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## STRATEGY AND THEATER NUCLEAR WEAPONS MODERNIZATION IN WESTERN EUROPE

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### INTRODUCTION \*

American nuclear artillery and ground-launched short-range nuclear missiles are condemned to leave Western European territory, apparently soon and forever. On May 3 US President Bush announced that the United States will "terminate the follow-on to the Lance program and cancel any further modernization of U.S. nuclear artillery shells deployed in Europe" (1). Shortly after, NATO's heads of state and government, meeting in London on 5-6 July 1990, not only confirmed the new Western policy to accept arms control negotiations with the Soviet Union over ground-based systems with ranges up to 500 km, but they also "decided specifically that, once negotiations begin on short-range nuclear forces, the alliance will propose, in return for reciprocal action by the Soviet Union, the elimination of all its nuclear artillery shells from Europe" (2). At present, depending on a success of the CFE talks in Vienna, it seems very likely that the outcome of such negotiations will be an elimination of all these weapons from Eastern and Western Europe - a third zero, after the first and second one agreed upon with the signature of the INF Treaty more than two years ago (3).

Sometimes it is surprising to see how quickly Alliance policy can change. Only a few months before, on 26 February 1990, NATO officials had publicly reiterated that short-range nuclear missiles would remain on the agenda of the nuclear modernization program of the Atlantic Alliance and that a final decision on this point would not be provided before 1992. That position had been assumed at NATO's 40th anniversary summit meeting in Bruxelles on 29-30 May 1989, when the Alliance's heads of state and government declared that negotiations aimed at short-range nuclear missile reductions could only open once NATO and the Warsaw Pact had begun to implement cuts in their conventional armaments, adding that a final decision "concerning the introduction and deployment of a follow-on system for the Lance will be dealt with in 1992 in the light of overall security developments" (4).

Why has the Atlantic Alliance finally decided to abandon its ground-launched nuclear weapons deployed in Western Europe? A new intra-Alliance debate over that issue had begun soon after the signature of the INF Treaty. Between Autumn 1988 and Spring 1989, the Atlantic opinion was characterized by two opposing views: on one side, West Germany's Chancellor Kohl and Foreign Minister Genscher had repeatedly expressed their concern of a possible singularization of German territory in case of war, and as such had strongly supported a beginning of arms control negotiations on theater nuclear



weapons (TNW) as soon as possible. On the other side, the new Bush administration in the United States and British Prime Minister Thatcher feared a denuclearization of Western Europe and were therefore strongly arguing against an opening of such negotiations. NATO had to take into account these intra-Alliance divergences by formulating sophisticated policy statements and by delaying a final decision with regard to the future role of these nuclear systems in Western Europe.

However, 1989, the year of 'Europhoria' (5) set in, and the dramatic and at times revolutionary internal changes in the East and the improvement of bi- and multilateral foreign relations between the United States, the Soviet Union and their respective European allies necessarily affected the policy of NATO. In November 1989, reacting to the opening of the intra-German borders and the following discussions over a possible German reunification, Henry Kissinger was among the first to state in public that these new developments made the replacement of Lance missiles in Europe unfeasible. A few months later, in a speech at the Vienna CFE negotiations, on 25 January 1990 Italian Foreign Minister De Michelis stressed that, in view of all the recent developments in Eastern Europe, the question of modernizing short-range nuclear missiles was no longer an issue. Similar statements were made by his Belgian colleague Eyskens only a few weeks later, and during the month of March West German Defence Minister Stoltenberg and his Dutch colleague ter Beek publicly also demanded the scrapping of nuclear artillery in Western European NATO territory (6).

However, intra-Alliance dissension and the changes in the East are not the only factors which have finally stopped the Lance missile and the nuclear artillery modernization programs - several other reasons have contributed to this, bringing the theater nuclear weapons modernization program in general into deep troubles. A yes or no to TNW modernization in Europe does not depend as much on the nervousness and impatience of some Alliance members, but on a more profound and complex process in which several other main factors must be considered. It is the main purpose of this article to identify and explain these main factors and to demonstrate that without a consideration of all of them a comprehensive strategic assessment with regard to the desirability of the maintenance or elimination of a specific weapons system is not possible. Several authors have recently suggested that strategy has not always been at the bottom of a weapons acquisition process and that this process often "starts with a technological idea rather than as a response to a specific threat or as a means to fulfill a long-standing mission" (7). This is particularly true also with regard to theater nuclear weapons in Western Europe. As the title of this article suggests, strategy and a decision over TNW in Western Europe are two different things, since the former had a varying, but mostly secondary role for the acquisition of the latter.

With this in mind, the following paper will describe the main factors which should be considered during a weapons acquisition process in general and during an evaluation of the future role for theater nuclear weapons in Western Europe in particular (sections 1 to 6). These factors are neither bound to a specific constellation of political power in a given country nor limited to a short period of time, but they have existed and operated since the Atlantic Alliance was founded some forty years ago. These permanently operating factors are: the capabilities of the Atlantic Alliance (section 1), the strategy of the Atlantic Alliance (section 2), the cohesion of the Atlantic Alliance (section 3), threats and threat perceptions (section 4), costs (section 5) and the domestic context (section 6). Clearly, the six factors are interdependent and influence

one another from time to time and with varying intensity, depending on the given historic circumstances. This is why the chosen sequence of the following sections is rather fortuitous and should not be misinterpreted as a rigid one.

#### (1) ALLIANCE CAPABILITIES

The first factor which necessarily has to be considered for a strategic evaluation of theater nuclear weapons in Europe is the technical performance of a new weapon system itself. If the aim is to estimate the military and political utility of a specific armament, the knowledge of its basic characteristics - among others, its range, speed, accuracy and yield - is a necessary precondition, and these features must be compared to those of other already existing weapons systems in the same field and in other conventional, chemical and nuclear fields, including prestrategic and strategic systems as well.

The Atlantic Alliance has continuously been restructuring its theater nuclear weapons arsenal since these weapons first appeared on Western European territory during the fifties. Since the seventies, modernization and reduction of existing TNW stockpiles has become inseparable. In December 1979, as part of the dual track decision, NATO unilaterally decided to remove about 1,000 nuclear warheads from Western European territory, and a further reduction of some 1,400 warheads was decided in 1983, at the Nuclear Planning Group (NPG) meeting in Montebello, Canada. The systems removed by both decisions include:

- all atomic demolition mines
- all Nike-Herkules air-defence missiles until 1989
- 1298 warheads from the Honest John surface-to-surface missile until 1985
- 337 nuclear warheads from gravity bombs
- an unspecified number of warheads from nuclear artillery (8).

The United States agreed to a third reduction with the signing of the INF Treaty with the Soviet Union in December 1987, by which 464 ground-launched cruise missiles (GLCM) and 108 Pershing II ballistic missiles, both in part already stationed on Western European ground, had to be destroyed and their nuclear warheads sent back to the United States. What remains in Europe since that time is a mix of older and newer nuclear artillery, land-based short-range missiles and gravity bombs as follows:

(a) nuclear artillery: There are an estimated 1,600 artillery-fired atomic projectiles deployed in NATO-Europe, distributed on two types of shells with calibres of 155 mm and 203 mm. Their maximal range varies between 19 and 30 kilometers, and the projectiles are currently being equipped with new W79 and W82 warheads, which replace the older ones of the type W33 and W48. Their estimated explosive yield is up to 2 kilotons, with a CEP (Circular Error Probable) for the 155 mm shells between 150 meters for older models and 40 meters for newer ones (9). According to recent specifications by US Secretary of Defence Cheney, the United States discovered recently that the newer W79 nuclear warheads deployed in Western Europe since the early eighties were defective and risked the loss of radioactive plutonium, so that several hundred exemplars had to be sent back to the United States and technically overhauled (10). President Bush has recently announced that further modernizations of these weapons will be terminated soon, and NATO's heads of state and government, meeting in London in July 1990, have expressed their intention to eliminate them from Western Europe, if the Soviet Union agrees to do the same in Eastern Europe as well.

(b) Lance: It is estimated that about 700 W-70 nuclear warheads are provided for a similar amount of up to about 1,000 land-based short-range Lance missiles, which can be fired from 94 launchers deployed in Europe. 58 launchers are under double-key control between the United States and the hosting European countries (West Germany: 26, the United Kingdom: 14, the Netherlands: 7, Italy: 6 and Belgium: 5), while the remaining 36 launchers deployed in Europe (most of them in West Germany) are under exclusive American control. The missile can be equipped with the W70 nuclear warhead, which has an explosive yield up to 100 kilotons, and its range can be varied between 5 and 125 kilometers, with a CEP between 150 meters (minimal range) and 375 meters (maximal range) (11). The Lance missile could in theory also be equipped with a conventional warhead, even if in practice this is not likely to happen; furthermore, an unspecified amount of nuclear ER-warheads, currently stored in the United States, can also be fitted. While a Service Life Extension Program updates the deployed systems with new components to the mid-nineties, recent modernization plans termed FOTL (Follow on to Lance) included, among others, an improved range of action up to about 450 kilometers with a smaller CEP and new nuclear warheads with additional safeguards against unauthorized release (12). However, as stated earlier, US President Bush has recently announced that the FOTL modernization program will no longer be pursued, and negotiations between the United States and the Soviet Union on the elimination of these weapons systems from Europe as a whole are expected to begin shortly after a CFE agreement is signed.

(c) gravity bombs: About 1,600 nuclear gravity bombs are estimated to be assigned to NATO's dual-capable aircraft in Europe which consists of older F-104 and F-4 and newer F-15, F-16, F-111 and Tornado fighters. The maximum range of these aircraft is up to approximately 3,000 kilometers (under optimal conditions) and the B-57 and B-61 bombs, which have recently replaced older B-28, B-43 and B-53 models, have an estimated yield up to 200 kilotons (13). A new F-15E fighter, having a longer range than currently stationed models, will enter into service during the early 1990s. In addition, since 1986 the US government has been exploring the possibility of replacing existing gravity bombs with a new nuclear stand-off missile (TASM - Tactical Air to Surface Missile) which would add a range of 250 to 400 kilometers to the range of the possible aircraft F-111, F-15E and F-16 (14).

## (2) ALLIANCE STRATEGY

A second factor which has to be considered for a comprehensive evaluation of theater nuclear weapons in Western Europe is the strategy officially declared by the Atlantic Alliance. Since Flexible Response, even if more than 20 years old, is still the official strategy of NATO for the maintenance of security on both sides of the Atlantic Ocean, one has to ask if TNW deployed on Western European territory strengthen or weaken the credibility of the declaratory policy of the Alliance. Before answering this, it is useful to distinguish between two missions which are included in Flexible Response: the first is to avoid war by deterring a potential enemy from aggression (deterrence-mission), while the second is to provide some guidelines for the effective combat against an aggressor if deterrence should fail (warfighting-mission). If NATO wants Flexible Response to be seen as credible enough, it must constantly ensure that both missions of deterrence and warfighting are perceived by a potential aggressor as such. Clearly, it is true

that there is no linear automatism between deterrence and warfighting, since both missions are parts of the same coin and they influence each other, but our analytic distinction is nevertheless useful in order to better understand the dialectic interplay which exists between the two.

How far does the modernization of TNW in Europe fit into NATO's declared strategy of Flexible Response with regard to its two missions of deterrence and warfighting?

a) deterrence-mission. Beginning with the first question, if TNW support the credibility of Flexible Response by strengthening its deterrence mission, it is useful to recall the old distinction between deterrence by denial and deterrence by punishment (15). Even if exact details of Flexible Response (and of the more recent 'General Political Guidelines' (GPG) released in 1986) are not known, their inherent idea is that the Alliance will be able to adequately respond to any level of aggression, and thus the aggressor could never obtain what it seeks (denial). Since TNW fit into the aim of NATO to keep an escalation under control, it can be argued that the mission of Flexible Response to deter an aggressor by denying him his objectives is positively enhanced by the presence of TNW in Europe.

The second element of deterrence, the punishment of an aggressor, draws wider circles, including not only theater nuclear capabilities deployed on European territory, but also strategic bombers, ICBMs and sea-based nuclear systems of the United States as well. Deterrence by punishment is evidenced by catchwords like 'extended deterrence' and 'coupling', the US involvement in the security of Western Europe. Several Western Europeans are concerned about theater nuclear weapons, because they fear that coupling would not work if required and that a limited conventional and/or nuclear war on European territory could occur without a total involvement of the United States. In other words, they are alarmed that TNW, by virtue of their (localized) nature weaken deterrence by punishment, rather than reinforce it. Trying to increase the credibility of deterrence by punishment, this is why Western European leaders pressured the United States to deploy new intermediate-range nuclear missiles on European territory during the second half of the seventies (16). Whether such doubts and fears are justified, and whether criticism of NATO's declared strategy is appropriate (17), Flexible Response is still official and valid, and therefore the remaining nuclear TNW-capabilities in Europe after the INF-Treaty do no harm to the declared policy of the Atlantic Alliance. This policy in fact assumes that such a security link between Western Europe and the United States will work if required and that a punishment of an eventual aggressor must be taken for granted. Thus, TNW in Western Europe are to some extent coherent with the declared Alliance strategy of Flexible Response to deter an eventual aggressor by denial and punishment. But, again, if such strategy is credible in itself and appropriate for the members of the Alliance remains another question.

b) warfighting-mission. The picture is somewhat less reassuring as one looks at the second mission of NATO's declared strategy: to provide some credible guidelines for effective warfare in case of an aggression. The main issue in this field is Command, Control and Communications (C3), and, interestingly, both opponents and apologizers of TNW in Europe are concerned about this point (18). In peacetime, most TNW are under exclusive American operational control and equipped with electronic locks of the last generation

(Permissive Action Links - PAL), and therefore an unauthorized use of these nuclear weapons can be almost certainly excluded (19). In times of war, however, the situation would be much more worrisome. Apart from the fact that, even with some reservations, British nuclear forces are integrated into NATO's C3-net and that French nuclear forces have a distinct political and military role outside of NATO by definition, several in part differently operating national C3-systems and -structures exist also in some other countries of the Western Alliance, and they too are not fully compatible with NATO's Integrated Communications System (NICS) which is currently in structure (20). The chaos which would emerge during times of crisis because of these structural problems can easily be visualized. A single and centralized C3-net would be needed in order to shorten the necessary political consultation time and the military bottom-up requests and top-down releases. However, such a task is not feasible, since it is unlikely that any Western European ally would agree to give up its co-decisional authority, however weak it may at present be (21). Another point of concern is that the existing C3-systems are very vulnerable to thermal effects, radiation and the electro-magnetic pulse (EMP) and it is not possible to harden them to a reasonable and satisfying extent. This is why several observers warn that, "so long as TNW are physically present in Central Europe and widely-distributed among Allied ground forces under C3 arrangements vulnerable to disruption or attack, the risk of uncontrolled escalation remains" (22).

In sum, it can be concluded that, even if TNW in Europe are to a certain degree compatible with the first mission of NATO's declared strategy to assure deterrence by denial and punishment, this is more questionable with regard to the second mission of Flexible Response to provide some credible guidelines for the effective and successful management of military operations in times of war. It has been questioned why the probable incapacity of NATO to control an escalation of theater nuclear operations in Europe should necessarily be a real point of concern, since such weakness also has some positive repercussions: "What would happen to the western concept to deter any - not only a nuclear - war, if the superpowers could be sure to avoid a slip of control? (...) It should not be mistaken that even the possibility that escalation control could fail, i.e. the danger that a conventional conflict leads to a nuclear blow-up, compels both superpowers to deal with each other very carefully" (23). Even if this objection to the critics of the existing C3 regime is not unmotivated, however, what remains is a paradox and ambiguous situation in which, with regard to TNW, reciprocal security and stability are supported by both the intended credibility of Flexible Response's first mission (deterrence) and by the unintended incredibility of its second mission (warfigthing). If NATO's aim is to be able to guarantee its own security through conscious policy actions in the long run, it should avoid such paradoxical mixtures of intended and unintended moves by adjusting either its doctrine to its capabilities or viceversa. Maybe both are needed? However, NATO's recent decision to reduce its reliance on nuclear weapons and to elaborate a new strategy making nuclear forces in general and therefore also TNW in specific "weapons of last resort" could become an important step towards a more credible and less ambiguous strategy (24).

### (3) ALLIANCE COHESION

Another main factor which has to be considered in an evaluation of the role of TNW in Western Europe is the cohesion of the Atlantic Alliance. This indicator is not new, even if prevailing political and military circumstances make it appear and disappear as an issue of the public debate from time to time. Some of the past circumstances during which European-American or intra-European political and military divergences came to the surface include the debate over the acceptance of Flexible Response by NATO during the sixties, the debate over the introduction of the so-called neutron bomb in the seventies and the INF-experience in the eighties. The Strategic Defence Initiative could become another major intra-Alliance point of friction, if such a system should become operational before the end of the century.

What do TNW in Europe, in their present or future form, contribute to reinforcing the cohesion of the Atlantic Alliance? NATO's recent London summit meeting has indicated that its leaders are willing to renounce sooner or later ground-based nuclear artillery and short-range Lance missiles. However, many details are not yet clarified by the members of the Atlantic Alliance, neither with regard to possible future operational performances of a potential stand-off missile nor to the final aim of TNW arms control negotiations, since there are at least four possible outcomes of a final East-West agreement on nuclear artillery and Lance missiles which could include (a) partial or (b) total zero solutions on a (c) regional or on a (d) global basis (25). Furthermore, with regard to older and newer air-based systems (gravity bombs and stand-off missiles), the search for Alliance consensus is still at its very beginnings, and some countries, including West Germany, are already expressing reservations and doubts with regard to the desirability of their modernization. NATO's Nuclear Planning Group, meeting in May 1990 in Canada, preferring again to remain evasive on the subject of a new Tactical Air-to Surface missile (TASM) still under development in the United States, stated only that "substrategic nuclear systems offering both flexibility and longer range will assume greater importance" (26).

In sum, Alliance cohesion with regard to future theater nuclear weapons in Europe is far from being reached and characterized by difficulties and ambiguities, as had been the case during the INF-episode, only recently concluded by the signature of a Treaty (27). Cohesion on TNW in Europe depends on several factors which are perceived differently by the 16 nations of the Alliance, e.g. with regard to the nature and magnitude of the threat, to the economic and political costs of the development of new technological systems and to the domestic political polarizations over TNW in any given country. Another aspect which influences the cohesion of the Alliance is worth mentioning here, and that is the specificity of the debate. The INF-experience has shown that, the more specific the debate on research, development, production and the final deployment of intermediate-range nuclear missiles became, the less the Alliance was able to demonstrate cohesion to its Eastern European neighbours (28). This lesson from the INF-experience should be kept in mind, since it will not be different with regard to TNW. If the aim is to do both (maintain Alliance cohesion and modernize TNW in Europe) one has to start from the premise that serious points of friction will emerge as soon as NATO as a whole has to decide which kind of theater nuclear weapons to maintain in Western Europe in future and where and how to deploy them.

#### (4) THREATS AND THREAT PERCEPTIONS

The nature and the magnitude of the threat, and NATO's perception of it, also affect an evaluation of the role for theater nuclear weapons in Western Europe. Section 2 has indicated that the Alliance, for about forty years, believed in the general existence of a Soviet threat and that NATO's TNW contributed to fulfilling the two missions of its strategy - to restrain the Soviet threat by deterrence and to fight a war effectively if deterrence should fail. In this sense, for those who agree with Flexible Response, a maintenance and modernization of its TNW arsenal has been to some extent a logical and coherent step.

But does it make sense to justify the presence of TNW in Western Europe because of Soviet nuclear capabilities deployed in the East? Clearly, it does not. The Soviet threat cannot be defined in terms of its theater nuclear capabilities alone, but it must be seen in the context of its strategic nuclear and theater conventional and chemical forces and armaments as well. The Comprehensive Concept released in 1989 shows that a direct linkage between Eastern and Western capabilities is not in NATO's interest, since "the sub-strategic nuclear forces deployed by member countries of the Alliance are not principally a counter to similar systems operated by members of the WTO" (29).

However, even if the Atlantic Alliance may have good reasons for refusing a direct link between its own theater nuclear capabilities and those of the eastern adversary, which policy should NATO pursue with regard to separate TNW arms control negotiations which will probably begin soon, as a result of the recent evolution of East-West relations? The Soviet Union has made several diplomatic advances on this issue and has repeatedly proposed that NATO immediately begin negotiations with the goal of eliminating TNW from Europe (30). Equal and controlled ceilings are no doubt in NATO's interest, since the Soviet Union still has an impressive number of theater nuclear weapons deployed on its side: older Frog-7 (range: 70 km; CEP: 400 m) and Scud SS-1C (range: 300 km; CEP: 900 m) short-range ballistic missiles have not been significantly reduced in recent years, and the number of the launchers for the more recent SS-21 Scarab (range: 120 km; CEP: 300m) with a 100 kiloton yield has more than doubled (31). The situation is not much different with regard to nuclear artillery and medium-range bombers, where only the old TU-16 Badger has been significantly reduced (from 452 in 1988 to 276 in 1989), while tactical aircraft remained at similar levels between 1988 and 1989 (32).

To date Soviet theater nuclear capabilities remain impressive, and, since they represent at least a part of the Soviet threat, a reduction of this arsenal through arms control negotiations would contribute to diminishing the Soviet threat in general. However, it is also evident that a reduction or even elimination of Eastern and Western TNW alone would not seriously affect the quantitative conventional and nuclear superiority and the geo-strategic advantages which the Soviet Union has with regard to Europe. In other words, the Soviet threat will never vanish totally: it can be augmented or diminished, but it can never be entirely abolished. But partial or total zero solutions with regard to TNW should nevertheless be considered seriously and not refused a priori. Even NATO has recently admitted that the Soviet threat has diminished to a record low since the end of World War II and that therefore it could be more appropriate for the future to speak about "risks" rather than "threats" (33). If this distinction between threats and risks is something more than a



political and diplomatic play on words and if the trend towards further reductions of Soviet military power ideally continues ad infinitum, the Atlantic Alliance would sooner or later wake up in a new strategic scenario in which it would have to oppose theater nuclear weapons to Soviet soldiers armed only with stones and clubs. Clearly, nobody considers this possibility seriously, but if we want to assess the sense and nonsense of NATO's TNW in Europe with regard to the Soviet threat, then we have first of all to define where we are on the ladder between a 'big' and a 'small' Soviet threat. However, since there are enormous changes currently occurring in the Soviet Union and in its Eastern European neighbours (who can no longer be considered Eastern military allies), NATO's recent decision to negotiate nuclear artillery and short-range missiles and to link these negotiations to the ongoing CFE negotiations in Vienna is at least a step in the right direction towards a more comprehensive and strategic policy.

Some last considerations with regard to an emerging threat, recently arising from the South: the growing proliferation of launchers, short- and medium-range missiles and chemical and nuclear warheads in Middle Eastern and North African countries like Iraq, Syria, Israel and Lybia are worrying developments which could make it necessary for Western European allies to deal with that matter in a more concerted way than it has been in the past (34). However, the extent of this emerging out-of-area threat is not yet clear, and there are at least three conditions which are necessary before NATO could implement some actions in a more concerted way. First, NATO nations would need a common perception of the emerging threat, but recent US-European tensions (e.g. over Lybia and the Palestinians) and intra-European differences (because of different economic and political interests and investments in that geographic area) suggest that the Atlantic Alliance may not be able to show cohesion with regard to this new threat, not even in the future. Second, only after such a common threat perception has been reached, NATO could start to consider if and how far it is desirable (or even avoidable?) to create a new strategic scenario of conventional, chemical and nuclear deterrence and defence with regard to the Southern Mediterranean countries. Only after having developed a common position with regard to these first and second conditions, the Atlantic Alliance could start serious discussions over which ground-, sea- or air-based weapons could be suitable for such a strategy of deterrence and defence towards Southern Mediterranean countries (35).

#### (5) COSTS

Some brief considerations must be made with regard to another main factor - the costs of research and development, deployment, maintenance and modernization of theater nuclear weapons in Western Europe. Furthermore, since costs can be at least economic and political, it would not be wise to simply question how much money TNW for Europe cost in order to get a satisfying evaluation of the role of these weapons systems. The last word in NATO's policy with regard to the newest nuclear candidate for the European theater, the Tactical Air to Surface missile, has not yet been spoken, so that at present there is a sort of provisional division of the US-European burden-sharing into economic and political costs: the United States pays for TASM research and development, while the European allies will have to finally accept the new weapon on their territory. However, it can be expected that, as it was the case

during INF, this somewhat artificial burden-sharing into economic and political costs will at least partially disappear again as soon as the Alliance as a whole will finally have to decide on the deployment of the new system.

Since costs are not only economic but also political, a real evaluation of TNW in Europe must necessarily start from a comprehensive cost-benefit analysis. Apart from intermediate options, the leaders of the Atlantic Alliance will have to consider at least four future possibilities, since TNW can in fact cost little and have a small or great political and military benefit, and they can be very expensive and have a small or great political and military benefit. The cost-benefit evaluation gets further complicated by the fact that political and military benefits are not necessarily compatible and that they can therefore be estimated differently by different people. Political and military decisionmakers have differing opinions regarding the utility of specific conventional, chemical and nuclear weapons systems, and a consensus has to be worked out not only in each single country but also within the Alliance as a whole. Recent Committee Hearings indicate that the US Congress does not seem enthusiastic about the prospect of spending millions of dollars for the development of a new Air to Surface Missile - which is perceived to be a major replacement for the capabilities given up with the INF Treaty (36). It will also be interesting to see which Western European ally will be willing to accept the new stand-off missile on its territory. This brings us to the next main factor which Western leaderships should consider before deciding on future TNW in Europe:

#### (6) THE DOMESTIC CONTEXT

Several authors dealing with TNW modernization in Europe have recently expressed their concern that Western public opinion could increasingly become critical over theater nuclear weapons deployed in Western Europe, leading to the collapse of existing governments who are supporting the policy of the Atlantic Alliance (37). They often reinforce their point by recalling the INF-experience, which has no doubt been very impressive in that sense: "Memories of the peace movement, mass demonstrations and the Soviet campaign to prevent Euromissile deployment have faded, but the divisive arguments of the early 1980s still cast a shadow over current debates on European security" (38). Now, it is true that domestic factors play a role in the game and this is why governing elites have to take these into account when discussing and deciding on issues which affect the security of the Atlantic Alliance, but, the problem lies in understanding how much this is necessary. In other words, and with regard to TNW, the question is: how much can public opinion negatively affect the decision of the Atlantic Alliance to modernize its theater nuclear weapons in Europe?

Two observations must be made. First, peace movements should not be equated with public opinion. To see hundreds of thousands of demonstrators on the streets, as was the case during the first years of the eighties, is no doubt impressive, but it does not automatically lead to the conclusion that the entire population of a country supports these activists (39). In order to get a reasonable estimate of the public aversion against a specific decision of the government, both latent and manifest attitudes must be analyzed through a continuous consideration of both peace movements and public opinion polls (40). Second, the attitudes of public opinion with regard to foreign and security

policy should not be equated with electoral results. Even if it is assumed that the majority of the voting population in a given country objects to a politico-military decision of its leadership, it does not automatically mean that this will have a proportional reflection in electoral results. People vote in favour of or against political parties not mainly because of foreign and security policy issues, but because of other factors like taxes and social insurances which they usually perceive as more important for their personal survival. This is clearly evidenced by the INF-experience: despite the fact that the deployment of new intermediate-range nuclear missiles on European territory had been a hot issue during the electoral campaigns in several countries and that millions of people were protesting in the streets against them, in not one single country did Western European leaderships who supported the double-track decision in 1979 lose their reins of power in elections during the following five years. In fact, ruling governments were even reinforced in some countries (41).

Coming back to the question posed above with regard to the possible impact of public opinion on theater nuclear modernization in Europe, while it may be true that the TNW-issue has the potential to unseat some political leaders, we should be careful not to overestimate this possibility. Peace movements and public aversion to political and military decisions of their leaderships rise and fall depending on the issues which they perceive as most important in a given moment. This happened in the fifties and sixties with the Easter marches and with Vietnam, in the seventies with the so-called neutron bomb and in the eighties with INF. We probably will have to reckon with this again also during the nineties, as soon as the Atlantic Alliance will have to decide if and where in Western Europe the new stand-off missile has to be deployed. However, it has also to be recognized that the political circumstances during the nineties will be very different if compared to older decades - the current relaxation of tensions between the superpowers and the diminishing threat perceptions of both voters and leaderships are new factors which will have an influence on the societal polarization over security issues in general and over a yes or no to theater nuclear weapons in specific. Peace movements in the nineties will be distant cousins of the ones that were seen a decade ago.

## CONCLUSIONS

We have seen that several indicators can help political and military leaders to come to a comprehensive strategic evaluation of the chances and risks of a modernization of theater nuclear weapons in Europe. The six indicators discussed above - capabilities, strategy, cohesion, threat and threat perception, costs and the domestic context - have existed since the Atlantic Alliance was founded forty years ago, even if they grew, diminished or even disappeared temporarily, depending on the existing historic circumstances which prevailed in specific periods of time. Decisionmakers should weigh the varying role of these indicators regularly. Certainly, to maintain Alliance cohesion can at times be more important than to damp domestic opposition and viceversa, and the same is valid with regard to costs, threats and Alliance capabilities and strategy; but decisionmakers should be aware that strategy is more than an occasional recognition of just one or the other of the six indicators we have evidenced in the previous sections.

History always changes, and this is especially true also with regard to the influences that the year 1989 will have on the future debate over theater nuclear weapons in Europe. In 1983, when NATO's Nuclear Planning Group had set new guidelines for a modernization of its European theater nuclear arsenal, the political and military circumstances were totally different from those of 1989, when a new provisional compromise over these weapons systems was reached at NATO's 40th summit meeting in Bruxelles. In 1983, US-Soviet relations were tense because of many regional conflicts from Afghanistan to Nicaragua, arms control was not proceeding well and the Europeans were at the beginning of their INF-deploymental phase; in 1989, new and more moderate leaderships in both the United States and the Soviet Union had already done a lot in order to solve regional crises, the INF-Treaty had been signed two years before and both Western and Eastern Europeans were already beginning to hope for a new and common future. However, even if trends can be analyzed and tendencies can to a certain degree be foreseen, the perception of a new event is always behind the changing event itself. Since NATO's 40th anniversary summit meeting in 1989, the strategic East-West environment has again changed and is still changing with almost revolutionary speed, and everybody from the housewife to the expert of international relations has observed with incredulous eyes how the Berlin wall finally crashed down and how the domino-theory could finally be applied with success, even if not, ironically, in its originally intended form. Better red than dead or viceversa is definitively no longer a question (if it ever was one), since the color has already lost a lot if not all of its original brightness. To speak about the role of theater nuclear weapons in Europe has again taken on a radically different meaning compared to that of one year ago.

Another more general observation must be made: looking at the comments and proposals which have been made in recent years by political and military decisionmakers and experts of the security community with regard to the role of TNW in Europe, then the impression arises that these people have been staring too much at what the potential enemy said and thought and have at times neglected their own perception of the issue. Westerners who are concerned about NATO's Flexible Response, of its conventional and nuclear capabilities and of the compatibilities and incompatibilities of one upon another, usually think in terms of credibility, i.e. whether or not the political aggressor perceives the policy of the Atlantic Alliance as credible enough to make deterrence work. There is nothing wrong in doing this, but it does not suffice: the Atlantic Alliance should look into the mirror more frequently and ask if and to what extent its sixteen members perceive their own policy as credible enough. It is of course a problem to admit officially that one own's strategy is far from being perfect, since the other is always listening. However, what has never been said with regard to TNW deployed in Europe is that these weapons do not only deter a potential military aggression, but they also deter oneself from defending his own values by using these weapons if a critical situation requires such a step. Both kinds of deterrence, the deterrence of the other and self-deterrence, exist at the same time and are effective with regard to both denial and punishment, since Western Europeans also risk losing what they want to deny to an aggressor and they risk very strong punishment if an unlimited nuclear war should affect the old continent.

The self-perception of a problem is at least as important as the other's perception of it, and this is especially true also with regard to an evaluation of the present and future role of theater nuclear weapons in Europe. We must be convinced of our own actions before we can hope that others will take us seriously. The gradual transition from Massive Retaliation to Flexible Response

in the late fifties and early sixties shows that the United States was seriously concerned about credibility with regard to the interplay between 'self' and 'other' perceptions, since this necessarily affected the foundations of their own policy. This is just as important today, with all the radical changes currently occurring between East and West. Maybe a new and more credible policy for both the Atlantic Alliance and the Warsaw Pact could start from a new slogan: Back to strategy.

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## NOTES

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- (1) United States Information Service, May 4 1990, p. 1
  - (2) excerpts of the document are reprinted in the International Herald Tribune, 7-8 July 1990
  - (3) the INF agreement had been signed in early December 1987 between Reagan and Gorbachev in Washington, and ratification occurred during the following months in both the United States and the Soviet Union. On 1 June 1988, the two leaders signed the INF Treaty, which provided for a global elimination of both longer-range (1.000-5.500 km) and shorter-range (500-1.000 km) nuclear missiles
  - (4) NATO Press Communique M-1 (89) 20, page 13
  - (5) according to the IISS 1990: p. 9
  - (6) see Neue Zürcher Zeitung 15.3.1990 and 29.3.1990
  - (7) Evangelista 1988: 10. Evangelista gives a very detailed analysis of the US innovation process with regard to TNW in the early Fifties (pp. 86-154); see also Kamp 1988: 7-14, especially his criticism that the acquisition of TNW during those times was "de facto nothing else but an accumulation of different types of nuclear arms without a clear idea with regard to their specific military utility" (traduction: R.Z.)
  - (8) See Kamp 1988: 49-50
  - (9) See The Military Balance 1989-1990; Binnendijk 1989: 146; Kamp 1988: 51-52
  - (10) See Neue Zürcher Zeitung 25.5.1990

- (11) The Military Balance 1989-1990; Kamp 1988: 52-53
- (12) See Binnendijk 1989: 143; James 1988: 21; Kamp 1988: 55
- (13) The Military Balance 1989-1990; Kamp 1988: 53-54
- (14) See James 1988: 21-22; Kamp 1988: 56
- (15) Deterrence by denial is the message to the aggressor that he will not be able to gain his objectives through an attack, while deterrence by punishment means that the invader would suffer an enormous pain through such an attack: he would be punished; see Freedman 1989: 112f
- (16) See Zadra 1990: 60f. France's exit from NATO's military command in 1966 is another example of the Western European skepticism with regard to coupling
- (17) See Baylis 1987/88: 43f and Stromseth 1988: 175f
- (18) See De Andreis 1989, Sigal 1989, Kamp 1988, McArdle Kelleher 1988
- (19) However, some obsolete PAL are still present on TNW in Europe; see McArdle Kelleher 1988: 61
- (20) See Kamp 1988: 25-26; McArdle Kelleher 1988: 72-75
- (21) Some sort of bilateral dual-key arrangements between the United States and some Western European countries with regard to specific nuclear weapons systems apparently exist; however, they are kept secret
- (22) McArdle Kelleher 1988: 75; see also Kamp 1988: 26f
- (23) Kamp 1988: 30 (traduction: R.Z.)
- (24) see International Herald Tribune, 7-8 July 1990
- (25) Allied differences over TNW in general are described in HSFK 1989: 9-45 and Heisbourg 1989: 315-318
- (26) Nouvelles Atlantiques-Atlantic News, 12 May 1990
- (27) For a detailed analysis of intra-Alliance tensions during that time see Zadra 1990: 63-70 and Nitze 1989: 366f
- (28) For more details on the relationship between INF-specificity and NATO cohesion, including a discussion whether such cohesion is necessary if at all, see Zadra 1990: 70-72
- (29) NATO 1989: 11. A direct linkage had been made by the West during the INF episode and given up after the signature of the INF Treaty.

- (30) On 7 December 1988, in his famous speech at the United Nations, the Soviet leader announced his intent for unilateral retirement of a symbolic number of launchers for short-range nuclear missiles and an unknown number of nuclear artillery. Three months later, on 6 March 1989, Soviet Foreign Minister Schewardnadse again offered NATO to retire those weapons to a distance from which they could no longer reach the territory of the other alliance. A new initiative came on 17 May, when the Soviet Union announced a further unilateral reduction of 500 theater nuclear warheads from Europe (missile warheads, gravity bombs and artillery rounds)
- (31) From 140 launchers in 1988 to 300 in 1989; the Frog-7 had 650 launchers in 1988 and 630 in 1989; the SS-1C Scud remains at 630 launchers in both years; see The Military Balance 1988-1989 and 1989-1990
- (32) For the Mig-27, Su-17 and Su-24; the Mig-21 has been significantly increased from 135 in 1988 to 180 in 1989
- (33) See Atlantic News, 16 March 1989, p. 1-2
- (34) For a general overview on chances and limits for a coordinated out-of-area policy by the Atlantic Alliance see Bentinck 1986 and Coffey/Bonvicini 1989
- (35) However, it is evident that, at least at present, ground-based nuclear missiles and nuclear artillery would not be the first candidates for this purpose because of their limited applicability, while intermediate-range missiles are prohibited by the INF-Treaty
- (36) see for this Committee on Armed Services 1989, H.A.S.C. No. 101-1, especially p. 407
- (37) This concern has been expressed particularly with regard to West Germany, see HSFK 1989: 10f, Binnendjik 1989: 149-151
- (38) Asmus 1988: 500
- (39) For an analysis of the chances and limits of peace movements in Western Europe see Zadra 1987
- (40) This is what most Western European decisionmakers seem to have realized in the meantime; after a first phase of uneasiness and nervousness because of mass demonstrations, never seen before in such magnitude, today they seem to look at street activism with a different and more relaxed eye
- (41) See Zadra 1987



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