

Germany helps Brazil to nuclear supremacy

A WEST GERMAN research institute is supplying Brazil with rocket and missile technology suitable for the construction of ballistic nuclear missiles, according to a Berlin-based scientific research group.

In a study released last month, the 'Working Group on Physics and Weapons'* says that the German Aeronautical Research and Testing Laboratory, in Köln, has transferred important elements of missile technology to Brazil without safeguards against military use. By 1987, when Brazil's nuclear capability is likely to have advanced sufficiently to construct atomic weapons, military chiefs also expect to have a rocket launcher in operation — which, used as a ballistic missile, could carry a nuclear warhead over a range of more than 1,000 miles.

In a statement issued from Bonn on Tuesday, the German Foreign Ministry acknowledged a 12-year-old collaborative agreement on rocket research with Brazil. But a spokesman claimed that there was 'no German input, be it material or technical' in the Brazilian Rocket Launcher Development Project called Sonda. However, this claim is contradicted by details of research projects issued by the West German Research and Technology Ministry in 1981.

If successful, the developments would establish Brazil as the regional superpower, overshadowing Argentina in the race for Latin American nuclear supremacy. The effect on worldwide nuclear weapons proliferation control would be fatal, since at present South America is the world's major nuclear-weapons-free zone, established by treaty.

Brazil, with Argentina and Pakistan, leads the list of 'near-nuclear' nations. Collaborative nuclear links between West Germany and Brazil have already received widespread international criticism.

In June 1975, the two countries signed a unique and unprecedented 15-year pact to collaborate 'in the field of peaceful uses of nuclear energy'. The deal provides Brazil with self-sufficiency in critical elements of nuclear technology. Brazil, like Argentina, has refused to sign the Nuclear Non-Proliferation Treaty, and is not bound by the Treaty of Tlatelolco, which prescribes the nuclear-weapons-free zone in Latin America.

Since 1971, the German aeronautical laboratory, the DFVLR, has cooperated with the Brazilian Aerospace Technical Centre (CTA) to produce a series of 'sounding' rockets of increasing power and

range. The latest, the Sonda IV, can carry a payload of 300 kilograms to an altitude of 1,000 kilometres. The rocket is being developed at the CTA research centre, located at Sao José dos Campos, near Sao Paulo. The centre accommodates a number of separate research and development institutes. The military Institute for Space Activities is developing the Sonda rockets, while the civilian Institute of Space Research is developing surveillance and communications satellites. The Brazilians have their own missile and rocket test and launching site at Barreiro do Inferno, on the Atlantic coast near Recife.

According to the Director of the Space Research Institute, Sr Nelson de Jesus Pádua, the rocket development programme is primarily for military purposes. He told *New Scientist* journalist Peter Marsh at the United Nations world summit on space, in Vienna last August, that: 'The institute . . . is working on the solid propellant rocket primarily to carry warheads . . .' Marsh says there was no doubt that Sr Pádua was referring to ballistic missiles rather than anti-aircraft or tactical weapons.

The Sao José research centre is also the home of Brazil's atomic weapons development programme, a leading Brazilian physicist reported last year, at the annual conference of the Brazilian Society for Progress and Science.

The Sonda rockets have ostensibly been developed for high altitude 'sounding' research, and cannot immediately be converted to missiles. A navigation and guidance system of high accuracy is needed. But these too can be developed, under the 'civil' guise, for satellite launchers. West German engineers have assisted the Brazilians in developing control and tracking systems for the rockets and their payloads, and seminars and symposia on rocket engineering have been held in Brazil almost every year.

Despite the official German claim that the joint seminars only concerned general principles of rocket technology, the DFVLR's own publication shows that, as recently as 1981, German scientists prepared reports on the 'flight dynamic evaluation of the Sonda IV launcher, covering such topics as 'separation of modules' and 'impact dispersion'.

The Berlin 'Physics and Weapons' group, who have been researching the Brazilian link for two years, have called for the termination of the contracts between Ger-

many and Brazil until Brazil signs and ratifies the Non-proliferation and Tlatelolco treaties. The German Foreign Ministry said on Tuesday that 'we are of the strong opinion that Brazil is using (these rockets) only for peaceful purposes'. 'But Sonda is genuine Brazilian with no input from our side,' they claimed.

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Asbestos curbs undermined

A CONFIDENTIAL REPORT has accused the Health and Safety Executive of undermining controls on asbestos and urges the withdrawal of a 'guidance note' issued only two months ago. The report, by the HSE's Scotland director Stephen Grant, says that thousands of workers in the asbestos industry are still exposed to danger and that the permissible levels of asbestos dust may have to be five times tougher than the present limits.

The guidance note admits that any level of detectable asbestos dust is not safe, but sets a 'control limit' for white asbestos — the commonest form in Britain — of two fibres per millilitre of air. The control limit flatly contradicts the statutory obligations under the Asbestos Regulations of 1969, says Grant. These oblige an employer to reduce any injurious level of dust. 'It is not within the spirit or the letter of the law to put forward a control limit which is at one and the same time said not to be "safe" but nevertheless "permitted",' says the report.

Grant claims that factory inspectors feel unable to prosecute firms which are avoidably exposing workers to levels of dust which, though harmful, are below the control limit, and suggests that an 'action level' of 0.2 fibres per millilitre may be needed to protect workers effectively. 'This would give the industry and the inspectorate a correct objective instead of a spurious one,' the report says.

Health and Safety Commission chairman Bill Simpson has responded testily to the report in a letter to Grant: 'I do not believe that the HSE's current enforcement policy is based on a spurious objective, and would be most concerned if that sort of view gained currency,' he wrote. 'I am concerned that this recommendation should call into question not only the Advisory Committee on Asbestos approach to asbestos, but also the approach that the HSE has been adopting in enforcement over the past number of years.'

Simpson accused Grant of exceeding his brief, and asked him to redraft his report omitting the controversial recommendations. But after Grant refused and threatened to resign, the HSE changed tack and now says the report will be published later this month.

Grant's attack on government policy was reinforced last week by the publication of a report by doctors Acheson and Gardner of the Medical Research Council which calls for a blanket ban on the import of brown and blue asbestos, and for the progressive replacement of white asbestos as substitutes become available. Their report confirms a linear relation between lung cancer and exposure to asbestos.

Sean Cahill



Rosyth women's peace camp

The women's peace camp outside the Rosyth naval base in Scotland — where *Polaris* submarines are refitted — has been established for over two months (since 22 May 1983), but as peace camps are out of fashion in the media, it has received very little publicity. The women have organised one non-violent action during a recent naval open day which resulted in one arrest, and more actions are planned. The area in which they are camped is known as *Limpetness*, which is appropriate, according to one of the women, as limpets are very hard to remove.

Rob Edwards