TENTACLES
—the world of electronic spying

Beckerman: Rebuilding the economy / Khomeini profile
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THREATS TO certain proceedings at the Old Bailey last year, we now have official confirmation of the fact that two massive buildings in Cheltenham, Gloucestershire, are the offices of Government Communications Headquarters (GCHQ); that the work of this organisation involves signals intelligence (Sigint), now officially defined as the 'reception and analysis of foreign communications and other electronic transmissions for intelligence purposes'; and that it is a 'majority shareholder in British intelligence'.

For some reason, GCHQ has never attracted the same degree of public interest as other intelligence agencies—perhaps because its image is less glamorous than that of the Special Branch or MI6, or because its work (as officially defined) sounds relatively harmless. In fact, it is larger and potentially far more sinister, its influence more widespread, and the implications of its work ultimately more threatening to civil liberty and world peace, than all the other agencies put together. It deserves the closest scrutiny by the public, yet it resists this with all its might.

Signals intelligence is not a new idea. It is founded, after all, on the ancient and dishonourable tradition of governments reading other people's mail. GCHQ's direct roots go back at least as far as the Foreign Office 'black chambers' of the 1920s, but well before that, code breakers and monitors of communications had become deeply imbued with the idea that their work must be kept secret at all costs. Secrecy remains a vital and integral part of GCHQ's work today. Every one of tens of thousands of military and civilian personnel working in Sigint is subject to intensive 'indoctrination' every time they move to a new post. As they leave, they must be 'de-indoctrinated' and reminded of an obligation never to disclose any information whatsoever to 'anyone not currently indoctrinated'. At each stage, a long lecture is delivered on the importance of the work and the need for secrecy.

It was not until 1974 that a corner of the veil was lifted. After a lengthy battle with the authorities, Group Captain Winterbotham of MI6 (who was, ironically, one of the early protagonists of 'indoctrination') managed to publish his memoirs of wartime codebreaking in a book called The Ultra Secret. Winterbotham was no whistle blower; he merely believed that such a glorious episode in the nation's history (and one which shed a fine picture of Sigint operations which is not only more sinister, its influence more widespread, and the implications of its work ultimately more threatening to civil liberty and world peace, than all the other agencies put together. It deserves the closest scrutiny by the public, yet it resists this with all its might.

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Each of the main participants—NSA, GCHQ, Australia's Defence Signals Division (DSD) and Canada's Communications Branch of the National Research Council (CEBRC)—is in charge of Sigint activities in a given region. GCHQ's territory is Africa and Europe east of the Ural mountains. Technical liaison between the participants is, of necessity, close and well integrated. They share procedures for identifying and labelling signals and have a unified communications network. Voluminous 'International Regulations on Sigint'—IRSIG for short—prescribe security procedures, including indoctrination, to which participating governments must agree. They share, too, outlandish codewords such as VIPAR, TRINE, or UMBRA, which must always designate Top Secret Sigint material. Everything that is intercepted is sent to Fort Meade, and generally also to Cheltenham as well as to other concerned stations around the world.

THE SCALE OF INTERNATIONAL communications has increased enormously over the last 30 years and the Sigint agencies have swollen to a corresponding size. NSA employs more than 120,000 people in different parts of the world. The size of GCHQ is—from one's supposed to be a secret, but it is possible to estimate the scale of operations by looking at the better-known bases. The two office blocks in Cheltenham have ample room for between four and five thousand employees. One thousand personnel or more are employed in each of the major monitoring bases, army centres in Cyprus and West Germany, RAF units in Lincolnshire and West Berlin, and civilian units in Staffordshire, Devon, Cornwall and Hong Kong. Then there are smaller units scattered around Britain and in Malta, Mauritius, Turkey, Iran, Ascension Island and Australia, with further detachments elsewhere. So the total number of GCHQ staff may be more than 20,000.

As another indicator, of its size is that, while GCHQ is listed rather modestly as the 'Signals Department' of the Foreign Office, its director is a Deputy Secretary and it has five or six Under Secretaries. The entire remaining Foreign Office establishment is not many times larger.

Although nominally responsible to the Foreign Secretary, GCHQ's actual lines of command may fall somewhere between the Cabinet Office (where a Co-ordinator of Intelligence and Security looks after the work of all secret agencies) and Fort Meade. Chapman Pincher's recent comment is probably accurate:

'Dependence is so great (of GCHQ upon NSA) and co-operation so close that I am convinced security chiefs would go to any lengths to protect the link-up ...'

NSA has four major independent establishments in Britain: Chicksands, Bedfordshire, Edzell, Scotland (radio monitoring), Menwith Hill, Harrogate (satellites and communications) and Brawdy, Wales (underwater submarine detection). Their activities are similarly shrouded in secrecy.

SIGINT WORK INVOLVES a great deal more than interception of telecommunications from bases on the ground. 'Provocative' missions into foreign air and sea space are a regular feature. Since 1945, more than 70 US aircraft have been destroyed on missions of this kind—and ship casualties have been high, too. The Tonkin Gulf incident, which the US used to justify the Vietnam war, was the result of an intrusion by the USS Maddox, engaged on work for NSA. When the USS Liberty was attacked by the Israelis off Gaza in 1967, it had been trying to monitor Israeli communications during the Six-Day War; more than 40
seamen and NSA personnel were killed and the ship was very nearly sunk. The most recent espionage case was the capture, intact, of the USS Pueblo while it was spying off the North Korean coast. And in addition, US nuclear submarines have several times collided with Soviet ships while engaged in the extraordinary 'Project Holystone', spying in Soviet waters, even going as far as the entrance to Vladivostock harbour.

Britain has had its share of such international mischief. Two undergraduates were put on trial under the Official Secrets Act in 1958 for revealing details of espionage work in the Baltic and on one occasion as far afield as Leningrad, by British aircraft and small ships, often operating under the Swedish flag. Two RAF aircraft were reported lost on a 'proven mission' over the Norwegian Sea in the early 1960s. Nowadays, two enormous expensive, specially equipped Nimrod aircraft are sent from their base in East Anglia on regular monitoring flights along the east European border. Large trawlers which spend long periods in northern waters sometimes carry naval staff equipped with interception receivers. Trawlers such as the Gaul, which was mysteriously lost in the Norwegian Sea three years ago, may do this work.

ALTHOUGH IT IS PIOUSLY DENIED, spying on allies is an accepted rule in the Sigint game. For example, ex-employees of NSA at Chicksands have reported that the base monitors French diplomatic traffic. They have also alleged that it monitors British government and commercial communications - and similar allegations have been made in Parliament. British bases in Germany and Cyprus monitor NATO allies. During the early stages of negotiations to join the Common Market, GCHQ was reportedly required to decipher a considerable amount of diplomatic traffic passing between our prospective European partners, and for this purpose it drew heavily on NSA's resources. At the time of the Suez crisis, the Americans intercepted diplomatic and military telegrams of the British and French governments and used the information to frustrate their strategies. This caused so much antagonism - and the only known rift in the Sigint pact - that in 1957 the prominent US cryptographer William Friedman was sent on an NSA special mission to GCHQ to restore relations and study advances in cryptography that had been made in Britain, Sweden and Switzerland. (Two years ago, NSA fought to prevent publication of details of Friedman's trip, on the grounds that it might deprive NSA of its ability to read the coded messages of all NATO countries.) Sigint has also turned its attention to individual citizens. In 1975 the Church Commit-
The stick is the carefully cultivated fear of the national interest being threatened if the strictest secrecy were not maintained. The carrot is admission to a very exclusive club where members are allowed to know about top secret matters. It is easy to see how effectively this cult of secrecy serves the interests of GCHQ and its allies. Members of Parliament and even junior ministers in defence and the Foreign Office are excluded from the club; if they ask awkward questions, they are told it would not be 'in the national interest' for them to have the answers. Advisers to one major government department which could usefully use Sigint information on commodity prices, have said that 'none of that kind of information ever reaches us'. According to Chapman Pincher, Jim Callaghan is sent 'important intercepts by GCHQ ... daily in oblong yellow boxes'. But even he, says Pincher, is 'treated on a “need to know” basis'. GCHQ, not the Prime Minister, decides which bits of information he gets. Richard Hall explains in his book on GCHQ's Australian partner, The Secret State, that a common Sigint tactic is to keep ministers happy by feeding them with distracting low grade information. When Sigint finds a 'diplomatic titbit with the minister's name in it' says Hall, 'these are almost always pushed forward'.

Foreign policy is often shaped, secretly, by Sigint. GCHQ's close links with the NSA are a major ingredient in the cement which seals Britain's dependent alliance with the United States. The NSA, in turn, can secretly shape US foreign policy. For example, it purchased the right to maintain two enormous bases in Ethiopia by sending millions of dollars' worth of military and economic assistance to Haile Selassie. The US Congress remained unaware that the bases existed or that the payments had been made. Similar arrangements were made for setting up three stations in Morocco. When Allende came to power in Chile, the NSA had Rapidly had to dismantle a major installation on Easter Island—which must have been an important spur to the decision to 'destabilise' the new Socialist government. The network of surveillance bases in Turkey, monitoring the Soviet Union, has for a long time been a key factor in US-Turkish relations: at one stage it forced the US to withdraw the pressure on the Turkish government to clamp down on heroin production.

Britain has similar secret commitments. Foreign policy towards Cyprus has been determined largely by the fact that it is the site of major Sigint and other surveillance activity. A GCHQ station in Iran has been said to have been a key factor in determining Britain's attitude to developments in the country. According to openly available circulars, GCHQ employees were working regularly in South Africa at least as recently as 1970. Britain has a major interest in one of the Turkish stations, Sinop, on the Black Sea: four British technicians working there for GCHQ, or under the commercial cover of Cable and Wireless Ltd, were killed in a terrorist attack in 1972.

By monopolising information, Sigint agencies have made it virtually impossible for governments to control them. One episode which illustrates this with frightening clarity is the sacking of Gough Whitlam, the Australian Prime Minister. Whitlam had made himself very unpopular with the intelligence community by asking questions about Pine Gap, a station run by the NSA. He had also caused a secret base in Singapore to be closed by identifying it publicly; and his Attorney General had led a raid by armed police to recover information being withheld from the government by the Australian Secret Intelligence Organisation (Australia's MI5). In the end, the CIA sent a telegram to Australian intelligence which declared that if 'this problem' could not be 'solved', it could not 'see how our mutually beneficial relationships are going to continue'. The problem was promptly solved when the Governor General suddenly chose to relieve Whitlam of his post.

It is difficult for obvious reasons to find out whether similar battles are waged behind Whitehall's lace curtains. We know, at least, about the bugging of Harold Wilson's offices at Downing Street and in the House of Commons. This was done not by MI5 but by a special electronic unit run by GCHQ, according to Chapman Pincher. Callaghan denied the allegation, but of course the first credential of any such undercover activity is that it can be denied at the highest level. GCHQ is responsible for providing the Prime Minister with secure communications and for protecting him from bugging by the 'enemy': it therefore has perfect access, should it want to do any monitoring itself. When Callaghan made his denial, his brief was prepared by the then co-ordinator of intelligence in the Cabinet Office, Sir Leonard Hooper. Sir Leonard is a former director of GCHQ, where he had worked for 32 years.

Not only has Sigint phenomenally increased the extent of its activities since the war; it has also changed in character. Its priorities have shifted away from urgently needed military intelligence and technological innovations have made some tasks impossible. For instance, the major codes of the Soviet
Union are now, like those of the US and the UK, largely uncrackable and even analysis of traffic levels (the varying volume of communications) can be unrevealing. Former CIA director William Colby admitted to the Church Committee that most of NSA’s major successes have been obtained not by diligent technical breakthroughs, but by the theft of codebooks and ‘keys’ from embassies around the world: the same is presumably true of GCHQ.

The sheer volume of information can inhibit Sigint’s effectiveness, as the Pike Committee of the US House of Representatives recognised in January 1976. Commenting on the failure of the intelligence community to predict the 1975 Middle East war, the Committee said: ‘NSA is not in the business to defend war; preparations were so voluminous – hundreds of reports each week – that few analysts had time to digest more than a small portion. Costly interceptions had scant impact on intelligence estimates.’ Some of the more highly classified material took so long to be distributed that the war had broken out before the relevant SIGINT traffic was being monitored.

Amid mounting technical obstacles, Sigint has shifted its aim towards weaker targets: third world governments, dissident civilian groupings and communications manufacturers’ involvement with GCHQ. Racal Ltd, for example, has a special subsidiary making surveillance equipment for GCHQ and its managers and salesmen include former GCHQ and MoD civil servants.

The secret world maintains that it cannot make itself in any way publicly accountable because that would threaten the ‘national interest’. But details of the Sigint pact have been well known internationally since 1960. That was the year in which two NSA defectors revealed at a Moscow press conference a full account of GCHQ-NSA link up and its ramifications. For good measure, they produced a list of some of the 40 countries whose codes NSA was then successfully cracking. Some changed their codes as a result, but many did not – perhaps because they felt they had too much invested in the current code, or because they took the view that nothing was hurt except their pride as long as the major powers were reading their messages, not their neighbours.

GCHQ has had its own defects, but has kept silent about them. There have been at least two. An intelligence Corps corporal working in Sigint at the 13th Signals Regiment in West Berlin crossed the Berlin wall in July 1963 and stayed in East Germany; and in September 1968, a Chief Technician working at the RAF Sigint centre in Digby, Lincolnshire was arrested after passing secret information to Soviet agents. One of his offences for which he is still in prison – was revealing that GCHQ had followed Soviet radio call signs for more than 20 years, using captured wartime documents.

THE SIGINT COMMUNITY clings to secrecy because its power depends upon it. The arguments it uses in self-justification were well aired at the Official Secrets trial: allies must be spied upon because one day they might become enemies; countries which seemed remote now must nevertheless be monitored because they might one day become part of a larger conflict; information about signals intelligence and cryptography must be tightly restricted so as not to alert targets to the dangers of interception; true, some countries know they are being monitored, but it is essential they should not know the level of sophistication of the monitoring.

The fundamental effect of this policy is to inhibit any scientific advance which is not directly controlled by the indoctrinated. They are threatened at present by two developments: by the introduction of microelectronics which can make even inexpensive cyphering systems uncrackable except through disproportionate effort; and by a new form of cypher system which removes the need for secret distribution of code ‘keys’, thus opening the door to much wider public use of secret communication. Even in the early days, NSA and GCHQ were determined to classify and restrict information which had previously been available, in order to establish a monopoly. Today, NSA and its partners are fighting a furious battle to control the blossoming public interest in cryptography. They have attempted to stop publication of scientific papers by independent researchers; they have tried to interfere in the allocation of grants. NSA has succeeded in having the first US publicly standardised cryptographic system adjusted to its specification – which probably means it can now crack it. Both NSA and GCHQ prohibit the export of cryptographic equipment unless the manufacturer hands over complete plans.

The UKUSA pact, with its goal of WASP global surveillance seems in retrospect to reflect a postwar design for US hegemony that the US itself may no longer believe in. Yet Sigint has maintained that goal and protected it from changing public opinion. Why? In the course of his investigations in the US Congress, Frank Church commented that NSA’s technology at any time could be turned around on the American people . . . the capacity is there to make tyranny total’. If that is the direction in which NSA is heading, its Cheltenham poodles cannot be far behind.

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