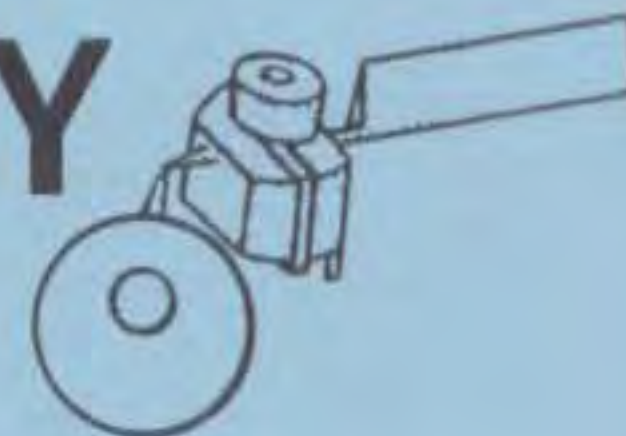




TRUST AND VERIFY



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News From Vienna: Verification Problems, Draft Treaties, Eastern Europe.

Negotiations on conventional force reductions in Europe (CFE) resumed in Vienna on November 9th in a mood of general optimism. Most experts believe that the current round of talks will see further progress on a number of fronts including agreement on limits for artillery pieces and on combat helicopter numbers and definitions.

Unfortunately a number of sticking points remain, notably continued disagreement over the definition of combat aircraft; the Soviet Union want trainer and tactical aircraft to be excluded from the agreed ceilings, something NATO vehemently rejects.

Also due to be discussed are the so-called "Chapter 3" measures covering stabilisation, verification and non-circumvention. A package was presented to the conference by NATO at the end of September (see "Trust And Verify" issue 4, October 1989 for details and analysis). A working paper on the same areas was presented shortly afterwards by the Warsaw Pact countries.

There has been considerable concern from France and the United Kingdom regarding on-site inspections of defence industry factories, which those two countries feel will be too intrusive and might leave their industries open to commercial espionage. The issue of monitoring storage depots also remains considerable. NATO, unlike the Warsaw Pact, has large storage facilities along the Central European zone. This is partly a question of geography and partly because of the NATO doctrine of flexible response. No agreement has been achieved as to how such depots should be monitored.

On 14 December, NATO and the Warsaw Pact presented their respective draft treaties to the CFE talks.

The NATO group had intended to present the document on the first day of the current round of negotiations but last-minute objections caused a month's delay. The objections centred principally on two issues.

First, the text referred to "groups of countries" instead of "alliances". However, some Western diplomats said that the text could not reconcile "collective ceilings" on different types of weapon as agreed by the two alliances, with obligations from individual countries that these ceilings could be guaranteed. Many NATO delegates are in favour of referring to "groups of countries", particularly in the light of recent events in Eastern Europe, in anticipation of the day certain Warsaw Pact nations might wish to declare themselves neutral. Second the Greek delegation objected to arrangements for the inclusion or otherwise of definitions of certain categories of weapon.

The draft treaty has little to say on the subject of verification. Under Article III (Counting Rules), Article X

(Stabilising Measures) and Article XIII (Verification Provisions), the treaty says only "To be developed".

Article XIV states that "each Party shall have the right to use...national technical means of verification at its disposal in a manner consistent with generally recognised principles of international law." and that "A Party shall not interfere with the carrying out of any inspection or monitoring activity provided for in Article XIII... with the national technical means of another Party...or with any other agreed measure of verification." It also states that "a Party shall not use concealment measures that impede verification of compliance with the provisions of this Treaty...". A detailed comparison of the two draft proposals will be in the next issue.

Meanwhile, the speed of political change in Eastern Europe has dramatically altered the international context within which the CFE talks are taking place. Speculation on German reunification, for example, however premature, may well have an influence on both sides' approach to the talks. It might also be the case that individual Warsaw Pact countries take a more independent line over particular issues, such as the widespread feeling that Hungary might favour total withdrawal of Soviet troops from its territory while Poland might prefer some troops to remain to counter a perceived threat from Germany, united or otherwise.

The Pentagon remains cautious in its response to events in Eastern Europe. Pentagon spokesperson Pete Williams said he did not expect fundamental changes in the formulation of the FY91 budget. "You don't rush right out and make a new spending decision based on recent events," he said. That "would be imprudent".

Vienna Stop Press : It now seems likely that the CFE talks will be given a boost by two emerging NATO concessions. The Institute for Defence and Disarmament Studies report that "NATO has agreed to include light tanks in the overall reduction of NATO and WTO tanks and armoured vehicles. This has been proposed since the outset by the WTO and resisted by France and Britain. IDDS also reports that revised counting rules for aircraft will remove nearly half the WTO trainer planes from the total number of aircraft to be cut. Neither concession has yet been formally tabled at Vienna."

NRDC Official Reviews Black Sea Experiment

Thomas B. Cochran, who led the Natural Resources Defense Council delegation in the Black Sea verification experiment (see "Trust and Verify" No.3, Aug/Sept 1989), gave a retrospective account of some of the experiment's ground-breaking achievements in "Bulletin of the Atomic Scientists."

Chief among Mr Cochran's assertions is that on the basis of the experiment, designed to test the verifiability of a treaty limiting sea-launched cruise missiles (SLCMs), the

United States and the Soviet Union should agree to remove all nuclear weapons, or at least all nuclear SLCMs from surface combat vessels and to begin a series of joint verification experiments to determine whether a SLCM ban could be satisfactorily verified. Mr. Cochran believes that it could.

The US Government agreed at the 1987 summit to initiate such experiments. However, it opposed the Black Sea experiment, afraid perhaps that the findings might undermine its position that a SLCM ban would not be adequately verifiable. There was also a fear that a successful experiment on board a Soviet ship might lead to calls for similar experiments aboard US ships, thus challenging the US Navy's position of refusing to confirm or deny the presence of nuclear weapons aboard US warships.

However, as Cochran points out, removing nuclear weapons from ships while joint experiments took place would solve the US Navy's "neither confirm nor deny" problem as there would simply be no nuclear weapons on US ships. It would be easy enough for one side to withdraw from the moratorium if it suspected the other side had begun to replace the nuclear weapons on its vessels. Furthermore, as Cochran concludes, such a series of joint experiments would be in line with President Bush's stated position of wishing to engage in verification experiments before signing treaties.

*Thomas B. Cochran's article is entitled "Black Sea Experiment Only A Start" and appeared in Bulletin of the Atomic Scientists November 1989.

INF On-Site Inspection Offers Lessons For START and CFE

After the initial wave of media interest in the on-site inspections established under the arrangements for verification of the Intermediate-range Nuclear Force (INF) Treaty, less attention has been paid to the activities of the On-Site Inspection Agency (OSIA). However, according to OSIA Scientific Director Edward Lacey, US inspection teams have made a total of 245 inspections.

What is more important than the number of inspections that have taken place is the invaluable experience gained with regard to verification techniques and methods over recent months. Many believe that the success of the INF OSIs is laying the foundations for verification regimes in relation to any future START or CFE treaties. Indeed, many OSI team members are already providing informal advice to conventional and strategic arms control working groups in Washington and to future inspectors in other NATO countries.

The confidence-building aspects of OSIs are widely acknowledged. Brigadier-General Roland Lajoie, Director of OSIA, was quoted in Defense News (6/11/89) as saying "INF was our first effort at verification involving on-site inspection and from that point it is impressively intrusive. We are getting inspectors onto Soviet missile bases, we are getting them into facilities, garages and inside missile canisters. For INF there is a good balance. We are generally pleased by the amount of intrusiveness the treaty allows us and we do not feel the Soviet presence in Europe and the United States is a significant detriment to our security concerns."

Furthermore, techniques under development for use in INF-related inspections will surely be of benefit to verification regimes linked to future arms control

agreements. For example US inspectors stationed continuously at the Votkinsk missile assembly facility are in the process of installing a cargo scan X-ray which will be used to see inside rail wagons leaving the plant. Brigadier-General Lajoie for one is of the opinion that such an X-ray facility as well as radiation detection equipment may be useful in a START Treaty, especially where certain types of multiple-warhead missiles are banned but single-warhead missiles permitted.

Soviet Union Pushes For Naval Negotiations

There was some surprise in mid November when the Soviet delegation to the CFE negotiations announced that NATO should begin to consider the question of naval forces. These are excluded from the CFE mandate but in the talks on Confidence and Security Building Measures (CSBM), taking place simultaneously, Warsaw Pact representatives have frequently suggested that naval forces and manoeuvres should be subject to inspections and notification. NATO is reluctant to agree to such measures, partly because of its policy of refusing to confirm or deny the presence of nuclear weapons on its ships and partly because it regards the unhindered movement of forces across the Atlantic as central to NATO security.

However Soviet Delegation leader, Oleg Grinevsky, stressed that the question of naval forces would have to be addressed eventually, whether in the CSBM negotiations or in separate talks.

At the Malta summit, Soviet President Mikhail Gorbachev proposed a ban on all tactical, or short range, nuclear weapons from surface warships, according to senior US officials, who believe the move was designed to draw the US into broad discussions on naval arms limits. Mr Bush told the Soviet leader that he could not negotiate on this issue "because it doesn't enhance our security".

However Paul Nitze, chief advisor on arms control to the Reagan administration, and a former Navy Secretary, has called the Soviet proposal "very positive and constructive".

Also reiterated at the Malta meeting was the Soviet desire to limit sea-launched cruise missiles, opposed up to now by the US because they don't believe verification of compliance with such an agreement would be possible without being intolerable intrusive. (See "Trust And Verify" No. 3, Aug/Sept 1989, for more information on SLCM verification).

Pressure is also mounting within NATO to include naval forces in arms reduction talks. While Britain and France support the US position, other countries, including Canada, Iceland, Denmark and Norway have called for more flexibility in the NATO approach to naval arms control.

In The News

Secret Military Satellite

The United States space shuttle, Discovery, has successfully deployed a secret military satellite, reports Jane's Defence Weekly (2/12/89). The satellite is believed to be a \$300 million signal intelligence satellite designed to monitor Soviet radio transmissions. The

satellite could also be used in the verification of a Strategic Arms Reduction Treaty (START).

Another French Nuclear Test

A 20 kiloton nuclear device was exploded at the French underground test site on Mururoa Atoll, the sixth such test this year.

Chocolate Cruise Truffles

A factory previously used for building cruise missile launchers has been converted to civilian production. The Kalinin plant in Sverdlovsk is now a production line for making chocolate truffles.

US Department of Energy Admits Loss of Tritium

The US DoE has admitted that it cannot account for a quantity of tritium used in the manufacture of nuclear warheads. Commercial shipments of the material have been temporarily suspended reports Jane's Defence Weekly (11/11/89).

Soviet Engineer Criticises Arms Destruction Methods

Oleg Mamalyga, a leading Soviet Engineer has been highly critical of the methods used to eliminate missiles covered by the Intermediate-range Nuclear Forces (INF) Treaty. He claims that if the missiles were dismantled rather than destroyed by explosive charges, up to 35% of their value could be recovered and certain elements such as engines recycled for use in civilian industry. Mr Mamalyga believes the problem to be a lack of "a master organisation" or, to be more precise, a system involved with the economy of disarmament.

Last SS-23 Destroyed

The 239th and last SS-23 Spider missile due to be eliminated under the INF Treaty has been destroyed at Saryozek, Kazakhstan. The destruction of the missile is particularly significant since the SS-23 was almost left out of the INF Treaty (it barely falls within the range bracket of 500 to 5000km) and because Soviet Defence Minister, General Dimitri Yazov, said in July that the USSR might resume production if the US continued to press for a replacement for the Lance battlefield nuclear missile.

Soviet Force Reductions

General Mikhail Moiseyev announced at the end of November that forces in North-West USSR are to be reduced by 40,000 as part of the 500,000 reduction promised by President Gorbachev. General Moiseyev also said that tanks would be reduced by 1,200 in the same area and that there would be "substantial cuts" in artillery. By 1991, said the General, troops in the Leningrad and Baltic regions would be cut by a third.

Follow-On-To-Lance Delayed To Seek Means of Verification

The US Army has delayed the release of a Request for Proposals for a replacement for the Lance battlefield nuclear weapons. The Army plan to launch the new missile from the MLRS rocket launcher but unless either the launcher or missile canister can be adapted to include a "recognition feature" all MLRS launchers would be counted as short-range nuclear missile systems under a

future SNF treaty. A similar statement was made on cruise missiles during the Carter administration.

Future WEU Role In Verification?

The Ministerial Council of the nine-member Western European Union (WEU) has commissioned a study on the future possible role in arms control verification. Belgian Defence Minister, Guy Coëme, said that verification teams from the WEU might be multinational and under the leadership of a single member nation. The WEU has also been discussing the possibility of establishing a European satellite verification agency.

The Ministerial Council also discussed ways of promoting a "European security identity" and commissioned a study on the role of the WEU after a Conventional Forces in Europe Treaty (CFE).

NATO Verification Pool

Jane's Defence Weekly (16/12/89) reports that "NATO officials are considering proposals to establish a multinational pool of hardware, intelligence assets and personnel to meet the challenge of verifying conventional arms reductions in Europe, according to senior Western military sources."

Although the draft treaty presented by the USA to the CFE talks in Vienna did not give full details of verification arrangements, it is expected that recommendations will shortly be made by NATO Secretary General Manfred Woerner, as well as the North Atlantic Council and NATO defence ministers.

Sources have also suggested that NATO, itself, would be unlikely to purchase new verification hardware. Individual countries or groups of countries would have to finance such purchases. It has also been suggested that each NATO state would offer particular resources to NATO after which multinational teams would carry out verification procedures.

In a speech to the Berlin Press Club on 13 December, US Secretary of State, James Baker, gave official backing to a plan to establish a NATO Arms Control Verification Staff as part of his view of the future role of NATO.

Commercial Satellites

The American Association for the Advancement of Science held a seminar on the tools of arms control verification in Washington during November. At the meeting Sidney Graybeal, a delegate to the SALT talks, said that "(The French satellite) SPOT or a United Nations satellite could be made available. They could be another instrument" in arms control verification. Other delegates were of the opinion that major problems would first have to be overcome, such as competing requirements for the use of commercial satellites coupled with an unwillingness on the part of the US to share the kind of data gathered by its own reconnaissance satellites. For a full analysis of the possible uses of commercial satellites in arms control verification, see "Trust And Verify" No. 5, Nov 1989.

UK Firms In Soviet Satellite Venture

Marconi Space Systems, British Aerospace and the Soviet space agency Glavkosmos have signed a first protocol to participate in a joint venture to set up satellite imagery receiving stations in the UK. (Jane's Defence Weekly, 23/12/89).

A spokesperson from Glavkosmos said that the necessary equipment to receive Soviet satellite imagery was already in the UK, and if tests are successful the imagery will be marketed in the UK.

Verification R&D in Netherlands

Dutch Secretary for Defence Procurement told a recent symposium on the future of Dutch defence that quantitative and qualitative verification will pose technical problems. It should be the role of defence research establishments to find solutions. The Dutch defence industry appears to agree. President Director of Hollandse Signaal Apparaten, JHJ Bosma, told the symposium that verification systems, particularly remote sensing and data handling technology, would be one of the few growth areas of the defence industry in the 1990s.

TTBT/PNET Finally To Be Ratified: CTBT Uncertain

The 1974 treaty on the limitation of underground nuclear weapon tests (Threshold Test Ban Treaty) and the 1976 treaty on underground nuclear explosions for peaceful purposes (Peaceful Nuclear Explosions Treaty) may finally be ratified by the US senate in the near future. The two treaties were signed by both the USSR and the US. Ambassador C. Paul Robinson told the Senate Foreign Relations Committee that verification technology was now sufficiently advanced to allay fears over verifying the treaties.

Meanwhile Jane's Defence Weekly (18/11/89) reports that Dr. Kathleen Bailey, an official for the US Arms Control and Disarmament Agency, told the same Committee that the Bush Administration will block an attempt by 41 nations to amend the 1963 Partial Test Ban Treaty and establish a comprehensive ban on all nuclear weapons tests. Said Dr. Bailey "The US position on nuclear testing is clear. Nuclear testing is indispensable to the maintenance of the credible nuclear deterrent that has kept the peace for 40 years."

Dates

16 March 1990: 2nd Annual Conference on Chemical Warfare: "Chemical Weapons Proliferation: Policy Issues Pending an International Treaty".

This conference, to be held in Brussels, is organised by the Groupe de Recherche et d'Information sur la Paix (GRIP) and the Free University of Brussels. Stress will be placed on short term policy opportunities and the importance of legislation on a national level.

VERTIC News

Dr. Patricia Lewis, Bart Milner, Bhupendra Jasani and VERTIC working group members Roger Clark and Mike Barnett organised a meeting at Parliamentarians Global Action (PGA) in New York on 28th November. The meeting was called to discuss progress on preparation of the draft protocols on verification due to be presented at the forthcoming amendment conference of the Partial Test Ban Treaty. The conference will discuss a proposal by 41 countries to convert the existing PTBT to a Comprehensive Test Ban Treaty (CTBT). VERTIC is working on the scientific aspects of verification of a comprehensive test ban.

Dr. Patricia Lewis and Julie Cator attended the 6th International AFES-Press Conference on "Verification and Arms Control - Implications for European Security" in Mosbach, West Germany from 8th-10th December. Dr. Lewis participated in the roundtable discussion on the perspective of research groups and Julie Cator spoke on the subject of training in verification.

Julie Cator visited SHAPE HQ in Brussels as part of a trip organised by Peace Through NATO on 5th/6th December. She attended a series of briefings and participated in several discussion groups.

Dr. Patricia Lewis has recently returned from West Germany, where she took part in an experiment with other scientists on detecting the seismic, magnetic and acoustic signatures of tanks, trucks and other vehicles. Scientists from France, USA, The Netherlands, UK, West Germany and Czechoslovakia were collaborating on the experiments. There will be more on these experiments in the next issue.

VERTIC would like to wish all of its friends and all the readers of "Trust And Verify" a Happy New Year.

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.

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