



Trust and Verify

The Bulletin of the Verification Technology Information Centre

No. 39 July/August 1993

ISSN 0966-9221

In this special issue focusing on the UK:

- US extends nuclear testing moratorium
- British defence white paper
- Open Skies test flight

US nuclear testing plans

On 3 July, President Clinton announced that he was extending the US nuclear testing moratorium to 30 September 1994 (the end of Fiscal Year 1994), provided that no other state tests during this period.

The President said:

After a thorough review, my administration has determined that the nuclear weapons in the United States arsenal are safe and reliable.

He went on to say:

Additional nuclear tests could help us prepare for a test ban provide us with some additional improvements in safety and reliability. However, the price we would pay in conducting those tests now by undercutting our own non-proliferation goals and ensuring that other nations would resume testing outweighs these benefits.

It is reported that one factor affecting the US decision was a change in British attitude. Once the British had withdrawn pressure for conducting its tests at Nevada, the President felt able to extend the moratorium.

UK views

The official UK view on nuclear testing was given in the *Statement on the Defence Estimates 1993*, which was released on 5 July (see also below):

The United Kingdom has long supported the ultimate goal of a negotiated and verifiable Comprehensive Test Ban. At the same time, we are concerned to ensure that the means continue to be available to maintain the safety of our nuclear weapons at the highest levels of assurance. Over the years, testing has played a central role in this process, complemented other techniques involving computer-modelling and forms of simulation. With the improved prospects for early progress towards a Comprehensive Test Ban, development of these alternative techniques has now assumed a high priority; we are in close touch on this with the US authorities, as on the wider issues associated with moving towards a test ban which is multilateral, verifiable and supportive of our non-proliferation efforts. We have also continued to support the work of the Conference on Disarmament on approaches to verify a Comprehensive Test Ban, covering seismic monitoring and other techniques.

The British Government has also stated, on 13 July:

Our view is that a comprehensive test ban would not in itself prevent a proliferator from producing and deploying a crude nuclear weapon and from obtaining

the materials with which to do this. But associated measures for verification and inspection, if sufficiently rigorous and applicable to the states concerned, might constrain potential proliferators.

UK costs

In early July, the House of Commons Select Committee on Defence published *The Progress of the Trident Programme*, their annual review of the project. As part of this review, the Committee inquired into the issue of nuclear testing, and the associated financial costs.

The Ministry of Defence, had told the Committee:

It remains the Government's view that to disclose financial information relating to the underground test programme, or any other aspect of the nuclear warhead programme, could risk revealing details of, for example, the direction our research and development programme is taking, or the level of nuclear capability of our forces. Such information could be useful to anyone constituting a potential threat to UK security interests.

The Committee commented: 'For reasons we are unable to understand, even the approximate costs of an underground test are classified' and concluded: 'We can at this stage therefore only report to the House that the costs of a nuclear test are in our view significant.'

The Committee also concluded:

If the UK is to mount nuclear tests over the next three years, we consider that the public in both countries is entitled to know, in outline if not in detail, what is being tested or validated, why, and with what results. To the extent that, as MoD told us, all tests have an element of safety in them, such openness could only serve to assist public understanding and support. We therefore recommend publication, after the event, of the purpose and results of any future UK test.

The recommendations of the Committee are not binding on the Government.

UK discussions

Nuclear testing was raised briefly in discussion between British Foreign Secretary, Douglas Hurd, and the US Secretary of State, Warren Christopher, when they met at the G7 summit in Tokyo on 7-8 July. However, Mr. Hurd did not discuss this subject with the French or Russian Foreign Ministers, who were also present.

When he visited China on 8-9 July, he did not discuss nuclear testing with his Chinese counterpart, although the North Korean situation and the sale of Chinese M-11 missiles to Pakistan were discussed.

Chinese Lop Nor test site

VERTIC consultant Vipin Gupta has produced an assessment of the Lop Nor test site in China to be published in the August edition of *Jane's Intelligence Review*.

UK Statement on the Defence Estimates

On Monday 5 July the British defence white paper, *Statement on the Defence Estimates 1993* (SDE93), was published (see above for its comments on nuclear testing).

In a departure from previous SDEs, defence policy is broken down into separate tasks with resources allocated to each of these. Some resources are allocated to more than one task.

Military Task 3.12

Military Task 3.12 is titled 'Arms Control, Disarmament and Confidence and Security-Building Measures'. SDE93 expresses the belief that 'security and confidence are most securely established when states can verify compliance with [treaty] obligations.'

According to SDE93, by the end of May the UK had conducted 59 CFE inspections, including 27 of reduction sites, covering most former Soviet and central and eastern European states, as well as participating in inspections led by other NATO nations. There have also been 27 inspections of British forces, by Russia and Czechoslovakia in the UK and by Hungary, Poland and Romania in Germany.

SDE93 states: 'No significant breaches of the Treaty have been discovered by any state, although a number of issues relating to Treaty interpretation have arisen and are being pursued.'

Open Skies test flight

The first trials in the UK of the Open Skies Treaty involving a foreign aircraft took place between 16 and 19 June. Following RAF flight trials in Russia in September 1992 (see *Trust & Verify*, October 1992), a team of 18 Russian and 2 Belorussian personnel arrived on 16 June in a Russian Air Force An-30 transport aircraft to conduct a similar trial over the UK.

The aim was to exercise and evaluate the draft operating procedures developed for Open Skies. Following checks of the cameras and other technical equipment on board the aircraft, it was flown to RAF Leuchars in Fife, from where a trial observation sortie was flown on 17 June. The visiting crew were accompanied by personnel from the Joint Arms Control Implementation Group (JACIG), whose role was to monitor the visiting team's activities, and to provide onboard expertise on UK flying procedures.

A spokesman at JACIG said the trial had two principal components: management of the air traffic control problems presented by Open Skies flights, and the translation of the Agreement's technical limits on camera capabilities, into an operable procedure for the use of cameras and the processing of film.

Immediately after the completion of the observation flight, the Russian team and their JACIG colleagues declined media requests to release details of the route of the trial flight, the targets to be photographed, and which targets were successfully observed. Under the terms of the Agreement, public release of this information is not permitted until the film has been processed and analysed by both the observing and the observed nations.

However, each Open Skies flight requires detailed planning and advance warning to other air traffic. Details of the aircraft's route were circulated several days in advance in a Notice to Airmen (NOTAM). This showed that the flight was due to pass over Torness (nuclear power station), RAF Boulmer (radar station), Spadeadam (electronic warfare training range), RAF Leeming (airfield), Fylingdales Ballistic Missile Early

Warning Station, Barrow (submarine construction yard), the Sellafield complex, RAF Machrihanish (airfield), Clyde Submarine Base and Rosyth (dockyard). Flight altitude varied between 7000 and 9000 feet.

According to the JACIG Team Leader at Leuchars, cloud cover obscured around three-quarters of the planned targets, preventing photography. As all the surveillance equipment approved under the Agreement is optical, it cannot be used through cloud. The agreement permits observing parties to postpone surveillance flights in order to await improvement in the weather, but on this occasion the Russian crew elected to continue with the flight as scheduled. Despite the weather-related problems, the planning and procedural aspects of the trial are understood to have been judged a success.

Full ratification of the Open Skies Agreement by states parties is expected in 1994.

MI5 and proliferation

On 16 July a booklet about the Security Service (MI5) was published by the British Government. On the same day, Stella Rimmington, the Director General of MI5, took part in a photo-call for the first time, although no interviews were allowed.

The booklet gives details of the Service's role, organization and responsibilities. One responsibility is described as 'counter-proliferation', an activity previously thought only to be carried out by MI6.

The booklet states: 'The service is now contributing to efforts to minimise the leakage of specialist technology from the UK, and traditional counter-espionage techniques are being adapted to meet this new problem.'

OPCW PrepCom

The United Kingdom is contributing £266,667 to the 1993 budget of the Preparatory Commission for the Organization for the Prohibition of Chemical Weapons. £130,000 is being paid from the British 1992-93 financial year's expenditure and £136,667 from that of 1993-94. Curiously, these funds are being taken from separate sections of the Ministry of Defence budget, even though the lead department for UK implementation of the CWC is the Department of Trade and Industry and it is the Foreign and Commonwealth Office that normally handles funding for international organizations.

The PrepCom's financial year coincides with the calendar year. The 1994 budget is to be presented at the September plenary session of the PrepCom.

Maralinga and Emu Field

Ministers and officials from the British and Australian Governments met on 17-18 June to discuss the question of further clean up of the former British nuclear test sites, Maralinga and Emu Field, in Australia.

The British have proposed giving an *ex gratia* payment of £20 million to the Australian Government 'in full and final settlement' of the claims. The British Government maintains that its legal responsibilities for the clean up of the sites had already been discharged in the 1960s.

The precise terms of the settlement will be the subject of a written agreement between the two Governments, the details of which have yet to be finalised.

THORP

Decisions on the future of the Thermal Oxide Reprocessing Plant (THORP) at Sellafield have yet to be taken, although some testing work related to commissioning has been carried out.

The Government department with responsibilities for the commercial aspects of THORP, the Department of

Trade and Industry, has stated that it has received no approaches from foreign customers regarding the cancellation or amendment of contracts. Contracts have so far been signed with customers in Canada, Germany, Italy, Japan, the Netherlands, Spain, Sweden and Switzerland.

Financial implications

Although it has been intimated that there are no direct financial implications for the British Government in the event of a cancellation of the THORP project, there may be an effect in the funds it receives from BNFL. The level of profits for the company is a consideration in determining the level of dividend the company will pay the Government as its shareholder.

Mixed oxide plant

One of the economic justifications for the THORP project is that the separated plutonium can be used to create 'mixed oxide' (MOX) fuel, a combination of plutonium and uranium oxides.

British Nuclear Fuels has plans to construct a MOX fuel fabrication facility at Sellafield. However, on 7 July this facility was refused planning permission by the local authority, Copeland Borough Council, following a direction from the Department of the Environment.

The direction was given in order to give the department time to consider whether a full study of the environmental impact of the MOX plant was required.

The Paris Commission

Discharges from THORP have been the subject of international controversy. Irish and Danish representatives introduced proposals concerning radioactive discharges into the sea at the annual meeting of the Paris Commission (PARCOM), held in Berlin on 14-19 June.

The original proposal was not adopted; Belgium, France, Germany, the Netherlands, Sweden, the UK and the EC Commission had stated reservations. A revised recommendation was adopted by a three-quarters majority, becoming Recommendation 93/5, although Belgium, France, the United Kingdom and the EC Commission indicated reservations on this.

Recommendation 93/5 calls for further measures to be taken to reduce or eliminate radioactive discharges to sea and that new or revised discharge authorizations for discharges from nuclear reprocessing installations should only be issued by national authorities if special consideration is given to: information on the need for spent fuel reprocessing and on other options; a full environmental impact assessment; the demonstration that the discharges are based upon the use of 'Best Available techniques'; and a consultation with the Paris Commission on the three items above.

According to an official British statement, the UK reservation was that part of the recommendation 'both was too vague to provide a proper basis for a PARCOM Recommendation and, insofar as it provided for a role for the Paris Commission in the decision process, was inappropriate.' A later statement said that the UK 'did not accept this recommendation. We shall therefore be taking no specific action as a result of it.'

The Paris Commission is an international organisation established by the 1974 Convention for the Prevention of Marine Pollution from Land-Based Sources, also known as the 'Paris Convention'. The states parties to the Convention are: Belgium, France, Denmark, Germany, Iceland, Ireland, Netherlands, Norway, Portugal, Spain, Sweden and the United Kingdom; the EC Commission is also a party.

Plutonium

On 26 May, during Question Time in the House of Lords, Baroness Chalker of Wallasey, Minister of State, Foreign and Commonwealth Office, was asked by Lord Halsbury to confirm that 'reprocessed plutonium from commercially operated power stations is not suitable for weapons manufacture'. Baroness Chalker replied that this was correct 'to the best of my knowledge'.

Following this exchange, many press reports contained statements that this was not the case and pointed out that, while some isotopic concentrations of uranium did not need to be declared under safeguards, all plutonium, regardless of isotopic composition, had to be declared. These arrangements have been made because all plutonium may be used to make nuclear weapons, even though some isotopes make this task far more difficult.

The current British Government position has been given by Tim Eggar, Minister for Energy, who stated on 9 July 'The usefulness of reprocessed plutonium for weapons purposes depends on its composition. It is not in the public interest for me to comment further.'

UN Commission on Sustainable Development

The United Nations Commission on Sustainable Development held its first meeting on 14-25 June in New York. The Commission was established following the Rio summit to monitor progress in following up the Rio agreements, focusing in particular on the implementation of Agenda 21.

The Commission dealt with many procedural and administrative issues, such as its work programme and guidelines for national progress reports.

Agreement was reached on the focus for future sessions of the Commission. The 1994 session will concentrate on human settlements and fresh water, health and toxic chemicals and toxic waste. The 1995 session will focus on land, desertification, forests and biodiversity. The 1996 session will focus on the atmosphere, oceans and all kinds of seas. In 1997 the Commission will review overall progress in implementing Agenda 21.

Environment Council

On 28 and 29 June, the Environment Council met in Luxembourg. The Council is composed of the Environment ministers of the EC member states.

The Council agreed on details of Directives on: emissions of petrol vapours from storage tanks; combustion conditions for, and emissions from, hazardous waste incineration plants; and vehicle emissions.

The Council also discussed the Biodiversity Convention (reaffirming the intentions of the EC states to ratify this measure by the end of 1993), the Montreal Protocol and the difficulties that the German recycling rules are causing recycling programmes in other EC states.

Climate Change Convention

The Framework Convention on Climate Change now has 165 signatories and 25 ratifications. It will come into force 90 days after 50 nations have ratified it. Given that the EC states and the G7 members have committed themselves to ratifying the agreement by the end of 1993, it will probably come into force in 1994 — rather earlier than had been expected.

Scientific Bases of Climate Change

Recent studies of ice cores from Greenland indicate that climate change has occurred rapidly in the past, during the Eemian interglacial, and might therefore do so again. Previous evidence of climate change in the last

interglacial (from the Vostok ice core from Antarctica) indicated that climate change tended to occur slowly. Extrapolation from this single set of data led some to conclude that the climate would necessarily change slowly in the present interglacial. Some people then deduced that any changes in climate due to increases in greenhouse effect caused by anthropogenic emissions of greenhouse gases would occur slowly. This theory would now appear to be, at best, half right. (The findings of the Greenland Ice-core Project members' studies are published in *Nature*, 364(6434), pp. 203-7 and 218-20).

Intergovernmental Negotiating Committee

The Intergovernmental Negotiating Committee on the Climate Convention will meet in Geneva from 16 to 27 August 1993. The Committee will continue to prepare for the first meeting of the Conference of the Parties (CoP). The meeting looks as though it will be particularly important to those interested in implementation review and, potentially, verification.

Amongst other matters, Working Group II of the Committee will consider which methodologies and reporting processes should be used under the Convention. It will also consider how to conduct the first review of information communicated by the Parties in Annex I of the Convention.

Reporting guidelines are being drawn up by the IPCC/OECD Joint Programme on National Net GHG Inventories and draft recommendations should be available at the INC meeting. These will begin to address the subjects of verification and implementation review.

VERTIC workshop at INC meeting

To coincide with the INC meeting, VERTIC will hold a workshop on verification and implementation of the Climate Convention. Delegates, observers and UN officials will be welcome in Conference Room XXVII in the Palais des Nations (near the INC meeting room) at 3 p.m. on Tuesday 17 August. It is the first in a series of informal, off the record meetings which will be held concurrently with those of the INC. Further details from John Lanchbery at the VERTIC office or, during the INC meeting, at the Hotel Drake + (41 22) 731 6750.

In the News

CSCE assembly

The Parliamentary Assembly of the Conference on Security and Co-operation in Europe (CSCE) met in

Helsinki from 6 to 9 July. Parliamentarians from 45 participated in debates on CSCE topics.

Ukraine and nuclear weapons

On 2 July the Ukrainian Parliament passed a resolution claiming ownership to all nuclear weapons on Ukrainian soil. The statement also stated the long-term objective for Ukraine to be a non-nuclear-weapon state.

UN arms register

At the end of June, 62 states had submitted data for inclusion in the United Nations register of conventional arms transfers.

Biodiversity Convention

The first meeting of the Inter-Governmental Committee (IGC) on the Biodiversity Convention is scheduled to take place in Geneva from 20 to 24 September.

Desertification Convention

Negotiations on a desertification convention, promised at the Rio Conference, are now under way. The first of a series of five meetings of the Intergovernmental Negotiating Committee on the International Convention on Desertification and Drought met on 21 May in Nairobi. The second meeting is to be in Geneva from 13 to 24 September 1993.

Population

The International Conference on Population and Development (ICPD) is to be held in Cairo from 5 to 13 September 1994, following a series of PrepComs, the second of which was held at the UN in New York from 14 to 21 May 1993. The next meeting will be held in New York from 11 to 22 April 1994.

VERTIC News

VERTIC has received a substantial grant from the Sustainable Development Programme of the W. Alton Jones Foundation for work on verification of the Climate Convention.

A moving experience

On 5 August, VERTIC will move to new offices just off the Victoria Embankment in London. Phone and fax numbers will remain the same.

The new address is:
Carrara House
20-21 Embankment Place
London WC2N 6NN

Trust & Verify is produced by Richard Guthrie with additional reporting by John Lanchbery and Malcolm Spaven
© VERTIC 1993

Trust & Verify

Trust & Verify is produced by VERTIC 10 times a year. Anyone wishing to contribute information for inclusion in *Trust & Verify*, or to comment on its contents, should contact the VERTIC office.

Voluntary Subscriptions

The production of *Trust & Verify* entails considerable cost to VERTIC so we would welcome a subscription of £12 (individual) or £20 (organization) per year. Payments may be made by cheque or credit card. Thank you to those who have sent a subscription.

8 John Adam Street
London WC2N 6EZ
Telephone 071 925 0867
Facsimile 071 925 0861

What is VERTIC?

VERTIC is an independent organization aiming to research and provide information on the role of verification technology and methods in present and future arms control and environmental agreements. VERTIC co-ordinates six working groups comprising 21 UK consultants and 11 overseas advisors. VERTIC is the major source of information on verification for scientists, policy makers and the press. VERTIC is funded primarily by grants from foundations and trusts and its independence is monitored by an Oversight and Advisory Committee.

VERTIC
Verification Technology Information Centre