



# Assembly of Western European Union

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**FORTIETH ORDINARY SESSION**

**(First Part)**

**The rôle and future of nuclear weapons**

**REPORT**

**submitted on behalf of the Defence Committee  
by Mr. De Decker, Rapporteur**



*The rôle and future of nuclear weapons*

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1. Adopted unanimously by the committee.

2. *Members of the committee:* Mr. Baumel (Chairman); MM. De Decker, de Puig (Vice-Chairmen); Mr. Alloncle, Mrs. Baarveld-Schlaman, MM. Borderas, Briane, Brito, Chevalier, Cox, De Carolis, Dees, Dumont, Fernandes Marques, Ferrarini, Hardy, Irmer, Jacquat, Kelchtermans, Leccisi, Mrs. Lentz-Cornette, MM. van der Linden, Mannino, Marten, Lord Newall, MM. Pecchioli, Reis Leite, Scheer, Sir Dudley Smith, Sir Keith Speed, MM. Steiner, Lopez Valdivielso (Alternate: Lopez Henares), Vazquez, Zierer.

N.B. *The names of those taking part in the vote are printed in italics.*

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### *Preface*

In preparing the present report, your Rapporteur has been extremely fortunate to receive much kind help and assistance from all the authorities consulted and he would like to take this opportunity publicly to thank all concerned for their co-operation.

The Rapporteur met or received evidence from the following:

*7th-9th March 1994 – Washington D.C.*

His Excellency Juan Cassiers	Belgian Ambassador to Washington
Mr. James Timbie	Senior Advisor of Undersecretary of State for International Security Affairs
Mr. Stephen Hadley	Former Assistant Secretary of Defence for International Security Policy
Mr. Leonard Spector	Senior Associate, Carnegie Endowment for International Peace
Mr. Robert Einhorn	Deputy Assistant Secretary for Political-Military Affairs, State Department
Dr. Zbigniew Brzezinski	Former National Security Advisor, Centre for Strategic and International Studies
Mr. Dean Millot	Rand Corporation
General Brent Scowcroft	Former National Security Advisor, Forum for International Policy
Mr. Steven Andreasen	Deputy of the Senior Director for Defence Policy/Arms Control, National Security Council
Mr. Steven Cambone	Senior Fellow – Politico-Military Affairs, Centre for Strategic and International Studies
Dr. John Steinbruner	Director Foreign Policy, Brookings Institute
Mr. Andy Johnson	Legislative Assistant to Senator Exon, Armed Services Committee
Mr. Brett O'Brien	Defence and Foreign Policy Advisor to Senator Mitchell
Mrs. Eliane Bunn	Principal Director for Forces Policy, Department of Defence

*8th April 1994 – London*

Mr. Jonathan Eyal	Royal United Services Institute for Defence Studies
Mr. David Omand	Deputy Undersecretary of State for Policy, Ministry of Defence

*13th April 1994 – Paris*

Mr. Alexandre Orlov	Minister Counsellor, Embassy of Russia, Paris
MM. Jean-Charles Gaudillet and Bruno Tertrais	Department of Strategic Affairs, Ministry of Defence
Mr. Martin Barry de Longchamps	Director Strategic Affairs, Ministry for Foreign Affairs

*28th-29th April 1994 – Moscow*

His Excellency Baron Thierry de Gruben	Belgian Ambassador to Moscow
Mr. Alexander Yereskovsky	Minister Plenipotentiary, Senior Counsellor, Ministry for Foreign Affairs
Mr. Bachkirov	Head Counsellor, Ministry for Foreign Affairs
Mr. B. Kazantsev	Minister Plenipotentiary, Assistant Director Department for Co-operation in Europe, Ministry for Foreign Affairs
Professor Sergei Karaganov	Institute of Europe
Gen. Major Pavel Zolotarev	Ministry of Defence
Mr. Zagladine	Gorbachev Foundation
Mr. Sergei Oznobichev	Institute of the United States of America and Canada
Mr. Alekseji Arbatov	Institute for World Economy and International Relations of the Russian Academy of Sciences

***Draft Recommendation***  
***on the rôle and future of nuclear weapons***

The Assembly,

- (i) Welcoming the large reductions in both the United States and Russian nuclear arsenals as a consequence of the START I and START II treaties and the end of the cold war;
- (ii) Conscious that START I and START II will not be fully implemented before the year 2003;
- (iii) Noting that the United States is at present making a full reassessment of its nuclear posture and is showing true political determination to prepare a new reduction in strategic arsenals in the framework of a future START III treaty;
- (iv) Noting, however, that Russia, for its part, is increasingly tempted, mainly due to the decline of its conventional forces, to make its strategic nuclear capability the centrepiece of its defence policy;
- (v) Assessing present political instability in Russia and the former Soviet republics and the ensuing dangers;
- (vi) Noting that there are still doubts about whether Russia really wishes to ratify and implement the START II treaty;
- (vii) Noting that, notwithstanding the end of the cold war and the signing of the historic nuclear arms reduction treaties, the mutual relationship of deterrence between Russia and the western nuclear powers is still topical, including the possibility of first-use of nuclear weapons which is still the keystone of the doctrine of deterrence everywhere;
- (viii) Noting that, notwithstanding recent efforts to establish confidence between the former cold war adversaries at the level of political leaders and experts, there is still an astonishing lack of reciprocal confidence, wish for transparency and mutual understanding in many other circles;
- (ix) Conscious that if greater account is not taken of lingering suspicions, prejudices and fundamental differences in military doctrines and diverging interests in foreign policy, the establishment of new relationships of security, stability and confidence between the members of the Atlantic Alliance on the one hand and of the Russian Federation on the other may be jeopardised;
- (x) Hoping, in this respect, that Russia will agree to join the partnership for peace proposal proposed by the Atlantic Alliance;
- (xi) Welcoming the bilateral agreements reached between the United States and Russia and the United Kingdom and Russia to detarget nuclear arms, even if the value of these agreements is symbolic rather than intrinsic;
- (xii) Believing that other measures, such as taking most strategic missiles off alert status and separating nuclear warheads from their missiles should be envisaged;
- (xiii) Expressing in general the wish that the theory of mutual assured destruction (MAD) should be replaced by a policy of mutual assured co-operation (MAC);
- (xiv) Noting that it would be totally illogical to start the implementation of a European common foreign and security policy (CFSP) including the framing by WEU of a common defence policy “ which might in time lead to a common defence ” without closely examining the rôle of the French and British nuclear forces in the definition of a common defence policy of the European Union;
- (xv) Welcoming the work of the permanent Anglo-French Joint Commission on Nuclear Policy and Doctrine which among other things has confirmed that there are many points of convergence in the assessments made by the two countries;
- (xvi) Aware that the existence of a formidable nuclear arsenal in Russia continues to determine the structure and deployment of the nuclear forces of France, the United Kingdom and the United States;
- (xvii) Noting that, regarding proliferation, there are doubts about whether the possession of nuclear weapons by the official nuclear weapon states plays a rôle in deterring third countries from procuring their own nuclear weapons or other weapons of mass destruction;

(*xviii*) Recognising that, particularly in the United States, the weight of nuclear deterrence as a means of preventing war tends to diminish while extended nuclear deterrence is also losing credibility;

(*xix*) Noting that the 700 United States B-61 nuclear gravity bombs remaining in Europe after NATO's October 1991 decision play a purely political and symbolic rôle;

(*xx*) Noting that, increasingly, nuclear deterrence in circumstances today is truly credible only if the vital interests of a nation or group of nations are under direct threat from the power to be deterred;

(*xxi*) Noting that, in regard to the common security policy of the European Union and in the framework of WEU, a study should be made on what France and the United Kingdom consider to be their vital interests which are protected by their nuclear means;

(*xxii*) Regretting that there is not sufficient cohesion in the defence policies of European countries and, despite bold general declarations, there is not yet cohesion and understanding between our countries regarding the development and future of their strategic relationship with Russia, although this would be indispensable for introducing any lasting system of security in Europe;

(*xxiii*) Welcoming the granting of associate status to the Central European countries of the Forum of Consultation;

(*xxiv*) Emphasising, however, that WEU's policy of stronger security links with its Central European partners will contribute little to Europe's security if it is not accompanied by frequent political and military consultations with Russia and the other European republics of the CIS aiming at the establishment of a strategic relationship based on a thorough understanding of, and respect for mutual interests;

(*xxv*) Noting that it is of the greatest importance to intensify and further improve international co-operation in the struggle against proliferation, in particular by extending the non-proliferation treaty in 1995, improving the missile technology control régime and establishing a follow-up organisation with extended membership as a successor to Cocom;

(*xxvi*) Aware that none of these existing or future non-proliferation régimes can guarantee that a country with sufficient financial resources and zeal will not acquire ballistic missiles or weapons of mass destruction;

(*xxvii*) Noting that there is an urgent need for a coherent and co-ordinated policy among official nuclear weapon states to cover contingencies in which a proliferant third country might threaten to use a nuclear weapon;

(*xxviii*) Recognising that there is a need to define a coherent European counter-proliferation policy, drawing inspiration from the discussions which are already being held in the framework of the Atlantic Alliance following the recent United States initiative;

(*xxix*) Recalling the results of the Assembly's Rome symposium on anti-missile defence for Europe (20th-21st April 1993) and in particular the Assembly's recommendation that the Council decide on the basis of a careful risk assessment whether and to what extent it will be necessary to mandate European industry to conduct a feasibility study regarding the requirements for a cost-effective anti-missile protection system for Europe;

(*xxx*) Taking note of the fact that the WEU Council, in its reply to Recommendation 540, has pointed out that nuclear questions are not, at the present time, on its agenda;

(*xxxi*) Insisting, however, that the preceding considerations should be an incentive to redefine the rôle of nuclear weapons for the security of Europe, realising that they cannot be disinvented and, if only for that reason, they will continue to be deployed and will continue to play an important rôle in the foreseeable future in international relations,

#### RECOMMENDS THAT THE COUNCIL

1. Establish a strategic study group within WEU:
  - to examine the rôle and future of nuclear weapons for European security including the different aspects of intra-European extended nuclear deterrence;
  - to examine the rôle all the WEU member states might play in defining a future European nuclear strategy;
  - then to study the possibility of creating a nuclear co-ordination body within WEU;
  - to examine the military aspects of an active European counter-proliferation policy;

- to examine the possibilities of Europe helping the CIS to dismantle its excess nuclear warheads following the bilateral agreements and unilateral decisions reached between the United States and the republics of the CIS which possess nuclear weapons;
- 2. Take steps to intensify relations with the European republics of the CIS, in particular Russia and Ukraine, in particular to ensure that the definition of a European defence identity does not arouse new suspicion or provoke reactions which might run counter to the final goal of creating a collective European security order;
- 3. Ensure that the abovementioned initiatives are pursued in an atmosphere of absolute transparency with Western Europe's North American allies in order to make certain that they support the development of a European security and defence identity.



## *Explanatory Memorandum*

*(submitted by Mr. De Decker, Rapporteur)*

### *I. Introduction*

1. The cold war that arose from the confrontation between hostile ideologies and the consequent formation of two opposing power blocs drew the world into a massive arms race. Rivalry between NATO and the Warsaw Pact in the nuclear sector led to mindless escalation with each bloc having the ability to annihilate its potential adversary many times over. Deterrence was based on a balance of United States and Soviet forces and the theory of mutual assured destruction (aptly abbreviated in English to MAD).

2. In a context of such lunacy where each side sought to terrorise the other, the United States and the Soviet Union had each at one point over 30 000 nuclear warheads, with a total energy yield at their highest levels of 30 000 megatons, the equivalent of 2.5 million Hiroshima bombs!

3. Fortunately, with the ending of the cold war and the tearing down of the iron curtain, signature of the INF, START I and START II treaties has become possible, together with numerous unilateral reductions in nuclear arsenals. These, if ratified and implemented in good faith, could reduce stockpiles to more reasonable proportions and open the way for negotiation of further disarmament treaties. Or is this perhaps too much to hope for?

4. Will the political evolution of Russia – in the throes of political and social instability that constantly threaten to erupt in violence – allow the present disarmament process to continue? The answer to this essential question will in any event determine the attitude of all the other official nuclear powers.

5. The present massive disarmament raises the acutely sensitive issue of storage of nuclear warheads and reprocessing of fissile material. Should management of this issue not be the major priority for the world at large and Europe in particular?

6. The reduction of the arsenals of the official nuclear powers does not however settle the difficult issue of nuclear proliferation in other regions of the world, often close to Europe. Is our current policy of non- or counter-proliferation really effective?

7. It is in this context, characterised at one and the same time by major hopes and risks that the European Union has decided to develop a common foreign and security policy (CFSP) involving definition in the longer term of a common defence policy “ which might in time lead to a common

defence ”. Is definition of a European defence identity possible without the European Union defining a future European nuclear deterrence strategy?

8. The present report, which does not claim to be exhaustive, describes the recent evolution of nuclear armaments policy and in particular the extent to which European security is affected by it. It goes without saying that the major players in this area are the United States and Russia. The present report makes no reference to the nuclear forces and doctrine of China insofar as, for the time being, they do not seem to influence European security other than through their possible impact on Russian nuclear policy. Your Rapporteur wishes to thank the Belgian Ambassadors to Washington and Moscow, His Excellency Juan Cassiers and His Excellency Baron Thierry de Gruben and their colleagues for kindly helping to organise meetings in the two capitals.

9. The present report will draw some conclusions and make certain recommendations.

10. Your Rapporteur does not claim to have a definitive answer to these particularly complex and sensitive problems. He is however convinced that European governments, the European institutions and WEU in particular cannot continue to ignore the profound changes that have taken place in nuclear deterrence and that it is incumbent upon these institutions to have the courage to develop an active European policy to combat proliferation and a policy for processing the very large numbers of warheads now present on the continent of Europe and western Asia. Your Rapporteur is convinced that the European Union and its military arm, WEU, must initiate discussion on the definition of future European nuclear deterrence, in the framework of the development of the common foreign and security policy (CFSP).

### *II. The evolution of the United States and NATO's nuclear strategy*

11. After using its first nuclear bomb in Hiroshima and Nagasaki in 1945, the United States took a long time in developing a strategic theory related to nuclear weapons<sup>1</sup>. Initially, the admi-

1. Main sources for this chapter have been: Lawrence Freedman, *The Evolution of Nuclear Strategy*, Second Edition, London 1989; John Lewis Gaddis, *Strategies of Containment*, New York 1982.

nistration was reluctant to make the bomb a centrepiece of United States strategy because of the unwillingness to see it as "just another weapon, ready for use". Rather, it considered the nuclear bomb as a weapon of "last resort".

12. Only when the Berlin crisis began in mid-1948, did the National Security Council start discussing the advisability of formulating policies on the use of nuclear weapons.

13. In any case, from the beginning, there was certainly no taboo on the possible use of the bomb and terror-bombing of cities was indeed considered the most appropriate use.

14. After the conclusion of the North Atlantic Treaty in 1949, NATO first adopted a forward strategy aimed at holding any Soviet offensive as close to the original lines as possible. It was thought that United States nuclear forces would do little more than neutralise those of the other side and that in a war the advantage would have to be won with conventional arms.

15. In September 1950, President Truman approved a document presented by the National Security Council (NSC-68), on the objectives and strategic plans of the United States, keeping account of a Soviet nuclear capability. This document concluded that until conventional forces had been built up, the United States had no choice but to rely on its nuclear arsenal. A policy of no-first-use was rejected because that "would be interpreted by the USSR as an admission of great weakness and by our allies as a clear indication that we intended to abandon them".

16. In December of that same year, Under-Secretary of State, Dean Acheson, emphasised that "the principal antagonist of the United States was the Soviet Union" hence the consequent necessity of defending Great Britain, Western Europe and the Mediterranean for "if we did not hold these parts of the world, we were likely to have no platform from which to operate if we had to against the Soviet Union and we would turn great potential strength to the other side".

17. It should be mentioned here that in the early 1950s, investigations were made into tactical nuclear weapons with which it was claimed, "battle could be brought back to the battlefield". Such weapons, however, were seen as supplements rather than alternatives to strategic bombing.

18. The Eisenhower administration, in January 1954, outlined the doctrine of "massive retaliation", which meant that the United States was to "depend primarily upon a great capacity to retaliate, instantly, by means and at places of our own choosing". When this was wrongly assumed to be an "undiscriminating threat to respond to any communist-inspired aggression anywhere, however marginal the confrontation, by means of a

massive nuclear strike against the centres of the Soviet Union and China", the Secretary of State, John Foster Dulles, repudiated the notion that the United States "intended to rely wholly on large-scale strategic bombing as the sole means to deter and counter aggression". It was only one of a wide variety of means available for responding to aggression. It should not be stated in advance precisely what would be the scope of military action if new aggression occurred, a posture which later became known as "brinkmanship".

19. The principle on which this doctrine was based was deterrence, meaning that the behaviour of a potential enemy could be manipulated through threats.

20. By this time, the United States had a vast range of nuclear weapons at its disposal, from strategic to tactical battlefield weapons. President Eisenhower even declared in a press conference in March 1955: "Where these things are used on strictly military targets and for strictly military purposes, I see no reason why they shouldn't be used just exactly as you would use a bullet or anything else."

21. Earlier in a National Security Council Paper (NSC-162/2) on basic security policy, it had been clearly stated that: "In the event of hostilities, the United States will consider nuclear weapons to be as available for use as other munitions." Field Marshall Montgomery, then Deputy Supreme Allied Commander, Europe (DSA-CEUR), explained in late 1954: "I want to make it absolutely clear that we at SHAPE are basing all our planning on using atomic and thermonuclear weapons in our defence. With us it is no longer: 'They may possibly be used.' It is very definitely: 'They will be used, if we are attacked'."

22. In practice, the war in Indo-China showed that the United States did not decide easily on the actual use of nuclear weapons.

23. Also, it was increasingly suggested that the doctrine of massive retaliation was not always credible and that it might lead to a choice between "holocaust or humiliation" which did not really seem to be realistic. Gradually, the notion was sinking in that for a strategy of deterrence to be credible, the means of deterrence should be proportionate to the objectives at stake. At the same time, the possibility of limited war in "grey" areas (disputed territories between East and West) had to be considered, since clearly the United States no longer had a nuclear monopoly and because nuclear parity with the Soviet Union where it would no longer be possible to impose unconditional surrender, at an acceptable cost, was coming into sight.

24. As regards the employment of what were called tactical nuclear weapons, it became clear that they could not be used in such a discrimina-

ting manner as to spare civilians. This meant that, as a defensive weapon, they could only be used early in a conflict before the invading forces had captured much territory. Grave doubts were soon cast on the notion that they could be considered to be virtually tactical.

25. It was realised that the use of tactical nuclear weapons would always be a strategic decision to be taken at the highest level and if not "weapons of last resort" they would be of "penultimate resort". Considerable efforts were also made in order to establish convincing demarcation lines between tactical and strategic use of nuclear weapons.

26. At the end of the 1950s, however, most strategists understood that the idea of a limited war with the use of tactical nuclear weapons was virtually a contradiction in terms. The armed services were not able to develop a coherent doctrine for tactical nuclear weapons and also within NATO there were disagreements over the use of these weapons.

27. In fact, the development and deployment of tactical nuclear weapons was encouraged before an appropriate doctrine had been evolved. NATO could not ignore them once the Warsaw Pact had acquired such weapons, but the contingencies in which the West should initiate their use remained unclear. It can be noted now that the final consequences of the early arguments over the use of tactical nuclear weapons were drawn only in the 1990s.

28. As Soviet nuclear power steadily grew towards a level equal to that of the United States, creating a balance of terror, calls for a preventive war were heard but were immediately dismissed. On the other hand, the possibility of a pre-emptive war, of being the first to strike if there were positive evidence that an attack was being mounted against the United States, was more seriously discussed, but it was never officially adopted as a potential strategy.

29. In 1955, the United States Air Force Association argued that massive retaliation as a deterrent to war was steadily becoming obsolete. It stated that there could be no practical retaliation after an all-out surprise attack with thermonuclear weapons which would destroy military bases simultaneously with centres of industry and population.

30. At an early stage (H. Kahn, 1960), it was also suggested that credibility depended on being willing to accept the other side's retaliatory blow.

31. Meanwhile, the Rand Corporation had made it clear that air force bases were far more vulnerable to a surprise enemy attack than had previously been thought. They also introduced the concept of first-strike force (the opening volley of a nuclear war, directed against the nuclear capabi-

lity of the enemy with the intention of crippling his means of retaliation) and second strike force (capable of ensuring effective retaliation even after absorbing an enemy's first strike).

32. By 1956, the United States administration had begun to come to terms with the balance of terror and in August of that same year, a doctrine of "sufficiency" was developed, which meant that a force was required to perform the essential retaliatory mission. War was called an "unthinkable catastrophe" from which neither side could hope to escape by a margin of superiority in delivery systems.

33. The launch of the first artificial earth satellite, Sputnik I, by the Soviet Union in October 1957, a clear demonstration of Soviet long-range missile capability, caused a defence crisis in the United States because of the perceived "missile gap". The Gaither Committee, immediately established to submit a study on defence and deterrence, advised: accelerate the production of intercontinental and submarine-launched ballistic missiles; station intermediate-range ballistic missiles in Europe; disperse air-bases; improve warning systems; harden missile launch sites and construct fallout shelters capable of safeguarding the entire population of the United States should an attack occur.

34. President Eisenhower and State Secretary Dulles agreed to some of the abovementioned recommendations but they rejected the recommendation to build fallout shelters for the American population because it suggested a reversion to the "fortress America" concept, whereby the United States would "write off (its) friends in Europe".

35. In the late 1950s, strategists and military in both the United States and the Soviet Union were advocating the development of a capacity of pre-emptive attacks. This would require the build-up of large counter-force capabilities with an instant readiness to fire, which in itself could provide an incentive to pre-empt.

36. It was thought that missiles, whether intermediate or long-range, should not displace bombers. Many advantages were attributed to bombers: not only could they carry a greater and more differentiated payload, delivered with higher accuracy, they were also far more flexible and versatile. They could be put on alert and sent on a mission, signalling resolve, and still be recalled while on their way to the target, something which could not be done with missiles once the button had been pressed. On the other hand, it was admitted that bombers could not achieve surprise and that they were vulnerable to air defences.

37. With the building of a large arsenal of missiles by both the United States and the Soviet Union, it was also realised that they caused profound changes in the strategy of deterrence.

38. In the 1960s, the United States and the Soviet Union had reached a position where an attack by either side would have resulted in mutual destruction, a surprise attack no longer producing dividends since each country had the residual offensive power to break through the defences of the other and to destroy it, regardless of whether the other country did strike first. This state of mutual assured destruction was considered reassuringly stable.

39. Missiles, it was said, were not very good at fighting each other, being too well-hidden and protected to be caught on the ground and too fast to be caught in the air. They were supposed to create a state of stable deterrence, which would work through the primitive threat of irresistible harm to the enemy's social and economic structure rather than through the prospect of victory in combat. Retaliation would be measured, not to win, but to prove to the attacker that his losses are likely to be incredibly large. It was hoped that through acting in this way war would be stopped before both sides were irreparably destroyed.

40. The strategy of massive retaliation, as it had developed during the 1950s, provoked ever more criticism when it became apparent that the only retaliation available to the United States was often so disproportionate to the immediate provocation that its use risked unwanted escalation or too serious political costs.

41. On coming to power, therefore, the Kennedy administration accorded top priority to decreasing reliance on nuclear weapons to deter limited aggression, or, as was stated in a State Department analysis in February 1961: "We attach the greatest importance to raising the threshold beyond which the President might have to decide to initiate the use of nuclear weapons."

42. In a crisis or conflict, the administration also wanted to preserve for as long as possible a wide range of options, so that when a choice had to be made, it could be tuned to the circumstances of the moment. It should be mentioned that at this juncture of reappraisal Western Europeans were most concerned about nuclear options. They were anxious about any sign of a waning United States commitment to use nuclear weapons in the defence of Europe.

43. The first result of the reappraisal came in 1962, when Defence Secretary, McNamara, announced that "principal military objectives in the event of a nuclear war stemming from a major attack on the alliance should be the destruction of the enemy's military forces, not of his civilian population". Such behaviour was meant to provide a possible opponent with a strong incentive to refrain from striking cities. McNamara thought that this could keep nuclear exchanges limited and controlled.

44. However, when it became clear that the Soviet Union interpreted the "no-cities" and "counter-force" option as the planning of a United States first-strike capability, while the United States Air Force associated it with the capacity to fight and win a nuclear war, McNamara gradually played down this initiative.

45. Kennedy may seriously have considered a no-first-use declaration, believing that a build-up of conventional weapons might release NATO from dependence on nuclear weapons. In the end, this idea was given up because the allies did not want to place any restrictions on what they saw as their most effective military asset and because, in a possible conflict, the western position in Berlin could not be maintained with conventional forces.

46. In 1964 McNamara introduced the expression "assured destruction" to emphasise the disastrous effects of a general nuclear war. The strategy of assured destruction was intended to deter a deliberate nuclear attack upon the United States or its allies by maintaining at all times a clear and unmistakable ability to inflict an unacceptable degree of damage upon any aggressor, or combination of aggressors, even after absorbing a surprise first strike.

47. At the same time, McNamara was not bothered by the fact that the Soviet Union would also attain an assured destruction capability and he even refused to hinder this situation happening. He was aware that the consequence would be mutual assured destruction (MAD), a situation earlier designated as a stable balance of terror.

48. Meanwhile, in the United States, there was growing irritation over the concept of mutual assured destruction, in particular since it was discouraging the development of operational nuclear options which might be an alternative to an all-out nuclear attack. There was a growing tendency to make the United States deterrent more credible by making it possible to fight a nuclear war in a non-suicidal manner. It was thought therefore that a greater capability had to be developed to use nuclear forces in a rational and less apocalyptic fashion.

49. Responding to the new strategic thinking in the United States, and to strong criticism in Europe against the doctrine of massive retaliation which was no longer considered credible, NATO, at its December 1967 ministerial meeting, adopted the strategy of flexible response which, according to the official communiqué, was "based upon a flexible and balanced range of appropriate responses, conventional and nuclear, to all levels of aggression or threats of aggression. These responses, subject to appropriate political control, are designed, first to deter aggression and thus preserve peace; but, should aggression unhappily

occur, to maintain the security of the North Atlantic Treaty area within the concept of forward defence."

50. It should be noted, however, that the intended significant enlargement of NATO's conventional capabilities which was an integral part of the concept of flexible response was never really implemented on a large scale, sufficient to make the concept effective.

51. In 1974, the on-going search for alternative options resulted in the "Schlesinger doctrine", the central objective of which was to have a very wide range of options for the hypothetical employment of central strategic forces with a bias on the development of smaller strikes which were to be counter-force rather than counter-city in character. The objective was to limit the chances of uncontrolled escalation and hit meaningful targets with a sufficient accuracy-yield combination to destroy only the intended target and to avoid widespread collateral damage.

52. Stimulated by events in the Yom Kippur war of October 1973, there was a growing conviction that new technologies for conventional weapons could raise the nuclear threshold (diminish the threat of recourse to nuclear weapons).

53. During the sixties, even in Europe, there had been growing doubts that the short-range so-called tactical nuclear weapons, while forging a welcome direct link between the defence of Western Europe and the United States nuclear forces, could be put to any good use in an actual conflict. Their yield was disproportionate in relation to their task and it was realised that their employment would lead to extensive collateral damage in the territory to be defended.

54. Efforts to modernise these weapons and make them more usable, led to the acrimonious "neutron bomb" debate, which remained unresolved (1976-77). Even during the debate on theatre nuclear forces, there was a determined will within the alliance to reduce the total number of nuclear warheads at its disposal to the lowest possible level still consistent with the maintenance of credible deterrence. At Montebello, NATO ministers decided to withdraw 1 400 warheads from the European theatre during the coming years, which would bring to 2 400 the total number of warheads removed from Europe since 1979. The Soviet focus on development of intermediate-range systems which could be employed against rear échelons and cities in the European theatre led to NATO'S December 1979 decision to deploy 572 United States intermediate-range ballistic and cruise missiles on European soil. As an integral part of the modernisation decision, ministers also decided that 1 000 United States nuclear warheads were to be withdrawn from Europe as soon as possible. Even if Europeans were aware that such European-based sys-

tems, which could strategically threaten the Soviet Union, might weaken the link between European security and the United States strategic forces, they had asked for it themselves to make up for the growing NATO/Warsaw Pact asymmetries in this field.

55. At the same time, however, it was decided to seek arms control negotiations with the Soviet Union involving theatre nuclear forces (TNF) in order to achieve a more stable overall nuclear balance at lower levels of armaments and to advance détente.

56. After years of discussions and negotiations, the United States and the Soviet Union signed the intermediate-range nuclear forces (INF) treaty in December 1987. This treaty involved the removal of 470 long-range INF missiles (SS-20s and SS-4s) and 387 short-range INF missiles (SS-12-22s and SS-23s) deployed by the Soviet Union, as well as 429 United States Pershing IIs and ground-launched cruise missiles. It was the first disarmament agreement ever to reduce, rather than just limit, nuclear weapons.

57. The conclusion of the START I (20th July 1991) and START II (January 1993) treaties is dealt with elsewhere in this report.

58. At the NATO summit meeting in London in July 1990, it was concluded that "the alliance must maintain for the foreseeable future an appropriate mix of nuclear and conventional forces based in Europe". Negotiations on short-range nuclear forces were expected to start soon.

59. It was also stated that the allies would reduce their reliance on nuclear weapons. Finally, it was said that nuclear weapons would "continue to fulfil an essential rôle in the overall strategy of the alliance to prevent war by ensuring that there are no circumstances in which nuclear retaliation in response to military action might be discounted". It was added: "However, in the transformed Europe, they will be able to adopt a new NATO strategy making nuclear forces truly weapons of last resort".

60. 'President Bush then took a number of unilateral initiatives on nuclear arms reductions in September 1991, while asking the Soviet Union to act in the same way. He announced that the United States would withdraw all its nuclear artillery shells and all nuclear warheads for its short-range ballistic missiles to the United States. These and any similar warheads currently stored in the United States would be dismantled and destroyed.

61. Furthermore, the United States would remove all tactical nuclear weapons, including nuclear cruise missiles, from its surface ships and attack submarines. It would also remove nuclear weapons associated with land-based naval aircraft. Many of these weapons would be dismantled and destroyed with the remainder being placed in secure central storage areas.

62. All strategic bombers would be removed from day-to-day alert status and their weapons returned to storage areas.

63. He also announced that development of the Peacekeeper ICBM rail garrison system and the mobile elements of the small ICBM programme had been terminated and that the small single warhead ICBM would be the sole remaining United States ICBM modernisation programme.

64. The United States would immediately stand down from alert all United States ICBMs scheduled for deactivation under START. After ratification of START, it would accelerate their elimination.

65. Significantly, the President also proposed discussions with the Soviet Union to explore co-operation on nuclear command and control, warhead security and safety, and safe and environmentally responsible storage, transportation, dismantling and destruction.

66. It is quite clear from all this, and especially from the last proposals to the Soviet Union, that there had been a shift in United States thinking from deterrent strategies towards eliminating and controlling as many nuclear weapons as possible.

67. Following these proposals, NATO ministers, meeting in Taormina in October 1991, assessed that there was no longer any requirement for nuclear ground-launched, short-range ballistic missiles and artillery. They stated that "In addition to the elimination of ground-launched nuclear systems, the number of air-delivered weapons in NATO's European stockpile will be greatly reduced. The total reduction in the current NATO stockpile of sub-strategic weapons in Europe will be roughly 80%."

68. Furthermore, it was said that "since conventional forces alone could not ensure war prevention they would continue to base effective and up-to-date sub-strategic nuclear forces in Europe, but these would consist solely of dual-capable aircraft, with continued widespread participation in nuclear rôles and peacetime basing by allies." Finally, almost out of an old habit, it was stressed that "sub-strategic nuclear forces committed to NATO continue to provide the necessary political and military link to NATO's strategic nuclear forces and an important demonstration of alliance solidarity."

69. At the following summit meeting in Rome in November 1991, the new strategic concept of NATO was adopted and again it was stressed as usual that "the supreme guarantee of the security of the allies is provided by the strategic nuclear forces of the alliance, particularly those of the United States." Specific mention was made of "the independent nuclear forces of the United Kingdom and France, which have a deterrent rôle

of their own, contribute to the overall deterrence and security of the allies".

70. Then it was stated that through many recent and radical changes in Europe's security situation "NATO's ability to defuse a crisis through diplomatic and other means or, should it be necessary, to mount a successful conventional defence would significantly improve".

71. After this, there followed a sentence which was agreed to only after some discussion, but which in the end was swallowed by all the European allies: "The circumstances in which any use of nuclear weapons might have to be contemplated by them are therefore even more remote." It had been a long road from massive retaliation to the new strategic concept.

### *III. The decision-making process in NATO*

72. Since any use of nuclear weapons in the framework of NATO's defence arrangements might have serious consequences for all allies, many of its non-nuclear member states have attached great importance to obtaining influence over the decision-making process or being involved in control over the alliance's joint nuclear forces.

73. Such wishes were met in different ways.

- From the late 1950s, Belgium, France, Germany, Italy, the Netherlands, Turkey and the United Kingdom have owned nuclear-capable systems which in times of war could deliver United States nuclear devices. It was stipulated, however, that both in peacetime and in war, the United States retained control of these nuclear weapons, including the veto power over their use. All other United States nuclear weapons, even if assigned to NATO's SACEUR where their use could be requested by both the United States and its NATO allies, also remained under the United States decision-making authority.
- In 1962, the "Athens guidelines" stated that the United States allies would be consulted before a decision to resort to the use of nuclear weapons "time and circumstances permitting".
- In 1967, the Nuclear Planning Group was established, in order to allow for advance consultation of the principles on which the use of nuclear weapons would be decided.
- In the framework of semi-annual WINTEX/CIMEX exercises, crisis con-

2. France renounced these arrangements when it left NATO's integrated military structure in 1966.

sultation procedures were rehearsed with participation of high level government officials and ministers.

#### *IV. The United States*

##### *(a) United States nuclear forces*

74. The annual report of the Secretary of Defence submitted to the President and the Congress in January 1994, provides the most recent official overall statement on the defence policy of the United States.

75. The report states that improving relations with Russia has made the threat of a massive nuclear attack on the United States less likely than it was in the past. It adds, however, that even under START II, Russia will retain a sizable nuclear arsenal and that the future political situation in the country remains highly uncertain. The two basic requirements to guide planning for United States strategic nuclear forces are said to be:

- the need to provide an effective deterrent while remaining within the limits of START I and II;
- the need to allow for additional forces to be reconstituted in the event of a reversal of the currently positive trends.

76. Pending the result of the current nuclear posture review and START II ratification and implementation, it is expected that by the year 2003 the United States strategic arsenal will include at most:

- 18 Trident submarines equipped with C-4 and D-5 missiles;
- 500 Minuteman III missiles, each carrying a single warhead;
- 48 B-52 H bombers equipped with air-launched cruise missiles (ALCM-Bs and advanced cruise missiles);
- 20 B-2 stealth bombers carrying gravity bombs.

77. With the entry into force of START I and II, all Minuteman III missiles will be downloaded to a single warhead. Implementing START II, the Peacekeeper system will be retired by the year 2003 or earlier, with the option to transfer its Mark 21 highly-safe warhead to the Minuteman III. With no new intercontinental ballistic missiles under development, the Department of Defence is exploring new ways of preserving key industrial technologies.

78. The remaining seven pre-Ohio class nuclear powered ballistic missile submarines (SSBNs) will be phased out of the strategic force in 1994-95. After 1997, the 18 Ohio-class SSBNs

will then form the bulk of the United States nuclear deterrent for the indefinite future. A decision to retrofit the Ohio-class SSBNs, already commissioned and currently carrying the C-4 missile, with the more modern C-5 missile will be made in 1995.

79. Presently, the United States long-range bomber force includes 84 B-1Bs and 64 B-52Hs. The first B-2 stealth bomber was delivered in December 1993. It has been decided that the B-1B bomber will soon be reoriented to a purely conventional rôle.

80. As regards the inventory of nuclear bomber weapons, it has been decided to retire the short-range attack missile (SRAM-A), while the procurement objectives for the advanced cruise missile (ACM) have been scaled back from 1 460 to 460. Some ALCM-Bs have been converted to conventional cruise missiles while others, together with some gravity bombs, have been retired or placed in storage.

81. The Defence Secretary, William Perry, stated recently that the United States would maintain the nuclear triad (land-based, sea-launched and air-launched missiles) as long as elements from all three forces remained active. On the other hand, he saw no basis for expanding new funds to build new systems. The fact that there are no procurement funds for land-based ICBMs would, in his view, eventually lead to their obsolescence and to a situation where the United States nuclear forces would consist only of sea-launched ballistic missiles and bombers.

82. At present, funds are available for the safety-related modernisation of the ICBMs, upgrading them to make sure they are viable until the year 2020. The Defence Secretary argued that the new generation of SLBMs would have an accuracy very close to those of ICBMs, which might add another reason for not maintaining the ICBMs. He added that the principal argument for maintaining a strong bomber force was the dual purpose of bombers, which have both conventional and strategic capabilities. The principal determining factor on the size of the bomber force would be the extent to which they could be used to support conventional warfare purposes<sup>3</sup>.

##### *(b) United States nuclear posture review*

83. In October 1993, the Defence Secretary, Les Aspin, initiated a nuclear posture review, the first major overhaul of the United States nuclear doctrine and policy for more than a decade, which should lead to a presidential decision before the end of 1994. At the same time, the National Security Council under Presidential Review Directive

3. Hearing of the House Appropriations Committee (Defence Subcommittee), 24th February 1994.



34, has started to prepare a decision on the total level of nuclear armaments that should be aimed at in a new round of arms negotiations with other nuclear powers. It will also examine the question whether nuclear material removed from retired weapons should be stored or destroyed.

84. At present, nuclear weapons planning and operations of the United States are formally governed by National Security Decision Directive 13, signed by President Reagan in 1981, while the nuclear arsenal has been reduced by more than half since that year.

85. Work has been divided into six main areas of interest, each of which is being studied and discussed in a specific working group.

- *Working Group I – Rôle of nuclear weapons in United States security.* This working group is dealing with fundamental questions such as the purpose of nuclear weapons, the strategy of deterrence and the closely-related targeting of objectives, and also questions connected with possible no-first-use. Although Russia is still considered to be the main determining factor, pariah states will also be taken seriously into consideration.
- *Working Group II – Force structure and infrastructure.* Among other things, this working group is discussing the force sizing rationale, the need for maintaining the existing triad, the mix of strategic and theatre forces and the relationship between nuclear and conventional forces. Another important issue here is the conditions requiring a national missile defence.
- *Working Group III – Force operations,* is going into the type and structure of response options, operating practices and command and control requirements. It also investigates better control of hair trigger situations.
- *Working Group IV – Safety and Security,* is concerned with, among other things, improvements to reduce the risk of accidental or unauthorised use, physical security improvements and the potential for safety improvements after the coming into force of a comprehensive test ban treaty. Technology-sharing with other nations is also considered an important issue.
- *Working Group V – Alternative United States nuclear postures and counter-proliferation policy,* is discussing the possible further integration and implementation of the earlier counter-proliferation initiative in United States nuclear policy.

– *Working Group VI – Alternative United States nuclear postures and threat reduction policy,* is discussing present and future options for formal agreements, possible reciprocal unilateral steps and alternatives in case START I and START II are not fully implemented. It is also looking at the potential for mutual reinforcement between force posture and threat reduction policy towards the former Soviet Union.

86. Officials involved in the nuclear posture review are well aware of possible consequences for the structure of NATO, which is one reason why, in that framework, high-level group meetings have been planned to ensure allied input. They have also been eager to declare that commitments towards the allies will not change and that any possible changes in United States nuclear posture will be evolutionary rather than revolutionary.

87. Department of Defence officials have emphasised that in the current discussions on the nuclear posture review, no suggestion has been made to eliminate the approximately 700 United States tactical bombs that remain deployed with United States and allied forces in Belgium, Germany, Italy, the Netherlands, Turkey and the United Kingdom.

88. Although the issue of nuclear weapons attracts little attention in the present public political debate in the United States, a lively discussion is taking place among defence specialists. Critics of the present administration point out that in the nuclear posture review, the Clinton administration should in any case try to avoid implementing unilaterally-declared cuts in United States nuclear forces more rapidly than the Russians, or than it is obliged to do according to its own treaty obligations.

89. Second, doctrinal shifts should be avoided, since they could do irreversible damage to the credibility of United States forces. In this framework, a no-first-use declaration and abandonment of the extended deterrence would be very undesirable further stages which would result in making the United States commitment to security in Europe less credible.

90. Third, decisions to make further cuts in essential elements of the nuclear forces and a failure to maintain the full nuclear infrastructure could easily lead to an irreversible erosion of the nuclear capability. A number of single warhead ICBMs based on United States territory should be maintained in any configuration of future United States nuclear forces. Not only are they less costly than SLBMs and highly accurate, but since they are potential targets for an adversary, they would enhance the credibility of extended deterrence.



91. Apparently, no final conclusion can be drawn from the debate whether nuclear weapons have a deterrent rôle in regional conflicts where proliferant nations possessing nuclear weapons or other weapons of mass destruction are involved.

92. Some strategists suggest that during the Gulf war, the presence in the Persian Gulf of aircraft-carriers with nuclear weapons on board may well have deterred Iraq from using weapons of mass destruction.

93. Others say that the possible threat of the use of nuclear weapons was not a significant factor in the course of the war due to the presence of an extremely real threat of the use of conventional precision weapons with sufficiently devastating effects, as events have shown.

94. It has also been argued that the possession of an overwhelming arsenal of nuclear weapons by the superpowers is not enough to deter other smaller states from developing nuclear weapons or other weapons of mass destruction.

95. Although many political strategists enumerate the many advantages for the United States of having a vast nuclear arsenal at its disposal, others suggest that the United States military, confronted with the necessity of making a choice in view of important budget cuts, would prefer to have conventional precision weapons rather than a large arsenal of nuclear weapons which could only be used, if at all, in extreme circumstances and certainly not in the more likely contingencies of the post-cold war world.

*(c) The counter-proliferation initiative*

96. The United States considers nuclear proliferation as one of the most urgent and direct threats to its own security and its interests abroad, a perception which was confirmed once again in the September 1993 bottom-up review of the Department of Defence. In the government's opinion, the risks of proliferation have greatly increased with the break-up of the former Soviet Union.

97. In the former Soviet Union, nuclear weapons were deployed on the territory of four different states which were going through a period of profound political and economic transition. Indeed, nuclear disarmament agreements have been concluded, but there is a risk that nuclear weapons, material or technology may find their way to a black market or that expertise in the field of nuclear weapons would come into the hands of would-be proliferators. It is also observed that any possible influence which the former Soviet Union has exercised over its former client states has diminished.

98. Another important factor increasing non-proliferation risks is the large-scale diffusion

of modern technology through an increased volume of world trade.

99. Considering that a policy of non-proliferation, where prevention is the leading objective, would not be enough, former Defence Secretary, Les Aspin, on 7th December 1993, presented a counter-proliferation initiative aimed at protection.

100. With prevention on the one hand and protection on the other as the two fundamental goals, the initiative intends:

- to strengthen the Department of Defence's contribution to the government's efforts to prevent the acquisition of weapons of mass destruction or reverse it diplomatically where it has occurred. In particular, it contributes to these efforts through marshalling its technical, military and intelligence experience to improve such activities as arms control compliance, export controls, inspection and monitoring;
- to protect United States interests and forces and those of its allies from the effects of weapons of mass destruction in the hands of hostile forces through assuring that equipment, doctrine and intelligence are available to confront an opponent in possession of such mass destruction weapons.

101. An essential element of this initiative is the procurement of new weapons systems and military equipment. Among these are improved non-nuclear penetrating munitions to destroy underground installations, better systems to hunt mobile missile systems and the development of an improved theatre ballistic missile defence system without undermining the ABM Treaty. A military planning process is being developed for dealing with adversaries who have weapons of mass destruction.

102. Efforts are being made to improve, in particular, the military counter-proliferation intelligence in the development of nuclear and other weapons of mass destruction.

*(d) The United States nuclear posture – can any conclusions be drawn for the future?*

103. The current debate in the United States on the rôle and utility of its nuclear weapons is rather confusing for any European trying to relate it to Europe's security. Many different proposals are being made, ranging from the suggestion to develop "smart", low-yield nuclear weapons which could be used in third-world contingencies, especially when the third-world possessors of weapons of mass destruction are involved in the proposal to eliminate nuclear weapons from the

United States arsenal because they will never be used anyway.

104. Both political and military strategists are stressing the importance of nuclear weapons because of their deterrent rôle. On the other hand, it seems that the military are reluctant to attach too much importance to nuclear weapons because of their rapidly-diminishing rôle in the new international environment.

105. For the time being, the United States will certainly retain a triad of nuclear weapons sufficient to provide a secure retaliatory capability to deter the use of nuclear weapons by "hostile and irresponsible countries". It is also true that after the implementation of START II at the beginning of the next century, the United States will still have a formidable arsenal of around 3 000 nuclear warheads.

106. On the other hand, the paradoxical character of nuclear weapons has increased. The sudden elevation of third world countries to the status of ruthless enemies on a par with the Soviet Union during the cold war is becoming a principal rationale for retaining a United States nuclear deterrent. Former Defence Secretary, Les Aspin, indeed argued that the only remaining nuclear threat to the United States, except for the loss of control over former Soviet nuclear assets, is a handful of nuclear-armed rogue states bent on aggression or terrorism.

107. The concept of nuclear deterrence may be redefined to include its possible use against terrorist states or rogue leaders who threaten to use their own weapons of mass destruction but military planners have also indicated that the chances are remote that the United States would use nuclear weapons in such circumstances<sup>4</sup>.

108. New nuclear threats may come from third-world countries whose leaders are called irrational and therefore undeterrable, because they may not follow the same logic as was applied by the United States and the Soviet Union in their nuclear deterrence relationship during the cold war.

109. The main reason why third world country leaders are considered to be undeterrable may well be that the threat to use nuclear weapons in a regional conflict has lost its credibility.

110. There is no reason to have any doubts over the credibility of United States extended deterrence insofar as it concerns deterrence against the resurgence of a threat from Russia with renewed imperialist intentions.

111. Over the years, the old adversaries had learned the rules of the nuclear weapons game. Nuclear deterrence has worked well in relations

between West and East and there is no, or little, reason to believe that the present or even a possibly different future leadership in Russia will not act in accordance with the many tacit understandings that have become part and parcel of the deterrence between the traditional nuclear powers which has been extremely effective.

112. There is a feeling, however, that the United States is feeling increasingly uneasy with nuclear weapons and that in fact it would prefer to eliminate them altogether. This would raise it to the level of the only superpower in the world with by far the largest effective conventional armed forces. The actual proliferation which might result in the acquisition of a limited number of nuclear weapons by smaller regional states could put the United States in an awkward position. The proliferant nation could indeed use its small or very small arsenal as a deterrence of the weak against the strong and considerably reduce United States possibilities of intervening in third world conflicts.

113. Indeed, there are many signs that the United States is trying to diminish nuclear arsenals. It has recently concluded a number of spectacular bilateral nuclear weapons reduction treaties, announced a unilateral reduction initiative, and is also pursuing a very active policy of non-proliferation and counter-proliferation.

114. It stopped producing special nuclear materials and new nuclear warheads in 1991 and announced an initiative for an international fissile material production cut-off for weapons use in 1993. All major modernisation programmes for nuclear weapons except the Trident II SLBM have been cancelled and a comprehensive test ban treaty is being promoted.

## V. *Russia*

115. During the cold war, the main form of the combat use of strategic nuclear forces in case of conflict was the delivery of a retaliatory strike, launching missiles before enemy warheads hit the territory of the USSR.

116. The option of a surprise attack was rejected. On the other hand, recent research in former East German archives has made it clear that there were plans for pre-emptive nuclear counterforce strikes in response to observation of NATO preparations for nuclear launches<sup>5</sup>. The former Soviet Union had a nuclear war fighting doctrine and strategy and, as one official declared in 1988, "while rejecting nuclear war and waging a struggle to avert it, [it] nonetheless proceeded

4. International Herald Tribune, 26th February 1993.

5. Beatrice Heuser, *Comparative Strategy*, volume 12, pages 437-457.

from the possibility of winning it<sup>6</sup>". It should, however, be noted that great care was also taken not to proceed to a nuclearisation of the conflict unless the enemy was about to do so.

117. In November 1993, Russia's new military doctrine was made public. Contrary to Soviet tradition, it was not the product of a long-term deliberation by the state's political leadership in consultation with military experts from the armed forces. The new doctrine, even if it took account of policy requirements of various groups involved in Russian policy-making, was entirely produced within the Ministry of Defence by a team established by Defence Minister Pavel Grachev. The (national) Security Council was told to approve it without discussion. On the other hand, western experts also consider the new doctrine as a key element in the Russian leadership's attempts to regain control of the armed forces and ensure the cohesion of the Russian Federation.

118. A number of Russian analysts have pointed out that there is a lack of political control over the military since the collapse of the traditional institutions controlling the entire machinery of the Soviet state. They argue that in military affairs, the military are almost controlling politics. This is not reflected only in the ongoing battle over ratification of START II, to be mentioned later in the present report, but also in the negotiations on the defence budget for 1994. In the budget for 1994, the Finance Ministry had proposed a sum of 37 trillion roubles for defence. The military have now asked for 80 trillion roubles, but negotiations might result in an allocation of 53 trillion roubles to defence, causing either a drain on the budgets of other ministries or a huge extra state deficit. The armed forces have argued that, since defence spending started to decrease in 1989, savings on the defence budget were achieved entirely at the expense of the armed forces' combat-readiness. Because of fuel shortages, many routine combat training plans were scrapped, flight training programmes were curtailed, naval vessels had to remain in the docks or at anchor, equipment was not repaired, housing construction all but stopped and fuel reserves were not replenished, to give only a few examples.

119. It is also argued that without an appropriate budget it will not be possible to carry out the Defence Minister's proposals to gradually transform the existing Russian armed forces into smaller, but also more effective, mobile and flexible forces without socio-political perturbations. It should be noted that the new doctrine avoids cold war rhetoric and does not rebuild confrontation with the West.

6. W.T. Lee, US-USSR strategic arms control agreements: expectations are reality. *Comparative Strategy*, page 417, volume 12.

120. As regards the use of nuclear weapons, the document states that Russia:

"will not use nuclear weapons against any state that is a signatory to the 1st July 1968 treaty on non-proliferation of nuclear weapons and does not possess nuclear weapons, except in the following instances: (a) an armed attack against the Russian Federation, its territory, armed forces and other troops, or its allies, by such a state that is linked by an alliance agreement with a state that does possess nuclear weapons; (b) joint actions by such a state with another state that possesses nuclear weapons that result in or support an invasion or armed attack on the Russian Federation, its territory, armed forces and other troops, or on its allies;"

121. Western analysts have interpreted the instances mentioned under (a) and (b) as clear signals to Eastern and Central European states that they turn themselves into potential nuclear targets once they join NATO.

122. In fact, the new doctrine, without stating it explicitly, has dropped the Soviet pledge of no-first-use, made in June 1982. It should be noted, however, that in the West the earlier no-first-use declaration was regarded as more a propaganda gambit in the INF debate than an element of a credible policy. In that respect, the new doctrine is seen as a down-to-earth confirmation of earlier policy. Obviously, the absence of a no-first-use declaration does not necessarily imply that Russia is developing a first-strike or pre-emptive strike nuclear strategy.

123. It should be emphasised, however, that in view of the considerable physical and psychological deterioration of its conventional forces in recent years, Russia has come to consider its nuclear forces as the only viable and credible element of its armed forces. In the near and maybe even more distant future, Russia's nuclear forces will therefore have to take on the entire burden of strategic deterrence, a policy which is indeed confirmed in the new military doctrine.

124. Russian experts have pointed out that, even after implementation of the agreed START treaties, the United States strategic nuclear forces will be able to fulfil a whole range of combat operations, including an effective first-strike, retaliatory strike and other specific responsive actions. They consider even Russia's new mobile land-based single warhead SS-25 missiles to be extremely vulnerable to destruction by a potential adversary possessing state-of-the-art satellite intelligence facilities and creating manoeuvrable warheads, whose trajectory can be corrected by commands from reconnaissance satellites.

125. Taking this into account, there can be little surprise that Russian military experts argue that the action concept of Russia's strategic nuclear forces should provide for many scenarios, be flexible and based on geostrategic reality rather than on scholastic deliberations.

126. Another consequence of the abovementioned arguments, combined with growing nationalism, various right-wing sentiments and complaints by the military on financial and technical problems in the implementation of START II, is that the ratification of the START II treaty in its present form is facing considerable resistance in the new Russian Parliament, as confirmed by recent hearings held by the Duma's defence committee.

127. It should, on the other hand, be noted that, as regards disarmament and non-proliferation, the Russian Government has emphasised the following main objectives of its policy:

- implementation of all existing arms control and disarmament agreements;
- conclusion of a comprehensive test ban treaty in the near future<sup>7</sup>;
- indefinite extension of the nuclear non-proliferation treaty, while increasing the number of participants;
- support for all efforts to increase the efficiency of an international non-proliferation régime concerning weapons of mass destruction, ballistic missiles and dual-use technology;
- improving the framework of confidence-building measures.

128. Regarding its relations with Western Europe, Russia is aware of the important changes taking place in the framework of the WEU member states' objective to develop this organisation as a vehicle of Europe's defence identity.

129. There is a strong feeling in Russia that it should not be excluded from developments in Europe. Even if it is understood that at present it would not be realistic to create an associate partnership between Russia and WEU, the Russian Government argues that steps should be taken to establish a pragmatic relationship which should include systematic political consultations at ministerial level, regular contacts at the level of defence experts and co-operation in such fields as satellite monitoring. It is understood that this might require formal decisions by the WEU

7. The new military doctrine is using a slightly different wording and speaks of the establishment of a dialogue between states possessing nuclear weapons on the problems of nuclear testing, for the purpose of reducing them to a minimum necessary to maintain nuclear security, but not permitting the improvement of nuclear weapons, leading later to their complete prohibition.

Council, but such steps, it is emphasised, might help to take away or diminish a growing feeling of isolation in Russian society. Russia considers a good working relationship between Russia and the European Union/Western European Union to be extremely important for the maintenance of peace and security in Europe.

#### *Russia's nuclear forces*

130. Notwithstanding recent reductions in its nuclear forces, the Russian leadership, strongly supported by the military, is determined to maintain Russia as a nuclear superpower. In that framework, modernisation of the nuclear forces is being continued. A new underground command post is under construction in the Ural mountains.

131. As regards ICBMs, new SS-18s and single warhead SS-25s are being deployed. A successor to the SS-25, now under development, is expected to be flight tested and deployed before the year 2000. Under the START II treaty terms, up to 90 of the SS-25 missiles may be deployed in converted SS-18 silos.

132. The production of SSBNs (nuclear-powered ballistic missile submarines) has been halted and it is believed that of a total of 27 only one to six are on patrol at any given time. Russia has started to modify its Typhoon Class submarines to carry the more accurate SS-N-20 follow-on SLBM.

133. The future of the air force component of Russia's strategic nuclear forces is rather vague. A large number of heavy bombers was deployed on the territories of Ukraine and Kazakhstan which have claimed them as their property. As a result, Russia has only 27 heavy bombers capable of carrying cruise missiles, and 52 bombers armed with nuclear bombs. The relatively low cost-effectiveness of heavy bombers, which is virtually unsustainable during an economic crisis, has contributed to Russia's present policy not to strengthen this component of the nuclear triad.

134. Further production of strategic bombers – Blackjack and Bear-H – has been halted after a January 1992 announcement by President Yeltsin in which he also announced that no further long-range ALCMs would be produced. Later in 1992, President Yeltsin said that Russia would unilaterally halt the production of medium-sized bombers.

135. On the other hand, for the time being, strategic bombers will remain part of the nuclear forces because of certain well-known advantages which contribute to the flexibility of such forces. As already noted elsewhere in the present report, they are armed with various nuclear weapons, can attack unplanned targets and return to base in case of changes in the situation or a false alarm.

136. On 29th January 1992, President Yeltsin also announced that Russia would destroy all the nuclear warheads associated with tactical ground-launched weapon systems and that it would not produce any new ones to replace them. In February 1993, it was announced that all tactical nuclear weapons had been withdrawn from ships and submarines.

## VI. The START treaties

### (a) START I

137. The first START treaty (START I)<sup>8</sup> was signed in Moscow on 30th July 1991 by Presidents Bush and Gorbachev after more than six years of negotiations. The treaty calls for reductions in nuclear force levels to 1 600 delivery vehicles (SNDVs) and 6 000 strategic nuclear warheads. The number of warheads would actually be closer to 7 000-9 000 per side owing to the specific nature of counting rules. START I counts launchers rather than the missiles themselves, nor does it call for the destruction of warheads or missiles. It establishes significantly-reduced limits for intercontinental ballistic missiles (ICBMs) and their associated launchers and warheads, for submarine-launched ballistic missiles (SLBMs), their launchers and warheads and for heavy bombers and their armaments, including long-range nuclear air-launched cruise missiles.

138. Verification of the START I treaty depends on three basic elements: (i) *National technical means of verification (NTM)*. Under the treaty, the parties undertake not to interfere with NTM and provide for co-operative measures to enhance NTM. Specific provisions require the transmission of telemetric information from each ballistic missile during flight test and ban any technique denying full access to telemetric information. (ii) *Exchange of data on treaty-limited systems and related facilities*. These exchanges include numbers, locations, technical data, site diagrams and photographs. (iii) *On-site inspections*. There are 12 different types of inspections.

139. The break-up of the USSR at the end of 1991 prevented ratification by the Supreme Soviet (which dissolved itself on 26th December 1991). After some hesitation about how to treat the four newly-independent former Soviet republics which retained strategic nuclear weapons, the Foreign Ministers of the five countries now involved signed the Lisbon Protocol on 23rd May 1992, which provided that Belarus, Kazakhstan, Russia and Ukraine would become parties to START I and assume the responsibilities which

the former Soviet Union had taken in signing the START I treaty. Under the protocol and attached letters, all nuclear weapons would be withdrawn from Belarus, Kazakhstan and Ukraine by the end of the seven-year implementation period, and Russia would become the sole nuclear weapon state (NWS) on the territory of the former Soviet Union. The protocol required the four republics to allocate responsibility among themselves.

140. The *United States* Senate consented to ratification on 1st October 1992 pending completion of implementation arrangements among the four republics. Like Russia, the United States conditioned its ratification of the START I treaty on the ratification of START I and nuclear non-proliferation treaties (NPT).

141. *Russia* ratified the START I treaty on 4th November 1992 but delayed the exchange of instruments of ratification until Belarus, Ukraine and Kazakhstan had joined the NPT and made arrangements for implementing the treaty. Russia succeeded to the position of the USSR in the NPT as a NWS.

142. In Belarus, Kazakhstan and Ukraine the situation regarding ratification and implementation of START I was more complicated. Each of these republics had its own specific reasons for hesitating to take the final step and ratify START I.

#### (i) Kazakhstan

143. Kazakhstan initially remained aloof but was the first republic to ratify START I as early as 2nd July 1992. NPT ratification was approved in a 238 to 1 vote by the parliament of Kazakhstan on 13th December 1993 and instruments of accession were deposited with the United States in February 1994.

144. When the Soviet Union disintegrated, Kazakhstan inherited 370 nuclear bombs and 1 040 warheads on 104 SS-18 ICBMs. According to the Lisbon protocol, these bombs and warheads were to be transferred to Russian territory and dismantled, leaving a nuclear-free Kazakhstan protected by a Russian nuclear umbrella. Not surprisingly, Kazakhstan had two nagging concerns about this plan: first, it was concerned over its national security because it occupies a large territory, does not have a large population and is geographically situated between Russia and China, where the possibility of cataclysm cannot be completely ruled out; second, Kazakhstan needed substantial financial aid to complete its nuclear disarmament given the country's economic problems.

145. In February 1993, President Nazarbayev listed, among others, the following conditions that could accelerate the process of nuclear disarmament in his country: security guarantees; the possibility of recycling the ballistic missiles for commercial launching; a share of the hard currency

8. Treaty between the United States of America and the Union of Soviet Socialist Republics on the reduction and limitation of strategic offensive arms.

given by the West to facilitate nuclear disarmament in the former Soviet Union; ownership of the uranium and plutonium recovered from warheads taken from Kazakh soil.

146. Under Kazakh law, the nuclear warheads and bombs which it inherited from the former Soviet Union are Kazakh property. It should be noted, however, that Kazakh leaders have never had control over these nuclear weapons.

147. At present, Kazakhstan is behind schedule in transferring nuclear weapons to Russia. Asked why it was taking so long to move nuclear weapons out of Kazakhstan, President Nazarbayev replied that dismantlement and destruction of the silo-based multiple-warhead missiles was a labour-intensive process which required complicated technical decisions and considerable financial means not available in the republic at this time.

148. However, President Nazarbayev is strongly oriented towards his country's integration into the world economy and into the "civilised" international community. He is therefore unlikely to disregard treaty obligations.

149. On 13th December 1993, President Nazarbayev signed the umbrella and implementing agreements for United States aid to dismantle nuclear weapons on its territory.

150. On 25th December 1993, Russia agreed to take responsibility for dismantling and removing nuclear weapons in Kazakhstan. The latter would receive a portion of the proceeds generated by the sale of nuclear weapons components removed from its territory.

151. On 22nd January 1994, President Nazarbayev stated that Kazakhstan would seek compensation for the nuclear weapons on its territory as part of a deal similar to the trilateral statement made by Russia, Ukraine and the United States on 14th January 1994.

152. After many requests for more money than had been offered and various threats to keep the nuclear weapons, President Nazarbayev finally deposited Kazakhstan's instruments of accession to the NPT with the United States, formally joining the treaty as a non-nuclear weapon state (NNWS) during his visit to Washington in February 1994. At the same time, a number of co-operation agreements were signed, including a memorandum of understanding on defence co-operation. In addition, the United States promised to provide about \$396 million in aid to Kazakhstan including \$85 million designated as Nunn-Lugar assistance for dismantling nuclear weapons in Kazakhstan. In 1993, Kazakhstan actually had received \$91 million in aid. Sources in Russia's Defence Ministry have stated that at the end of 1993, Kazakhstan had deactivated 12 of the 104 SS-18s on its soil.

153. On 28th March 1994, President Yeltsin and President Nazarbayev signed various agreements, one of which concerns the disposition of nuclear forces in Kazakhstan. According to Russia's Independent Television, the agreement provides for Russia's assumption of jurisdiction over the nuclear forces in Kazakhstan, with all warheads to be removed within 14 months. Silos and missiles in Kazakhstan would be dismantled within three years. Complete details of the dismantling process have not been revealed, nor is there any information on whether, or how, Kazakhstan might be compensated for the highly-enriched uranium in the warheads.

*(ii) Belarus*

154. Belarus ratified the START treaty on 4th February 1993 and joined the NPT on 22nd July 1993. It intends to become a nuclear-free zone. Originally, Belarus stated its objective to remain neutral and stay out of the CIS security system. However, this proved not to be immediately possible. Belarus was not in a position to declare an independent security policy and it had no choice but to sign the CIS agreement on common security on 9th April 1993. Article X, part 3, of this agreement allows the territory of Belarus, with permission of its parliament, to be used as a site for other countries' military bases and installations.

155. In January 1992, there were 81 single-warhead SS-25s on the territory of Belarus. Of these, 27 were taken off alert in October 1992 and transferred to Russia in 1993. Meanwhile, the jurisdiction and control of all these weapons had been turned over to Russia. Their transfer to Russia and destruction was originally planned for 1993 and 1994.

156. Later, on 24th September 1993, the Belarussian and Russian Prime Ministers signed an agreement on the withdrawal schedule for Russian strategic nuclear forces, setting completion for the end of 1996. The Belarussian Supreme Soviet ratified this agreement on 25th November 1993. The United States praised Belarus for its willingness to remove nuclear weapons from its soil.

157. By the end of 1993, officials of the Belarussian Defence Ministry disclosed that Belarus had transferred 27 of the 81 SS-25s to Russia. Belarus has dismantled 9 of the remaining SS-25s deployed on its territory. Russia planned to redeploy the single warhead ICBMs rather than dismantle them.

158. On 15th January 1994, President Clinton promised Belarus \$50 million in additional aid, including \$25 million in assistance for transferring nuclear weapons to Russia.

159. According to the most recent reports, the approximately 54 remaining missiles in Belarus are to be removed by the end of 1994.

*(iii) Ukraine*

160. Ukraine's initial reaction after the break-up of the Soviet Union was essentially anti-nuclear. In 1990, the Rada, Ukraine's parliament, solemnly proclaimed its intention for Ukraine to become a permanently neutral state, taking no part in military blocs and abiding by three non-nuclear principles of not accepting, producing or acquiring nuclear weapons. The radical non-nuclear policy of the declaration can be explained by the circumstances in which it was conceived. It was hoped that radical denuclearisation would favourably impress the West and thus secure international recognition. Apart from that, the legacy of Chernobyl was playing an important rôle and the non-nuclear policy was conceived without military input.

161. In conformity with the declaration and agreements made earlier with Russia, Ukraine began to transfer all its tactical nuclear weapons to Russia for destruction by May 1992. This left Ukraine in possession of only 176 ICBMs (130 SS-19s and 46 SS-24s) with 1 240 warheads, and 41 strategic bombers (Tu-95 Bears and Tu-160 Blackjacks) carrying 328 air-launched cruise missiles. However, even before the transfer of tactical nuclear weapons was completed, Ukrainians began to debate the wisdom of abandoning their nuclear arsenal and Ukraine's Rada blocked moves to transfer the missiles to Russia for dismantling.

162. Ukraine delayed ratification of START I and accession to the NPT for several reasons:

- fear of Russia and growing tensions between the two countries. Ukraine was seeking security guarantees from Russia, the United States and the United Kingdom (as depositories of the NPT);
- as a bargaining chip to obtain more economic aid under the guise of meeting the costs of dismantling and eliminating the nuclear weapons based on its territory and to be guaranteed its share of the money raised by the sale of fissile material recovered from nuclear warheads after dismantling;
- a belief that the possession of nuclear weapons adds to security, provides a powerful deterrent and increases influence and prestige in the international field;
- a belief that its continued possession of nuclear weapons was a means of strengthening its hand in the negotiation on the division of the Black Sea fleet between Ukraine and Russia and on potential border problems.

163. On 3rd July 1993, the Rada proclaimed its ownership of all nuclear weapons on its territory.

However, it also declared its intention not to use or threaten to use them and its intention to become a non-nuclear weapon state.

164. On 16th July 1993, Ukraine's Minister of Defence announced that 10 SS-19 ICBMs were being dismantled.

165. On 4th September 1993, the Massandra nuclear weapons agreements were signed, arranging for the removal of nuclear warheads from Ukraine. Russian officials indicated that 17 months would be needed to dismantle and remove the warheads. Within one year after the removal, Ukraine would receive the uranium fuel or the profit from the sale of uranium. The Rada said, however, that the withdrawal schedule required further negotiation.

166. On the other hand, in November 1993, the Rada did at last ratify START I but with so many conditions that progress on implementation was still blocked.

167. In January 1994, a trilateral agreement was signed by the United States, Russia and Ukraine in Moscow, which provided Ukraine with compensation for transferring all nuclear weapons on its territory to Russia. Ukraine agreed to dismantle all of the nuclear weapons on its territory "in accordance with the relevant agreements and during the seven-year period as provided by the START I treaty and within the context of the Rada's statement on the non-nuclear status of Ukraine".

168. Ukraine would begin the process by removing the warheads from all 46 SS-24s within 10 months. Russia would ensure the safety of the warheads in Ukraine and Ukraine would provide the "conditions for Russia to carry out these operations".

169. The agreement did not establish a formal timetable for removing warheads to Russia (calling for completion within "the shortest possible time"), but one official said Ukraine would become nuclear-weapon-free within three years. Ukraine had asked to omit the three-year timetable from the statement to avoid antagonising the Rada, which had called for a slower pace. The accord also provided Ukraine with monitoring rights to verify that Russia actually dismantled the warheads.

170. The Presidents recognised the importance of compensation to Ukraine for the value of the highly-enriched uranium (HEU) in nuclear warheads located on its territory. In return for the transfer of "at least 200" warheads from SS-19s and SS-24s to Russia over the next 10 months and if Ukraine reached a safeguards agreement with the IAEA, it would receive 100 tons of nuclear fuel over the same time period. The uranium from warheads in Ukraine, valued by some officials at \$1 billion, would be mostly returned to Ukraine in



the form of fuel rods. Ukraine would also receive a portion of the proceeds from Russian uranium sales to the United States. To fund the initial 100-ton transfer, the United States would advance \$60 million to Russia under the HEU sales contract<sup>9</sup>. Compensation for the tactical nuclear weapons already withdrawn apparently remained an open issue.

171. Russia and the United States also offered a series of security guarantees to Ukraine once START entered into force and Ukraine joined the NPT as a non-nuclear weapon state. The two nations, joined by the United Kingdom, would:

- respect Ukraine's borders in accordance with the principles of the CSCE final act;
- refrain from threatening to use force;
- seek United Nations Security Council action to assist Ukraine if it were attacked by, or threatened with, nuclear weapons;
- not use or threaten to use nuclear weapons against Ukraine.

172. Ukraine had sought broader guarantees but nonetheless saw it as "critical" to have a document signed by both Russia and the United States.

173. On 20th January, the Rada opened its 1994 session and started to discuss the agreement. It appeared that many Ukrainian nationalists still wished to retain the newer SS-24s for self-defence, especially after the ultra-nationalist victory in last December's parliamentary elections in Russia. However, there seems to be a consensus in Kiev that ageing SS-19s should be dismantled because they pose enormous dangers.

174. On 3rd February 1994, the Rada dropped its conditions for ratifying START I by passing the resolution proposed by President Kravchuk, with the exception of NPT accession.

175. Some issues remain ambiguous despite the passing of the resolution. Although President Kravchuk implied that Ukraine would eliminate all the nuclear weapons on its territory, it is unclear whether that is the intent of the Rada or whether it still views only a portion of the weapons as falling under START.

176. On 8th-9th February 1994, Russia and Ukraine held the first round of talks on implementing the trilateral agreement. Two days later, Russia stopped supplying nuclear fuel to Ukraine to pressure it into acceding to the NPT.

9. Russia and the United States signed a 20-year, \$ 11.9 billion contract for the United States to purchase 500 tons of uranium salvaged from former Soviet warheads. 500 tons represent about 20 000 nuclear warheads and a three-year supply of the world's nuclear fuel demand.

177. At the beginning of March 1994, President Leonid Kravchuk, in stating that "fulfilment of agreements, including agreements on nuclear commitments, is possible only if the economy works", again cast doubt on whether Ukraine would continue to honour its nuclear disarmament commitments.

178. The President's statement came after Russia's Gazprom company, a state-owned monopoly, threatened to reduce supplies to Ukraine for the second time in a week. Ukraine is likely to remain dependent on Russia for energy supplies for many years to come because of the financial hurdles involved in building pipelines from other states.

179. On 5th March 1994, the Clinton administration announced it would double its financial aid to Ukraine to some \$700 million a year: \$350 million in economic aid and \$350 million to help the weapons denuclearisation programme. However, the United States would urge the IMF to withhold \$1 billion in loans for Ukraine unless it took more positive steps to privatise industry and curb inflation, currently running at a rate of approximately 90% a month.

180. On 21st March 1994, the Defence Secretary, William J. Perry, said the United States would add \$100 million to its \$135 million allocation to Ukraine's nuclear missile dismantlement programme. Mr. Perry signed aid agreements for dismantling nuclear missiles sited in Ukraine (\$50 million), the conversion of military industries to civilian production (\$40 million) and tighter security in the shipment and storage of nuclear weapons in Ukraine (\$10 million)<sup>11</sup>.

181. The first session of the new Rada, elected in March 1994, was scheduled for 11th May. Its position on the START treaty's implementation remains to be seen.

182. President Kravchuk stated on 14th May 1994 that 180 nuclear warheads had been removed from Ukraine to Russia. He added that, as the process of disarmament is proceeding according to plan, by the end of May all United States missiles aimed at Ukraine will be recoded and Ukraine will cease being targeted by American warheads.

183. Several reports in the Russian and western press have provided information on the Ukrainian disarmament process. Colonel General Igor Sergeev, the Commander of the Russian Strategic Rocket Forces, stated on 4th May 1994 that all SS-

10. It should be noted that the Nunn-Lugar amendment had earmarked \$175 million in aid to Ukraine, \$135 million for missile dismantlement and \$40 million for the creation of a research centre for nuclear scientists, forming a nuclear emergency response team.

11. Financial Times, 22nd March 1994.



24s in Ukraine had been deactivated and their warheads removed. He also noted that some 302 launchers in Russia had been "liquidated" as called for under START I. Also on 4th May 1994, a Ukrainian Defence Ministry spokesman said that there were only a few SS-24 missiles left to deactivate. Some 180 nuclear warheads have now been removed from Ukraine.

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184. Finally, it should be noted that the START I treaty has not yet legally entered into force as instruments of ratification have not been exchanged. The parties are, however, implementing its provisions.

#### (b) *START II*

185. On 3rd January 1993, President Bush and President Yeltsin signed the START II agreement, which is to be considered as a prolongation of the earlier START I.

186. START II, if implemented, will eliminate the most destabilising strategic weapons, heavy intercontinental ballistic missiles (ICBMs) and all other multiple-warhead ICBMs, also called MIRVed (multiple re-entry vehicle) ICBMs. It will also reduce dramatically the total number of strategic nuclear weapons deployed by both countries. The treaty includes a protocol on elimination or conversion concerning heavy ICBMs and heavy ICBM silos, a protocol on exhibition and inspection concerning heavy bombers, and a memorandum on attribution. The reduction to the ceilings set will take place in two phases.

187. By the end of the first phase, that is seven years after the entry into force of START I, each side must have reduced its total deployed strategic nuclear warheads to 3 800-4 250 warheads. Those include the number of warheads on deployed ICBMs and submarine-launched ballistic missiles (SLBMs) as well as the number of warheads for which heavy bombers with nuclear missions are equipped. Of this total, no more than 1 200 may be on deployed MIRVed ICBMs, no more than 2 160 on deployed SLBMs, and no more than 650 on deployed heavy ICBMs.

188. On 1st January 2003, by the end of the final and second phase, each side must have reduced its total deployed strategic nuclear warheads to 3 000-3 500. Of those, none may be on MIRVed ICBMs, including heavy ICBMs. Thus all MIRVed ICBMs must be eliminated from each side's deployed forces; only ICBMs carrying a single-warhead will be allowed. No more than 1 700-1 750 deployed warheads may be on SLBMs. There will be no prohibition on MIRVed SLBMs.

189. According to START II, the Americans will have to dismantle about half of their Trident I and Trident II missiles with eight warheads. By the

same date, most of the MIRVed missiles will be adapted to missiles with a single warhead. This last provision is one of the concessions made to the Russians who wish to transform 90 launching pads for their SS-18 missiles to house the SS-25. In exchange, the Russians have agreed to American inspections being carried out during the adaptation of SS-25 silos. Russia and the United States will be authorised to transform 105 of their multiple-head land missiles into single-headed missiles. This also was a claim lodged by Russia which wanted to transform 105 of its 170 SS-19 missiles, equipped with six warheads, into single-headed missiles. As far as nuclear bombers are concerned, the number of warheads on each plane will be specified in a memorandum in annex to the treaty. The Americans made a concession to the Russians on this by accepting to give them information on the number of nuclear warheads transported by their bombers, including the new B-2 stealth bombers.

### *VII. The United Kingdom*

#### *(a) The United Kingdom's nuclear forces*

190. When the United Kingdom established its nuclear forces in the 1950s, one of the main reasons was to deter aggressive action by the Soviet Union, partly compensating for the relative weakness of the nation's conventional forces as compared to those of the Warsaw Pact.

191. From the beginning, British nuclear forces were meant to be part of a collective allied effort and, since the Nassau agreement of December 1962, have been committed to NATO<sup>12</sup>. They were also intended to operate as a second centre of decision-making within the alliance in case a potential adversary would think that the United States would hold back<sup>13</sup>. It was thought that a United Kingdom decision to use nuclear weapons could trigger a United States nuclear response, an arrangement thought to be the more effective because of the presence of United States military facilities on United Kingdom territory.

192. The United Kingdom has always maintained a twofold nuclear doctrine according to which its nuclear forces were on the one hand part of NATO's spectrum of deterrence, operating under the single integrated operational plan (SIOP), while able on the other to provide massive retaliation against any aggressor attacking the nation.

12. In the Nassau statement of 21st December 1962, it was said that: "...except where Her Majesty's Government may decide that supreme national interests are at stake, these British forces will be used for the purposes of international defence of the western alliance in all circumstances."

13. The future United Kingdom strategic nuclear deterrent force (DOGD 80/23, July 1980).

193. Within the framework of both NATO and WEU, the United Kingdom has always considered its nuclear forces as being fully committed to the defence of the territory of its allies. This has been confirmed recently by the United Kingdom Secretary of State for Defence, Malcolm Rifkind, when he said that "Britain would regard her own vital interests as at stake in any attack upon an alliance member."<sup>14</sup>

194. The United Kingdom's position as regards the rôle and future of its nuclear weapons was recently made clear in a major address in London by the Defence Secretary Malcolm Rifkind on 16th November 1993.

195. Mr. Rifkind stated that although complete and general nuclear disarmament remained a desirable ultimate goal, it would be neither practical nor realistic to give up nuclear weapons in the present circumstances, where the potential still exists for serious risk to British and allied interests.

196. At present, there is a broad consensus among the main political actors of both government and opposition for retaining nuclear weapons in their rôle of minimum deterrent, understood as "posing a threat of unacceptable damage to any aggressor". Officially, this deterrent is not directed at any country in particular, but the existence of Russia as a pre-eminent military power and nuclear superpower in Europe continues to be a determining factor in decisions on the United Kingdom's future force structures and postures. Nevertheless, it is recognised that Russia must be included as part of the solution to Europe's security. It is stressed that the value of nuclear weapons does not lie in classical concepts of war-fighting or war-winning, or even in mere deterrence of the use of nuclear weapons by an adversary, but in actually preventing war. The United Kingdom is not in favour of a no-first-use declaration, because this might imply that conventional war is a safe option.

197. The United Kingdom will continue to build on its new relationship with its partners in the North Atlantic Co-operation Council through bilateral and multilateral efforts in co-operative threat reduction and attaches great importance to the prompt and full implementation of the START process.

198. Meanwhile, it considers the American nuclear guarantee of fundamental importance to the collective security of the alliance.

199. The British attitude towards nuclear co-operation with France will be dealt with in a separate chapter.

200. In general, the United Kingdom does not regard its nuclear weapons as playing an impor-

tant rôle in deterring proliferation. One of the reasons is that the motivation for a country wanting to acquire nuclear weapons is likely to be regional and such decisions will most probably not be affected by the United Kingdom's possession of nuclear weapons. It is also noted that it is questionable whether an intended deterrent will work in the absence of an established nuclear deterrent relationship.

201. The United Kingdom Defence Minister stated his thorough opposition to the development of more "usable" low-yield "smart" nuclear weapons, which according to some would allow nuclear deterrence to be effective in circumstances where existing weapons would be self-detering. Indeed, this would run counter to the British opinion that nuclear weapons cannot be used to fight a war.

*(b) The United Kingdom's nuclear force structure and weapons programmes*

202. Of the United Kingdom's four Polaris ballistic missile submarines, the first, HMS Revenge, was decommissioned in May 1992 as part of a programme to replace them by Trident submarines around the year 2000.

203. The first Trident SSBN, HMS Vanguard, is due to become fully operational by early 1995 at the latest. Each vessel can carry 16 Trident D-5 SLBMs with a range of 12 000 kilometres and an accuracy to within 100 metres of the target. The eight warheads on each missile can be independently targeted. The present Polaris missiles have a range of 4 630 kilometres, 900-metre accuracy and the three warheads are directed at the same target.

204. The United Kingdom Government recently stated that it would not deploy more than 96 Trident D-5 missile warheads, and possibly significantly fewer, instead of the 128 warheads on each of the four Vanguard class SSBNs, as announced earlier, when the latter came into service<sup>15</sup>. It should be noted here that under the START II Treaty, United States Trident II missiles can carry only four warheads each and that the United Kingdom will certainly be under international political pressure to follow suit.

205. It is reported that a total of 67 Trident D-5 missiles are to be bought from the United States.

206. Given the government's announcement cancelling its participation in a British-French development programme for a tactical air-to-surface missile to replace the WE-177 free-fall nuclear bombs by the year 2005, Trident will now also be used in a sub-strategic rôle, eventually becoming the United Kingdom's only nuclear system.

14. Address in Paris, 30th September 1992.

15. Jane's Defence Weekly, 27th November 1993.

207. Once the four Trident SSBNs are in service, the explosive power of the United Kingdom's operational nuclear inventory will have fallen by over 25% as compared with the 1990 figure.

208. As a result of important reductions in the number of tactical bomber squadrons in both the Royal Navy and the Royal Air Force, the number of WE-177 A/B gravity bombs will be reduced by over a half by the end of 1994. Meanwhile, all the WE-177 C nuclear strike/depth bombs carried by Royal Navy helicopters and aircraft have been taken out of service and destroyed.

209. Altogether, the United Kingdom has now phased out most of its tactical nuclear weapons: namely the Lance surface-to-surface missile, nuclear artillery shells and nuclear depth charges.

210. On 15th February 1994, the United Kingdom and Russia signed an agreement to detarget nuclear missiles directed at their respective countries as part of a larger framework of confidence-building measures.

211. The United Kingdom Government has launched a national programme of studies to assess the technical options, costs and performance of ballistic missile defence systems (BMD) that are available. It will decide on the basis of the £3 million study, to be presented to ministers in late 1996, whether the United Kingdom needs a BMD capability.

212. A contract for developing and manufacturing BMD weapons systems would run to several billions of pounds and, in the light of the severe cutbacks now being made in all services, it is doubtful whether the armed forces could afford such a system if priorities need to be established.

213. It should be noted that in 1989, the United Kingdom Government scrapped the surface-to-air Bloodhound missile without replacing it<sup>16</sup>.

### VIII. France

#### (a) Nuclear doctrine

214. Until the end of the cold war and, more specifically, before the collapse of the Soviet Union, France's nuclear doctrine was designed mainly on the assumption of the existence of a Soviet threat. Even today, it can be assumed that the continued presence of a formidable nuclear arsenal in Russia and in certain other republics of the former Soviet Union, still constitutes an important rationale for maintaining French nuclear deterrence, even though the government has always been very reluctant to admit this objective publicly.

215. Indeed, France has professed rather that it has no specific enemies and claims that its nuclear

deterrent is not directed against anyone in particular. Its recent revival of the phrase "tous azimuts" (all-round defence) indicates that its nuclear deterrence is directed against any power which might attempt coercion or aggression against France.

216. Other reasons for France's maintaining its nuclear arsenal are the proliferation of nuclear weapons technology and the fact that such technology, having once been invented, is likely to remain an important tool in power politics.

217. Even though France has both tactical and strategic nuclear weapons, it has never really had a strategy that included the possibility of fighting a war with nuclear weapons. What is now termed a pre-strategic use of nuclear weapons is meant to be the "final warning" before France decides on full-scale nuclear retaliation against an aggressor.

218. France's strategy has always been to maintain a credible deterrence to prevent war, not win it. If a limited "final warning" did not succeed in halting the aggressor, the logical next step could only be full-scale nuclear retaliation. In principle, a second warning would be impossible since such behaviour would cast doubt on the credibility of nuclear deterrence as an effective means of preventing aggression.

219. It is also understood that France's nuclear weapons will play a rôle only in the defence of national territory in Europe.

220. As recently as February 1991, during the Gulf war, the French Minister for Foreign Affairs declared "... nuclear weapons cannot be battlefield weapons and cannot be used except as the ultimate recourse when the national territory is threatened".

221. It should be noted that France's nuclear forces are not assigned to NATO. In 1986, France committed itself, under certain conditions, to informing the Germans in advance in the event of nuclear weapons being used against German territory, with qualifications resembling those in the 1962 Athens guidelines. Successive French governments, however, have always claimed that they cannot define their vital interests with any precision in relation to the area they would defend, if necessary, with nuclear weapons.

222. The most recent statement on the official French nuclear doctrine was made in the white paper on defence, which the government published on 23rd February 1994.

223. Confirming the main objective of France's nuclear forces, this states:

*"The French nuclear concept will continue to be defined by the will and capability to make any aggressor – irrespective of who such aggressors may be or their capabilities – fear unacceptable damage, out of all*

16. Financial Times, 16th February 1994.

*proportion to the advantage to be gained from conflict, if they seek to attack France's vital interests. In this day and age, nuclear weapons alone have this kind of capability, owing to their unsailable power of destruction. For this reason they also have the advantage of preventing generalised warfare...*"

224. The nuclear deterrent is meant to protect the country's vital interests, but these have not been defined very specifically, leaving the highest authorities of the state a certain freedom of action.

225. It is also necessary to have the "capability to define the extent of such vital interests in various situations, at the required moment, and issue an unequivocal reminder of our determination: such is the function of the final warning... a limited strike on military targets."

226. It should be noted, however, that with the changes that are taking place in international relations, a number of French strategists are considering the possible need to "develop more flexible weapons systems that promote deterrence more through the precision with which they strike than through the threat of a general nuclear exchange"<sup>17</sup>.

227. While the French "anti-cities" concept has not been discarded, strategists in France are increasingly interested in the options offered by greater flexibility, precision and controlled effects. These latter capabilities might prove more relevant in future contingencies which are likely to be different from massive East-West confrontation.

228. There are those in France who recommend that the country should give up its old policy of deterrence of the strong by the weak which is based on making one's territory inviolable, and the principle of non-use of nuclear force.

229. Arguing that nuclear weapons will continue to play a rôle in the world, they maintain that France should develop a dual deterrence. It should keep its capacity for massive retaliation, but, taking account of the risks of proliferation, it should develop an anti-site deterrence consisting of smaller "smart" nuclear weapons, enabling it to inflict a decisive – and as necessary nuclear – strike on enemy strategic centres.

230. However, the debate has only just started and no decisions have yet been made translating these new ideas into a new doctrine, new capabilities and new operational concepts.

231. In a major address on 5th May 1994, President Mitterrand unequivocally stated his position on the subject, and this is official policy:

"I have firmly resisted the confusion over pre-strategic or tactical weapons. If there were to be a succession of nuclear warnings

we would be reverting to the concept of a graduated response. The warning is final; there are no more stages – the next is war ... I shall oppose the new risks of drift – for example when I hear talk of the use of atomic power against the weak or the insane to settle problems outside our national territory or vital interests. Do we have to rally to the term surgical strike – decapitation is also used – which might go as far as the nuclear gun?"

232. It is not to be expected that any changes in France's policy regarding its nuclear forces will be made before the next presidential elections in 1995.

#### (b) French nuclear forces

233. France had developed and produced 30 Hades ground-launched missiles with a maximum range of 500 kilometres when this programme was suspended in the summer of 1991 and then abandoned in 1992. These thirty missiles have now been stored, but this part of France's nuclear force can "be made operational within time-limits commensurate with developments in the international situation". Meanwhile, the nuclear warheads are held by the airforce.

234. There are 45 Mirage 2000 N aircraft, each equipped with an air-to-ground medium-range missile with a range of 100 to 300 kilometres. The nuclear AN 52 munition for a total of 75 Mirage III and Jaguar aircraft was withdrawn from operational service in 1991 and dismantled in the framework of a unilateral nuclear disarmament policy.

235. Meanwhile, 15 Mirage IV P aircraft, equipped with the air-to-ground medium-range missile (ASMP), will remain in service until 1996. The new Rafale aircraft should take over their task at the end of the century. The replacement of the ASMP by a long-range air-to-ground missile (ASLP) is at present not considered urgent<sup>18</sup>.

236. The present 18 S-3D ballistic missiles at the plateau d'Albion could be obsolete by the beginning of the next century, when they would very likely no longer be capable of frustrating an attack from an enemy anti-ballistic missile defence system.

237. If France wishes to maintain an effective system of land-based ballistic missiles, it will have to take decisions on developing a successor to the S-3D missile within the next two years at the latest.

238. In January 1994, President Mitterrand suggested that the MS-5 (a multiple warhead missile with a range of 8 000 kilometres), now being developed to equip the new submarines by 2005,

17. Pierre Joxe, *Le Figaro*, 19th May 1992.

18. *Le Monde*, 7th May 1994.

could also be installed at the plateau d'Albion<sup>19</sup>. A decision to begin developing these missiles was taken in 1992, but this programme, at a total cost of 40 billion francs for 3 batches of 16 missiles, was slowed down by the present government at the beginning of 1994.

239. Finalising the programme law 1995-2000 for defence procurement, the French National Defence Council decided on 6th April 1994 that the entry into service of the M-5 missile should be delayed from 2005 to 2010. At the same time, a study has been commissioned to examine how the interim 6000 kilometre-range M-45 missile, now scheduled to be fitted to the new nuclear submarines in 1996-1997, can be deployed in the silos of the plateau d'Albion<sup>20</sup>.

240. It is thought that these decisions will reduce the need for nuclear testing as the warhead for the M-45 missile has already been tested. Further tests may be required for development of the TN-100 warhead, originally envisaged for the M-5 missile, but it has been suggested that the present TN-75 warhead could be used for these new missiles without additional testing<sup>21</sup>.

241. When the government was criticised recently by Jacques Chirac for its "no nuclear tests" policy, the Defence Minister, François Léotard, replied that the suspension of nuclear testing did not affect the efficiency of the strike force. It was also stated that the decision had been taken after "in-depth study and in agreement with the Chiefs of Defence staff"<sup>22</sup>.

242. Recently, however, the public debate in France on nuclear testing has intensified. On 5th May 1994, President Mitterrand again clearly confirmed his position regarding nuclear testing, making the following statement:

"There will be no further tests before May 1995. I have taken this decision and this situation will remain as long as I continue in office. There will be none under my successor either – unless the other powers resume testing – as France has no wish to offend the whole world by triggering nuclear escalation and nuclear war and treating all poor countries with contempt."<sup>23</sup>

243. The President also recalled that in the programme law for the years 1995-2000, 10 billion francs have been allocated to a nuclear test simulation programme.

244. The day before, Defence Minister François Léotard stated that "the modernisation and miniaturisation of nuclear weapons make it absolutely

necessary to continue testing" adding that "France should carry out a minimum of tests before ratifying the test ban treaty"<sup>24</sup>.

245. It should be recalled that, on 15th October 1993, the Committee on Defence and Armed Forces of the French National Assembly published an information report on the simulation of nuclear testing which concluded that "all the information collected and compiled ... demonstrates conclusively that France should be able to carry out nuclear tests" and that "without further nuclear tests France cannot be sure it is capable of acquiring a simulation system that guarantees it full control over its weaponry, thus assuring the country's security and independence".

246. The new programme law has clearly discarded the development of smart nuclear weapons for the time being, and the question remains whether France will be able to maintain its three separate nuclear systems – ground-based, sea-based and air-launched – in the longer term.

#### *IX. Nuclear weapons co-operation in Europe; towards European nuclear deterrence?*

247. Even if it does not sound attractive to many in Europe and the United States, the credibility of the United States strategy of extended deterrence is subject to erosion. Certainly, at present no American government is prepared to say or even imply that it will withdraw the remaining tactical nuclear warheads from European territory. The withdrawal of all battlefield theatre nuclear weapons because they had indeed become less appropriate in the new NATO strategy, militarily unnecessary and politically unacceptable was a first step, agreed upon wholeheartedly by all allies. But what will happen in the long term to the 700 B-61 tactical nuclear gravity bombs, that remain on European soil after the 50% reduction decided by NATO in October 1991?

248. The new NATO policy of nuclear weapons of last resort, with the even more remote chance of their being used, does not fit very well with the European concept of real deterrence to all types of war. It tends to imply a preference on the part of the United States for doing away with nuclear weapons with which neither politicians nor the military feel comfortable because they cannot be used easily and are a disadvantage to the strong in a world where proliferation is on the increase.

249. It goes without saying that, given the Maastricht Treaty's declared intention of developing a common European foreign and security policy and European defence identity, the rôle of France's and the United Kingdom's nuclear wea-

19. Le Monde, 11th January 1994.

20. Financial Times, 8th April 1994.

21. Le Monde, 25th February 1994.

22. Le Monde, 24th February 1994.

23. Le Monde, 7th May 1994.

24. Le Figaro, 7th May 1994.

pons in this framework cannot be ignored. Sooner or later this issue will have to be considered thoroughly.

250. There have been modest efforts in the past to discuss different possibilities for co-operation or consultation with European allies. French officials have made various suggestions which should be mentioned here.

251. In July 1990, the then French Defence Minister, Jean-Pierre Chevènement, suggested that a Western European defence partnership offering Germany nuclear protection was the only possible choice, given that United States protection might become less certain, and Germany's developing its own nuclear deterrent would not be an attractive option<sup>25</sup>. In January 1992, President Mitterrand raised the question of whether it might be possible to develop a "European doctrine" within the European Community for the French and British nuclear forces. He argued that this would "very rapidly become one of the major questions in the construction of a joint European defence"<sup>26</sup>.

252. In September 1992, the then French Defence Minister, Pierre Joxe, was more forthcoming on the conditions of such co-operation when he stated: "Agreement among Europeans on a single doctrine, and the establishment of an appropriate political structure, seem to me to be essential pre-conditions for the development of a European nuclear deterrent. However, we can already envisage multilateral consultation on conditions for the implementation of nuclear weapons and a broadening of the nuclear guarantee. There is a need for dialogue among Europeans on this subject."<sup>27</sup>

253. The British Defence Minister has also stated that he sees great benefit in closer co-operation and cohesion in nuclear matters between the United Kingdom and France, albeit "within the overall framework of the alliance"<sup>28</sup>.

254. Obviously, in the initial stage, there is a need for co-operation between France and the United Kingdom and steps have been taken in this direction.

255. On 26th July 1993, France and the United Kingdom decided that the Anglo-French Joint Commission on Nuclear Policy and Doctrine which had been established on a provisional basis in autumn 1992 should acquire a permanent status. The commission, which brings together senior officials from the British and French Foreign and Defence Ministries, has now undertaken

a comparison of the approaches of the two countries to the rôle of deterrence, nuclear doctrines and concepts, anti-missile defences, arms control and non-proliferation. Measures to improve safety and security are also being discussed but clearly practical co-operation, such as co-ordination of SSBN patrols and the avoidance of duplication in targeting, is ruled out for the time being.

256. United Kingdom officials have stressed that there are almost no differences between France and the United Kingdom on fundamental nuclear issues, the only important one being that, according to the British, there is a follow-on use after sub-strategic employment of nuclear weapons, while the French do not allow for a follow-on use between sub-strategic employment, which they understand to be the final warning and the holocaust. Both countries, however, consider their nuclear weapons an insurance policy against any possible threat to their vital interests, i.e. the security of Europe. In developing the Franco-British dialogue and co-operation, the United Kingdom does not explicitly attempt to create an alternative to the existing transatlantic relationship. It aims rather to strengthen the specific European contribution to the deterrence underpinning the collective security of the whole alliance.

257. According to the British Defence Minister "it is very difficult today to identify any area where (the United Kingdom and France) are likely to have a fundamental difference of national security interest as members of the European Union". However, he also added that "it is equally difficult to conceive within the Atlantic Alliance of a substantial threat to one country which would not also be a threat to the other"<sup>29</sup>.

258. It should be noted nevertheless, that in October 1993 the United Kingdom withdrew its participation in the development of a common air-to-surface long-range missile. This can hardly be interpreted as a positive sign in terms of practical co-operation.

259. The French defence white paper of February 1994 rightly stated that the problem of a European nuclear doctrine would become one of the major questions in developing a common European defence. The issue would become the more urgent as the European Union created its political identity alongside its security and defence identity. The dialogue with the United Kingdom would need to be continued and deepened, but this would not exclude exchanges with other partners.

260. However, there would not be a European nuclear doctrine unless there were vital European interests, considered as such by Europeans and understood as such by others.

25. *Le Monde*, 13th July 1990.

26. President Mitterrand, speech on 10th January 1992.

27. Pierre Joxe, 29th September 1992.

28. Address by the Defence Secretary, Malcolm Rifkind, autumn 1993.

29. Address by the Defence Secretary, Malcolm Rifkind, autumn 1993.

261. France, which is not a member of NATO's Nuclear Planning Group, has never been forthcoming in sharing information with its non-nuclear allies.

262. It should also be noted that President Mitterrand's 1986 declaration of intent on consultation with the Chancellor of the Federal Republic of Germany before any French use of nuclear weapons on German soil has never led to a Franco-German understanding on the basis of operational and strategic principles. Nevertheless, it is a major concern of France's foreign policy to ensure that reunified Germany is solidly anchored in a European Union with a European defence identity as a rational component. In this framework, Germany must be provided with a credible nuclear deterrent, on the one hand to protect it from any possible Russian nuclear coercion and on the other to avoid its being compelled to develop its own nuclear deterrent.

263. In the past, France has stressed the independence of its nuclear deterrent and the rôle of the latter in the protection of its national territory. It could be argued that France's commitment to building a European defence identity might be called into question unless France were prepared to discuss the rôle of its nuclear forces within a wider European framework.

264. The maintenance of maximum uncertainty over the possible use of French nuclear weapons, which is an essential aspect of any nuclear weapons doctrine, would certainly not satisfy those European allies who had come a long way towards agreement with the earlier French objective of building a European defence identity.

265. Recently, it has been argued that technical and doctrinal rapprochements within Western Europe would consolidate the political legitimacy of nuclear deterrence. It might not be compatible with the political and strategic solidarity that Europe is seeking if nuclear weapons were based only on the territory of nuclear states. A French strategist has suggested closer links between France, the United Kingdom and Germany in the development of doctrine and nuclear delivery systems as ways of building this solidarity<sup>30</sup>.

266. One might question whether such co-operation should be restricted to these three nations, while in NATO it is occurring in a much wider framework in accordance with the Nassau and Athens agreements.

267. Various options can be considered for United Kingdom/French nuclear protection of their non-nuclear European allies.

30. Jean-Marie Guéhenno, "L'avenir de la dissuasion nucléaire", in Ministère de la Défense, *Un nouveau débat stratégique : Actes du colloque de Paris, 29th-30th September, 1st October 1992* (Paris : Documentation Française, 1993).

268. One is that both nations consider the security of the other member states of Western European Union to be a vital interest.

269. A second, seemingly logical option, is the application of Article V of the modified Brussels Treaty which stipulates that "...the other high contracting parties will (...) afford the party so attacked all the military and other aid and assistance in their power".

270. A third would be for the European Union completely to absorb the existing national autonomy and sovereignty of the member states. However, at present this seems a somewhat utopian idea.

271. The French Defence Minister, François Léotard, may have been hinting at this possibility when he stated in a recent interview<sup>31</sup>.

"I believe Europe is one of the fundamental issues of the late 20th century. However, I also believe that control over nuclear weaponry should stay in the hands of nations. It is essentially management of fear and as such cannot be on a shared basis, even if its use is not intended ... At present there are only national powers. Who knows if the day will come when there will be a single, legitimate political power in Europe? I hope so but I cannot see it happening in the near future ... Use, or even management, of nuclear weapons can only be through a highly centralised system, under the responsibility of a single leadership."

272. On the subject of the possible extension of deterrence to other countries, the minister observed:

"The major lesson I learned from General de Gaulle is that a nation's leaders alone are able to evaluate where their country's highest interest lies and when that interest is threatened. In the last resort a nation has no friends."

273. In the light of this reversion to the old Gaullist views, as though no developments at all had occurred in European integration since the 1960s, one might wonder what are the alternatives: co-operation in NATO, supported by American extended deterrence, avowedly losing credibility on account of the increasing reluctance on the part of United States political and military authorities to use such weapons, or the tenuous hope that, at the moment of truth, France will regard you as a friend.

274. It should be observed that individual nations, even if closely linked in the framework of the Maastricht Treaty, can only really share a credible declared policy of nuclear deterrence if there

31. *Le Quotidien*, 6th March 1994.



is a homogeneous political union and a common political authority. In which case, it would appear inevitable that all participating nations should share financial responsibility for the maintenance of the nuclear forces required for deterrence.

275. As to Anglo-French nuclear co-operation: when, in October 1993, the United Kingdom decided to cancel its participation in the development of air-to-surface long-range missile, arguing that the new Trident SLBM could be used in a secondary sub-strategic rôle, it was stated that tentative work would continue on designs for a possible future missile system that could result in an Anglo-French strategic weapon.

276. It should also be borne in mind that the French concept of the development of a European defence identity is not fully shared by the United Kingdom. Although France may be developing the idea of a joint Western European deterrent in that framework based on French and British nuclear forces, it should not be forgotten that at this juncture the British have a radical Atlanticist view of nuclear deterrence which does not in fact allow for any decoupling of their nuclear forces or strategies from those of the United States.

277. In the British view, NATO's Nuclear Planning Group already provides the appropriate multilateral consultation forum for nuclear deterrence protecting Western Europe.

278. There are indeed some major differences between the positions of British and French nuclear forces. Both nations stress the independent character of these nuclear forces, but the United Kingdom has committed them to NATO, which means that they are in the framework of the single integrated operational plan, providing an automatic deterrent for all non-nuclear allies. The United Kingdom "would regard her own vital interests at stake in any attack upon an alliance member"<sup>32</sup>. France does not participate in the work of NATO's Nuclear Planning Group and, notwithstanding recent suggestions made by President Mitterrand and former Defence Minister Pierre Joxe, official policy is that France's nuclear forces remain under national command, at the disposal only of the Head of State and intended to protect France's national territory and vital interests.

279. It has been rightly said that, political considerations apart, it will not be easy for the United Kingdom to establish close practical co-operation with France in nuclear matters because its nuclear forces, soon to consist exclusively of four Trident submarines, are almost completely dependent on the United States. Until now, therefore, British nuclear forces came relatively cheap.

280. Any co-operative Franco-British programme to develop a new nuclear weapon will be very

expensive and it is debatable whether it could be achieved without testing.

281. In other words it can be argued that the United States' agreements with the former Soviet Union and its moves towards a comprehensive test-ban treaty are in practice blocking the development of an effective European nuclear force.

282. No European nuclear co-operation would be feasible without close German involvement. Purely Franco-British nuclear co-operation might be experienced by Germany as a force that had to be counter-balanced, and there would be strong pressure against such co-operation unless the Germans were invited to participate in one way or another.

283. There is no other way of establishing such co-operation than by small incremental steps. One of these might be to create a nuclear co-ordination body, operating at European level, with the Germans participating and possibly in contact with the United States.

#### *X. Third country proliferators*

284. As is well known, there are a number of states which are not official nuclear weapon states and are either possessors of nuclear weapons or have the ability to assemble them quickly. Of these states, only Israel is believed to possess a nuclear arsenal of any size (between 50 and 300 nuclear weapons) including ballistic missile capabilities. India and Pakistan are both believed to have the ability to assemble nuclear weapons quickly in a crisis. India has a well-advanced ballistic missile development programme and has performed test launches of intermediate- and short-range ballistic missiles. Pakistan is believed to have acquired missile technologies and materials from China.

285. Iran has been accused of having a clandestine nuclear weapon programme. After the Gulf war, Iraq's nuclear weapon design and testing facilities, as well as its key missile production equipment, were destroyed in accordance with United Nations Security Council Resolutions 687 and 715.

286. At present, the problems with North Korea over its secret nuclear weapons programme have not yet been solved. This country is also a manufacturer of ballistic missiles and a major supplier of such to countries in the developing world.

287. Apart from the countries mentioned above, a number of other states may feel tempted to develop or acquire their own nuclear weapons capability and the appropriate means of delivery. As is argued elsewhere in this report, it is generally admitted that none of the existing non-proli-

32. Malcolm Rifkind, Paris, 30th September 1992.



feration régimes will be able to prevent them from attaining their objective from the moment they devote sufficient financial resources and zeal to this task.

### *XI. Non-proliferation régimes*

288. Of the existing non-proliferation régimes which are of particular importance for nuclear non-proliferation, the following should be mentioned:<sup>33</sup>

#### *(a) Treaty on the non-proliferation of nuclear weapons (NPT)*

289. In the 1960s, it was becoming increasingly clear that the spread of nuclear technology for peaceful purposes could also easily lead to a proliferation of nuclear weapon capabilities which could not be controlled adequately by the International Atomic Energy Agency (IAEA), established in 1956.

290. In order to check this technology proliferation, a large number of countries signed the treaty on the non-proliferation of nuclear weapons, established in 1968, which came into effect in 1970 and according to which:

“the nuclear ‘have-nots’ promised to forgo the acquisition of nuclear weapons in return for a commitment by the nuclear ‘haves’ to make available nuclear-related technology which would help them to develop peaceful nuclear energy (Article IV). The non-nuclear weapon states further had to conclude an arrangement with the IAEA for the employment of safeguards on all sources of fissionable material in their peaceful-use nuclear plants. These obligations are laid down in Articles I-III of the treaty, which limit the so-called ‘horizontal’ proliferation of nuclear weapons. Nuclear weapon states, in turn, were obliged to pursue negotiations ‘in good faith’ to put a halt to the nuclear arms race, and to achieve complete nuclear disarmament (so-called ‘vertical’ non-proliferation, see Article VI).”<sup>34</sup>

291. A review conference has since been held every five years in order to reassess the effectiveness of the treaty’s safeguard system. France and China, two of the five declared nuclear weapons states, which for different reasons refused to sign the NPT for many years, finally acceded to the treaty on 3rd August and 9th March 1992, respectively.

33. For a succinct review of all existing non-proliferation régimes, see Peter van Ham, *Managing non-proliferation régimes in the 1990s*, Royal Institute of International Affairs, 1993.

34. Peter van Ham, *Managing non-proliferation régimes in the 1990s*, page 13.

292. On the other hand, serious questions have been raised about the NPT compliance of China, Iraq, Iran, North Korea, Libya and South Africa. In March 1993 North Korea became the first country to announce its intention to withdraw from the NPT<sup>35</sup>.

293. The NPT system of IAEA safeguards has been essential to deter potential proliferators by increasing the risk of detection of the diversion of nuclear-related material and it remains a *sine qua non* for commercial nuclear trade since it establishes confidence in the recipient state’s peaceful intentions with its nuclear programme.

294. In 1970, a special non-proliferation treaty exports committee was established (the so-called Zangger Committee) and a register was agreed, specifying items which should be regarded as equipment and material designed or prepared for manufacturing nuclear weapons (“trigger list”). In this framework, exporters must insist upon a non-explosive use assurance given by the recipient state, the material must be subject to IAEA safeguards and be re-exported only under similar conditions.

295. Recent events in Iraq and North Korea, both signatory states to the NPT and IAEA, have clearly demonstrated that the existing international régime does not prevent clandestine nuclear weapon activities.

296. In accordance with Article X.2 of the NPT, a conference will be convened in 1995 in order to decide whether the NPT will be extended for an additional period of time, whether it will be continued indefinitely, or whether it will simply expire. This conference will also review the treaty’s implementation.

297. The 1995 conference is considered to be of the greatest importance since the NPT is the keystone of the whole non-proliferation régime in existence. Negotiations on an extension of the treaty will be complicated because of the fact that many issues are involved. Many third world countries are not satisfied with their share of the political bargain upon which the NPT was based: peaceful nuclear technology in exchange for a pledge not to acquire nuclear weapons. They argue that nuclear technology transfer has to be restricted and that the nuclear weapon states should stop modernising their nuclear weapons arsenals. They may make an extension of the NPT conditional upon the conclusion of a comprehensive test ban treaty.

298. Connected with the debate on a comprehensive test ban treaty is the demand by many countries for a commitment by the nuclear weapon states to a timetable for their nuclear disarmament. For obvious reasons, this demand

35. SIPRI yearbook 1992, page 56.

may come from Ukraine, Kazakhstan, other CIS republics and the Baltic states, but both Japan and Germany may also be interested.

299. It should further be noted that many non-nuclear states will seek security assurances from the nuclear weapons states either of a negative character (commitments not to use, or threaten to use their nuclear weapons against non-nuclear states) or a positive character (commitments to come to the aid of a non-nuclear weapon state threatened by nuclear weapons or against which nuclear weapons have been used).

300. Although in February 1992 the IAEA Board of Governors significantly improved the operation of the IAEA safeguards system, new attempts will be made to introduce new safeguarding concepts.

301. With the United States now having worked out a doctrine for the use of military force against the nuclear facilities of proliferant states, this issue will certainly be discussed in connection with the implementation of Article IV.

302. The 1995 NPT extension and review conference takes place in an era with more opportunities than ever before for greater international collaboration to prevent nuclear proliferation. Nuclear arms control and non-proliferation activities are so closely linked that they can hardly be dealt with separately. The rôle of the IAEA could be enhanced, not only in controlling an extended safeguard system, but also in safeguarding fissile materials recovered from dismantled nuclear warheads and maybe even in providing secretariat, verification and inspection services for state parties to a comprehensive test ban treaty.

*(b) Missile technology control régime (MTCR)*

303. The MTCR is an informal agreement, established in 1987 by the G-7 countries in order to control the exportation of missile technologies and major sub-systems<sup>36</sup>. Later a number of other industrialised countries joined this agreement while others pledged to observe its spirit and guidelines. The main reasons for setting up the MTCR was that the acquisition of missile systems or the technology to develop them will greatly enhance the military power and effectiveness of proliferant nations since it provides them with a means to deliver their weapons of mass destruction.

304. It is recognised that the MTCR, as other existing export control régimes, does not provide a leak-proof protection against the proliferation of missile technology. The régime has several weak points such as its limited membership, the fact that missile technology is an issue much less tain-

ted than nuclear technology, and the divergent export control legislations of those states adhering to it.

305. It should also be mentioned that many third-world countries are perceiving the lack of access to modern missile technologies as another symptom of paternalism by the developed world, which is denying them a means of further economic and industrial development.

*(c) Comprehensive test ban treaty (CTBT)*

306. In October 1992, a law came into force in the United States mandating a permanent ban on all United States nuclear tests after 30th September 1996, "unless a foreign state conducts a nuclear test after that date". The same legislation required the suspension of all United States nuclear tests from 1st October 1992 until at least 1st July 1993, a suspension which has since been prolonged. The Clinton administration has decided not to resume testing and is now actively pursuing the conclusion of a comprehensive test ban treaty.

307. The administration was directed to submit to Congress a schedule for the resumption of test talks with Russia and a "plan for achieving a multilateral ban on the testing of nuclear weapons by 30th September 1996". A worldwide test ban could be an important instrument to thwart the development of new sophisticated nuclear arsenals by proliferant nations.

308. It is noted that a first generation, relatively low-yield nuclear weapon can be developed without testing, provided that the combination of a certain technological level, the necessary nuclear material and the determination to succeed are united. The development of more sophisticated nuclear weapons, however, does require a high or very high technological level and testing.

309. After a first commitment made by President Gorbachev in October 1991 not to conduct nuclear tests for one year, this Russian moratorium has been extended by President Yeltsin.

310. In France, President Mitterrand had announced a unilateral moratorium on nuclear testing in April 1992 which was confirmed by Prime Minister Balladur on 14th February 1994. Although this decision has often since been criticised, in particular by those who support the right-wing government now in power, France has pledged to continue its moratorium for as long as the United States and Russia refrain from testing. France is certainly prepared to co-operate in the establishment of a CTBT which it considers to be an important tool in non-proliferation efforts. It has emphasised that such a treaty should then be both universal and verifiable. Advocates of resumed testing argue that it would allow improvements to be made in safety, security and reliabi-

36. Document 1305, paragraph 71 et seq.

lity and new warheads for future delivery systems and a broader spectrum of nuclear weapons to be developed, including high-precision lower-yield weapons which some consider to be essential for a more selective and discriminate approach in France's nuclear doctrine. It is also argued that France does not yet have the extensive computer simulation programmes which enabled the United States to renounce testing. It is highly unlikely, however, that France will resume testing before the presidential elections in 1995 and even after that date such a decision would be difficult to defend for any of President Mitterrand's possible successors<sup>37</sup>.

311. China conducted several nuclear tests in 1992 and 1993, but it has stated that it was willing to discuss nuclear test issues with all the members of the Conference on Disarmament. On the other hand, one of the conditions for its participation in a comprehensive test ban treaty is that states with the largest nuclear arsenals should take the lead in "halting testing, production and deployment and drastically reducing those weapons"<sup>38</sup>. Beijing would be prepared to participate after "tangible progress" by those states.

#### (d) Cocom

312. In the autumn of 1993, it was decided that Cocom would cease to exist on 31st March 1994, being succeeded by an organisation with a broader membership and a changed mandate. Cocom had become the target of increased criticism, even among its own members, who in the absence of the former cold war consensus were not prepared to maintain its complicated and laborious export control system while many new and important export markets were developing in formerly proscribed countries.

313. The objective is now to create a new organisation before the end of 1994, with an extended membership and concentrating on a proliferation control agenda. Efforts are being made to regulate the transfer to proliferant nations of dual-use technologies, which contribute greatly to the spread of weapons of mass destruction and their delivery systems. Cocom's old and somewhat extensive proscribed item list will very probably be replaced by an enhanced "super-core" list of 8 to 10 technologies, transfer of which will be prohibited to an agreed list of countries. Apart from the old Cocom member states, the new organisation might include Austria, Finland, Ireland, Sweden, Switzerland and New Zealand. Efforts are being made also to include China, the Czech Republic, Hungary, Poland, Russia and Slovakia.

37. See also Chapter VIII (b) of the present report.

38. SIPRI year book 1992, page 564.

314. Even if the efforts to transform the former Cocom into a new non-proliferation organisation are welcomed, there can be little doubt that the new régime will be far less effective for many obvious reasons, some of which are mentioned below.

315. If the objective is to include all the leading suppliers, it will be difficult to reach agreement on the list of proscribed countries.

316. Abandoning the Cocom consensus rule on approving technology transfers will considerably weaken the control system. In the future, national discretion will determine whether an item not on the very limited "super-core" list is to be transferred. The new organisation will not be able to exercise a veto over intended export activities of its members; there will only be prior consultation.

317. One of the criteria for membership of the new organisation is that national export-control systems must meet a minimum standard similar to that required for Cocom member states. It should be noted, however, that many of the former Warsaw Pact countries which ought and are willing to be members of the new organisation in fact do not meet its requirements for a strict export-control system. Even though the Cocom co-ordination forum and NACC have been helpful in improving their export-control administration, it is likely that some of these states will constitute a weak link in the new framework.

318. It should also be noted that developing countries are criticising the establishment of a new multilateral control régime because it might limit their access to dual-use technologies. This is considered to be one of the issues in North-South relations that will complicate negotiations in the 1995 NPT review and extension conference.

319. Moreover, the new independent republics of the former Soviet Union consider the export of dual-use technologies, in particular to developing countries, as one of the few methods available for converting their defence industries and improving their economies.

## XII. Conclusions

### (a) Do we still need nuclear weapons?

320. With the development of the nuclear weapons policies of the four nuclear weapons powers involved in Europe's security, what should be the conclusions as regards the rôle and future of these weapons in Europe?

321. Even if some argue to the contrary, one can but recall that during the many years of the cold war nuclear weapons played an important rôle in maintaining a balance in Europe. It may

have been a balance of terror, but, because of the risk of degeneration into a nuclear exchange, it prevented any of the parties involved from embarking upon a military adventure in order to change the status quo. Mass destruction was considered to be a real possibility and therefore the risk was unacceptable. Over the years, the old adversaries had learned the rules of the nuclear weapons game and in the later years of the cold war they felt confident and comfortable enough to agree on the withdrawal of tactical nuclear weapons and the limitation of strategic arms. Nuclear deterrence worked well in relations between East and West and there is no reason to believe that the present or possibly even a future leadership in Russia with different views will not act in accordance with the many tacit understandings that have become part and parcel of deterrence between the traditional nuclear powers and which have been extremely effective.

322. Indeed, this alone is good reason to argue that the members of the Atlantic Alliance will have to maintain their nuclear forces as an insurance policy to protect them against any possible resurgence of aggressive imperialism. Likewise, Russia will want to maintain its nuclear forces as tangible proof of its status in the world and as a hedge against any possible feeling of being blackmailed by other nuclear states, such as China for example.

323. Another reason for nuclear weapon states to keep a nuclear arsenal is that they do not have the option of returning to a condition of pre-nuclear innocence. It should be emphasised here that none of the existing non-proliferation régimes nor even a comprehensive test ban treaty can prevent the acquisition by third countries of ballistic missiles and nuclear weapons or other weapons of mass destruction.

324. The possession of somewhat reduced but still relatively large arsenals of nuclear weapons by the official nuclear weapon states would at least prevent a situation where the acquisition of a small number of nuclear weapons would provide a nation with a disproportionate influence in its region or even in the world.

325. Does the possession of nuclear weapons protect against proliferation to third countries?

326. The answer cannot be a straightforward "yes" or "no". As stated above, the possession of a reasonably large number of nuclear weapons can deter a third country from the acquisition of a substantial nuclear arsenal be it only for reasons of cost. A third country which has acquired nuclear weapons could be deterred from using them in a crisis or conflict because, in accordance with the classical doctrine of deterrence, it would be threatened with such destructive retaliation that the risk of unacceptable losses would be greater

than the advantages it might gain from aggression. There is no guarantee, however, that third countries will react according to the rules of the game established between the superpowers. Altogether, however, it may be concluded that the possession of a nuclear arsenal may play a positive rôle in protection against third country proliferators.

327. On the other hand, the question arises of whether nuclear weapons should be used against third countries if they threaten to resort to weapons of mass destruction. Most strategists argue that modern, highly-sophisticated conventional precision weapons could do whatever is necessary in such circumstances. It is thought here that the development of low-yield, high-precision nuclear weapons for such purposes is not desirable, particularly since it would lower the nuclear threshold in the event of a conflict.

328. It is essential that Europe draw the consequences of the changes wrought in the world nuclear landscape<sup>39</sup> which can be described as follows:

- (i) all nuclear weapons come into the strategic échelon;
- (ii) tactical and infra-strategic nuclear weapons disappear in favour of high-precision, high-yield conventional weapons (c.f. the Gulf war);
- (iii) remaining nuclear weapons will no longer be deployed in any large numbers in external theatres of operations. The trend is for nuclear arms, other than easily deployable nuclear submarine missile-launchers and airborne systems, to be returned to their national territories;
- (iv) the evolution of doctrines is towards minimal nuclear deterrence; this evolution could be slowed down by the politically unstable and conservative position of Russia;
- (v) for reasons of cost and strategic uncertainty, all nuclear weapons countries are tending to suspend development and production of new nuclear weapons systems.

*(b) Towards a European nuclear deterrent*

329. Europe cannot remain indifferent to these fundamental changes in the nuclear landscape, although it seems to have little interest in the matter for the present. Is this because it is playing for time in order first to analyse the evo-

39. See also: Memento, L'Europe et la sécurité nationale 1993, GRIP, Brussels.

lution of geostrategic balances, because it is seeking to maintain the status quo, resting on its laurels, reluctant to jeopardise a minimal consensus achieved only with difficulty – or perhaps for a mixture of all these reasons? However, Europe must of necessity reach a decision in this matter. It would be unimaginable for the European Union to define a common foreign and security policy and at the same time for France and Britain to continue to insist on defining their vital interests as they perceive them, in isolation, protected by their strike forces. Can one claim that the will exists to create a political Europe if the component states are to be denied the right to participate in the development of the doctrine of deterrence which is supposed to assure their common protection?

330. The debate on the European nuclear deterrent will be the moment of truth in the construction of a European political union.

331. Apart from France and Great Britain which are nuclear powers in their own right, Belgium, Germany, Italy and the Netherlands have for decades undertaken nuclear missions on behalf of the Atlantic Alliance. For this reason your Rapporteur is convinced that the progressive development of a European nuclear strategy by a WEU strategic studies group can and must succeed. The task will be a long, awkward and arduous one, but what was possible in the Nuclear Planning Group of the Atlantic Alliance should also be possible within WEU for on it depend the security and external credibility of the European Union.

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## APPENDIX I

*Status of non-US aid for former Soviet weapon complex**30th December 1993*

	<i>Amount (in millions)</i>
<i>International</i>	
International Science and Technology Center	\$70
<i>Britain</i>	
250 weapon containers, 20 transport vehicles	£30
<i>Finland</i>	
International Science and Technology Center	N/A
<i>France</i>	
nuclear safety aid	FF160
<i>Germany</i>	
offer to Ukraine: dispose of liquid fuel	DM20
<i>Italy</i>	
safety equipment for Russia	\$6
<i>Japan</i>	
Framework agreement	\$100
- Assist in destruction of liquid fuel	
- Plan for plutonium disposal	
- Joint research with Russia on a breeder reactor	
- Breeder reactor to use excess plutonium	
- Use new plutonium reactor	
- Demilitarise plutonium	N/A

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(Source: The Arms Control Reporter 1993-1994).

## APPENDIX II

*Soviet/Russian strategic forces – warheads by weapons system*

	Soviet September 1990	CIS January 1994	Projected Russian START	Projected Russian START II
<b>ICBMs</b>				
SS-11	326	0	0	0
SS-13	40	0	0	0
SS-17	188	160	0	0
SS-18	3 080	2 900	1 540	0
SS-19	1 800	1 680	630	105
SS-24 Silo	560	560	100	0
SS-24 Rail	330	360	330	0
SS-25 Road-mobile	288	405	500	500
SS-25 Mod 2 Road mobile	0	0	50	100
SS-25 Mod 2 Silo	0	0	50	300
<b>Total</b>	<b>6 612</b>	<b>6 065</b>	<b>3 200</b>	<b>1 005</b>
<b>SLBMs</b>				
SS-N-6	192	0	0	0
SS-N-8	280	64	0	0
SS-N-17	12	0	0	0
SS-N-18	672	672	528	528
SS-N-20	1 200	1 200	720	720
SS-N-23	448	448	448	448
<b>Total</b>	<b>2 804</b>	<b>2 384</b>	<b>1 696</b>	<b>1 696</b>
<b>Bombers</b>				
Bear-A/B	17	0	0	0
Bear-G	92	0	0	0
Bear-H (6)	162	162	162	162
Bear-H (16)	912	912	576	576
Blackjack	180	300	60	60
<b>Total</b>	<b>1 363</b>	<b>1 374</b>	<b>798</b>	<b>798</b>
<b>Total</b>	<b>10 779</b>	<b>9 823</b>	<b>5 694</b>	<b>3 499</b>


*United States strategic forces – warheads by weapons system*

	September 1990	January 1994	START (Projected)	START II (Projected)
<b>ICBMs</b>				
MX/Peacekeeper	500	500	500	0
Minuteman III	1 500	1 500	900	500
Minuteman II	450	200	0	0
<b>Total</b>	<b>2 450</b>	<b>2 200</b>	<b>1 400</b>	<b>500</b>
<b>SLBMs</b>				
Poseidon (C-3)	1 920	0	0	0
Trident I (C-4)	3 072	1 920	1 536	768
Trident II (D-5)	768	1 152	1 920	960
<b>Total</b>	<b>5 760</b>	<b>3 072</b>	<b>3 456</b>	<b>1 728</b>
<b>Bombers</b>				
B-1B	1 520	1 504	1 504	0
B-2	0	16	320	320
B-52H	1 860	1 860	940	940
B-52G	1 056	0	0	0
<b>Total</b>	<b>4 436</b>	<b>3 380</b>	<b>2 764</b>	<b>1 260</b>
<b>Total</b>	<b>12 646</b>	<b>8 652</b>	<b>7 620</b>	<b>3 488</b>

(Source: Arms Control Association, Washington D.C.)



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