

Uncle Sam and his 40,000 snoopers

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After the [Ramparts 1972 article](#) this is the second public report on NSA's global signals interception program. Transcribed from slightly copier-cropped hardcopy; missing text = XXXXX.

The following is an interview with a former US operative, now in Australia, of America's National Security Agency ...

Question: You've worked for the US government's National Security Agency for a number of years. It's a global operation, but does it do much down here in Australia and in the surrounding Pacific? Is it relevant to us?

Answer: Yes, it's relevant. You may already have heard that your Defence Signals Division (DSD) is linked to the NSA. On paper, DSD has a major responsibility within the NSA net, work for China, southeast Asia and the Pacific. In practice, NSA supplies manpower, equipment and knowhow to DSD, just as it does to GCHQ and CBNRC [see glossary].

Q: And does the NSA operate from Australia, separately of the DSD?

A: Yes, it does. Pine Gap is described as a "window" in internal NSA communications. Both Exmouth Gulf and Pine Gap have electronic interception missions along with other communication functions. Pine Gap and the antennas subordinate to it are quite important. They are ideally situated from a global "bounce back" point of view to monitor Russian high frequency telemetry originating in the testing area near the Caspian Sea and in the down range at Tyura Tam. Australia is peaceful, quiet and all that, and an ideal place for some kinds of NSA installations.

Q: Anything else?

A: Yes, there's a pretty big NSA outfit in the vaults and tunnels under the Canberra embassy, guarded by US marines. Canberra is a major overseas coordinating centre for Pacific and Indian ocean stations. Maybe a hundred people are employed in this work -- officially they'd be called embassy code clerks and things like that. The work done in Canberra is similar to much of what's done at Pacific HQ at Helemanu on the island of Oahu, Hawaii. It's inconspicuously situated in the middle of some pineapple fields.

Q: You're beginning to lose us. Just what does the NSA do round the world -- grow pineapples underground, like mushrooms? What kind of stuff do they intercept? Are you saying you can listen to a Moscow telephone conversation from central Australia?

A: No, from central Australia only the high frequency stuff which bounces off the ionosphere.

Q: Do the Russians know about the NSA listening into them?

A: They regularly wish NSA interception stations a merry christmas.

Q: They know about interception from Pine Gap and Exmouth Gulf?

A: The agency's interception stations are high priority targets in the Soviet order of battle, which NSA has intercepted.

Q: Why have so few people ever heard of this remarkable organisation?

A: When anything goes wrong, we generally attribute it to the CIA. Then most of the installations are manned by military personnel and resemble signals bases, so they are XXXXX.

Q: Why does NSA want to remain secret?

A: The interception of telephone conversations violates the local laws of most countries and the interception of diplomatic traffic violates Geneva conventions.

Q: How big is NSA? We've heard it has about 15,000 staff.

A: It depends on what you count. There are about 80 percent military and 20 percent civilian personnel. Three services groups work directly with NSA, though they belong to the services and are on their payroll. They are the Army Security Agency, the Naval Security Group and the Air Force Security Service. My estimate is that at the height of its numbers, between 1967 and 1971, NSA had about 40,000 personnel working for it. About 5000 were in Germany, 5000 in Japan and South Korea 5000 in Indochina (mainly in Vietnam and Thailand), 10,000 in Fort Meade headquarters, and 5000 on naval operations. The rest were dispersed round the globe.

Q: Could we come down to particulars? Perhaps you could tell us about yourself, how you came to work for the NSA, what they trained you in, and where they sent you?

A: I was drafted into the US army. At the preinduction stage I declared that I was unwilling to do combat duty. I took two sets of tests at this stage, and apparently showed high language aptitude. As a result, I was approached by an army captain who told me he had something interesting for me. He mentioned that the NSA operated independently of the army, the conditions were better, there would be academic training and the army rates of pay would carry an extra \$100 per month for proficiency on completion of my training. I'd have to sign up for four years, the first two of which would be spent in academic training. I signed up.

The National Security Agency, headquartered at Fort Meade, Maryland, controls a global network of electronic interception stations.

Q: What happened next?

A: Like every army man, I went through a short course of basic training and was shipped off to the Defense Language Institute at Monterey, California. Originally I was to do a course in an Asian language, but in fact I started on nearly a year's course in Russian language, customs, institutions and so on.

Q: How big is this school?

A: In my time, there were about 1200 students. Not all of them came from NSA. Russian (with about 600 students) was the biggest thing, then Vietnamese and then Chinese, at that time. The school was teaching 48 languages and had a capability for teaching up to 112. Our instructors, men and women, were native Russian speakers. They'd come west in the immediate postwar years. So, to keep up to date we got a lot of contemporary Russian material as well. After two months, we lived in barracks where only Russian was spoken, the latrine and no smoking signs were in Russian, and we played Russian language Scrabble.

XXXXXXed circuit TV programs in Russian. Monterey's special feature was a Russian shop using rubles and Soviet goods.

Q: Did you know what you were going to do with all this?

A: Only in an informal way, from our instructors. A number of students dropped out, and, before we came to the next stage of our training, we had to get top secret security clearance.

Q: What was the next stage?

A: There are four places you can go. Some trainees go to more than one. First, there's the Ames Research Center at California, which is run by NASA [National Aeronautics and Space Administration]. It trains people in the intelligence uses of computer programs and equipment. Second, there is Two Rock ranch, in northern California. It gives courses in Soviet communications and techniques, in general communications theory and in atmospheric physics. Third, there's a training school within NSA headquarters at Fort Meade, Maryland. It deals with Soviet missile operations, cryptography and mathematical semantics. The fourth, and the biggest, is the Goodfellow air force base at San Angelo, Texas. San Angelo itself is subsidiary to Fort Devon, Massachusetts, the main training centre for technicians. The guy that [wrote in Ramparts](#) a year ago (August 1972) had been trained in San Angelo where they give instruction in interception techniques and traffic analysis and the use of the apparatus for these purposes. The Ramparts article was clearly written by a traffic analyst and, although a lot of manpower goes into that, he exaggerates the role of this work. A number of NSA units have special tasks set for them. He also made some minor technical errors.

The US embassy in Canberra houses an important coordinating center for the Pacific in vaults & tunnels guarded by US marines.

Q: You were trained in some of those places?

A: Yes, in a couple of them, for about ten months.

Q: Theoretically or practically?

A: Well, I told you about "windows" and the bounce back of signals from the ionosphere. While training in San Angelo, which happens also to be well situated, we listened in to the Russian tank traffic -- the signals that were going to and from tanks in eastern Europe while they were exercising.

Q: Can you summarise for us just what NSA tends to listen to, what equipment it needs and where and how they do it?

A: To begin with, there's strategic communication interception. For this you need sophisticated and big equipment, big antennas, microwave receivers and modulators. The antennas would be big dishes ranging from 12 to 30 feet in diameter, enclosed in a radome, preferably placed on a hill and maybe mounted on a 300 to 400 foot tower. Strategic posts try to monitor high level military communications and the international telephone communications system.

What distance do they operate over? How far do you have to be away from the transmitter to intercept?

This depends entirely on the frequency at which the message is transmitted. At very high frequencies, from 250 megahertz to 4000 megahertz, at which the top military stuff is transmitted, the interception station has a certain range of 250 miles. But at low frequencies, say from 1.6 (which is AM radio) to 30 megahertz, you can pick things up right round the world. All sorts of atmospheric conditions come into it, the kind of day it is and so on. Normally you can reckon on getting messages within 800 to 1000 miles.

XXXXXX to Bulgaria and the USSR.

You started on the strategic side of things. What else is there?

Tactical communications. You use small equipment, carried round in trucks or jeeps. A lot of that went on in Vietnam. In peaceful situations, the tactical communications boys spend their time studying the other side's methods of operation and deployment.

When you described your Russian language training we thought you were being equipped to go into the USSR and pass yourself off as a local. Does any of this go on in the NSA?

Very little. NSA has a section called TAREX (Target Exploitation). TAREX people occasionally travel through the Soviet bloc and bring back photos of antennas, communication installations and their location. They also collect open source science publications from the USSR, East Germany and China. In Germany, where there were 5000 NSA attached personnel working, there were only ten TAREX people each in Berlin, Frankfurt and Munich. I guess there were more in Vietnam, where they moved in at once whenever a VC centre was raided. They'd grab the radio equipment, operating manuals, or codes. There would be about 50 to 60 TAREX people in each of Phu Bai, Saigon and Da Nang, the three NSA centres.

You've explained the work of NSA in strategic and tactical terms. Can you now tell us how the agency is organised?

The main section is SIGINT, signals interception. This divides up into COMINT and ELINT. COMINT goes for the military communications, radio, telephones, telegrams, TV, and is concerned with the content of these transmissions. It generates the intelligence in the sense that the layman thinks of it -- what people say to each other. ELINT is concerned

with the characteristics of radars, data systems and so on of the other side and with the possibility of interfering with them. An important part of ELINT is missile telemetry. When a missile goes up, it doesn't transmit communications but it gives out information about what it is doing. A smaller Soviet missile gives out signals on six channels, including its altitude, internal pressure, velocity, acceleration, nozzle temperature, and attitude (direction). The channels go up to 30 per missile. ELINT picks them up, analyses them, and learns what different kinds of Soviet missiles can and can't do.

Exmouth Gulf and Pine Gap have electronic intelligence missions for NSA along with their other functions.

Do the Russians do the interception thing to the US?

Presumably. But the US also does it to itself. Maybe ten percent of NSA works in a separate section called COMSEC (communications security). It tries to break US codes, studies their vulnerability, finds faults in the equipment. For instance, a piece of equipment can develop a fault and then transmits the code with the message. We picked up some like that from the other side.

How does NSA's work relate to the various satellites that are going round the earth?

ELINT has its own specialised satellites. It develops them, NASA puts them up, and ELINT gets their signals. They pick up information over parts of China and the Soviet Union that are inaccessible or hard to hear from the field installations.

XXXXXX overheard on the telephone, and our men went in with cement and filled out the gap behind the steel door they had erected.

What were you listening for in Germany?

Berlin monitors the high echelon Soviet military traffic and the East German internal traffic. We were interested in East German party policy, popular discontent, typical anecdotes and complaints made by party officials to headquarters.

Who told you what to look for?

Each unit has a given task. Apart from that the NSA circulates TECHINS [technical instructions], which are policy papers, given to people on the basis of their "need to know". By the way, this is one place the *Ramparts* article went wrong. It talked about TEXTA as the bible of the NSA. TEXTA are basically installments of an operating manual, which list call signs and frequencies of the other side's communication system.

You've mentioned the British a couple of times. Are they just fronting for the US, or do they have their own electronic operation?

The British maintain a much lower profile. Under GCHQ (General Communications Headquarters) there's MI8 the government outfit, and the Special Signals Division which is the army organisation under MI8. The German headquarters are at Braunschweig. Their operations are on the tactical level. They depend on the US for strategic stuff. In Germany they tend to concentrate on Poland. They mainly operate from the northern part of the former British zone. In Berlin, they have a separate building on the Teufelsberg, and live on RAF Gatow.

Is that all MI8 does?

No. Their major electronics stations are on Gibraltar and Malta.

We're beginning to follow what NSA and its partners are up to. Can we now come to the Pacific and Asia? Where is NSA and what is it doing?

In Hong Kong, the British operate an important and powerful interception station for south China. The formal responsibility for Singapore falls on Australia. There are stations in South Korea, Taiwan, Thailand and South Vietnam, all operated by the US.

In Japan, there are three -- one at Chitose on Hokkaido, one on Kyushu, and the NSA centre in Tokyo. There used to be a fourth XXXXXX

XXXXXXcepted at long distance. For these areas the US largely relies on satellite pictures.

What does Singapore monitor?

Singapore, Indonesia and Malaysia chiefly, including the peninsula and the Malaysian states.

Early this year, Gough Whitlam blew the whistle on the Singapore base but in the Budget additional funds were provided for Australia's contribution to Singapore defence which presumably includes the interception station. What do you make of this?

NSA personnel are told that Australia is obliged to maintain the base under a classified protocol of the SEATO treaty. In that case Australia won't pull out of the Singapore station unless the US approves or Australia pulls out of SEATO.

Are there other NSA activities in Asia?

You know about the big Turkish monitoring activity from the *Ramparts* article. This is part of the European setup. NSA has two bases in Iran, one in the north and one in the south. Southern Iran monitors Middle East military and political activity. The northern installation has two missions -- missile telemetry, which I explained to you, and it operates microbarographs, which detect underground and atmospheric nuclear explosions. There are also microbarographs at stations in Nepal, Thailand and South Korea, all on the Asian mainland, so that they can get the seismic movements. All seismic data go back directly to the US.

You were talking about Hawaiian headquarters at Helemanu before.

Yes, it's nicknamed Fort Meade West. A lot of the time is taken up with cryptanalysis [code breaking]. If new or unbroken codes are used in messages picked up in the Pacific the material is sent there. Helemanu correlates the Pacific information and decides on policy -- the general areas of information we should watch for.

Helemanu, Chitose, the Teufelsberg and other exotic places.

And Australia where we started our talk?

Exmouth Gulf intercepts traffic in the Sunda straits and in the Indian ocean. You know it's quite common for the US Navy installation to be used by NSA men, for instance in the Philippines. The NSA personnel comes from the Naval Security Group. Exmouth Gulf also services US spy ships in the Indian Ocean.

What do you mean by spy ships? What's there to see on the water?

The spy ships are usually old destroyers or transport ships fitted out with a lot of antennas and electronic equipment on board like the Pueblo which the North Koreans captured. They are officially called survey ships and monitor naval and merchant ships communications.

And Pine Cap?

Pine Gap Is a focus for bounce-offs from the ionosphere. You can catch Soviet signals particularly well from there, and that's part of the reason for its location.

Are Australian DSD personnel trained in the places where you were trained?

No. No foreign personnel are trained in any of these places, not even the British. Also NSA has a term -- NOFORN -- which means no foreigners have access to them, even those allowed elsewhere on the installations for the work. The NOFORN work is done in restricted areas of the stations. It deals with information the US wants to keep to itself technically or politically.

What about Canberra?

For their kind of work, like cryptanalysis, they want peaceful conditions. They don't need big outside equipment. The shortwave antennas on the embassy are enough for the XXXXX

XXXXX traffic of every other country and tries to decode it. That's just routine.

When you talk about intercepting the international telephone traffic isn't that an enormous task with hundreds of thousands of conversations going on daily?

There are two approaches to this problem. First there are designated persons or numbers that you always listen to. For instance, inside the US the FBI supplies a list of known or suspected Soviet agents and NSA listens to all their international calls. In fact, the information these agents relay is generally planted on them by the FBI. The same thing happens to American agents in the Soviet bloc.

The other approach is simply to take a random sample of all the traffic and see what is going on. NSA isn't after economic information in the open countries, but inside the Soviet bloc and China it's interested in all sorts of shortages. If you hear some machine part is short maybe you can infer that they are using the metal or alloy for a new military purpose.

You also think that by chance you might pick up a vital piece of military or diplomatic information. The Zimmermann telegram which took the US into world war one was picked up by chance before NSA ever was thought of. This is the philosophy behind it.

Is anything safe from the NSA?

Before you can crack an utterly new code you need about 130,000 groups in it. That's a mathematical fact. A once off message in a new code which isn't used again is safe. That's the outer and inner limit on the decoding side. The other is that landlines can only be tapped not intercepted from the distance. But they can be bugged and in some countries the postal authorities might cooperate with the NSA.

You've spent years learning to listen in to others and then listening in to them. Now that you've left the agency what were the most memorable things that happened and that you were close to?

I remember three incidents. In 1969 Nixon ordered a stand down of all military air flights on the East German border. A stand down of this kind usually precedes the attack of one country on another. We were placed on "Readiness C," the highest alert in line with this. Of course none of this ever reached the press.

What was the meaning of this?

The East Germans started moving their troops and forces around as a result and the Soviet military were being drawn out into reaction. This was one major purpose to discover what they would do. Another was perhaps political just to show force.

How a key NSA station went on a three day strike over pot and published an alternative newspaper.

And the second incident?

In 1970 the Soviet did a similar drawout operation. They sent out word that all air corridors to Berlin would be closed above 10,000 feet from 1 am on a certain day. Ostensibly, this was because Soviet manoeuvres were taking place, but everybody interpreted it as a challenge thrown down over Berlin.

What was the American reaction?

We listened into the conversation of the French, British and US commanders in Berlin. An argument developed in which the French maintained that they would ignore the Soviet request; the British tended to agree with the French, but said they wanted to wait till the Americans made a decision; and the American commander said he'd get instructions from Washington. The French sent in an aircraft at 1 am and it landed safely in Berlin. Twenty minutes after the French look off, the British sent one; and finally the US did, after the French plane XXXXX

A strike over what?

The NSA personnel in Berlin were part of the Army Security Agency and came under army administrators for discipline. About 60 or 70 percent of NSA were smoking pot -- a lot of them while on duty. It's very relaxing, particularly when you're bored with the Russian or East German traffic that is coming through. The army didn't like pot?

Well, the new colonel in charge, called Hamilton, who came from Army Airborne, wanted to arrest everyone that smoked it. DIRNSA, the director of NSA, its head in Fort Meade sent out a message saying that the colonel shouldn't do anything that would endanger the security of the country, meaning he should lay off. During those days NSA Berlin brought out an alternative newspaper called *Up against the wall*. A congressional inquiry followed with a senator and two generals on it but it too didn't become public.

Q: Did NSA go on strike just over pot?

A: No. This was the focus for a lot for complaints about personal rights and for anti-war sentiment.

Q: What happens to people who leave the NSA?

Many like travelling round the world. They can get jobs in the electronic industry using their technical, not their intelligence, skills. There are half a dozen or so in Australia in the electronic industry.

And their intelligence skill? Is there a market for that?

Israel makes the best offers. They use US equipment, they offer double US rates in posts near the Egyptian border and they give you an Israeli passport.

Don't people want to stay with the NSA?

That was one of the things behind the Berlin strike. A lot of people got disillusioned. They get trained intensively for two years, they are sent out thinking they will do important work and within a month they find out that it's mostly bullshit.

GLOSSARY

1. **CBNRC**: Canadian Intelligence Group linked to NSA, DSD and GCHQ.
2. **COMINT**: Communications Interception -- part of SIGINT. Intercepts military communications radio telephones telegrams and TV.
3. **COMSEC**: Communications Security -- a separate section of NSA testing vulnerability of US communications systems.
4. **DSD**: Defence Signals Division -- part of the Australian defence department cooperating with NSA. Headquartered at Albert Park Melbourne.
5. **ELINT**: Electronic Interception. Part of SIGINT. Collects data on characteristics of foreign radars, data systems and missile signals. Also monitors its own global satellites.
6. **GCHQ**: General Communications Headquarters -- the official name of the British intelligence agency.
7. **MI8**: Civilian agency controlling British electronic intelligence activities, including the military Special Signals Division.
8. **NASA**: National Aeronautics and Space Administration -- an agency of the US government largely concerned with space travel, satellites and ordinary air travel. Cooperates with NSA in launching ELINT satellites and occasionally, other projects.
9. **NSA**: National Security Agency -- the US government authority specialising in electronic intelligence gathering. Headquartered at Fort Meade, Maryland.
10. **SIGINT**: Signals Interception -- the largest section of NSA. SIGINT incorporates COMINT and ELINT.

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