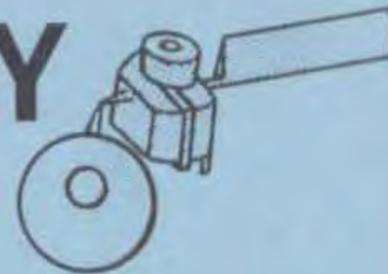




# TRUST AND VERIFY



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## British Forces to be Trained in Verification

During his recent trip to Berlin, US Secretary of State James Baker outlined his vision of NATO in the 1990s. One of the major points in his speech was the proposal to create a NATO Arms Control Verification Staff. According to Mr Baker such an agency would respect the principle that verification is a national responsibility but would assist NATO countries to monitor compliance with arms control agreements.

Mr Baker's proposal was also discussed at the December meeting of NATO foreign ministers in Brussels. It was supported by NATO Secretary General Manfred Woerner but NATO ministers seemed less enthusiastic, saying only that they would "consider" the proposal. In a speech to Parliament last month the Dutch defence minister Relus Ter Beek rejected the Baker proposal as impinging upon national rights (Theresa Mitchens, Defense News 5/2/90).

Meanwhile British military officers are already planning their new roles for the 1990s. Hundreds of officers are to be trained in the technical expertise necessary to monitor the removal or destruction of tanks, artillery pieces, aircraft and other weaponry likely to be covered by a treaty on conventional arms reductions in Europe (CFE).

Over the next few years, verification will become one of the major tasks of British NATO forces. The verification arrangements for a CFE treaty will be much more complicated than those agreed under the Intermediate-range Nuclear Forces (INF) agreement, because of the huge numbers of weapons involved, as well as their variety and wide dispersal across the European continent from the Atlantic to the Urals. While satellite intelligence will be useful, the on-site inspections and close-range monitoring will be necessary to verify a CFE treaty to the satisfaction of all parties.

Colonel Robin Waters of the British Ministry of Defence, the man chosen to head what will be known as the Arms Control Implementation Group or ACIG, spoke to Trust and Verify about the new organisation. With regard to ways in which ACIG will cooperate within NATO, Col. Waters said: "There will be some form of NATO organisation, including France, rather like the High Level Task Force, to review what is happening (with regard to verification) and perhaps to allocate certain tasks to certain countries...Each country that wants to participate will formulate its own policy and approach. France, Canada, the FRG, the Netherlands, Italy, the United States and the United Kingdom all have projects up and running but I imagine (every NATO country) will want to be involved, although we don't yet know in what way."

Col. Waters added that ACIG "will be connected" with Mr Baker's proposal for a NATO verification agency "but what, how and where is not yet decided. There is a consensus for a small, slick and streamlined organisation...rather than something monolithic."

Clearly an effective ACIG will have to display continuity of decision making, both within its own command structure

and in conjunction with NATO partners, on where and how often inspections will be carried out. Said Col. Waters: "Decision-making (regarding when and where inspections will take place) will be at a series of levels...we don't really know whether countries will be given specific areas for on-site inspections...but we would like to reserve the right to carry out challenge inspections. We believe it is our sovereign right to do this...but we do need some form of central body of review and control. The exact form of this is not yet decided." Col. Waters believes this is the way in which any problems regarding independent decisions by Britain or any other nation on where and when to inspect will be countered. It is not yet known how many inspections ACIG will carry out per year.

According to Col. Waters, either he or another officer from ACIG will also be in charge of escorting visiting inspectors. Furthermore, ACIG will have some input to aerial overflights where appropriate, perhaps by providing escorts or interpreters.

On the question of data exchange resulting from data gathered by ACIG and other national verification bodies, Col. Waters said "There will be a NATO agreed data bank and a Warsaw Pact agreed data bank as well as national data banks." "(However,) "we wouldn't always want to reveal all aspects of our intelligence gathering even to our allies." There will be an exchange of data, he said but "obviously there are certain things we wouldn't want to reveal".

ACIG is to be "accountable to the MoD but will be located out of London." Initial training for ACIG officers will take place in the UK because "we have to set up a big organisation quickly. NATO training would therefore not be possible in the short-term although in the long term we would contribute to any NATO training initiative and indeed there is a need for some kind of coordination...especially in the training of instructors."

ACIG officers will be drawn "across the services, although initially with a preponderance of Army and RAF personnel because we are going to be concerned with land and air verification. there will be some input from the Navy and also a civilian input, especially in such skills as language interpretation."

"The rank of personnel assigned to ACIG will be variable, although team leaders are expected to have a rank of not less than Major." The amount of time officers spend on verification will be "a 2-3 year posting approximately, depending on the individual but a recommendation will be given that if appropriate and if an individual feels it is suitable, they might stay in the same field of work, especially if they have a special skill such as interpreting."

"270 officers will be assigned to the group. Volunteers will probably be sufficient judging by current response, but otherwise heads of the services have been instructed to fill the 270 places."

## NATO Test Flight In Hungary Signals Optimism for "Open Skies" Agreement.

A Canadian Air Force plane has taken part in a test flight in Hungary, the results of which will be studied by NATO and Warsaw Pact Foreign Ministers in Ottawa in February. The test resulted from Canadian and Hungarian wishes that US President Bush's revival of the "Open Skies" policy should be extended to members of the two blocs other than the superpowers. The flight did not involve the use of cameras or other surveillance equipment but was intended to pinpoint any difficulties regarding air traffic control procedures and procedures for checking that planes are not concealing banned equipment.

According to a NATO press release on 15th December 1989, after the North Atlantic Council meeting in Brussels, NATO feels that the purpose of Open Skies is to "encourage reciprocal openness...and to allow the observation of military activities and installations on their territories, thus enhancing confidence and security."

NATO proposes that each country signing an Open Skies agreement would allow at least one foreign surveillance flight every three months. Flights would cover the entire national territory. A quota system would operate whereby larger countries would be subject to more regular overflights. The use of a wide variety of sensors would be permitted during these overflights but planes would not be allowed to carry equipment for monitoring the host country's radio signals.

The NATO proposal also includes provision for a multilateral consultative body "to resolve questions of compliance with the terms of the treaty."

However, some differences have emerged between NATO and Warsaw Pact feelings about "open skies". A Canadian official said on 9 January that the West firmly opposed a Soviet demand that a common fleet of surveillance aircraft should be employed by the two sides to fly over one another's territory, and that intelligence data gathered in the flights be shared. The same official also rejected a Soviet demand that all NATO bases be brought under the plan, including those outside NATO or Warsaw Pact territory. The official said "We cannot negotiate overflights of the Philippines, for instance, and we will have to tell the Soviets that".

Nevertheless, Barbara Starr in Jane's Defence Weekly (27/1/90) reports that the Soviet Union may present a plan to this effect when the negotiations convene in Ottawa on February 12th.

Although billed primarily as a confidence-building measure, it is widely accepted that an Open Skies treaty is also seen as a measure likely to complement the verification of future treaties covering both conventional and nuclear forces.

## Agreement on Joint Verification Experiments

At the end of the 12th round of Strategic Arms Reduction Talks (START) in Geneva, an agreement was announced on two joint verification experiments designed to speed up progress on reducing strategic nuclear arsenals. The first of these, signed at a press conference on 8th December, covers reciprocal exhibitions of strategic bombers, involving the TU-95 Bear and the B-1B, to determine means of distinguishing between ALCM-equipped and non-ALCM equipped bombs.

On 22nd January, at the start of the 13th round of talks, the chief negotiators at the START talks, Mr Richard Burt and Mr Yuri Nazarkin, exchanged letters concluding the second agreement covering the first ever reciprocal trial inspections of ballistic missile re-entry vehicles. Each side will demonstrate procedures applicable to two of its missiles; on the US side the Peacekeeper intercontinental ballistic missile (ICBM) and the Trident 2 sea-launched ballistic missile (SLBM), and on the Soviet side the SS-18 ICBM and the SS-N-23 SLBM, and the RS-20 (SS-18).

During the inspections, methods will be tested for checking that the number of warheads carried by each missile does not exceed the number designated in a START treaty.

In a joint press statement the two negotiators said other outstanding issues, such as the range of air-launched cruise missiles (ALCMs) to be covered by the treaty and the number of ALCMs to be attributed to each heavy bomber, could be resolved by June, allowing completion of a treaty by the end of the year. The State Department announcement regarding the agreement did not say where or when the inspections would take place.

## US Postpones Nuclear Testing Talks

R. Jeffrey Smith in the Washington Post (24/1/90) reports that "the Bush administration has broken a long-standing pledge to begin immediate negotiations with the Soviet Union aimed at further constraining underground nuclear tests," once the two nations complete revisions of the unratified 1974 Threshold Test Ban Treaty (TTBT).

The administration has put off negotiations for "an indefinite period while it reviews implementation of revisions to existing accords." The decision was apparently made late in 1989 after requests from the Department of Defense which uses underground explosions in the nuclear weapon design process. As a result of the decision underground tests will continue to be constrained to an explosive force of 150Kt under the terms of the TTBT.

Observers say that the US and Soviet Union appear to have observed these limits despite non-ratification of the TTBT. However, the Reagan administration sought changes in the terms of the TTBT with regard to stronger compliance verification measures through intrusive on-site inspections. Some experts say this was motivated by a desire to delay further constraints on testing. The Soviet Union accepted these changes in September 1989 saying that the revisions would be formally approved at a Bush-Gorbachev summit in June 1990.

US officials have now said that the formerly agreed negotiations would interfere with the development of warheads, including some being developed under the SDI.

State Department spokesperson Nancy Beck said that the TTBT revisions "will involve new and complex techniques necessary to provide effective verification. As a practical matter, therefore, it will be important to have a period in which to observe the implementation of the protocols in order to give both sides experience with these new verification measures." She did not suggest how long this period would be.

## In The News

### CFE News

Both NATO and the Warsaw Pact submitted drafts for the text of a CFE treaty to the Vienna negotiations on December 14th. The drafts are expected to provide a good basis for progress during this session of the talks. The full texts are reproduced in the most recent edition of BASIC Reports From Vienna available from the British American Security Information Council (BASIC) 33, Southampton Street, London WC2, England.

The two submissions will be analysed in the next issue of "Trust and Verify".

### Czech Troop Demand May Affect CFE

The new Czech government has called for a complete withdrawal of Soviet troops from Czech territory by the end of 1990. The demand might affect the progress of the negotiations for a reduction in conventional forces in Europe currently taking place in Vienna. Up to now Soviet requests to include French and British troops stationed in West Germany in the negotiations have been rejected by NATO, whose proposals only include American and Soviet troops. However diplomatic sources have suggested that a unilateral withdrawal of Soviet troops from Czechoslovakia might lead to greater insistence from Moscow on the question of French and British troops, perhaps with a specific demand for proportional reductions to match the Soviet withdrawal.

### Soviet Union Reveals Troop Levels

The Soviet Union has announced publicly that it has over 627,000 military personnel based overseas, mostly in Eastern Europe. In a letter to the UN Secretary General, Javier Perez de Cuellar, Soviet Deputy Foreign Minister Vladimir Petrovsky said that the aim of the Soviet Union was "not to have a single Soviet soldier abroad." At a news conference Soviet officials gave the following additional figures for Soviet military forces:

Missile launchers: 4,045  
Tanks: 63,900  
Combat aircraft: 8,207  
Major surface ships: 157  
Troop strength: 3, 993,000

According to Jane's Defence Weekly (6/1/90) the Soviet Union hopes to negotiate a reciprocal gesture from NATO to match its planned complete withdrawal of all troops based overseas by the year 2000.

### NATO Aerial Verification Discussed At High Level

Jane's Defence Weekly (20/1/90) reports that NATO is considering the possible use of tactical reconnaissance fighters for the verification of arms control treaties according to the commander of the Royal Netherlands Air Force, Major Dirk Radstake. Major Radstake said discussions were at an early stage but were being carried out "at high level".

### Launch of Skynet 4A

Skynet 4A, the United Kingdom's second military communications satellite in the current series of three, was launched from Cape Canaveral on 7th December. It was launched by the first Martin Marietta Titan 3 expendable launch vehicle to be used on a commercial flight. Skynet 4A will serve an extensive range of Earth

stations including aircraft terminals, naval vessels and anchor stations.

### US Acknowledges Israeli Chemical Arms

The US-based Natural Resources Defence Council has released details of a government report which it says offers the first ever proof that Israel possesses chemical as well as nuclear warheads for its Jericho 1 ballistic missile. The report, Surface-to-Surface Missile Systems Handbook - Free World, was obtained from the Defence Intelligence Agency under the Freedom of Information Act. The report has been heavily censored but one page lists the Jericho 1's warheads as high explosive, nuclear or chemical.

### The PTBT Amendment Conference - When, Where, How?

On 16 November the three Depository States (UK, USA, USSR) for the 1963 Limited Test Ban Treaty issued an invitation to all states party to the treaty to attend an Amendment Conference in Geneva on 8 January 1991 for up to 2 weeks. However, on the 15th December, the UN General Assembly passed a resolution calling for the Limited Test Ban Treaty Amendment Conference to begin in 1990. Passed by a majority of 127-2 with 22 abstentions, it recommended "that a preparatory committee, open to all parties to the Treaty, be established to make arrangements for the amendment conference, and that such preparatory conference meet at United Nations headquarters from 29th May to 1st June 1990, followed by a one week session of the conference from 4th-8th June, and a second substantive session from 7th-18th January 1991.

Obviously there is a conflict of procedure and the interested parties are meeting frequently in New York to try to resolve the problems. Trust and Verify hopes to have news of agreement by the next issue.

Also on 15th December two draft resolutions on a comprehensive test ban were passed at the Conference on Disarmament (CD), reports the Arms Control Reporter.

VERTIC continues to work on the scientific and technical aspects of the draft protocols on verification due to be presented at the amendment conference.

### US Bomb-Grade Uranium For Romania?

The Guardian (11/12/90) reported that "the US is planning to ship bomb grade uranium to Romania despite fears that Romania may be working on a nuclear weapons programme."

16.48kg of 93% enriched uranium was believed to be on its way to a 14 megawatt research reactor at Potesti. The reactor was supplied by General Atomics of California during the 70s. The material in question was manufactured by the company about 10 years ago and has since been in storage with the Department of Energy. The shipment was arranged by a Washington-based nuclear fuel management company, Edlow Inc.

The US has been collaborating with Romania since the 1970s when it was encouraging President Ceaucescu to pursue policies independent of Moscow. Romania is a signatory of the Nuclear Non-Proliferation Treaty (NPT) but President Ceaucescu declared in 1989 that the country had the capacity to produce nuclear weapons.

It is not clear what effect the December revolution will have on the fate of the uranium.

## Spot 2 Launched

Spot 2, the second in the series of French remote sensing satellites, was launched on the 21 January from French Guiana. It is destined to eventually replace Spot 1, whose sensors are degrading. Both satellites orbit Earth over the poles and pass over the same point on the Earth's surface every 28 days. Orbiting at a height of 840 kilometres, their scanners have resolution of up to 10 metres.

A British scientist, Dr Peter Muller of University College London, has proposed that Spot 1 be turned over to environmental research to provide information for predicting global change. Spot officials are said to be amenable to his suggestion - if the price is right (Nicholas Booth Observer 28/1/90).

## VERTIC News

### Making Waves for a Nuclear Test Ban, Yorkshire Post, 3/1/90

A major article in the Yorkshire Post newspaper gave detailed coverage to VERTIC working group member Dr. Roger Clark's work on seismic verification measures in relation to nuclear testing. The article discussed Dr. Clark's scientific visits to the USSR as well as his consultancy work with VERTIC on the preparation of the verification protocols for a possible amendment to the existing Partial Test Ban Treaty which would convert it to a comprehensive ban on nuclear testing, due to be discussed at a forthcoming PTBT amendment conference. The article also included an interview with VERTIC's director, Dr. Patricia Lewis.

**NAA Verification Report** - The October 1989 General Report of the North Atlantic Assembly Scientific and Technical Committee on Verification Technology for Arms Control is now available from the NAA International Secretariat, Place du Petit Sablon 3, 1000 Brussels, Belgium. The report covers many issues central to the verification of future arms control treaties, including reconnaissance satellites, tagging and the verification of chemical and biological weapons. The report refers frequently to work done by VERTIC.

## New Books

As mentioned in last month's *Trust and Verify*, two important new books on arms control and verification have now been published.

Ways Out of the Arms Race (World Scientific Publishing, 1989) brings together the papers presented at the Second International Scientists' Congress held at Imperial College in December 1988. VERTIC was deeply involved in the organisation of the conference and VERTIC Director, Dr. Patricia Lewis co-edited this volume with Dr. John Hassard and Professor Tom Kibble of Imperial College. The book includes papers from a number of eminent contributors, Robert McNamara, Roald Sagdeev and Alexei Arbatov among them. Dr. Lewis' paper on Verification, Jane Sharp's on Confidence and Security Building Measures and Vitalii Goldanski and Valery Davydov's on a Comprehensive Test Ban are among those of particular interest to verification specialists. However the entire collection, presenting a truly international overview of arms control issues, is an important contribution to arms control literature.

Verification of Arms Reduction (Springer-Verlag, 1989) edited by J. Altmann and J. Rotblat, discusses a much wider range of verification issues. The book is a collection of papers presented at the "Workshop on Verification of Nuclear and Conventional Arms Reductions" held in London from November 30th to December 2nd 1988. VERTIC's Dr. Lewis was a member of the international organising committee for the workshop. Topics covered include INF verification, verification of SLCMs, disposal of fissile material, verification of a nuclear test ban, joint verification experiments, space weapons, conventional reductions and verification of a chemical weapons ban. VERTIC scientists, Roger Clarke and Jeremy Leggett and overseas advisors John Pike and Ted Taylor have contributed articles to the book.

## The Technologies of Arms Control Verification - A Short Course for Non-Specialists.

This year's "short-course", organised by VERTIC and Imperial College, London will take place at Imperial College from March 26th-30th. The course consists of a series of intensive sessions covering the verification of all kinds of weapons reductions as well as verification of nuclear test bans. Highly qualified course staff will provide several hours of lectures and demonstrations each day with the opportunity for discussion and debate at the end of the course. Past courses have been attended by senior and junior diplomats, military officers, civil servants, congressional and parliamentary staff, consultants and contractors, media researchers, academic political scientists and historians. Full details of the course appear in a leaflet enclosed in this issue of "Trust and Verify".

### **What is VERTIC?**

VERTIC is an independent organisation aiming to research and provide information on the role of verification technology and methods in present and future arms control 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.

**Voluntary Subscriptions:** This copy of "Trust and Verify" is sent to you free of charge. The production of this bulletin entails considerable cost to VERTIC so if you would like to pay a voluntary subscription of 12 pounds for a year's issues, your contribution would be gratefully received. Thank you to those who have sent a subscription. Anyone wishing to contribute information for inclusion in "Trust and Verify" should send it to the VERTIC office.

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