Britain's largest spy network organisation is not MI5 or MI6 but an electronic intelligence network controlled from a country town in the Cotswolds. With its base at Suez, it intercepts and decodes communications from London. The sixteenth century tower is not MI5 or MI6 but an electronic intelligence network controlled from Suez, the massive Steelhenge.

From two modern office blocks on the outskirts of Cheltenham, the director of GCHQ manages a world-wide network of electronic intelligence posts. They have directed aircraft and ships into foreign waters to intercept communications from IRA radio stations. At Poundon, near Bicester in Oxfordshire, a well-guarded radio station marked ‘Foreign and Commonwealth Office’ is situated miles from the nearest town. Two long sheds inside a well-guarded station are marked ‘Foreign and Commonwealth Office’.

Police the skies

The Home Office is the only British government agency with the legal right to monitor communications. The Home Office’s Radio Technology Directorate carries out several monitoring tasks to keep the airwaves free of illegal signals and equipment. The Radio Technology Directorate employs 400 permanent staff at radio offices throughout Britain to track down an unwanted signal. Its Interference Division traces over 40,000 complaints of interference a year. For the price of a phone call at the local Home Office, 300 special vans, many equipped with telegraphic direction-finding aerials and special surveillance equipment, can track down sources of interference.

In important cases, such as the time a local factory was accidentally jamming communications to aircraft landing at Manchester, they have spent six months pinning down the source of dangerous interference.

On every wavelength

The Composite Signals Organisation was set up in 1963 to bring all clandestine radio and monitoring operations under control of GCHQ. Two of its sites are within ten miles of Belfast, and may be involved in monitoring IRA radio. At Mersawenstock, near Bude, Cornwall, two 100-foot satellite terminals reportedly receive pictures from American reconnaissance satellites.

Most, if not all, of the Composite Signals Organisation stations in Britain and there are more overseas—are involved in monitoring the airwaves, using computer-controlled radio receivers. At Poundon, near Bicester in Oxfordshire, a well-guarded radio station marked ‘Foreign and Commonwealth Office’ is situated miles from the nearest town. Two long sheds inside a fenced-off compound house the listeners and their radio sets, while outside stands one of Persyv’s ‘Pusher’ aerials for direction-finding, and much other sophisticated equipment.

SIS undercover anti-Nasser station to run the ‘Voice Of Britain’, which relayed the Foreign Office view in opposition to the BBC. The radio side of Britain’s dirty tricks agencies are apparently run by the Communications Signals Organisation (CSO), which is run by the ubiquitous GCHQ.

In the early ‘60s, according to Peck, two RAF aircraft equipped with electronic intelligence equipment took off from a base on the Caspian seacoast of Iran. The planes and their crew didn’t sailing under Swedish colours. These made regular patrols in Russian territorial waters. On one occasion, a British captain took his boat into Leningrad harbour. The author, who had worked in a Royal Navy monitoring station in Germany, were sentenced to six months imprisonment shortly afterwards for breaking the Official Secrets Act.

Their article also identified a ‘chain of monitoring stations from Iraq to Iran, including some in the Midlands, in Botswana, and probably works for Cabinet intelligence chiefs. His predecessor, Sir Leonard Hooper, KCMB, now works in the Cabinet Office after 32 years in GCHQ—a clear indication of the modern pre-eminence of SIGINT. But since the Labour government took power in 1974, GCHQ’s secret budget has been reduced, and its listening posts east of Suez considered for closure.

The worldwide intelligence collection by GCHQ provides Britain with considerable power. At Francistown in Botswana, the RAF operates an electronic intelligence base on behalf of GCHQ, which, with powerful antennae, can monitor the signals of guerrilla movements and government forces from its strategic position in the centre of Southern Africa. They are much better placed than the NSA, who, according to Winslow Peck, had to use a Pueblo type spy ship on patrol off

The Eavesdroppers
struggle in the early ‘60s, all the main monitoring stations are now co-ordinated from Cheltenham. The total cost may be as high as £100 million.

Typical GCHQ receivers scan the radio spectrum under computer control and cost upwards of £80,000. The contracts awarded to their suppliers are sold widely outside the UK's borders and cost upwards of £80,000. The contracts awarded to their suppliers are

Inside Chicksands

Britain, according to former NSA personnel is a 'nice secure place' to set up their hardware. So much so that Britain has three extensive US electronic intelligence bases, one run by each arm of the US services. At Chicksands, the 6950th security group of the USAF Security Service maintains a round-the-clock watch with three shifts of 200 operators and analysts, all working through the gigantic FLARE 9 aerial installation on a nearby hilltop. With thin and auxiliary equipment they can monitor and analyse radio traffic from Russia to the Atlantic, locating any transmitter of interest. One of Chicksands’ prime tasks, according to an ex-NSA serviceman from Chicksands, is monitoring French diplomatic communications. Inside the single floor operations building a large sign over one co-ordination centre in ‘France’—another, ‘Czechoslovakia’. British supervision is minimal. Apart from an inconsequential RAF squadron leader who is nominally the base commander, there is no access reserved for the British team which liaises with Chicksands. But there is the room closest to the entrance, and the only one with a door in the open plan building. This, the former staffer suggested, could be because Chicksands monitors 'unilateral' interceptions that they don't want Britain to know about.

At Edzell, north of Dundee, another FLARE antenna nestles in the foothills of the Highlands. Intercepted communications are relayed back to the US via satellite terminals and radio links. This is the home of the Naval Security Group, the US Navy’s ‘listening branch’. But the Army Security Agency base at Menwith Hill, near Harrogate, may be the most secure of all. Ostensibly, it is a mostly civilian communications relay centre for the US Defence Department, they admit that your government won't let us talk about anything else we do. Former NSA officers suggest that Menwith Hill—which has no FLARE antenna—may concentrate on interception and analysis of telephone calls. Chicksands is also a major communications centre on the international NSA network for cryptographic material, codenamed CRITICALCOM. All intelligence bases have special designations identifying them. Chicksands is USA-50, GCHQ in Cheltenham USD1025, and their base in the UKUSA pact countries is linked to the network, as well as others who have more limited access, such as NATO.

The 'Blackbird' SR71 high flying reconnaissance aircraft can gather electronic intelligence and photograph 100,000 square miles of countryside in an hour while flying more than 17 miles up at a speed of Mach 3.

Ultra Secret Beginnings

GCHQ's history starts at the Government Code and Cypher School in Bletchley Park, Bucks, and its enormous wartime codebreaking effort. At the peak, more than six thousand people worked at Bletchley decoding German signals—this was the Ultra secret that only emerged in detail in 1974. At Hanslope Park north of Bletchley and Barnet, in north London, a still secret unit codenamed 'SCUl3' co-ordinated the monitoring and locating of enemy secret transmitters. A key monitoring site for Ultra was Chicksands, east of Bletchley, still the important US base today.

During the War a series of computers called Colossus were devised to solve the daily-changing key to the German 'Enigma' machine. Even now the government refuses to reveal how the Colossus machines were built, although it is known that the 1940 machines read information from paper tape at a rate five times faster than is now possible.

The immense secrecy which still surrounds the Bletchley operations may be due to the development of decoding techniques of value today. Britain's cracking of the Enigma cipher was not revealed for 30 years because electronic versions of the Enigma cipher were being sold to Third World countries by European firms such as Crypto AG of Switzerland—and thus were an easy target for GCHQ and NSA codebreakers. Headquarters was formed at Eastcote in the north west of London. In 1953 it moved to Cheltenham, and consolidated its control of Britain's communications intelligence services.

The tradition of having the biggest and best in computing goes back to the original Colossus. On numerous occasions, new generations of computer equipment from the US have been delivered in quantity to Cheltenham before being 'officially' marketed in Britain. With at least five major computer installations, GCHQ has the electricity requirement of a medium sized town.