

Will it be any better than the last?

ONE OF THE GREATEST boons in technological decision-making of the post-war era was the British government's commitment to a new radar network for the 1960s, designed to alert us to any attack and called LINESMAN. One of the features of this system was that radar stations along the East Coast fed their information to the air control centre at West Drayton, just north of Heathrow airport. At one stage the communications connections were made via the rather conspicuous Post Office Tower in central London. Later, cables were used instead, but as these ran below a manhole cover just outside the Soviet Consulate, British defence against nuclear attack remained less than complete and vulnerable to a single axe-wielding saboteur.

The third major plan for Britain's air defence since the end of the Second World War is now on the drawing board and will be costing around £300 million. The LINESMAN computer centre at West Drayton, which did not turn out to be such a threat to our security as it never worked, cost over £120 million and was an unmitigated disaster, relying as it did on technological standards of 1959 rather than 1969 and a mode of construction which most closely resembled telephone exchanges of several decades earlier. Will the new system be any better?

Officially, of course, the answer is yes. The RAF, as always, would like more fighters and radar stations. They expect, in accordance with NATO's doctrine, that a Soviet attack on Britain (the only threat considered) would, initially at least, be non-nuclear. With this in mind they are already going through a spasm of 'hardening' airfields and other installations to resist the same sort of bomber attack as was experienced in the last war. But a sounding of official policy in this field reveals that the supra-national military requirements of NATO have now supplanted any national defence policy.

The threat to Britain arises from the plethora of American military installations to which we play host, and not at all from our own capabilities. As a result military planners construct ever more elaborate plans for the ground defence of airfields from fabled 'saboteurs' and 'British partisans'. To NATO and Ministry of Defence planners Britain's main role is as an 'aircraft carrier' on which the US flag flies; our air defences do 'a very important bit in protecting American interest'. Civilian 'centres of population' take second place.

In line with this policy, much of the new radar network will be paid for by NATO funds and, as a result, the tendering for the four contracts up for grabs this year will not be restricted to the usual cosy local circle of Plessey and GEC-Marconi. Collectively the new network will be known as Improved UKADGE (United Kingdom Air Defence Ground Environment). Two multinationals are now bidding for the major contract; bidding for two new radar stations in Scotland closed last month and two other contracts will cover another ten radar stations. All the stations will be mobile, an innovation that will, it is hoped, considerably reduce their vulnerability to attack.

This new feature only points up the inutility

of the present system, which has to meet a presumed threat very similar to that for which Improved UKADGE is designed and which relies on large well-known radar stations, not on wheels and not protected by the new 'decoy' radar transmitters designed to draw the fire of lethal so-called 'anti-radiation missiles' (ARM), which use the radar itself to steer direct to its target. In other words, if the new system is what we need, we have been badly protected for years. Indeed, such a feature has characterised Britain's radar network since the days of ROTOR - the first post-war modernisation - which relied on a string of deep underground bunkers (soon rendered obsolete) along the south coast, even though a Soviet attack from Normandy was as unlikely then as it is now.

Just as ROTOR was completed, in the late fifties, air defence policy took its greatest and most infamous lurch into idiocy. The 1957 Defence White Paper unwisely proclaimed the end of the manned aircraft era and the introduction of missiles against which no defence was practicable. This was part of NATO's 'tripwire' doctrine - any attack would be nuclear and all we needed was a radar system that gave adequate warning. So, in 1958, ATE Ltd (now part of Plessey) was commissioned to plan a new radar network for the sixties. The result was LINESMAN and our present radar and communications network is still largely that designed for LINESMAN. As this was not sufficient to detect intruders, let alone resist an attack, the approaches from north-west Scotland were bolstered by the addition of a new station in the Outer Hebrides and the modernisation of two other stations in the Shetland Islands and on the Faroes.

But the existing stations remain vulnerable in a number of critical ways, not all of them considered in current defence orthodoxy. For example, large nuclear weapons can be used to generate enormously destructive electrical surges, which destroy communications and electrical systems - including radar - without any immediate damage to people or property. NATO chose to think that such an attack would not be used with an otherwise conventional attack, rendering air and other defence inoperative. The present network has also virtually no capacity to detect low level

attacks and is vulnerable to ARM homing missiles and jamming.

The new Improved UKADGE will rely on keeping major radars mobile; although in peacetime they will be based at the existing and other fixed sites, they can be moved away in times of crisis. They will be linked together by a new nationwide communications network now being planned by the Army which, for the first time, will be completely independent of ordinary civil communications. The system, called BOXER, is primarily intended for army use, but air defence will be its next most important job.

BOXER is a further product of NATO and military determination not to rely on civil resources; military officials don't want to be 'totally dependent on Post Office workers being totally loyal'. They and their NATO superiors fear that a war effort might be disrupted by 'unions clamouring at the gates because they don't want to go to war'. BOXER radio stations will be operated by the Army, which will also be entirely responsible for their defence.

In the spirit of competition Marconi and Plessey have joined with the US Hughes and the French Thomson CSF companies to bid for the big £100 million or so contract for the command and control centres and their communications. Until a late stage it appeared that there would be no competitors, a familiar enough situation for those who had observed Marconi and Plessey comfortably sewing up the market in the past, and living off the proceeds of reselling the expertise acquired to South Africa and the Middle East. However, another consortium of Dutch, US, French and British companies have appeared on the scene. The British company is ICL, who have very little experience of this type of computer application - a situation not dissimilar to Plessey who designed the LINESMAN system 20 years ago.

When the details of who gets what are settled later this year, the result will no doubt, in time-honoured tradition, show that a bit has gone to each lobby. As the history of British air defence since the war has shown, the policy has often been better at protecting the vested interests of the military-industrial lobby than the populace of the United Kingdom.

A menace to pupils?

Francis Wheen writes: A student at Leeds University who needs a medical certificate before he can be accepted on a postgraduate course claims that, because of his homosexuality, he has been told that he cannot have a certificate until he sees a psychiatrist.

The student, Geoffrey Brighton, has been provisionally accepted for a Certificate of Education course at Leeds, where he is now in his final year as an undergraduate; final acceptance for the course depended on his passing his finals and a medical examination. So on 6 December last year he saw a Dr Ryan at University Student Health (USH) who found his condition satisfactory. Later he was recalled by Dr Ryan, who said that he had discovered from the files that Mr Brighton was a homosexual; Ryan had consulted Dr I. C. Fraser, head of USH. 'Both agreed,' says Brighton, 'that they did not have

the knowledge by which my "emotional stability" could be judged, and that consequently I would have to see a psychiatrist for a second opinion before they would give me a medical certificate.' He refused, and that is how the position stands.

Approached by the NS this week, Dr Fraser said that when assessing someone like Mr Brighton for a medical certificate, 'it's a question of trying to assess a person from a medical and a teaching point of view. Is he a menace to the pupils? This is obviously a consideration, just as it would be if he drank like a fish. We also ask: have they got vulnerable points in themselves which pupils might seize on?'

Dr Fraser's wide interpretation of his duty does not accord with the view of the department which actually requires the certificate. 'The doctor has to state whether the person's medically fit for teaching,' I was told by the Graduate Certificate Office at Leeds. Do you expect the doctors to look into non-medical considerations as well? 'Oh no, we've never done that. It's simply a medical report.'