

**“HAMS” AT WAR:
AMATEUR RADIO’S ROLE IN
SECRET WIRELESS INTELLIGENCE
DURING WORLD WAR TWO**

1. THE BEGINNINGS

When war broke out in September 1939, amateur radio stations were closed down and amateur radio enthusiasts – “hams” – had to hand in their transmitters, remove and pack all valves, prepare an inventory of their apparatus and obtain a receipt. However, they were allowed to keep their shortwave radio receivers.

In 1939, many “hams” were called up into the RAF Civilian Wireless Reserve – later the RAF Volunteer Reserve – the Territorial Army Signals Unit and the Royal Navy Volunteer (Wireless) Reserve. In those days, in order to obtain a licence to operate, radio amateurs had to show proficiency in Morse code, and this made them especially valuable to the new organisations being set up by British Intelligence which involved secret wireless monitoring. The information they fed to Bletchley Park provided much of the raw material required to break into enemy codes and cyphers.

In addition, radio amateurs, many of whom possessed considerable technical skills, played a key role in technological developments such as counter-measures against enemy air attacks, in the defeat of the magnetic mine, developing ultra-high frequencies and as instructors at the top-secret radio and radar schools.

More than 1,500 amateurs, widely distributed over the UK, intercepted weak and fading signals to reveal the innermost secrets of the enemy intelligence services. This knowledge enabled the allies to plan deception methods (mainly through double-cross agents) which were vital in various military campaigns, especially in the invasion of Normandy.

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2. RADIO SECURITY SERVICE (RSS)

Originally called the Illicit Wireless Intercept Organisation, the Radio Security Service (RSS) became a part of Military Intelligence known as MI8(C), but in May 1941 it was transferred to the Secret Intelligence Service (MI6). Its first premises were in C Block at Wormwood Scrubs prison in London, from which the prisoners had been removed. It was at a meeting in one of the cells that Arthur Watts, President of the Radio Society of Great Britain (RSGB), the official “hams” organisation, agreed to put the Society behind the recruitment of amateur radio operators into the fledgling RSS. There was also a direct teleprinter link from the prison to Bletchley Park. In late 1940, the RSS moved to Arkley, north of Barnet on the outskirts of north London, with a postal address “Box 25 Barnet”.

The original aim was to listen out for illicit wireless activity within the UK, but most of these agents were quickly tracked down and the spies either executed or “turned” by the “Double Cross” organisation. From March 1940, the RSS took on a wider role, covering communications of the Abwehr (German military intelligence) and associated enemy intelligence.

The incoming log sheets were examined, identified as to group and service (there were several hundred different links), investigate suspect transmissions to ascertain they were Abwehr (German military intelligence) and if so, which group. The RSS also controlled D/F, training operators, testing same, interception and traffic analysis.

The Official History, *British Intelligence in the Second World War*, says Bletchley Park decrypted RSS 268,000 messages. The Official History also states that, at its peak, the RSS employed 2,094 people, of whom 1,317 were operators.

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3. VOLUNTARY INTERCEPTORS (VIs)

Radio amateurs recruited into the RSS were known as Voluntary Interceptors (VIs). “Hams” were particularly adept at reading weak Morse signals, caused by interference from background noise or other nearby signals. In the early years of the war, radio amateurs were recruited into nine regions with a Captain from the Royal Signals as Regional Controller. Many amateurs who were also members of the RSGB received a letter asking them to volunteer as “listeners”.

VIs were given a reference number, some blank log sheets, postage stamps and envelopes addressed to “Box 25, Barnet, Herts”. VIs placed their completed logs inside a stamped addressed envelope which was then inserted into another addressed envelope to Box 25. VIs were often given particular frequency bands to search for signals using a certain type of procedure, and sometimes were asked to listen out for particular call-signs and to take down any messages which appeared in coded groups of five letters – the standard method of transmitting secret military information by Morse.

Frequencies most used were between 3 MHz and 12 MHz, with the concentration from 4 MHz to 9 MHz. Much of this band was occupied by broadcast stations and Morse used by the Services and the press. But with some 5-6 million cycles of band, in which a Morse signal only required a one-thousand cycle space, in theory there could be 3,000 stations – excluding that used by broadcasters – which could be operating simultaneously, hence the need for a nationwide team of VIs.

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4. “DOUBLE CROSS” SYSTEM

So named after the organisation which ran it, called the Twenty Committee (20 in Roman numerals is XX – a double cross). It handled enemy agents “turned” by MI5, whose “minders” were often radio amateurs, whose knowledge of Morse enabled them to keep track of what the “turned” agent was sending back to Germany.

5. SPECIAL COMMUNICATIONS UNITS

These SCUs, as they were known, also recruited heavily from radio amateurs, and their role was to provide the information, called “ULTRA”, gained from Bletchley Park’s breaking of Enigma codes, to military commanders in the field. They were attached to military units in the various war theatres, but only a handful of senior officers knew the real source of the information which they provided, as the origin was disguised.

6. DIRECTION FINDING

Radio “Hams” were also recruited to the extremely valuable work of direction finding – or “DF-ing” – by which enemy signals could be traced to their origin, providing vital information on the whereabouts of an enemy unit and even the position of a U-boat at sea.

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GERMAN MILITARY INTELLIGENCE – THE ABWEHR

The RSS listened to radio communications of the various German security services. Below is a typical Radio Security Service Voluntary Interceptor log filled in by a radio amateur.

[A log sheet of 9th December 1941 made out by RSS VI and radio amateur Bob King (amateur call-sign G3ASE), showing Abwehr [military intelligence] group “Bertie” (for Berlin). All German groups were given code names starting with the same letter as the base, i.e., “Violet” for Vienna, “Bertie” for Berlin etc.]

(1)

R.S.S. Log Sheet

Name H. KING Region NY
 Address _____ Group RO
 File No. V/AN/353 Sub-Group EXFOR D

(2) **BERTIE**

(1) DATE AND TIME G.M.T.	(2) CALL AS RECEIVED	(3) MESSAGE AND REMARKS	(4) FREQUENCY K.C.	(5) WAVE LENGTH M.	(6) TYPE OF SIGNAL	(7) STRENGTH
9.12.41. 1700	CZE	QSA0 PSE CALL *K *SRI QSA0 QAX NEXT G8VA	5400		CW	3
1800	E	NIL HKND 22ND 149RM (ORM BLOTTED OUT) NOTE: THANKS	5400		CW	3
1900	GGG	QTC (LISTENED TILL 1915 OUT ND)	5200		CW	2
1915	WEB URK	QTC ET 435/71 - (VY HEAVY ATMOSPHERICS)	4880		CW	3
		A0HLC VUBAK -NKAZ MHPXN LTHPK				
		XFGE L WOFYH RDZFP RZAXP DFJZB				
		TYHNV OPLDU NECIW FSTGS QVYIG				
		DVDQX WBDMT MHRWV NKLEW UFF-O				
		THZGQ OOVKW CZEHQ MWEKE HZ-2M				
		29DD MIVP VKA04 KQVW MGRNB CUCXX	5190		CW	2
	DUE URK	RPT W35 P50 437	4900			
		QFK H APSY - OYHR LCHUP F8JL				
		YJHO RIPBG WLYRY MMTUR OMIUQ				
		MFDQY EOYEG BQEZB IYVCU ADWNY				

WATER PLEASE
 TILL WANTED

U.K. COVERED
 THANKS
 after 1600

4

[Source: *The Secret Wireless War: The Story of MI6 Communications, 1939-1945*, by Geoffrey Pidgeon, Published by UPSO, 2003. ISBN 1-84375-252-2.]

