WW2 it became part of the Diplomatic Wireless Service and remained largely unchanged until 1973 when it was handed over to the Home Office.

And...

Harpenden Hertfordshire

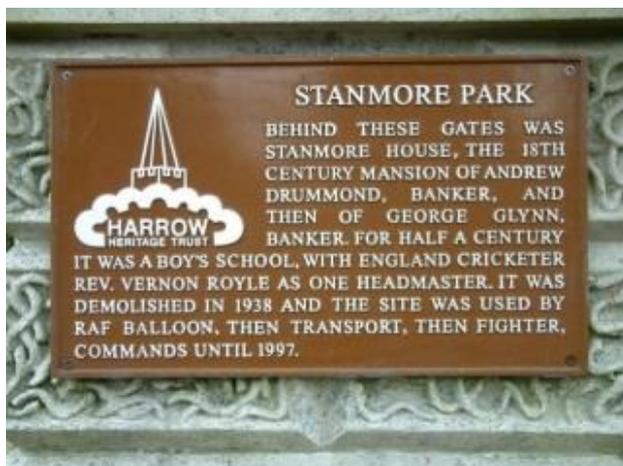
Army, No. 1 Special Wireless Group

Rothamsted Manor was a Top Secret Army Intelligence Centre, with hundred-foot radio communication aerials and up to 400 personnel.

No. 1 Special Wireless Group brought in trained operators from all parts of the UK to intercept Morse code radio transmissions between Luftwaffe ground stations, including airfields. Messages were recorded, processed and rushed to Bletchley by despatch rider, teleprinter or landline. Thirty powerful radio receivers in the Great Drawing Room were manned twenty-four hours a day. They could often detect changes in the German personnel by the distinctive indications in their operation of the Morse Key – known as the operator's 'fist'. From D-Day in 1944, the task changed from Luftwaffe to German Army communications. Nowadays the home of Rothamsted Research focussing on plant and soil science.

The last two sites are much closer to home:

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RAF Stanmore Park – Bombe station

The unit was opened in 1939 as Balloon Command, built on the grounds of Stanmore Hall that had been purchased by the Air Ministry in 1938. RAF Stanmore Park formed part of No. 11 Group, which was originally at RAF Uxbridge and then transferred to nearby RAF Bentley Priors until its closure. The station closed in April 1997, with housing built on much of the site.

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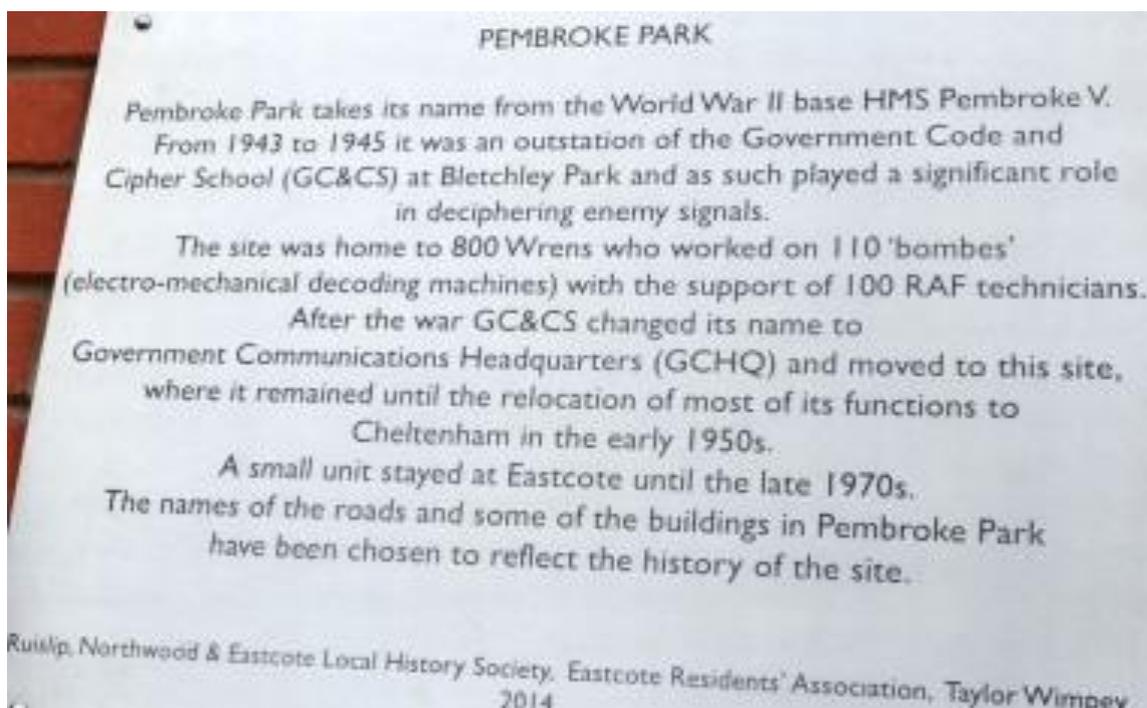


RAF Eastcote, also known as **Outstation Eastcote Bombe station** from 1943. During the Second World War, the land was requisitioned by the Government. Buildings were constructed for use as a military hospital in preparation for the D-Day landings. Subsequently, when it became clear they would not be required for that purpose, they became barracks for Navy Wrens. Bletchley Park established an outpost at the Eastcote site, known during the Second World War as HMS Pembroke V, to house some of the Bombe codebreaker machines used to decode German Enigma messages. A total of 100 machines were operated at Eastcote, controlled by 800 Wrens and 100 RAF technicians.

At the end of the war in 1945, the Bombes were dismantled by the Wrens to be recycled, maintaining the secrecy of the operations. The operations at Bletchley Park under the name "Government Code and Cypher School" (GCCS) moved to Eastcote on 1 April 1946. In 1952, GCCS became the Government Communications Headquarters (GCHQ) and began the move from Eastcote to new purpose-built buildings in Cheltenham.

In 2009 the site was redeveloped as housing.

Slide 14: Pembroke Park



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Sources

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