



Trust and Verify

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In this issue:

- Chinese test imminent?
- CD to discuss a CTB
- Climate Change: Eighth INC Meeting

Chinese test imminent?

There are indications that China may be planning to carry out a nuclear test explosion at the Lop Nor test site in late September/early October. Although such a test would be consistent with China's testing patterns, its timing in the current political situation could be significant.

VERTIC will discuss the implications of a Chinese nuclear test on the prospects for a comprehensive test ban at a press conference on Wednesday 22 September at the Royal Society of Arts building, 8 John Adam Street, London WC2N at 11am.

CD to discuss a CTB

The Conference on Disarmament (CD), decided on 10 August to make preparations for negotiations on a comprehensive test ban under the auspices of its long-standing *Ad Hoc* Committee on a Nuclear Test Ban.

The CD a multilateral negotiating forum based in Geneva with a secretariat provided by the United Nations.

The text of the decision of 10 August (reproduced from CD/1212) is as follows:

'The Conference on Disarmament,
Taking note of initiatives regarding the negotiation of a comprehensive nuclear test ban treaty (CTB),
Convinced that, to contribute effectively to the prevention of the proliferation of nuclear weapons in all its aspects, to the process of nuclear disarmament and therefore to the enhancement of international peace and security, a CTB should be universal and internationally and effectively verifiable,
Convinced further that, in order to achieve this goal, it is important that a CTB be multilaterally negotiated,
Stressing that, as the sole multilateral disarmament negotiating forum of the international community, it is the appropriate forum for negotiating a CTB,
Decides to give its *Ad Hoc* Committee on a Nuclear Test Ban a mandate to negotiate a CTB;
Requests the Chairman of its *Ad Hoc* Committee on a Nuclear Test Ban to make the necessary arrangements to conduct consultations during the period between 3 September 1993 and 17 January 1994 on the specific mandate for, and the organization of, the negotiation.'

Climate Change: Eighth INC Meeting

The Intergovernmental Negotiating Committee (INC) on the UN Framework Convention on Climate Change met

for the eighth time from 16 to 27 August 1992 in Geneva. The main business of the Committee was further preparation for the first Conference of the Parties (COP), which it has done rather slowly at the last two meetings since the treaty was signed in Rio. However, thirty states have now ratified the Convention and at least fifteen more are pledged to complete the ratification process by the end of this year. The Convention thus looks as though it will come into force early next year (three months after it has been ratified by fifty states) after which the first COP must be held within a year. The prospect of having to agree on a considerable amount of important and complex technical and financial detail before the first COP towards the end of 1994 galvanised the INC into action.

After an opening Plenary session at which the Committee was addressed by Liz Dowdsell (Executive Director of the United Nation Environment Programme [UNEP]), Prof. Bert Bolin (Chair of the Intergovernmental Panel on Climate Change [IPCC]), Prof. Obasi (Secretary General of the World Meteorological Organization [WMO]), and representatives of the CSD and GEF, the Committee divided into its two Working Groups. The first Working Group (WG) concentrated mainly on technical matters relating to commitments and the second (WG2) concentrated mainly on financial matters. VERTIC representatives at the meeting focused their attentions primarily on WG1 (co-chaired by Mohamed Ould El Ghaouth of Mauritania and Cornelia Quennet of Germany) where the principal items on the agenda were:

1. Methodologies for the calculation and compilation of inventories of emissions and removals of greenhouse gases.
2. Criteria for joint implementation.
3. First review of information communicated by each Party included in Annex I of the Convention.

Prof. Bolin, Paul Schwengels (OECD) and Bruce Callender (IPCC WG1) joined Working Group 1 for the discussions on methodologies and gave helpful advice on the greenhouse gas inventory compilation methods being developed jointly by the IPCC and OECD. It was agreed that the IPCC guidelines on inventory compilation would form a good basis for the submission of information by the Annex I (developed country) Parties to the first COP. However, it became clear that the IPCC guidelines were unlikely to be complete by the time of the first meeting of the COP and that 'non-IPCC' methodologies would therefore have to be applied to certain categories of emission sources and sinks. It was therefore agreed that the next meeting, INC 9, should review the IPCC methodologies and that INC 10 should review and approve the others. Apart from such technical problems the work in the Group went fairly smoothly and consensus was reached on most of the more important and pressing topics concerning methodologies, although it was realised that some of the information which would be submitted to the first

COP might not be as complete or as readily interpretable as had been hoped.

Although the presence of the IPCC and OECD technical experts at the WG1 discussions raised the general level of scientific debate it had the unfortunate (and unintended) effect of concentrating most delegates' minds on the scientific review process, to the exclusion of other review processes which will need to be undertaken by the first COP. A scientific process will be needed to review the adequacy of current commitments (Article 4 paragraph 2 (d) of the Convention). If the Parties are to obtain a clear understanding of the magnitude and causes of any changes in global climate, such a review will have to be comprehensive in scope, encompassing all sources and sinks. However, the COP will also need to review compliance with current commitments and will need to review whether current national policies are adequate for limiting emissions (Article 4 paragraphs a, b and c). The information needed for these implementation and policy review processes will need to be more precise and verifiable than that used for the review of commitments, but need not be comprehensive in scope. Moreover, both the reviews and the bodies undertaking them will also need to be different from those used for assessing the adequacy of commitments.

Most delegates in the Working Group failed to grasp the main differences between the review processes required under the Convention. Consequently, many became confused when WG1 began discussion of the roles of the Subsidiary Body for Scientific and Technological Advice and the Subsidiary Body for Implementation (called SUBSTA and SUBIM by the Swiss delegation) where it was essential to distinguish between the different types of information that might be reviewed by the Bodies. In spite of some interesting and informed proposals by, amongst others, Switzerland, Nauru and the USA, the topic had obviously received insufficient consideration by most delegations and further discussion of the subject was deferred until later in the meeting. Even then, however, the debate did not progress significantly and the role of the Subsidiary Bodies will be raised again at the next INC meeting (when VERTIC will hold another workshop on implementation review and other types of review process). In the interim period the Secretariat was asked to prepare briefing papers on the possible roles of the Subsidiary Bodies and both delegations and NGOs were asked to submit ideas on the topic to the Secretariat by the end of October.

Late on the third day of meeting the WG1 turned its attentions to the potentially thorny topic of joint implementation. In the context of the Convention, joint implementation basically refers to an agreement under which one country undertakes to reduce its net emissions by implementing emission reduction or sink enhancement strategies in another country. Most industrialized countries, including countries in transition, view joint implementation as potentially beneficial. Under such an arrangement the UK could, for example, pay for the introduction of energy efficient electricity generation plant in Poland. In this way Poland might obtain access to more modern technology and the UK could be 'credited' with the resulting emission reductions. Joint implementation particularly appeals to 'free market' enthusiasts because it offers the prospect of commercial participation and it might be developed to include a system of 'tradable permits'.

Most delegates from developed countries realised that joint implementation agreements could be difficult to set up. (It would, for example, be necessary to verify compliance with commitments made under them and the associated implementation review processes would

need to be both rigorous and transparent.) Most had not, however, anticipated the strength of the opposition to the concept by developing states. At the beginning of the debate in WG1, Algeria, Nauru, Tunisia, Antigua and Barbuda, Malaysia, Kenya, Senegal and Colombia (on behalf of the G77 and China) all spoke against joint implementation, certainly as it might be applied between Annex 1 and developing state Parties. Although some of the statements by the developing countries could, in part, be interpreted as being initial positions adopted for the purposes of bargaining, most nations had strong moral arguments against joint implementation. As they see it, climate change is likely to arise as a result of the actions of the industrialized states and it is their task to deal with the problem that they have created. The developing nations might agree to restricting their development so as to limit future emissions but they would not agree to acting as a cheap way for the developed states to avoid cutting their own emissions.

The debate on joint implementation (and to a lesser extent Subsidiary Bodies) continued in WG1 for much of the remaining week. Many developed state Parties proposed that any commitments made by them under such agreements would be additional to commitments made under the Convention and that they would only enter into agreements which were both verifiable and transparent. The developing state parties, however, held to their view that Annex 1 Parties could, if they wished, enter into joint implementation agreements between themselves but that the developing countries should not enter into any such agreements, if only because there is no specific mention in the Convention of joint implementation agreements between Annex 1 country Parties and other Parties. Eventually the Working Group again asked the Secretariat to provide further documentation on the issue (taking into account views expressed at the meeting) and deferred further consideration of the topic until the next INC meeting.

Working Group 2 spent nearly all of its time examining how to implement Article 11 of the Convention concerning financial mechanisms and, in particular, on the relationship between the COP, UNEP and the Global Environment Facility (GEF). The Group made some progress on general issues but little on detailed matters. It did, however, decide to continue its close liaison with the GEF and defer further detailed discussions until the next INC meeting.

In contrast to its earlier 'post Rio' meetings the INC made significant progress on some important issues and began to address most of the main problems that will need to be dealt with by the first COP. It still has a lot of work to do before the COP but it has now, at least, identified where problems are likely to arise, even if it has yet to decide how to solve them.

VERTIC workshop

VERTIC held a workshop on implementation review and verification issues in the Climate Convention in the Palais des Nations at lunch time on the second day of the INC meeting in Geneva. The meeting was well attended by roughly equal numbers of delegates and NGOs, together with representatives of the INC Secretariat.

John Lanchbery (VERTIC) chaired the meeting and Owen Greene (Bradford University) and Gotthard Stein (KFA, Jülich and German Delegation) made brief presentations. There was then a general discussion, lasting about an hour and a half, on verification issues of special interest to INC 8. Joint implementation agreements and how to verify compliance with them was a topic of particular interest. There was also a lot of discussion about reporting and review processes and how they should be conducted, given that the

Conference of the Parties will have to not only review implementation but also the adequacy of current commitments and the suitability of national plans for meeting commitments.

The workshop was appreciated by most of those attending and VERTIC will therefore hold another at the next INC meeting in February 1994.

Future INC meetings

The Ninth Session of the INC will be held in Geneva from 7 to 18 February 1994. The Tenth Session will also be held in Geneva from 22 to 31 August 1994.

CWC signatories

The following states have recently signed the Chemical Weapons Convention:

Panama	16 June
Liechtenstein	21 July

Sweden ratified the CWC on 17 June.

UN arms register responses

To the end of July, the following states had submitted returns to the UN Register on Conventional Arms.

Argentina	Ireland	Philippines
Australia	Israel	Poland
Austria	Italy	Portugal
Belarus	Japan	Qatar
Belgium	Kazakhstan	Republic of Korea
Bolivia	Lesotho	Romania
Brazil	Libya	Russia
Bulgaria	Liechtenstein	Senegal
Canada	Luxembourg	Singapore
Chile	Malaysia	Slovakia
China	Maldives	Slovenia
Colombia	Malta	Solomon Islands
Croatia	Mexico	South Africa
Cuba	Mongolia	Spain
Czech Republic	Namibia	Sweden
Denmark	Netherlands	Switzerland
Finland	New Zealand	Tunisia
France	Nicaragua	Turkey
Georgia	Nigeria	United Kingdom
Germany	Norway	United States of America
Greece	Oman	Vanuatu
Grenada	Panama	Yugoslavia
Hungary	Papua New Guinea	
Iceland	Guinea	
India	Paraguay	

China—Pakistan missile link

The United States has imposed limited sanctions on China and Pakistan, under the framework of the Missile Technology Control Regime (MTCR). The MTCR prohibits exports from adhering states on missiles, and their components, with a range greater than 300 km with a payload of 500 kg.

Shafiq Zaman, Press Attache at the High Commission for Pakistan in London, wrote to the *Guardian* newspaper stating that India is developing missiles, namely Prithvi and Agni, with a range of over 2,500 km. He also said 'Pakistan did not acquire any missiles from China which violate the parameters of the [MTCR].'

China has also stated that the M-11 missile, which was the subject of the transfer to Pakistan, does not come within the MTCR remit as it has a range of only 290 km. US officials have countered that this 290 km range is with an 800 kg payload and that the range with a 500 kg payload would exceed 300 km.

The MTCR is not a formal treaty, but is an international export control arrangement. Membership of the MTCR

now stands at 23 states. China agreed to adhere to the MTCR in late 1991.

Russia appears likely as the next state to adhere, with domestic legislative requirements already in process of being enacted.

China—Iran chemical link?

The United States has accused China of supplying chemical weapon precursors to Iran. US authorities claimed that the Chinese merchant ship, *Yinhe*, was carrying thiodiglycol and thionyl chloride for delivery to Iran.

Once the ship had entered the Indian Ocean in July, the US Navy kept it under surveillance. When the ship approached the Gulf, US Navy warships prevented it transiting the Straits of Hormuz. The ship then stayed in international waters off the Gulf of Oman.

Subsequent inspections of the ship have been reported to have found no traces of these chemicals.

Each of these chemicals is contained within Schedule 3 of the Chemical Weapons Convention that was signed in January, but is not in force. When the CWC is in force, there will be restrictions on exports of all Schedule 3 chemicals from CWC parties to non-parties.

Scott Inquiry

At the end of July the Scott Inquiry into exports of machine tools to Iraq rose for a summer break and will resume in September.

One of the last witnesses before this break was Sir David Miers, formerly an Assistant Under-Secretary at the FCO specializing in Middle East affairs and currently British Ambassador to the Netherlands, who appeared on 20 July 1993.

Documents presented to the inquiry show that he received an intelligence report on 30 November 1987 indicating that British machine tools were being used by Iraq to make shell casings. Sir David stated that the inquiry misunderstood the operations of the FCO and the volume of work and the priorities that must be set.

List of Witnesses

By the end of July, 18 witnesses had given evidence in open session to the inquiry, with nine witnesses giving evidence in closed session.

The 18 open session witnesses have been:

D. Q. Bryers²
 Sir Adam Butler¹
 Paul Channon¹
 A. S. Collins²
 S. P. Day²
 Sir Stephen Egerton²
 R. Felgett²
 Lt. Col. R. Glazebrook²
 J. M. Hart²
 M. Higson³
 D. James³
 Sir Richard Luce¹
 Sir Patrick Mayhew¹
 Sir David Miers²
 Sir Hal Miller³
 W. C. Patey²
 C. T. Sanders²
 P. W. M. Vereker²

Notes:

1 = current/former Minister

2 = current/former Government official

3 = non-government

Costs

There are discrepancies over costs of the inquiry. The Department of Trade and Industry (DTI), the department which is responsible for meeting the direct costs of the inquiry, stated in late June that the direct costs had been, to that time, about £150,000. However the Prime Minister, John Major, has stated that the inquiry's cost to the DTI to 23 July has been £310,000. This does not include costs of other Government departments providing documents and witnesses.

Was 'Star Wars' test faked?

In mid-August the *New York Times* cited former officials who stated that a US Army test of a ballistic missile interceptor system in 1984 was faked. The allegations have prompted an inquiry called by the US Secretary of Defense, Les Aspin.

The 1984 test had been described as 'crucial' to the future of the Strategic Defense Initiative. It has been suggested that had the test been a failure the SDI programme would have had its funding from Congress reduced. It has also been suggested that the test may have been faked to 'fool' the Soviets.

North Korea and the IAEA

The International Atomic Energy Agency (IAEA) have announced that on 17 August it received an invitation from the Democratic People's Republic of Korea (North Korea) to 'resume consultations' on the 'implementation of the safeguards agreement'.

The IAEA said that it had accepted the offer and that the talks would take place in Pyongyang. No timetable for the talks was given.

Civil Plutonium

Following the debates on whether plutonium from civil facilities is of the quality required for use in nuclear weapons, the British Government was asked in late July in the House of Lords whether any nuclear weapon 'has been constructed with civil plutonium and has been detonated.' The written answer, from Viscount Cranborne, Parliamentary Under-Secretary of State at the Ministry of Defence, in its entirety, was 'The United Kingdom has carried out no such activity.'

UK Treaties 1992

Following the prolonged ratification of the Maastricht Treaty on European Union by the United Kingdom, a curious statistic has emerged. In 1992, the UK signed 87 treaties and acceded to none. By August 1993, the

UK had ratified just 3 of the 87 signed in 1992, the third of these being Maastricht.

Open Land?

Ruhr-Universität Bochum has recently produced two verification reports. The Physics Department have produced a report of an international collaborative project as No. 3 in their Verification Research Reports series entitled *Ground Vibration, Acoustic Waves and Magnetic Disturbance Verification Produced by Land Vehicles of the North Atlantic Treaty Organization - Results of the 1989 Measurements at Baumholder, Germany*.

The Institute für Friedenssicherungsrecht und Humanitäres Völkerrecht has produced *The Draft Protocol on Sensor Verification - Proposal for a Legal Framework for the Use of Ground Sensors to Verify Limits on Military Land and Air Vehicles*, ISHV-Studien No. 2, which proposes a land equivalent of Open Skies.

OTA publication

The Office of Technology Assessment, a US Congressional organization, has produced a report entitled *The Chemical Weapons Convention: Effects on the US Chemical Industry*.

VERTIC News

Verification 1993

The latest in VERTIC's yearbooks on verification, *Verification 1993*, is currently being printed and will be available in a few weeks. This year the book is being published in association with Brassey's (UK) Ltd.

The contributors to *Verification 1993* are:

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Mary C. French	J. B. Poole
R. L. Giles	John R. Redick
James Gow	Gregory Rose
Owen Greene	Barbara Hatch Rosenberg
Richard Guthrie	Edward Rowland
Paul Ingram	Jane M. O. Sharp
Bhupendra Jasani	John Simpson
Peter Jones	Jessica Eve Stern
Tim Jones	Catherine Tinker
Heikki Korhonen	Tim Trevan
Allan Krass	John R. Walker
John Lanchbery	Peter R. Wills
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An order form for this book, and the earlier books in the series, will be enclosed in the next *Trust & Verify*.

Trust & Verify is produced by Richard Guthrie with additional reporting by Vipin Gupta, John Lanchbery and Philip McNab

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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.

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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.

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