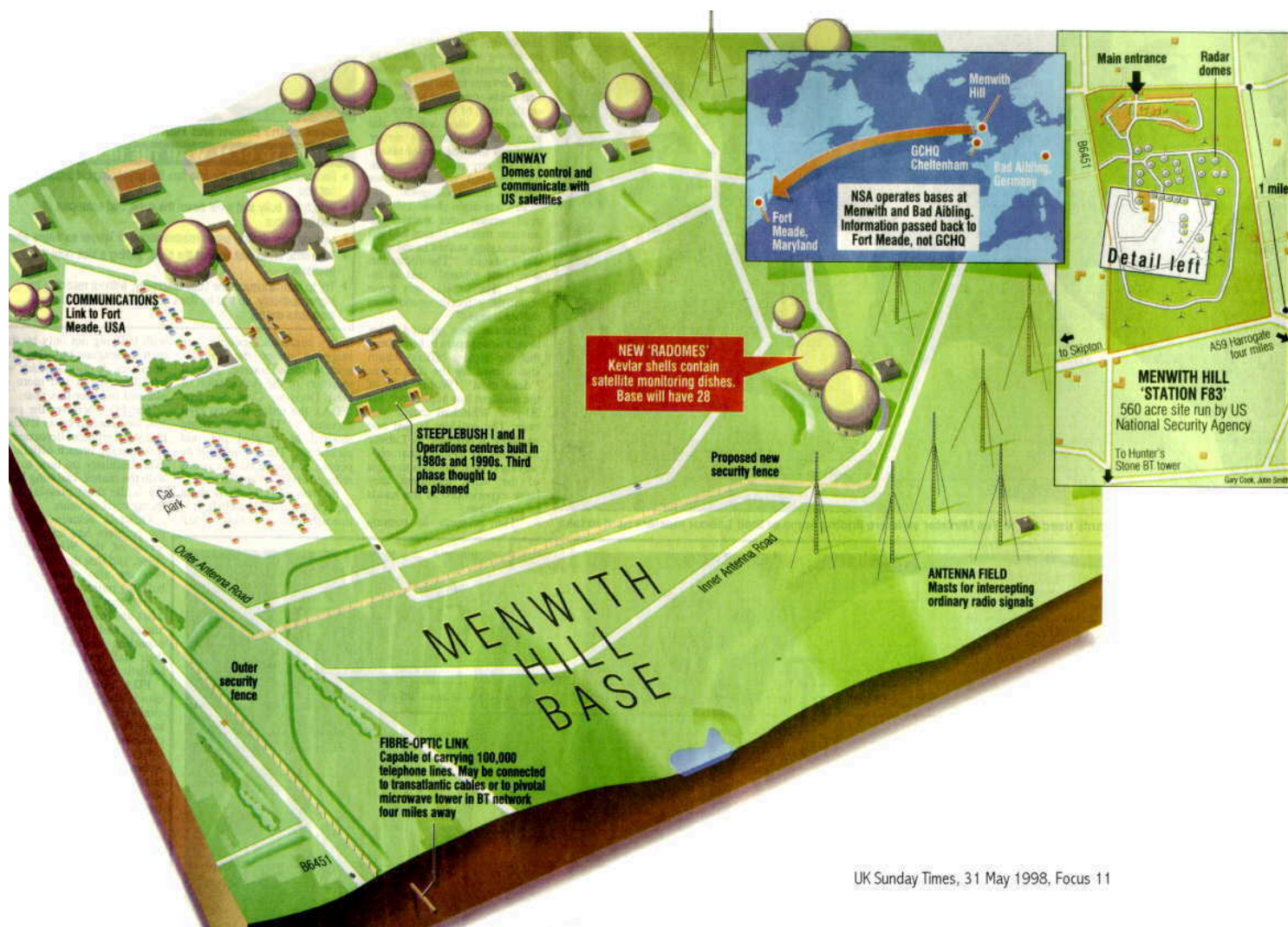


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FOCUS

*Last week a German politician claimed a shadowy US installation in Britain is spying on Europe's business secrets. **Nicholas Rufford** investigates a base able to tap into any call, fax or e-mail, and finds out who it really targets*

SPY STATION F83

Josef Tarkowski, former head of counter-espionage for the German government, is wary of using the telephone. An expert in electronic spying, he knows that even when he is at home in Cologne his words can be picked up by the world's most powerful eavesdropping station 400 miles away on a windswept English moor.

"We know this technology is there and it is being used on us," he said. As he spoke last week his words may well have been plucked out of the ether by the billions of dollars-worth of listening equipment housed in Menwith Hill, a secretive American base in Yorkshire. Built to monitor the Soviet Union, it has continued to grow despite the end of the cold war, and is suspected of being increasingly involved in commercial as well as military spying.

New construction work is under way at Menwith Hill, near Harrogate, adding three more giant "radomes". Each of these houses antennae which can intercept satellite information and listen to the traffic of millions of telephone conversations, faxes and e-mails from across Europe.

As the base grows, so does the unease of Britain's European partners who do not have such a "special relationship" with America.

Last week Wölfgang Zeitlmann, chairman of the German parliament's commission overseeing its intelligence services, went on the offensive. "It is known that the Americans have spied [on us] in the past. We have caught them at it. The issue is: were these just isolated cases or are they part of a wider strategy by the American government," he demanded. "It is important that both the British and the German governments pursue this matter with the Americans as soon as possible."

Unease is also evident in France. "What is Great Britain, as a member of the European Union, doing participating in a programme which since the end of the cold war has concentrated on spying on her European partners on behalf of the United States?" asked David Nataf, a French lawyer for a body representing French defence, aerospace and telecommunications companies.

In Italy, Franco Frattini, head of the parliamentary committee for information and security services, has demanded an explanation of Menwith Hill's activities from Romano Prodi, the prime minister.

Menwith Hill is run by the United States National Security Agency (NSA). It is the largest, most sophisticated and most secretive intelligence agency in the world. Last week the agency denied that it spies on European countries on behalf of American companies. However, almost right from the start, its British base has had extraordinary capabilities.

LOOMING out of the mist on the North Yorkshire moors is a series of huge domes, looking like giant golf balls, incongruous among the fields, drystone walls and flocks of sheep. By night, the base casts a glow from the lights of its 24-hour operation rooms and high-tech listening equipment. The perimeter fence is punctuated by watchtowers and patrolled by guard dogs. Curious passers-by who linger too long are soon intercepted by military guards who speed across to inquire into the nature of their interest.

What goes on behind the razor wire is so secret that far less is known about it than the workings of MI5 or MI6. British ministers in successive governments have persistently dodged the subject when challenged about why the base continues to expand.

John Reid, the armed forces minister, refused to give any information when asked recently why the base has taken on 200 extra staff. "I am not prepared to comment in detail on the operations of RAF Menwith Hill," he said.

That name is itself misleading - it is not a British airbase. Opened in the late 1950s on land purchased by the crown, it was taken over directly by the NSA in 1966 and became its Field Station F83. It is now the NSA's largest listening post in the world. Sprawling across 560 acres, it has an operation centre and on-site town, including houses, shops, a chapel and a sports centre. It also has its own uninterruptible electricity supply.

Early on it was given the task of intercepting what is known as international leased carrier (ILC) traffic, essentially ordinary commercial communications. In the 1980s it developed a new operations block codenamed Steeplebush to expand its programme of satellite surveillance. A second phase, Steeplebush II, was developed in the early 1990s. A third is believed to be in preparation. Originally the number of radomes - the Kevlar protection covers which fit over the satellite dishes or radio masts - on the site was just four. It is now 25, not including the three under construction. The size of its staff has kept pace. In 1980 there were 400. By 1996 the number had tripled and has since risen to more than 1,400 American staff including engineers, physicists, mathematicians, linguists and computer scientists, plus 370 staff from the Ministry of Defence. In total the seemingly quiet Station F83 has a staff as large as MI5, Britain's domestic security service.

They operate scores of systems for collecting data, including the main spy satellite system for monitoring Europe and Asia, codenamed Vortex. At any one time three Vortex satellites, positioned over the Equator, are in operation. More recent, larger satellites codenamed Magnum and Orion are also run from Menwith, and its sister station, F91, at Bad Aibling in Germany. What does Menwith Hill listen to? Some light was shed in a report to the European parliament earlier this year.

It declared: "Within Europe, all e-mail, telephone and fax communications are routinely intercepted by the NSA, transferring all target information to Fort Meade in Maryland [the headquarters of the NSA] via the crucial hub of Menwith Hill in the North Yorkshire moors of the United Kingdom." The report also details a system called "Echelon", a network of listening stations around the world.

Each one intercepts millions of messages in speech or data commonly transmitted by microwaves. Using computerised recognition programmes, the listening stations attempt to pick out key words from phone, fax and e-mail traffic. When target words are identified, the communication is recorded for further analysis.

Such information might arguably be needed in the fight against terrorism or the drugs trade or other political purposes. But last month Alain Pompidou, a European parliament technical specialist, said: "Echelon is in fact an economic intelligence system - amplified thanks to the satellite network." Critics argue that Menwith Hill can provide the NSA with valuable insights into, for example, contract tenders, oil prospecting or international trade deals.

Evidence that at least some of the traffic Station F83 listens to is non-military communications emerged from a court case last year. Two protesters accused by the Ministry of Defence of trespassing at the base were tried at York Crown Court. In the trial British Telecom revealed it had installed high-capacity optical fibre with capacity for 100,000 simultaneous calls - far more than the number of lines at the base - implying that Menwith Hill was tapping into the BT network. The base is less than four miles from another BT installation, a microwave transmitter called Hunter's Stone tower, which relays hundreds of thousands of calls.

Under a 50-year-old pact - the UKUSA agreement - the NSA is given a free hand to operate from Britain, supposedly ensuring that the United States shares its signals intelligence with Britain.

However, the NSA admits that although the facility is jointly operated with a minority of British personnel, GCHQ is not automatically privy to the intelligence gathered. Tapes containing data from American spy satellites are returned to NSA headquarters; the sharing of intelligence is discretionary.

IF America has the means to spy on private and commercial calls, does it have the motive? One reason is that companies may be supplying arms or components for weapons of mass destruction to terrorists or Third World dictatorships. But there have also been suspicions of commercial gain. In a row between Volkswagen and General Motors over commercial espionage, it was suggested that conversations by Volkswagen executives had been intercepted by the Americans.

The French have claimed that Thomson-CSF, a French electronics company, lost a \$1.4 billion (£858m) deal to supply Brazil with a radar system because the Americans intercepted details of the negotiations and passed them to Raytheon, the American firm which makes the Patriot missile; Raytheon subsequently won the contract. Another claim is that Airbus Industrie lost a contract worth £1 billion to Boeing and McDonnell Douglas because information was intercepted by American spying.

But in all these cases there is no proof. That is the nature of the beast. The eavesdroppers leave no trace.

Security is tight and few who have worked at Menwith Hill have ever talked. One former US Air Force signals specialist who worked at a US signals intelligence (Sigint) base in the 1960s has described how he watched print-outs of commercial telexes: "I was provided with a list of about 100 words I had to look out for. I had to keep a watch for commercial traffic, details of commodities that big companies were selling, like iron and steel and gas."

An aerospace worker, who was at Menwith Hill in the late 1970s and early 1980s, also claims she witnessed the interception of civilian and commercial communications.

By its own admission the NSA leads the world in eavesdropping technology. And inside the US Department of Commerce is believed to be the "office of intelligence liaison" - thought to be the conduit by which the NSA passes on commercially sensitive information. Whether it is spying on foreign companies remains unclear. The suspicion, however, may cause just as much trouble. An American diplomat was expelled from Germany last year, accused of gathering data on high-technology projects. Zeitlmann said the only answer to the eavesdropping dilemma is for "the Germans to run the Bad Aibling base in conjunction with the Americans and the British to do the same at Menwith Hill".

Even that might not solve the tensions. Nataf observed: "Echelon is an Anglo-Saxon system. As de Tocqueville pointed out, the 'language tie is often the strongest and most durable element which binds men together'. Europe was intended to bind nations together with a common culture, political and judicial system - but the English will always be a race apart".

Additional reporting: Peter Conradi, Michael Woodhead, Frankfurt; Kirsty Lang, Paris; Matthew Campbell, Washington; and Ian Key **Cracking the Menwith codes**

National Security Agency

World's largest intelligence gathering operation. Founded 1952, headquarters at Fort Meade, Maryland. Commanded by Lt Gen Kenneth Minihan, former air force officer and Pentagon official. Responsible for signals intelligence (Sigint) about foreign communications, and information security (Infosec) of US communications. Biggest listening post at Menwith Hill, Yorkshire

Moonpenny

Codename for series of radio dishes at Menwith Hill intercepting communications from foreign satellites

Runway

Array of dishes directing and communicating with US satellites, including Vortex satellites operating over Europe and Asia. May have been complemented or replaced by new system called Rutley

Silkworth

Main processing system for intercepted information at Menwith Hill. Grouping of super computers, including Magstrand system believed to be link into Echelon network

Echelon

Global system of electronic eavesdropping, thought to be used for commercial purposes as well as military spying. Monitors millions of communications, uses computerised systems to target those of interest, by origin, destination, language or key words. Targets tagged and forwarded to Fort Meade for analysis and action

Voicecast

Advanced voice recognition and processing system in operation at Menwith Hill. According to some reports, can be programmed with the voice prints of specified individuals

C/TAR

Collection Transcription Analysis and Reporting division at Menwith, employing language specialists. Split into two groups: C/TAR1 for Russia and former Soviet Union, and C/TAR2, rest of the world

UKUSA agreement

Protocol drawn up between UK, USA, Canada, New Zealand and Australia identifying common security objectives and operations. Includes Echelon, and assigns spheres of influence. NSA has ultimate control. Information shared at discretion of US

GCHQ

General Communications Headquarters, largest British intelligence and eavesdropping operation. Last week unveiled plans for expanded head quarters in Cheltenham for its 4,000 staff. Operates the other main listening station in Britain at RAF Morwenstow at cliffs on north Cornwall coast

Simon Trump