

Putting It Together

Nuclear Test Ban Verification

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At entry-into-force ... the verification regime shall be capable of meeting the verification requirements of this Treaty.

Article IV.1, The Comprehensive Nuclear-Test-Ban Treaty

The Comprehensive Nuclear-Test-Ban Treaty (CTBT), signed in 1996, requires that its verification system be operational when the treaty enters into force. Entry-into-force requires ratification by the 44 states which were members of the Conference on Disarmament (CD) in Geneva in 1996 and which were listed by the International Atomic Energy Agency (IAEA) that year as having nuclear power or research reactors. As of 25 May 1999 only 18 of these states had ratified. The non-ratifiers include three nuclear weapon states, China, Russia and the United States. Three of the 44 states—the Democratic People's Republic of Korea (DPRK), Pakistan and India—have not yet even signed the treaty. While India and Pakistan have both indicated they may sign, this does not necessarily imply early ratification. Current political uncertainty in India and military clashes over Kashmir preclude even signature. Entry-into-force of the CTBT is therefore not an immediate prospect.

The treaty provides that if it has not entered into force three years after being opened for signature, by 24 September 1999, the United Nations Secretary-General as Depositary shall convene a conference, at the request of a majority of the states which have ratified, in order to consider what further measures might be taken to achieve entry-into-force. A clear majority has now requested that such a conference be held from 6 to 8 October this year.

Work on establishing the verification system for the treaty is, nonetheless, proceeding apace. This is both prudent—since it is not clear exactly when entry-into-force will occur—and necessary, since establishing an integrated test ban verification system is an unprecedented undertaking. Moreover, the early establishment of the system will permit the detection of any nuclear tests conducted before entry-into-force.

A Provisional Technical Secretariat (PTS) has been charged with establishing the verification system. It began life on 17 March 1998 at the Vienna International Centre in Vienna, Austria. It was mandated by the Preparatory Commission (PrepCom) for the future Comprehensive Test Ban Treaty Organization (CTBTO), which comprises representatives of signatory states.

There are three main components of the CTBT verification system which need to be operating by entry-into-force: the International Monitoring System (IMS), the International Data Centre (IDC) and the On-Site Inspection (OSI) division.

The International Monitoring System

The IMS will consist of 321 monitoring facilities located in some 90 countries. Some of these already exist, while others will have to be constructed. Four types of stations are to be established—seismological, infrasound, hydroacoustic and radionuclide—along with 16 radionuclide laboratories.

The Seismic Network

The principal and most mature verification technique for the CTBT is seismology. It will be used to detect nuclear explosions underground (and sometimes even in the atmosphere). Fifty primary and 120 auxiliary seismic stations, distributed world-wide, will be used to detect seismic waves generated by earthquakes or explosions. Establishment of the seismic network has had a head start, being based on an earlier network established by the Group of Scientific

Experts (GSE) at the Conference on Disarmament from 1976 onwards. The network is likely to receive the largest capital investment over the next two years (US\$15.6 million).

Radionuclide Stations

Eighty radionuclide stations will measure radioactive particles in the atmosphere from atmospheric nuclear tests or underground tests which vent. Forty of these will also be capable of detecting relevant noble gases, such as argon-37, xenon-133 and krypton-85. Sixteen radionuclide laboratories will analyse filters from the stations, plus samples taken by inspectors. Certification will depend largely on their capability for high sensitivity gamma spectroscopy. In analysing samples the CTBTO may co-operate with the IAEA, which is located in the same complex in Vienna. The agency is developing its radionuclide sampling capabilities as part of its programme to strengthen nuclear safeguards.

Hydroacoustic Network

Eleven underwater hydroacoustic stations are being established to detect explosions under water or atmospheric tests at low altitude. Six of these will use hydrophones, which have three microphones at each end of 100 km fibre-optic cables. Most will be located in the Southern hemisphere, which has extensive oceanic areas.

Infrasound Stations

Sixty land-based infrasound stations will use sonar to detect atmospheric tests, although they may also detect some underwater and shallow underground events. Although at present infrasound is the least developed of all the IMS technologies, the broader frequency ranges now available make it potentially very sensitive.

Since the IMS stations will be operated by the states on whose territory they are based, national staff training programmes are required. The first technical training programme for states hosting stations was held in October 1998, comprising a week in Vienna followed by in-depth training at facilities in Argentina, Germany, Norway and the United States. Two more training sessions have been held since. Regional introductory courses are also being held.

Facility agreements

To permit the integration of all contributing stations into the IMS, host countries are required to sign facility agreements or 'arrangements' with the CTBTO PrepCom. Apart from the usual diplomatic privileges and immunities, these provide for multiple-entry visas for PTS staff to enable them to visit monitoring stations and laboratories, and tax and

customs duties exemptions for PTS equipment. Questions about the legal status of the PrepCom prior to entry-into-force has necessitated temporary exchanges of letters to allow work to proceed on vital installations. Three facility agreements have now been concluded, with Canada, New Zealand and South Africa.

The International Data Centre

The IDC, which is being progressively commissioned at CTBTO Prepcom headquarters in Vienna, will receive and process data from all the monitoring facilities included in the IMS. In September 1998 a US\$70 million contract was signed with Hughes Olivetti Telecom Ltd to establish the global communications infrastructure for the system and to maintain it over the next ten years. The network will use very small aperture terminals (VSATs) to ensure the swift and secure transport of up to 11.4 gigabytes of data between facilities, the IDC and states parties.

In May 1998 the first of four releases of applications software from the prototype IDC in Arlington, Virginia, USA, was installed in Vienna and tested. By March 1999 five VSATs had become operational at facilities in Austria, Germany, Spain and the United Kingdom, in addition to three in a test laboratory at the IDC.

The IDC will make both raw and processed data available to all states parties. The type and frequency of bulletins will depend on the technology. The extent to which the IDC will make judgements about events is, however, unclear. It will be primarily the responsibility of states parties, in the forum of the Executive Council, to decide whether an event is suspicious enough to warrant an on-site inspection. Yet states without significant national technical and analytical means will naturally look to the IDC for more precise information once initial suspicions are aroused.

In late September 1998 a 0.1 kiloton (100 ton) non-nuclear underground explosion was conducted at the former Soviet test site at Semipalatinsk in Kazakhstan to enable the PTS to test the current seismic network and calibrate instruments. The US-funded experiment was successfully detected by IMS stations. While not a true test of the network's capabilities, since its location at an old test site meant that seismic experts were familiar with the geology and how it reacts seismically, the fact that such a low yield explosion was detected demonstrated that the network can be effective at significantly lower levels than the 1 kiloton minimum global detection standard.

On-Site Inspection

On-site inspections may be mandated by the Executive Council of the CTBTO to clarify

suspicious events detected by the IMS. The CTBTO will not have a standing OSI inspectorate. Personnel will be drawn from a pool of trained inspectors nominated by member states. This pool needs to be geographically representative and large enough to supply a team of up to 40 inspectors within six days. Inspectors will require a diverse range of skills and the ability to work in harsh climates or terrain. An introductory course for PTS personnel and 72 national authority personnel from 37 countries was held in December 1998. Two more training sessions have been held since.

OSI teams will be permitted to spend up to 130 days on an inspected state's territory and will therefore require significant in-country support. Substantial amounts of portable equipment will also be needed, including geophysical and radionuclide equipment, drilling equipment, communications equipment, and the means to conduct over-flights. An initial list of equipment for testing and training purposes has been drawn up. Mobile mini-laboratories may also be necessary. International experts have assisted in developing a concept of operations for an OSI operational manual and in identifying elements required for an OSI infrastructure, including an Operations Support Centre, an information data bank, and an equipment storage and maintenance facility.

Financial Aspects

The 1999 PrepCom budget is US\$74.7 million, compared with US\$58.4 million in 1998. The collection rate for assessed contributions to the

budget is approximately 97 per cent, 90 per cent and 46 per cent for 1997, 1998 and 1999 respectively. This is a good record compared with most international organisations, but one which needs to be maintained. In 1998 some states resisted any growth in the PTS budget for 1999. This is hard to reconcile with the investment required to have the verification system fully functioning by the time of entry-into-force. The annual budget, in any event, is expected to naturally peak over the next twelve to eighteen months and then drop once the system is fully established. Thereafter costs should be confined to maintenance and relatively modest upgrades.

Conclusion

Impressive progress has been made to date in preparing the CTBT verification system for entry-into-force of the treaty. Steady progress will continue to be required, particularly in integrating the various components of the system and ensuring that teething problems are resolved. This will require appropriate co-operation from states signatories and parties, including the requisite financial support. But the real challenge remains political: to have the treaty enter into force as soon as possible so that the verification system can be used for its intended purpose.

Suzanna van Moyland, former VERTIC Arms Control and Disarmament Researcher

For further information see the CTBTO website
www.ctbto.org

Book Review

UNSCOM's Trials and Tribulations Chronicled

Saddam's Secrets: The Hunt for Iraq's Hidden Weapons by Tim Trevan (HarperCollins, London, 1999)
and

Endgame: Solving the Iraq Problem—Once and For All by Scott Ritter (Simon & Schuster, New York, 1999)

These are the first of what is likely to be a flood of works analysing the record of the seemingly defunct UN Special Commission for Iraq (UNSCOM). Although both books concern Iraq and the problem of detecting and destroying its weapons of mass destruction capabilities after the Gulf War, the two are vastly different in scope, tone and intent.

That by Tim Trevan, former UNSCOM spokesperson and Special Advisor to its Executive Chairman, does not purport to be academic or impartial. Rather, it is a personal account of the trials and tribulations of UNSCOM and Trevan's own role

in those events. It is also a damning indictment of Saddam Hussein's regime, demonstrating that from UNSCOM's nascence to its current state of limbo, the regime mounted a deliberate program of obfuscation, deception and chicanery in an effort to foil the Commission and its inspectors. Trevan recounts in detail the dedication, tenacity and sheer bravery with which UNSCOM inspectors pursued their mandate and eventually unmasked Iraq's hidden weapons of mass destruction programmes. He (and/or his editor) is particularly adept in explaining clearly in layperson's terms some of the more esoteric details, especially with regard to biological weapons.

In this sense the book is a good primer for those confused about UNSCOM and its achievements and failures.

Scott Ritter, former chief UNSCOM inspector and Iraqi *bête noire* (because of his robust inspection techniques), pays much more attention to the background to and motivations for Iraq's attempts to acquire weapons of mass destruction. He deftly delves into the literally Byzantine tribal and familial machinations behind Saddam Hussein's ascent to and retention of power. He confirms Trevan's account of the elaborate concealment mechanism the Iraqis constructed and against which, he claims, British and American bombing (Operation Desert Fox) in December 1998 was mostly directed. He reports that UNSCOM designed a series of large-scale confrontational inspections after March 1998 that were deliberately intended to elicit a detectable response from the Iraqi organisation hiding Iraq's secret arsenal. Disturbingly, he charges the first UNSCOM Executive Chairman, Rolf Ekéus, and UN Secretary-General Kofi Annan with each signing secret agreements with Iraq to soften the impact of inspections. He accuses the second Executive Chairman, Richard Butler, of colluding too closely with the Americans, particularly in allegedly scheduling inspections to coincide with Pentagon preferences for the timing of bombings if the Iraqis refused co-operation.

Yet Ritter's personal and political analyses seem confused and his motivations obscure. He seems particularly surprised that US policy toward Iraq should be subject to the twists and turns of US and international politics. While decrying others' lack of consistency, he falls victim to the same tendency. Of Richard Butler he notes approvingly: 'Butler understood the stakes... All that Butler, his predecessor, and their fellow arms controllers struggled to achieve was threatened by Iraqi intransigence'. But later, '... Butler was missing the big picture, and it was my duty to point this out to him'. At times Ritter is keen on intrusive, provocative inspections (he speaks of 'my desire to send a clear signal to the Iraqis that no organizational entity, no matter how sacrosanct, was above inspection') and boasts of being the 'architect' of a strategy of inspections 'controversial and confrontational by design'. Yet, when finally given approval by Butler for an inspection of the Iraqi Ministry of Defence (one which Ritter had long pressed both Ekéus and Butler for), Ritter has qualms. While asserting that 'Iraq had to be held accountable for any refusal to co-operate with the legitimate work of the inspectors', he is concerned that the inspection, to be used to test the February 1998 agreement between Kofi Annan and Iraq's Tariq Aziz (giving UNSCOM access to presidential and other sensitive sites), was not a

'proper test of accountability'. While criticising the Annan agreement as 'a sham', Ritter notes that it locked the Iraqis into agreeing to grant access to inspectors to all sites: 'there were no more forbidden areas'. On the face of it, not a bad deal.

On economic sanctions Ritter expresses moral outrage at their effects on the Iraqi people, criticises the Clinton administration for insisting on maintaining sanctions 'regardless of Iraq's compliance' (untrue: sanctions would be lifted if Iraq complied with the agreement ending the Gulf War), yet faults the 'oil-for-food' program for weakening the impact of sanctions. He also notes that under the program, which is aimed at 'mitigating the suffering of the Iraqi people by a massive relief effort', Iraq derives more income from oil than at any time since 1986, four years before the Gulf War. He lauds France for purportedly seizing the moral high ground from the US in pressing for sanctions against Iraq to be lifted, while in the same breath describing France as having a major vested interest in the lifting of sanctions: a French oil company, Elf Aquitaine, had fallen into 'dire economic straits following the embargo'.

Ritter's endgame for solving the Iraq problem comprises two heady alternatives: an all-out US invasion of Iraq to overthrow Saddam Hussein's regime (which he dismisses) or a high-powered diplomatic overture along the lines of Nixon's breakthrough with China. The latter would allegedly result in a pledge by Iraq not to possess any weapon of mass destruction (something it has already done) and its agreement to permit monitoring of its behaviour from now on. This would apparently involve the Security Council accepting at face value, without further verification, Iraq's insistence that it has destroyed all its previous capabilities. Since, as Ritter knows better than anyone, this is not true, it seems an untenable suggestion. Unfortunately Ritter's endgame is no clearer than the Security Council's.

Trevor Findlay

Erratum

In the printed version of the April edition of *Trust & Verify* it was reported that Scott Ritter had attended VERTIC's Wilton Park conference on the 'Verification Revolution'. In fact it was Tim Trevan who presented the paper on the experiences of UNSCOM. Scott Ritter had been invited, but did not attend. We apologise to both for the error. Ed.



Landmine Monitor Report Launched

The first comprehensive report by a non-governmental organisation (NGO) coalition on state compliance with the 1997 Landmine Ban Treaty (Ottawa Convention) was presented on 3 May to the First Meeting of States Parties, held in Maputo, Mozambique.

The report, *Landmine Monitor Report 1999: Toward a Mine-Free World*, was compiled by Landmine Monitor, a global network of NGOs, in just over five months. Containing reports on compliance by all countries, both parties and non-parties, in addition to thematic accounts of progress in implementation of the treaty to date, the report is an impressive 1,100 pages long. The major findings of the report:

- while 38 states have stopped producing mines, there are still 16 manufacturers world-wide, including in the United States and Singapore
- while globally more than 12 million mines from the stockpiles of more than 30 countries have been destroyed, an estimated 250 million remain stockpiled, the largest numbers being in China, Russia and Belarus
- three signatories to the Ottawa Convention are continuing to sow mines: Angola, Guinea Bissau and Senegal
- one non-signatory, Yugoslavia, is known to be sowing mines, in Kosovo.

VERTIC contributed an annex to the report, on national ratification and implementation legislation, which found that at least three parties to the Convention, Australia, Canada and the UK, have made what amount to reservations to permit them to operate militarily alongside non-state parties which still use landmines. This applies most notably to alliance operations involving the United States. Such reservations can be seen as undermining the intent of the treaty. A more detailed version of the VERTIC annex will be published shortly as a *VERTIC Research Report*.

Source: Landmine Monitor, Washington DC. For further information, contact: Mary Wareham, Human Rights Watch, 1522 K St, NW #910, Washington DC 20005 USA; tel: +1 (202) 371 6592; fax: +1 (202) 371 0124; email: wareham@hrw.org; web: www.hrw.org Copies of *Landmine Monitor Report 1999* may be purchased in the UK from Central Books, London for £29.95 (tel: +44 (0)181 986 4854; fax: +44 (0)181 533 5821)

Unprecedented On-Site Inspection of North Korean Tunnel

A team of US inspectors conducted an 8-day on-site inspection in May of an alleged underground nuclear site at Kumchangri in the Democratic People's Republic of North Korea (DPRK). The unprecedented inspection by a 15-member team from a country still technically at war with North Korea, began on 20 May. Joel Wit, deputy director for Korean affairs at the US State Department, led the team, which included officials of the defence and energy departments. The inspection reportedly went smoothly, with full North Korean co-operation. The US has reserved the right to conduct a repeat inspection if necessary. Early reports indicated that nothing untoward had been discovered at the site.

Sources: Northeast Asia Peace and Security Network (NAPSNet) Daily Report (various dates, May 1999), Nautilus Institute, Berkeley, California, USA; for further details see: www.nautilus.org/napsnet/latest/html

Iraqi Seismic Event Probably an Earthquake

Analysis of seismic data by Dr Roger Clark of the School of Earth Sciences at the University of Leeds (who is also a member of VERTIC's International Verification Consultants Network), leads him to the conclusion that the second of two seismic events detected on 20 April 1997 in Northern Iraq was 'very probably' an earthquake, not an underground explosion (whether conventional or nuclear). Turkish seismic analysts had regarded the event as potentially suspicious. However Dr Clark concluded, after reviewing seismograms from two Turkish seismic stations, in addition to data on the event compiled by the International Seismological Agencies Survey, that the second event was an aftershock of the first, which was unambiguously an earthquake.

Source: Dr Roger Clark, School of Earth Sciences, University of Leeds, UK

IAEA Inspectors Return to Yugoslavia

IAEA inspectors are to return to Yugoslavia to inspect the nuclear research reactor at the Vinca Nuclear Research Institute outside Belgrade to ensure that its highly-enriched uranium (HEU), which is subject to IAEA safeguards, is still in place. The

facility, last inspected in January 1999, contains about 60 kilograms of HEU enriched to 80%. The Yugoslav government requested the inspection to allay concerns and to show that the material has not been removed or processed. There has been speculation that, under pressure from NATO bombing, Yugoslavia might attempt to undertake a crash nuclear weapons program. Yugoslavia is a party to the 1968 Nuclear Non-Proliferation Treaty.

Sources: *International Herald Tribune*, 6 May 1999, p. 5 and David Albright, 'What About Yugoslavia's Nuclear Explosive Material?', *Institute for Science and International Security (ISIS) Policy Paper*, 21 April 1999

Mine-Detection: Bees and Brains

The US Department of Defense (DoD) has announced that it will begin testing whether honey bees carrying tiny radio frequency (RF) tags can be used to detect landmines. Under a US\$3 million programme funded by the Defense Advanced Research Projects Agency (DARPA), engineers from the Pacific Northwest National Laboratory and the University of Montana will fit 50 bees with 27mg tags to track their movements and detect any exposure to small amounts of explosives. The commercially developed tags, about half the size of a grain of rice, will be tracked using a mass spectrometer located in a man-made beehive. Using special electronics and

software, engineers will be able to 'read' information on the tags, such as traces of TNT or other chemicals. Tests planned for mid-year will use an actual minefield.

The research forms part of a larger programme initiated by DARPA last year to determine whether species of insects, fish or a range of invertebrates can be used to monitor environmental characteristics, including the presence of chemical or biological weapons.

Meanwhile, Chris Budd, Professor of Applied Mathematics at Bath University in the UK, is developing an image-analysis technique to detect landmine trip-wires in complex terrain such as jungle. Since trip-wires are relatively straight, a scanner is programmed to identify straight lines, even when portions of the wires are obscured by foliage. To avoid confusing them with long plant stems, criteria are applied: the line should be long and thin, very straight over short stretches and if only some portions are visible they should join up. None of the criteria work alone: all are needed to identify a landmine.

Sources: Bryan Bender, *Jane's Defence Weekly*, 8 April 1999; Anjana Ahuja, 'Playing the Numbers Game', *Times*, 26 May 1999, p. 22

VERTIC News

Call for Expressions of Interest

Verification Yearbook 2000

VERTIC plans to resume publication of its *Verification Yearbook* in 2000 with a special issue to launch the new millennium. It will aim to assess the progress made in verification in the last half century in the fields of arms control and disarmament, the environment and peace accords. VERTIC is seeking expert contributors to provide chapters. A modest remuneration will be provided.

Applications are invited from researchers and practitioners for chapters on the following topics: nuclear testing; the International Atomic Energy Agency and nuclear safeguards; nuclear arms control and disarmament; chemical disarmament; biological disarmament; conventional arms control; the monitoring of the arms trade, especially light weapons; verification under duress: the case of the UN Special Commission for Iraq; verification and monitoring of peace accords; case study of the Kosovo Verification Mission; case study of the Guatemala Verification Mission; international civilian police monitoring; societal verification; the role of peacekeeping operations in verification and monitoring; the use of space satellites for remote monitoring; the information revolution and verification; non-compliance mechanisms.

Expressions of interest should include a draft chapter outline, a sample of previous work and a bibliography of previous publications and should be addressed to the Executive Director, VERTIC.

2000 VERTIC Conference at Wilton Park—Verification and Monitoring of Peace Agreements

Following the success of the conference on 'The Verification Revolution: Human and Technical Dimensions' held in March of this year, VERTIC and Wilton Park have agreed to stage another joint conference, in 2000. The topic will be 'Verification and Monitoring of Peace Agreements'. The conference will examine all aspects of the international monitoring and verification of peace agreements, including pertinent case studies. Thematic aspects will cover the monitoring of ceasefires; force disengagement and withdrawals; demobilisation, arms control and disarmament of warring parties; peacekeeping operations by regional organisations; human rights; elections; and civilian police reform. Case studies which may be covered include: the Kosovo Verification Mission, the Guatemala Verification Mission, the operations of the UN Mission in Western Sahara (MINURSO), the new UN mission in East Timor and the South Pacific Monitoring Mission in Bougainville.

The conference is likely to be held in March, 2000. For further information contact:

Mrs Heather Ingrey, Wilton Park Conferences, Wiston House, Steyning, West Sussex BN44 3DZ, UK; tel. +44 (0) 1903 817764; fax: +44 (0)1903 814217; email: heather.ingrey@wiltonpark.org.uk

Workshop on Visits Under International Law Postponed

The Workshop on 'Visits Under International Law: Verification, Monitoring and Prevention', which VERTIC is co-sponsoring with the Geneva-based Association for the Prevention of Torture (APT), has been postponed until 23-24 September. It was to have been held from 24 to 26 June. The workshop is designed to familiarise those involved in preventing torture with the on-site inspection and other verification and monitoring arrangements used in fields such as arms control and disarmament and the environment. For further details contact: The Association for the Prevention of Torture, Route de Ferney 10, Case postale 2267, CH-1211, Geneva 2, Switzerland; tel: +41 22 734 20 88; fax: +41 22 734 56 49; email: apt@apt.ch; website: www.apt.ch

VERTIC Submission to Select Committee Inquiry into International Environmental Agreements

VERTIC has submitted evidence to the Inquiry on International Environmental Agreements being undertaken by the Environment Sub-Committee of May 1999

the UK House of Commons Select Committee on Environment, Transport and Regional Affairs. The submission drew attention to the need for systems to review parties' compliance with environmental agreements and discussed ways in which such systems can be applied. A section on the Framework Convention on Climate Change and its Kyoto Protocol was used as illustration. A *VERTIC Briefing Paper* on the subject will be published shortly.

Arms Control and Disarmament Researcher Appointed

VERTIC has appointed Dr Oliver Meier, of Germany, as its new Arms Control and Disarmament Researcher. Oliver is currently Senior Analyst for the Berlin Information-center for Transatlantic Security (BITS) and is based in Geneva. He received his PhD in political science from the Free University of Berlin and has been a Research Associate at Trier University and a Visiting Fellow at the Center for International Security and Arms Control at Stanford University. Oliver will commence work at VERTIC in July.

New Interns

VERTIC has acquired two new American interns for the summer. They are Kristopher Anderson and Sarah Croco, both from the University of Illinois at Urbana-Champaign. They will each undertake a research project as well as assisting with general office duties. Kristopher will study the verification and monitoring aspects of the Kosovo peace settlement, while Sarah will research the issue of an international verification organisation for biological weapons. They come to VERTIC under the Educational Programmes Abroad (EPA) scheme.

Staff News

Trevor Findlay represented VERTIC at the First Conference of States Parties to the Landmine Convention in Maputo, Mozambique from 3-7 May and at the Hague Appeal for Peace (HAP) Conference in The Hague from 11-15 May. While in The Hague he visited the Organization for the Prohibition of Chemical Weapons (OPCW) for talks with Acting Director-General John Gee, and attended a seminar there on chemical disarmament which was part of the HAP Conference. On 8 May he addressed the Harpenden UN Association on the Kosovo Verification Mission. On 21 April he attended a meeting of the International Institute for Strategic Studies (IISS) Weapons of Mass Destruction and International Security Core Group on the subject of the UN Special Commission for Iraq (UNSCOM) and a meeting of participants in the Educational Programmes Abroad scheme on 21 May.

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His written work included a *VERTIC Briefing Paper* on 'Arms Control and Disarmament Inspection Regimes' for the Conference on Visiting Mechanisms in International Law which is now to be held in September.

Clare Tenner spent much of April writing the VERTIC submission to the Select Committee Inquiry into International Environmental Agreements. She also attended the Second International Conference on Emerging Markets for Emissions Trading, sponsored by the United Nations Conference on Trade and Development (UNCTAD),

held in London on 26-27 April. In May Clare gave a presentation to a meeting of the Harpenden United Nations Association on VERTIC's work in general and verification of environmental agreements in particular, and she met with Charlie Kronick, Director of Climate Action Network UK, to discuss progress on the Kyoto Protocol. During May Clare also prepared for the meeting of the Subsidiary Bodies to the Convention on Climate Change, to be held in Bonn from 31 May to 11 June. She wrote a *VERTIC Briefing Paper* for this meeting which is available from VERTIC.



VERTIC is the Verification Research, Training and Information Centre, an independent, non-profit making, non-governmental organisation. Its mission is to promote effective and efficient verification as a means of ensuring confidence in the implementation of treaties or other agreements that have international or national security implications. VERTIC aims to achieve its mission by means of research, training, dissemination of information and interaction with the relevant political, diplomatic, technical and scientific and non-governmental communities. A Board of Directors is responsible for general oversight of VERTIC's operations and an International Verification Consultants Network provides expert advice. VERTIC is funded primarily by grants from foundations and trusts, currently the Ford Foundation, the John Merck Fund, the Joseph Rowntree Charitable Trust, the Ploughshares Fund, the Rockefeller Family Philanthropic Offices, the W. Alton Jones Foundation and the John D. and Catherine T. MacArthur Foundation.

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