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"ORGANIZATION AND INSTITUTIONS OF EUROPEAN DEFENSE"

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CONFERENCE ON EUROPEAN DEFENCE

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Forward

a) The term "European" refers here to western Europe and not to Europe in the broad sense (for example, the Europe of the CESC). Geographically it includes the countries which are present members of the EEC, regardless of whether they belong to the Atlantic Alliance or not, the other European countries belonging to NATO, and Spain (all of whom are potentially future EEC members). We, therefore, refer to a European "core" to which can be added several "aggregates". The neutral non-aligned countries are not included.

b) The term "defense" does not only include military defense of the boundaries set above in part (a), but also the defense and the furthering of the interests these countries have both in Europe itself, as well as in other regions of the globe. Although "defense" is a restrictive, strictly military term, it actually stands for a political concept that includes elements of foreign policy as well as military policy. It might be more exact to use the term "European strategy and security policies" but for reasons of conciseness, we will continue to use the term "European defense".

The assumption of this paper is, on the one hand, a by in large continually stable international situation, and on the other, the continued division of western and eastern Europe bequeathed from the Second World War, though attenuated by the change in the atmosphere of international relations from one of cold war to détente. European defense will thus continue even in the future to be based on an alliance with the United States and on the balance of nuclear and conventional forces between East and West.

The changes that have come about in the last few years, with the toning down of the East-West ideological conflict, the beginning steps toward a security system and a reduction of forces in Central Europe, and the change in the relations between the United States and Europe, even though they may influence defense and security policy, will not be analyzed here. They are taken for granted as part of the general background. An analysis of the probable institutional alternatives in European defense leads inevitably to a discussion more of relations within the Atlantic Alliance itself than between East and West. This is merely a methodological limitation that will have to be dropped later on in the study, when the hypotheses for European security are evaluated for their strategic credibility as well as their bearing on détente.

The Political Dimensions of European Defense

The definition that we gave for European defense brings into the foreground the connection between the military sides of security. The disagreements between Europe and America and many of the world crises that have occurred in the last few years have had to do more with economical and political problems than with military ones, even if often

they have had repercussions of a military nature, or if in certain moments specific military capacities just by being there (maneuvers, declarations, alarms, etc.) have been an element of the crises themselves.

It's clear, however, that we can no longer think of defense just from a military standpoint. There is a very close connection between defense and foreign policy. Even the NATO crisis itself, as we shall have occasion to see, is more political than military.

Though there may be other approaches based almost solely on an evaluation of the technical and military aspects of defense, this paper will outline institutional possibilities for both political and military requirements.

In their functioning European institutions should be able to guarantee the following:

1) a framework for the formulation of political and military objectives that ensures democratic control of the activities of the institutions themselves;

2) ensurance of coordination of capacities and strategy with the political objectives of security;

3) capacity to work out strategic and tactical operations plans in line with foreign policy;

4) maintenance of adequate military forces;

5) planning of the economic resources to be assigned to defense (the financing of advanced sectors, R & D, etc.);

6) maintenance of an adequate military industrial complex to guarantee an optimal level of arms procurement and arms trade;

7) having available an appropriate structure for the political and military control of crises.

NATO, though it has been for the last twenty-five years and continues to be the cornerstone of East-West equilibrium, is suffering from serious shortcomings on the economic and institutional levels.

On the strategic level the main role of NATO has been in these years to assure the nuclear deterrent mainly through the American presence in Europe. The nuclear potential, especially important from the European side,has been the key element in the strategic framework of the Alliance. Today a reappraisal of conventional warfare is going on, no longer understood as a backing up of the nuclear force but as real combat capability in itself. This strategic evolution has necessitated changes in the relations between Europe and America. The American presence in Europe, as crucial as it is, cannot by itself guarantee deterrence. Even if this change can be kept within the framework of existing Atlantic relations, a different European political and military presence is required, and therefore, also, the institutional machinery that makes it possible.

On the political level there is much talk of a European and an American component operating side by side and of their being the two "pillars" of the Atlantic system. Of these two, the American one is actually effective but the European exists only in the form of separate national policies, of intergovernmental meetings, and of the Command of the European Forces (entrusted to an American). This lack of balance between the partners has made it difficult to make the machinery of political consultation work, and by emphasizing the dominant American role, has thus increased the gap between the USA and its allies. In situations of crisis the multilateral machinery tends to delegate responsibilities and decisions to the American government, abdicating its role in political planning.

The model for the Atlantic political consultations, even when formally they may appear to be multilateral, is, in fact, star-shaped with the United States as its axis, who maintains a series of bilateral relations and acts as arbiter in reaching a compromise between individual national interests. Later this compromise becomes the NATO policy. The model involved is a multi-sided bilateral one in which the coordination of the European positions turns out to be more an aspiration than a fact. In relatively quiet situations it may be that the European positions get to be expressed in other ways (in general this is true for the European countries in the EEC, that is, those countries that have created their own institutional machinery for the coordination and elaboration of foreign policy). In situations of crisis there is not time to get the slow and complicated system of intereuropean consultations to work and then the Alliance's machinery comes to the fore. In the absence of a common European policy in these cases, the American initiative becomes the real determining factor.

On the economic level there is no real planning, that is carrying out a common plan for defense budgets, nor is there any real military integration (sketched out only on the level of common commands), nor any logistic integration or standardization of armaments. Ad hoc organisms such as the Economic Committee, turn out interesting studies that, however, remain theoretical, and they are not gone into more deeply by the Atlantic Council in ministerial session nor turned into operational decisions.

From the beginning, the debate on the institutional reform of NATO has been overshadowed by the nuclear problem on which the main part of the organization of European defense has been based. Various proposals of reform have been made: on the one hand, the Gaullist one (a directory of the USA, the UK, and France), and on the other, some strictly military proposals (the creation of the MLF and the ANF). In concentrating on the nuclear aspects, the key problem of the reinforcement of the European presence was lost sight of and this eventually worked towards France's leaving the military organization by reasoning

strictly on the grounds of national security. Within the Alliance various permanent ad hoc organisms have been created (NDAC and NPG) that have tried to reconcile national requirements with that of a common deterrence.

The nationalistic nuclear side of the controversy puts the more important discussion of the reform of political institutions into a secondary position, i.e. the improvement of the decision-making and consultation systems and the creation of a NATO Foreign Ministry, etc. Proposals and analyses had already spotted the political shortcomings of the Atlantic system. They proposed two different alternatives either by a greater Atlantic integration or by European reorganization within the Atlantic community. In both cases it was underestimated what later experience of crises in the international organizations has made obvious: the difficulty of reconciling the need for an integrated international structure and the absence of a supernational power to control it. The practical result turns out to be that control gets to be more and more identified with the negative power of the right of veto, while the positive power of taking initiatives, working out problems, and programming is left to technical, especially to military organs.

Finally as an intergovernmental structure, NATO is without parliamentary political control. Since it doesn't have an official parliamentary assembly (the North Atlantic Assembly is not an integral part of the organization and is not politically representative), it should be controlled by the individual governments of the member states. As a matter of fact, the decision-making machinery makes it easy to deal with general questions and makes it hard to deal with specific ones. It is true that each government is responsible to its own parliament, but the individual parliaments, even in the best of cases, can only control a small fraction of the complicated multilateral organization; they lack an overall view and aren't well enough informed.

The failure to solve these institutional problems is why there has been, and still is, a widespread scepticism as to the possibilities of reforming the Alliance.

Some European Experiments

Looking over the experience of the Eurogroup, the Western European Union, and the F.I.N.A.Be.L.Committee, we do not find anything particularly new.

The Eurogroup is within NATO, the WEU has delegated the better part of its powers to the Atlantic Alliance, and F.I.N.A.Be.L. is an informal organism without political representation and hasn't had any particular effect on the history of European defense.

The Eurogroup provides mainly a place to discuss the coordination of the particular aspects of European defense such as standardization, the rationalization, and the co-production of weapons. The initial task was to discuss among Europeans the problem of burden-sharing. Then it put out a series of communications in which were listed the measures for strengthening to be undertaken by the individual national administrations. Although its structure has been enriched by a series of committees, it has continued to be essentially intergovernmental in character, and its policy has not much departed from that of the larger Atlantic Council.

France has shown signs recently of wanting to take up the question of European defense again through the WEU. This proposal, however, has not summoned much interest because of the limitations intrinsic to this organization. Its history shows how seriously in crisis it is politically and structurally. Because of certain articles that have run out, violations, and restrictive interpretations of the Institute Treaty, it should be remembered that the Paris Agreements are discriminatory. In fact, there have been inserted articles regarding the control of arms that make the insular position of Great Britain a privileged one and that institutionalize a series of arms control limitations and checks of West Germany.

Turning to the WEU today, it has the advantage of being able to initiate discussions on defense with France, who is outside NATO and the Eurogroup. At the same time, however, it keeps discussion within a political and institutional framework that no longer corresponds to the changing relations within Europe. There exists an inertia in international organizations that makes it difficult to reform them, not to mention in this case changing the Institute Treaty.

Foreign Policy and Defense Policy--a Preferential Area

In all these organizations consultations have taken place and documents worked out on international policy. It might suffice to mention the Harmel exercise, the consultations of the WEU in preparation for Great Britain's entry into the EEC, etc. However, these consultations were more the result of sporadic initiatives or of particular political conditions, than the product of a normal working institutional apparatus.

The member countries of the European Community have created the beginnings of such an institution through the mechanism of political consultation connected with the Community and started by the Davignon Committee.

This makes one thing obvious: the EEC, in spite of difficulties, insufficiencies, crises, and failures to come through with what it promised, has given signs in all these years of being the one political

organ in which the European countries in the present-day international order of things may take political action and begin the process of overcoming their traditional nationalistic feuds.

There is lacking, however, coordination in the mechanism of political consultation with the member countries of the EEC and the military structures. However, a political framework already exists on general lines that contemplates the necessity of such coordination. The way was shown for the first time at the Paris Summit Meeting of 1972 when the Ministers of the Nine came to an agreement on the creation of a European Union to be brought into being by 1980. The final report says that the creation of the European Union would involve the necessary transformation of the inter-relations of the member states (and here by the inter-relations is clearly understood the foreign and defense policies). The European Parliament has also considered it necessary to study the effects of a European foreign policy on the problems of defense and entrusted this task in 1973 to Lord Gladwyn (the subsequent resolution was adopted in the Political Commission on December 20, 1974). This initiative was taken in relation to the fact that the Community institutions (among them the Parliament) were charged by the Paris Summit M. with the preparation of reports on the European Union. Even the declaration of a European Identity made by the Nine on the occasion of the Copenhagen Summit M. in 1973, was expressed in this way when it says that "the Nine will never manage to reach one of their essential objects--that is to preserve the peace--if they ignore their own security.".

Reasoning within the Community means, however, coming up against the problems peculiar to the Community, too. The experience of these last few years has shown that the present institutions have a very small chance of carrying out the tasks for the European Union required of them by these meetings. There is widespread opinion that the overlapping of the two methods, hardly compatible with each other, namely the supernational and the intergovernmental ones, has provoked a gradual paralysis of the Community institutions. Even the Council of Ministries has had its importance greatly weakened by the contamination of the intergovernmental method, by the abuse of the right of veto and by the recourse to summit meetings causing paralysis in its decision-making activity.

In like manner the Commission, blocked from the first by the emergence of the Co. Re. Per., has not managed to recover its role of promoter of new policies, but has been restricted to defending the tasks assigned to it by the Rome Treaty.

The European Parliament, snubbed from the very beginning in the integration process, has slightly improved its position by winning a bit of budgeting power and by improving the consultation procedures with the Council. It continues to be, however, politically.

non-representative since it is not elected by universal suffrage and is deprived of any real political power.

In spite of all this, the Community continues to be the most politically-minded area and the best adapted for autonomous European initiatives. However, the crisis in the Community institutions, cannot help but influence the discussion on European defense, too.

A Working Hypothesis

Any reopening of the debate on defense within the Community cannot avoid being influenced by the negative experience of the EDC. There are many who maintain, on the basis of that precedent, that the creation of A European Defense Community is by now an anachronism, and that by turning down the proposal of the EDC, Europe has made a choice that cannot be gone back on and an attempt to do so again today would only mean creating new tensions within the Community and getting Europe into trouble with the two superpowers.

However, many things have doubtlessly changed since then. European defense could not only better utilize its available resources but also do so alternating the strategic equilibrium accepted by now by the two superpowers. The change could, on the contrary, come about in such a way as not to prejudice or harm the process of East-West negotiations.

An Institutional Model

Building on these premises an institutional model for European defense can be worked out. Just as for all models this has merely heuristic value. It helps to analyze better the distance separating the present situation and the organization of a new system of collective defense. In no way does it pretend to be a realistic description of the future of European defense institutions (that, if they should ever come about, will be the fruit of history, of compromises, and inventions that are unforeseeable), but it intends to stress certain points and problems that may serve as reference for a better understanding of what may happen.

The main tasks of an institution that fulfills the functions mentioned on page 2 of this paper would have to be these:

a) to adopt and conduct a common foreign policy;

b) to adopt and conduct a common industrial and economic policy; (including those sectors connected with defense), to help make up for the disjointedness of the present economic development in the different countries;

c) to adopt and conduct a common defense policy with its own integrated financial means.

Experience of crises in the Community institutions in the last few years would suggest three fundamental requirements for which the new institutions will have to be suited. The first would be a more efficient decision-making procedure. As a matter of fact, a basic cause of the crisis clearly is the absence of a permanent decision-making organ. The second is the need of only one integration process, that is turning down the opposing and separate structures such as the community and the intergovernmental ones. The third is the possibility of finally controlling democratically the unification process. In fact, if there is already the problem of creating greater political and democratic participation when confronted with the reinforcing of the unification process, the role and the powers of the social and political forces of Europe will have to be redefined all the more.

One further detail is necessary. Since the transfer of sovereignty involves a difficult qualitative improvement, it must come about gradually. The European Union might at first be assigned a mere potential defense competence with the understanding that the European Union will take advantage of its real powers only at a stage corresponding to a certain level of development in political cohesion.

The political context of this new institution, as we mentioned in the forward, would have to be Atlantic. As these new institutions are gradually created, they should, at least at the beginning, take advantage of the instruments offered to them by the Atlantic Alliance. At the start, the states might integrate their strategies and operative plans without having recourse to institutions other than the Atlantic ones. As far as political decisions are concerned in this first stage, the Council of Ministers within the Community machinery might give out "military directives" (the integration as above) binding on the member states.

In a second stage, once the Community is able to speak with one voice in NATO, the Atlantic Council might use the already existing Integrated European Commands as the European operative base. The problem of relations with the Americans might be solved in a flexible way with a gradual replacement of the commands now entrusted to Americans with European officers, and perhaps with a "splitting up" of the SACEUR into a strategic nuclear command entrusted to an American and a conventional command entrusted to a European. The nuclear one, responsible to the Atlantic Council and to the Nuclear Planning Group, would coordinate the European and American nuclear forces (with sovreignty over the individual arms structured as it is now). The conventional one would coordinate the conventional European and American forces present in Europe.

Obviously, both would have to be part of the same chain of command to keep the unity of the deterrence. Gradually, the situation

might evolve into the setting up of a European Nuclear Command, but this presupposes an integrated European government.

The integration process will continue ahead, along with the integration of the Chiefs of Staff, of the logistics systems, of the training systems, and in general of all those functions that today the national Chiefs of Staff are in charge of.

At a final stage military integration would be brought to completion. The Council and the Parliament would make all the decisions on military policy that would be turned into directives to the member states. In particular, the Council and the Parliament would at this stage set up the defense budgets of the member states (budget that in the preceding stages would still be in charge of except for the Community's influence on the quotas for the assigned functions up to that point).

The countries that already possess nuclear arms in the first stage would continue to keep control of them, within the area, however, of a common strategy. In the second stage the possessors would be subject to making decisions on these arms, or to signing agreements with third parties outside of the Community in line with the interests of the Community in the judgment of the Community institutions. At this stage the destination of existing nuclear arms and decisions whether they be developed or given up would finally be turned over to the Community institutions.

These are the main functions the institutions of the Political Union might be put in charge of step by step. These institutions would find themselves directing European defense particularly on a political level. They would have the power to make decisions as well as to propose and control politically. In the outline described above, we have assumed the strictly more technical military functions would continue to be carried outtby NATO. The role of NATO would end up being one of coordinating the decisions taken (for the Europeans) by the Community organizations and the Americans.

But before being blended with the Atlantic organization , European defense requires, as already described, a gradual process of strictly European integration that might be carried out by ad hoc organisms. One such organism might be a European Armament Agency. Its activity could be subdivided into stages as follows:

First Stage: to promote and coordinate research on military production; to promote and coordinate the standardization of the weapons systems; to promote and coordinate the production in common of weapons.

Second Stage: to finance and conduct research on military production; to finance and direcatthe standardization of weapons systems; to finance and direct the production in common of weapons within the Community.

Third Stage: to conduct everything having to do with European military technology and industry, including the arms trade, with a broad technical and financial autonomy, but under political control.

An important problem is finally to assure the continuity of the Council's work, to provide for a progressive integration of certain tasks of the present defense ministries and Chiefs of Staff, to ensure a liason organ between the European political sphere, the integrated Atlantic sphere, and the national sphere. Such a task could be carried out by a Military Planning Commission. This organism could carry out the tasks that in the Community institutions normally belong to the Co. Re. Per. (representing the national interests, continuing the Council's work, etc.). It will, however, be necessary to find certain mechanisms to prevent the intergovernmental structure from arriving at a point of holding back the integration process, instead of encouraging it. One possibility might be to set it up as an executive organ independent of the national governments, on the model of the European Commission. However, in this case there could probably be a splitting up of the institution torn between the supernational and intergovernmental methods, all the more negative because of its possible repercussions inside NATO. Another possibility might be to keep this structure intergovernmental but to define the timing and method of integration explicitly in the Institute Treaty. One more possibility, rather than just predetermine theoretically the federative process, is to give this power to the already existing European political institutions, and in particular to the European political institutions, and in particular to the European Parliament that would here get to play the role of "federator". This solution not only would be politically logical, but would avoid falling back into the Community's mistakes, namely the fact that the federative process, on the one hand, was codified in a treaty now inadequate and, on the other, put the federative tasks into the hands of the Commission, which lacks the indispensable political legitimacy.

Other Possibilities

This model that might be called a "Federal Community" can, of course, be redefined according to different times and circumstances. There are several foreseeable variations. One of these that might be called "functional" would provide first for the following:

a) an Armaments Agency;

b) a Planning Center that would look ahead to long-term technical and political decisions;

c) organs of political control.

To these organs would be assigned these functions:

a) standardization of armaments;

b) adaptation of national armies to European tasks;

c) preparation of a new European strategy.

A second variation might be called "diplomatic" and would start from the carrying on of the negotiations on security as well as the political military relations with the United States. This, too, would require a planning center. This hypothesis depends more closely on development of European cooperation in foreign policy and would be concerned with military integration at a later time.

Finally, a more technical military variation would provide for:

a) the "Europeanization" of the sectorial NATO commands through a growing integrated participation in operations in all areas of the military spectrum;

b) the technical integration of the armed forces;

c) the specialization of roles among the military forces of the several European states in order to economize on military budgets. This would involve an integrated arms procurement policy, too.

Conclusion

All the possibilities sketched out here deal only with conventional forces. The questions having to do with atomic weapons remain assigned to NATO, which after all, exists mainly for this reason. These three hypotheses suppose our facing the nuclear question (considering the close connection between conventional and nuclear areas) only later on. However, since Europe is already to a certain degree a nuclear power (though structurally more vulnerable than the superpowers), and since there is no such thing as a "national" nuclear strategy but only a global one with varying national points of reference and administration, the problem is a political one.

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"DETENTE AND DEFENCE IN THE MEDITERRANEAN"

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Equilibrium in the Mediterranean is tied to a series of military, political and economic factors. The latter two in past years have rapidly evolved and have created a situation of relative uncertainty.

The United States has seen its relations with Turkey, Greece and Portugal worsen and Kissinger's last peace initiative in the Middle East fail.

The southern European countries have been hard hit by the increase in oil prices. Economic difficulties have been complicated by grave political and institutional problems: new regimes in Greece and Portugal (the latter still of uncertain physiognomy); problems of government stability in Turkey and Italy; difficult successions in Spain and Yugoslavia (and in the future perhaps also in Albania). Ties between central-northern and southern Europe have not been strengthened but risk further deterioration.

Soviet presence in the area does not yet play a clear role: though militarily notable, it doesn't seem to exert a political influence sufficient to play a balancing role. On the contrary, the USSR oscillates between a general tendency to agree with the USA and support for the harder, more intransigent positions of the Arab world.

The Arab countries are becoming an international political reality (thanks to petroleum), but there has not yet emerged from among them a clear and determined leadership capable of accepting compromises and of giving Pan-Arab policy a coherent international orientation.

It is easy to verify the practical absence of western Europe and the decline of the traditional British and French presences.

Détente and deterrence in the Mediterranean have thus become something quite difficult to define. One can not simply recur to the relation USA-USSR, nor can one be limited to the solely military aspects of the balance of forces. Mediterranean crises are, moreover, internal or circumscribed, but the shakiness of the political framework of the area makes them risky and makes one think of immediate possibilities of escalation.

Détente ought to be based on a reinforcement of incentives to resolve the crises by peaceful means and by negotiations. In the Mediterranean a series of military

crises have made this assumption problematic.

There remains, however, deterrence. Up to a certain level of dangerousness American and Soviet intervention has aimed at avoiding violent confrontation in order to avoid the risks of a direct showdown between the superpowers. This function of deterrence is, though, too limited to succeed in embracing internal and economic political problems which are at the root of the diverse Mediterranean crises. There is thus an effect of freezing the crises, which leaves intact on a different level their original causes.

The Mediterranean and Deterrence

The Western military prevalence in this area is quite evident; it could, however, quickly change. The importance of the Mediterranean for nuclear equilibrium is tied above all to the range of American nuclear missiles. Given the almost 3000 miles of Polaris and of Poseidon, the presence of nuclear submarines in the Mediterranean can be necessary to guarantee the coverage of objectives in Soviet central Asia and in western Siberia. However, the reinforcement of the protection for ICBM's and the development of SLBM's of greater range (Trident) could diminish the strategic importance of the Mediterranean.

Its significance vis-à-vis the European areas rests. The present balance of forces in central Europe (and the prospective of eventual riductions and of a freezing of force levels) increases the importance of the "flanks". The increment in the Soviet military fleet, the construction of helicopter carriers and aircraft carriers, the growing presence of Soviet squadrons in the Atlantic, in the Mediterranean and in the Indian Ocean indicate the increase in importance of naval strategy.

Nuclear armament for tactical use of the sixth fleet and of the American forces in southern Europe on the one hand serves to reinforce a naturally dispersed and chopped up land force, entrusted to national forces incapable of withstanding an eventual large-scale attack. This notwithstanding, the growing Soviet nuclear naval presence leads one to consider the possibility of a nucelar naval battle during the first moments of a conflict.

The Soviet fleet in the Mediterranean is practically without air cover, unless it operates only in the

north-east Mediterranean and unless it succeeds in neutralizing from the beginning the Greek-Turkish air forces. Its inferiority with respect to the western forces could obligate it to attempt an initial blow destructive of the major number of adversary forces, probably with the employment of nuclear arms.

The nuclear threshold in an East-West conflict in the Mediterranean could be then very low. In the future, equilibrium could be complicated by the acquisition of nuclear arms by other Mediterranean countries (Israel,Egypt, Turkey...*). The credibility of such deterrents in a generalized conflict would be very low but probably the factor of further uncertainty which they would create would lower the nuclear threshold even more.

Furthermore, we must note that in the Mediterranean Soviet or American deterrence is not used solely in relation to a possible conflict between NATO and Warsaw Pact countries but is called into question by the Middle East conflict. And this is the example of a conflict limited to conventional weapons and regionally circumscribed which could though involve the nuclear forces of the superpowers.

If the strategic importance of the Mediterranean from the point of view of global nuclear equilibrium is decreasing and if its local importance increases (equilibrium in Europe and in the Middle East), it is possible that American strategy in this area could evolve differently.

The risks of an excessively low nuclear threshold could suggest the building up of conventional presence. However, this is made quite difficult by the diminution of military bases in this region. The lose of the North African bases makes the entire allied military system rest on the countries of southern Europe. These already host a large number of bases; it is improbable for mostly political reasons that they would accept opening new ones or enlarging significantly the old ones.

Moreover, from 1973 on the political willingness to concede the use of military bases in European territory for

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* The majority of Mediterranean countries have not signed or ratified the TNP.

whatever type of operation in the Middle East has diminished. Another airlift of massive proportions between the USA and Israel could no longer depend on the Azores and only with great difficulty could it utilize the bases in Spain. Germany and Italy have publicly declared their intention to not be involved unknowingly and that they are not favorable to too militarily committed actions. Even if the German and Italian positions are in reality more subtle than the declarations would suggest, it is still clear that a process of political consultation (which could turn out to be long and difficult) must now precede any American initiative.

These developments probably accentuate the importance of naval forces and communications (which could reach the Middle East both via the Mediterranean and via the Indian Ocean and the Red Sea). This could, however, make the American reaction slower than the Soviet and accentuate thereby the imbalance of forces due to geographical positioning.

Possible Changes and Crises

The American presence in the Mediterranean is tied to the Atlantic Alliance and to the bilateral agreement with Spain. Besides, the British bases on Cyprus could constitute a further support base for aerial operations.

The situation is open to many possible changes and crises.

A first summary would include:

A Greek-Turkish Conflict:

Both an open Greek-Turkish conflict and the withdrawal of one of the two countries from the Atlantic Alliance (or a real withdrawal from NATO) could seriously weaken the Allied forces in the eastern Mediterranean. This strategic sector is in the range of action of Warsaw Pact aircrafts and could be subjected to Soviet naval pressure from the south and from the north. If control of the Aegean were not secure, it could become risky for the sixth fleet. It would then be more opportune to shift the line of defense more to the west towards Malta, the Sicilian channel and southern Italy.

In the case that Greece were to abandon NATO, the

ties with Turkey would become problematic and entrusted above all to the permanence of the bases on Cyprus. This could stimulate nuclear proliferation in Turkey.

Finally, to the exit from NATO would be added that from NADGE and aerial defense of the eastern Mediterranean would become quite problematic.

Malta-Cyprus

The importance of these two islands is to insure aereo-naval reference points which link the eastern and western Mediterranean and the north and south banks.

If bases on these islands had to be done without, their role could be assumed by other bases in Sicily, Crete and Turkey. If however this happened in a political climate unfavorable to the setting up of new bases, this would accentuate the tendency to reduce the allied presence in the northern and western sectors of the Mediterranean.

In particular, if there were simultaneously the closure of the bases on Malta and the exit of Greece from NATO, the defense of the Adriatic-Ionian sector would become more problematic, with obvious consequences both for the organization and armament of the Italian forces and for the Yugoslavian situation.

Portugal-Spain

The new Portuguese government has already announced that the bases on the Azores can no longer be utilized by the USA to help Israel during a new war in the Middle East.

If the evolution of relations between NATO and Portugal is limited to this, it does not substantially alter the situation of the American forces for what regards an East-West conflict. If, however, the situation were to evolve towards a more neutral Portuguese position, this could cause new difficulties. In particular, ties between the Atlantic and the Mediterranean forces lean on both Great Britain and Spain, extending the lines of communication and increasing the politico-military weight of the USA-Spain agreement.

If then a real overturning of alliances were to take place, if, that is, Portugal were to accept under various forms a Soviet military presence, this would make

the bases in Spain much more vulnerable and would also complicate the strategic situation in the North Atlantic, where Soviet ships could complete a strategic triangle with apices in the North Sea, in Cuba and in Portugal. On the other hand, the uncertainties of the politico-institutional situation in Spain and the Portuguese example indicate just how fragile in the long run are special relationships with regimes whose own internal is fragile. The whole Iberian peninsula then could become an ever less secure area for an American military presence.

Summary

These and other pessimistic hypotheses (we are almost at the worst case analysis) suggest some constants:

- NATO in the Mediterranean is represented above all by the American presence. There does not exist another serious multilateral tie.

- The United States can not utilize NATO as a prop for its policy in the Middle East: this requires a diverse type of bilateral agreement evermore difficult to elaborate.

- The military predominance is still Western, but this could be challenged by internal political changes within the Mediterranean countries.

- It is difficult to obviate by only military measures the weaknesses which are being created. The major difficulty also in this case depends on political factors.

- The nuclear threshold of an eventual conflict in the Mediterranean could be quite low. Nuclear proliferation could further lower it.

- The importance of the Mediterranean for USA-USSR nuclear strategic equilibrium tends to decrease.

- The importance of the Mediterranean for European defense and for the control of "gray" areas tends instead to increase.

It is possible that these diverse factors pose a dilemma for American policy.

- Is it opportune to be further entangled in this "risky area" without great political prospectives, or is it

not more opportune to separate clearly the two problems of defense in central-north Europe and commitment in the Middle East, limiting military presence in the Mediterranean to eventual support forces of these two zones? In this instance a limited military presence would be enough, with perhaps an increment in naval forces in the Indian Ocean.

The interest of Europe is instead a closer tie between its central-north sector and the Mediterranean, both for strategic and even more for evident political, economic, and energy reasons. It is possible that on this point Americans and Europeans will make divergent evaluations.

(New Technologiessand Strategic Problems)

Respondent paper by Maurizio Cremasco

To speak of European defense today means to re-examine, in the context of the new situation of international relations, and above all, of relations between the two blocs, those political and military problems, at least apparently resolved in the linear and simple strategic equatigon of the cold war, which have now assumed, with the change in their fundamental conditions - a change partly induced, partly imposed by the passage to the era of negotiations and détente, and by the dramatic consequences of the economic and energy crisis in the West - a different and much more complex nature.

It is difficult to maintain the political credibility of European defense: the prospects of the Atlantic Alliance acting in times of crisis with the necessary unity of intentions and objectives and the rapidity indispensable in decision-making appear rather uncertain because of a renewed and widespread tendency towards isolationism in the United States; the contradictions among the countries of the European Community still too easily tempted by a sterile nationalism, unable to formulate a military policy of real and concrete unity and take decisions aimed at creating a military instrument capable of carrying into effect that policy; and finally, because the events of 1973 did not pass without leaving signs, at times profound, of reciprocal incomprehension. All this while doubts about the validity of American commitment to support Europe over and above the scheme which regulates strategic relations between the superpowers have increased.

The maintenance of such credibility at a strictly military level appears just as difficult. Europe is not prepared to meet an attack conducted withthe minimum of tactical surprise according to the classical norms of "blitzkrieg", that is, by mass employment of armored

and mecchanized troops; an attack limited in time and space aimed at creating a fait accompli and employed more as an extreme means of political pressure rather than as an instrument of total conquest, an act which would undoubtedly spring the mecchanisms of nuclear response, involving the two superpowers directly and peremptorily in a frontal clash.

The "flexible response" strategy aimed, above all, atdeterring the enemy and, in the case of an attack, maintaining Europe's integrity in the context of the principle of foreward ddefense. This was solidly anchored to concrete exigencies of a political nature. That strategy now appears as less flexible than would be required, considering the size of the opposing forces, the way they are drawn up, and the principles governing their employment.

Tactical nuclear arms are essentially a deterrent only if the political presuppositions which form the basis of their evential utilization are credible and if, corresponding to the ambiguity of when and how they are employed, there is the certainty of rapid decision-making, when necessary, regarding their use.

On the other hand, NATO's conventional potential may not be sufficient to stop the adversary's penetration and impose the pause that would serve to demonstrate the alternative between nuclear escalation and diplomatic negotiations. In this case it may be that the dramatic decision to employ tactical nuclear weapons is taken too late.

At the global level, given sufficient strategic "warning" to allow for the general mobilization and arrival of outside reinforcements, the situation between the conventional forces of NATO and those of the Warsaw Pact countries is more or less balanced. The situation is significantly different when one considers the immediately available units and the availability of tanks and mechanized vehicles; in the

East German Democratic Republic alone the Soviets have grouped 20 category one divisions (IO of which are armored); divisions which have between 75% and I00% of their full strength and which are fully equipped. This is a deployment which is certainly more than what is necessary for the defense of the area or for internal control.

The background to this rapidly sketched picture is the strategic parity of the superpowers that inherently favours a strong conventional defense over the use tactical nuclear weapons. A contrary trend in the Western countries is the desire to reduce military expenses, to reorganize in a restrictive sense the armed forces and to cut the periods of conscription. At the same time, the costs of modern military equipment increases rapidly and this renders any decision to modernize the military instrument particularly difficult.

Can the new technologies in the field of conventional arms affect these problems and represent a valid answer to NATO's deficiencies? Could they provide, at acceptable cost, a better defense in the conventional sphere?

The progress made in this field over the last years, in continual and rapid evolution, has brought about a qualitative "leap" of great importance, both in terms of efficiency and dependability.

Considering the projects already realized and fully operational and the projects now being studied or developed, the new arms or the new munitions, can be generically divided into two categories: air, including the equipment for modern fighter bombers; and ground, including the weapons normally used during battles between ground units.

In the first category there are the so-called "smart bombs", widely used in Southeast Asia. Their extraordinary precision - a small CEP is a thousand times more efficient than an unguided bomb - makes it possible to reduce the number of sorties (in aeronautic terms the sortie corresponds to the flight of the aircraft) necessary to destroy the target. The attrition rate is reduced while the number of targets destroyed remains the same. This had obvious effects on supplies and therefore on logistic problems.

The logical development of such arms is the acquisition of "stand-off" capability - an example is the American Condor missile. This means the possibility of launching the weapon outside the range of the adversary's anti-aircraft artillery, from an aircraft already in the phase of leaving the target zone on outside , by means of mid-term guidance and homing.

Besides this, a number of area weapons have been or are being developed in the form of bomblets and mines; from the classic CBU (cluster bomb unit), to the family of MUM (multiple unguided mines) including the "Gabr mine" (both anti-tank and anti-man), the "Grasshopper mine", the "Piranha", and the German systems "Pandora" and "Medusa".

These bomblets or mines, ejected from special containers while the aircraft rapidly passes over the target zone at very low altitude, represent typical "saturation" devices particularly suited to blocking the advance of armored forces and preventing the arrival of reinforcements, thereby isolating the battle zone, destroying tanks, mechanized and other vehicles. All of these can be used in connection with target acquisition and terminal guidance with the possibility, therefore, not only of increased efficiency but also of being employed at night and in adverse weather conditions.

Such weapons favour the defense and can represent, particularly in central Europe, a determining factor to offset the Soviet superiority in tanks, and an instrument particularly suited, considering the mobility and flexibility of the air forces, to resisting and upsetting the standard offensive employment of Soviet armored forces.

Finally, to increase the survival of aircraft in particularly well defended areas, SIM (surface-to-air missile intercept missile) are being studied; that is missiles programmed in such a way as to automatically intercept the anti-aircraft missiles directed toward the attacking aircraft.

As far as ground forces are concerned it is enough to mention the anti-tank missiles, from the German "Cobra", the English "Swingfire" to the American "TOW", increasingly accurate and equipped with a high penetration capacity; the anti-aircraft weapons, particularly missiles, whose capacity to strike approaching low-flying aircraft in all weather conditions, are being developed; the development of "smart" artillery shells and guided mortars is also of major tactical importance.

The new technologies, in the field of conventional arms offer, if no immediate solutions, at least the prospect of changing some aspects of the Alliance's actual defense problems.

Not only can they strengthen the defensive capacity by giving new credibility to the defense and raising the threshold of nuclear escalation, but they increase the prospects for rapid reinforcement, at least within certain limits, since they require a smaller number of men and weapons.

There are, on the other hand, other elements which should be carefully considered. The new technology, because of its sphisticated characteristics, is particularly expensive and the qualitative "leap", with its undeniable advantages of greater efficiency, does not totally compensate for the increased cost. Futhermore, while the simplicity of some arms (above all light anti-tank and anti-aircraft missiles) allows them to be fairly extensively adopted with limited training, the complexity of many others requires a high degree of specialization, obtainable only through sufficiently long training periods and therefore only by recruiting volunteers for long-term service; this need clashes with the unwillingness of most Western youth to serve voluntarily in the armed forces. Finally, the technological process, besides its dynamic characteristics which impose heavy and sometimes unsupportable financial burdens on those countries that want to keep their forces up-to-date, is not the exclusive prerogative of the West; when the probable adversary acquires the fundamental elements, many of the advantages will be less significant.

Technology is therefore only a partial answer to the questions posed by the problems of European defense.

Conventional parity must be achieved through a process which is above all political: a unanimous expression of will that gives coherenceeto the Western countries' contribution to the Alliance; that, in the atmosphere of growing cooperation in the defense field (standardization of arms, unification of operative procedure;;etc.), is a stimulus to the birth of a truly European politico-military union that plays a part and has weight in the negotiations for the control of arms.

The alternative, as François Duchêne recently wrote, is the creation of a new system in which Western Europe finds itself more and more exposed, potentially from a military point of view and more directly and immediately from a political point of view, to the pressures of the two superpowers.

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East-West Negotiations, Arms Control and West European Security

A Discussion Paper

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EAST-WEST NEGOTIATIONS, ARMS CONTROL AND WEST EUROPEAN SECURITY

1. The purpose of the present paper is to outline for discussion some of the policy issues involved in the current phase of East-West negotiations on arms control with particular emphasis on potential impacts on the structure and process of security arrangements in Europe. The discussion is deliberately eclectic. No attempt will be made to cover the whole field in a systematic and comprehensive fashion. The aim is to stimulate consideration of certain issues which to me seem central. The major emphasis will be focused on the political dimensions of arms control rather than on the technical modalities of possible arrangements. The discussion will concentrate on the issues involved in SALT, MBFR and Sub-Committee 2 of CSCE.

2. It is necessary as a point of departure to make explicit the assumption that arms control negotiations constitute integral elements in a broad process of political reconstruction across the East-West division. Hence assessments cannot be confined to static evaluations of particular regimes of arms control on their intrinsic merits. Attention must be focused also on the role of such arrangements in the broad texture East-West relations. Impact on momentum, perceptional evolution, the gradual emergence of an interlocking pattern of commitments, trade-offs and constraints should be kept very much in mind. But by the same token a series of intrinsically meaningless or saliently imbalanced arrangements will not add up to a stable and equitable package. There remains the danger of in fact accepting detente a la carte while ostensibly pursuing the vision of a grand design which is unilateral in conception and not based on any shared notion about a stable "structure of peace". Furthermore, it should not be forgotten that arms control can become the currency for the pursuit of advantages by non-violent means. Arms control is part of politics, not beyond it.

3. Western Europe is at present characterised by considerable political fluidity. Uncertainties in regard to the political framework and scope of the European Community, the increasing tension and contradictions between society and state in Mediterranean Europe

and the dominance of global issues on the diplomatic agenda combine to divert attention and effort away from the process of East-West negotiations which seemed so salient and pregnant with promise a couple of years ago. The negotiations in Vienna and Geneva have remained largely stalemated for some time. Diplomatic semantics and increased frustrations have dampened expectations and enthusiasm. Many approach the issues with a damage limitation objective as the basic frame of reference. SALT is largely beyond the range of European diplomatic influence. The format and time pressures provided by Soviet-American summit meetings underline the lack of European participation in the actual decision-making and serve to reduce the impact and importance of the continuing process of consultation in the NATO Council. The Vladivostok guidelines may provide some stability to the central balance, but the residual ambiguities remain substantial.

4. The political agenda in the West as well as in the third world is dominated by the issues of economic interdependence and redistribution, energy supplies and the monetary system. The Soviet Union has no role in this process. The impact and influence of the Soviet Union is prevalent first of all within the traditional framework of East-West relations. Her isolation from the central processes of interstate relations in international society may generate a propensity to go for maximum gains in the game where Moscow can play a dominant role.

5. The position of East and West during the talks on mutual force reductions and associated measures in Central Europe are well known and they have undergone little modification since they were originally outlined in November 1973. Before addressing some of the issues of modalities it is necessary to establish some of the essential political parameters. For the bargaining over troop levels is essentially an indirect dialogue about the future options in the development of the political order in Europe.

6. The Soviet Union is reluctant to consider cuts in Soviet forces in the reduction area down to equal levels with NATO, we may surmise, inter alia because such preferential reduction in Soviet troops may

contain undesirable signals about the Soviet imperial position in Eastern Europe to East Europeans. There might be a suggestion of trends towards greater tolerance on part of the Soviet Union of nationally differentiated experiments in Eastern Europe if the Soviet garrisons were to be visibly reduced. The level of Soviet presence would be explicitly related to the level of NATO troops in the Federal Republic and the Benelux countries thus potentially softening the "imperial message". Similar considerations could apply to proposals for preferential reductions of Soviet tanks. The argument is not that the Soviet Union would lose the ability to intervene militarily in the states of Eastern Europe, but rather that a substantially reduced presence related to the NATO force level could convey the"wrong messages"to audiences in Eastern Europe. Soviet military preponderance in Central Europe may in the Soviet view constitute an essential condition for the maintenance of Soviet political control in Eastern Europe. If this kind of reasoning has any merit it does suggest some rather stark limits to what can be obtained through direct arms control negotiations.

7. The alternative route would seem to involve a long term investment in a strategy aimed at perceptional evolution in Moscow in the direction of viewing absolute Soviet control in Eastern Europe as less central to the security and position of the Soviet Union. An increased involvement and responsibility on part of Moscow in the process of conflict prevention and management outside Europe may constitute an important prerequisite for a softening of Soviet xenophobia in Europe. A policy of deliberate exclusion would by the same token reinforce xenophobic policies in Europe. I am not suggesting, of course, that the political contest between the Soviet Union and the western states would wither away. But competition could presumably be contained within a framework of certain shared stakes in the rules of the game and a practice of capitalizing on shared interests in the prevention of large scale war.

8. The Western States have insisted on negotiating towards a common ceiling on the level of troops in the reduction area. The Soviet Union has insisted on the imposition of separate national subceilings for the states located within the reduction area. This dispute

relates to the options for future political evolution in the European Community in the direction of common foreign and defence policies. National subceilings would establish strict limits on the extent to which the community states could merge their defence efforts and agree on a division of labour within an integrated defence arrangement. Furthermore, a regime such as proposed by the Soviet Union would accentuate the power differential between the Soviet Union and the states within the reduction area as the latter would have absolute limits imposed on their total military efforts while the Soviet Union, situated outside the reduction area, would be subject to no such constraints. This structural asymmetry is a major reason for the Western insistence on Soviet reductions down to equal levels in the reduction zone, and could be extended also to a contraint involving some kind of a freeze on the Soviet defence establishment relevant to military action in Europe. The Soviet Union, however, seems intent on preserving the current relation of forces and remains opposed to its reconstruction.

9. It seems likely that Moscow essentially views arms control arrangements as a reflection of an established relation of forces and as a break on its reconstruction by the adversary. Hence there would seem to be a rather consistent pattern in the Soviet approach to parity on the level of both SALT and MBFR. In neither instance has Moscow exhibited any willingness to trade her comparative numerical advantages against Western commitments to stabilization.

10. A basic weakness in the bargaining posture of the West has been the obvious interest in using MBFR as a means of containing the Congressional pressures for unilateral US force reductions in Europe. A negotiated reduction of Soviet and American forces in the first phase of the negotiations would establish not only a force ceiling but also a floor in relation to pressures for substantial unilateral force cuts in Europe. An East-West agreement could have the effect of emasculating the Mansfield pressure. However, should the MBFR talks fail and the Mansfield Resolution obtain majority support the disruptive impact on transatlantic relations would presumably be more dramatic than if US cuts came as a result of a West-West arrangement, however reluctant the West Europeans would be to see any reduc-

tion in the US troop presence. Another factor of uncertainty is associated with the impact ot the fall of Indo-China. Will there be a general propensity for retraction in the US, or will the debacle in South-East Asia cause Washington to emphasize the priority of the American interests and commitments to Western Europe and Japan ?

11. The Western position in Vienna has focused on the establishment of a common ceiling of forces in the reduction area of 700.000 men. In regard to the phasing of the reductions involved, the Western States have proposed implementation in two stages. During the first stage reductions would be confined to a 15% reduction in the Soviet and American troops. During the second stage the reductions would apply to all the non-US western direct participants, with the exception of Luxemburg, but under a common ceiling arrangement. The cuts in the second stage would involve a preferential reduction of the Eastern forces in the area in question in order to absorb the disparities of 150.000 men and 9.500 tanks, which incidentally approximates the Soviet military presence in Czechoslovakia in volume. The Western States have been willing to commit themselves to a time schedule for the second stage reductions in connection with an agreement to initiate the implementation of stage one. They want an agreement in principle on the objective of a joint ceiling.

12. In order to stabilize the impact of reductions the Western States have proposed a mutual commitment not increase the overall level of ground force manpower on either side between the two stages of a reduction process. The original position was that reductions be confined to ground force personell, but in order to meet Eastern objections it has been proposed to extend the ceilings to include also airforce personell in the reduction area, and to extend the mutual commitment to zero-increase in manpower levels between the two phases of the reduction process to include air force manpower in the reduction area as well. (The air force manpower levels are relatively equal in the area in question, i.e. approximately 200.000).

13. The Eastern States have proposed a three stage reduction scheme designed to maintain the relation of forces in the area. Thus the first stage involve a reduction of 20.000 troops in the armies of all the direct participants in the talks and with specific commitments

for each participant. The Eastern States have suggested that the reduction in phase one be distributed among the direct participants so that the United States and the Soviet Union reduce their forces by 10.000 men each, the Federal Republic of Germany and Poland by 5.000 men each, and the remaining 5.000 men reduction to be allocated to the other participating states. In an apparent attempt to accomodate the Western position on phasing, they have indicated that the American and Soviet reductions could precede the other reductions within the first stage. The second phase would involve an equal cut of five per-cent and the third phase another equal reduction of 10%. Such reductions could have a differentiated impact on the security postures of the two sides which would accentuate current disparities in view of the relationship of forces to the size of the territory to be defended. The Eastern States have insisted also that air forces and tactical nuclear weapons be included in the reduction program. In regard to the Eastern freeze proposal it differs from the Western with respect to area and coverage. It is confined to the reduction area, thus excluding the Soviet Union, and would involve a commitment not to increase weapons or military hardware as well as personell. It seems designed to prevent Western reequipment of its forces with modern conventional munitions; an area in which the West presumable commands a substantial lead.

14. A particular difficulty in the negotiations has been the unwillingness of the Soviet Union to contribute information about the Eastern troop levels so as to establish a common data base. The problems are here the same as those encountered in SALT, and reflect endemic constraints in regards to secrecy and institutional prerogatives in the Soviet Union. The Soviet reluctance to provide any figures about current force levels constitutes a serious obstacle to the negotiation of mutual arms control arrangements.

15. The Vienna talks are not confined to the subject of troop reductions. They extend also to so-called associated measures, or constraints designed to stabilize the agreement on reductions. We can distinguish broadly between stabilization measures, verification measures and non-circumvention provisions. Measures of stabilization and verification would involve commitments to permit reciprocal observation through the exchange of fixed observation posts at key transportation nodes, observers during manoeuvres, etc. as well as to

observe certain codes of conduct in regard to troop manoeuvres, movements and redeployments. Non-circumvention provisions would be designed inter alia to protect against a transfer of military pressure to other parts of Europe. The associated measures would presumably apply to areas also outside the reduction area and hence serve to preserve the coherence and cohesion of the security order in Europe. The Eastern States have shown great reluctance to make commitments to accept such associated measures.

16. From the point of view of the states in Western Europe the question of constraints seem more important than the question of reductions. In consideration of the political order in Europe the role and distribution of military force in Europe is more important than the level of forces. The constraints discussed in Geneva as well as the confidence building measures, CBM's, on the CSCE agenda aim in essence at shortening the political shadows cast from the military power of the states in Europe. Since the Soviet Union is the dominant military power in Europe and the major source of the security problem in the area, the political emasculation attempts are directed primarily against the ability of the Soviet Union to intimidate and influence the decision-making in individual European states by military demonstration of one kind or another. It would be in the obvious interest of the states of Eastern and Western Europe to reduce the military factor in European politics. But from the point of view of the Soviet Union it is not an obvious shared interest since the Soviet Union dominate the military picture.

17. The peripheral areas in Europe have a clear interest in preserving their drawing rights on the general equilibrium in Central Europe and in avoiding a weakening of the links to the center as a consequence of the former becoming a zone of mutual constraint which does not extend to the exposed areas on the periphery. The associated measures constitute potential linkage mechanisms which would provide some assurance against isolation and increased pressure. From a similar perspective it could be viewed with some apprehension in the capitals of Western Europe that the establishment of a special reduction zone covering the territories of only some of the European Community States would result in the emergence of some internal frontiers in the

Community constituting obstacles to integration based on equal rights. The problem of Franco-British hegemony and structural inequality on the part of Germany could contain the seeds of serious political conflicts in the future.

18. Many complex problems are connected with the establishment of equitable units of account in a reduction arrangement. Reductions by major formations could seriously curtail important options in regard to restructuring of the forces. A straight manpower reduction is likely first of all to affect the teeth-to-tail ratio and not the offensive capacities of the opposing forces. Reduction by battalion packages could be preferable from the point of view of security calculations, but might entail unacceptable verification requirements. When considering trade-off agreements involving e.g. preferential reductions of Soviet tanks in return for a similar reduction of Western fighter bomber aircraft, it will be necessary to take into account the expected effectiveness of modern anti-tank weapons and the utility of fighter-bombers as delivery vehicles for precision guided munitions (PGM's). We should not forget, however, that even of a preferential reduction of soviet tanks might seem a weak bargain for the West when the next generation anti-tank weapons is taken into account, it might nevertheless look attractive because it might limit Soviet options for intervention in Eastern Europe. Some of the constraints discussed in Vienna would presumably also have the impact of raising the threshold against such actions on part of the Soviet Union.

19. Reductions in force levels and constraints on movement and deployment of forces could in principle foreclose options which might seem desirable to either side from the point of view of enhancing flexibility of response. Such interests would in principle have to be balanced against calculations of political utility and negotiability as well as of the impact of certain regimes and measures on the prospects of stability against preemption. Reductions are in general likely to stimulate interest in restructuring of the forces remaining in the reduction area and in their reequipment. The net impact on stability is therefore difficult to estimate and the uncertainties are likely to be substantial. Hence, any agreement on mutual force reductions and constraints would seem to increase the requirements

for integrating arms control considerations into the unilateral decisions about the force posture in Europe.

20. The Conference on Security and Cooperation in Europe, CSCE, has been concerned with a delineation of codes of conduct in the context of increased interaction between the states of Europe and a possible reconstruction of the political order obtaining in Europe. The Decalogue will contain the ten agreed principles for interstate relations in Europe. CBM's would serve the purpose of providing precision and substance to the actual implementation of the principles in the realm of security. The purpose is not to constrain the physical ability to conduct military operations but rather to limit the political convertibility of the military currency. The negotiations have been concerned with curtailing the shadows of military force rather than the substance.

21. CBM's will constitute voluntary undertakings based on a shared understanding of the frame of reference applied to assessments of the behaviour of the states in Europe in the area of military monoeuvres and movements. Thus while an agreed document on CBM's would not constitute a legally binding commitment, it would imply a strong political commitment to follow the expressions of intent contained therein. It would be up to the states involved to monitor adherence to the principles. Hence the problem of verification is not a subject for negotiation in relation to CBM's.

22. The Eastern States have shown considerable reluctance to contribute to a system of confidence building measures in the field of military manoeuvres and movements. But the combined pressures of the Western States and the neutrals have forced them to go along. The precise modalities are still, however, largely a matter of dispute between the Eastern States on the one hand and the other participants on the other, although there are differing degrees of enthusiasm and interest on both sides of the fence.

23. The purpose of agreeing on a commitment to give prior notification of major military monoeuvres is very simply that of complicating the task of using such activities to exercise pressure in a particular

political situation. Of particular importance in this connection is the notification time. The Western and neutral states appear to aim for something in the area of 15-30 days in advance of the manoeuvres. The Soviet Union has argued for much shorter notice, thus largely weakening the impact of the commitment. The notification would presumably include information about the designation of the forces involved, their type, scale and strength, as well as the purpose and time-frame of the exercise and the area involved. The Soviet Union maintains that national manoeuvres should be notified only to neighbouring states, while multinational manoeuvres would be notified to all the participating states. The Western States are opposed to such a formula and insist on all manoeuvres being notified to all parties. That position is presumably based on the consideration that a multilateral announcement would mitigate the danger of states using the notification of manoeuvres as a means of exerting specific pressure on particular states. This issue is of particular importance to the smaller states bordering the Soviet Union.

24. Another matter of dispute concerns the definition of "major military manoeuvre". The Soviet Union has argued in favour of the rather vague formation concept "army corps", or its equivalent, which appears to be on the order of at least two divisions or more. The Western States prefer a numerical definition, pegged at about 20.000 men. In addition it seems likely that the final document will include some formulations as argued by the neutrals and some of the smaller western powers to the effect that the states can contribute to the strengthening of confidence and security by notifying participating states near the area of activity of smaller scale military manoeuvres and of major naval and air exercises.

25. Uncertainties and disputes prevail also in regard to the question of the area covered by the commitment to give prior notification. In principle the Soviet Union seems to have accepted that the area shall extend to all of Europe, including the European parts of the Soviet Union. However, no agreement exists as to how far inland from the European frontier of any participating state whose area extends beyond Europe (USSR + Turkey) the commitment to notify should apply. The Western States have argued for a zone of some 500 kilometers. The

Soviet Union has argued for a very narrow strip, thus emphasizing the unique role of the Soviet Union in the European order by largely defining itself outside the area to which CBM's apply. A particular problem may arise here also in regard to Turkish Anatolia and Greek and Cypriot concerns in that connection.

26. The Soviet Union has remained adamantly opposed to include a commitment to preannounce major military movements in the same way as major military manoeuvres. The Americans were never enthusiastic, and it now seems likely that the neutrals and the West European States have to settle for a statement to the effect that such notification should be left to the discretion of the participating states, thus opening up a substantial grey semantic area in the definition and recognition of the activities covered by the commitment to give prior notification. There seems to be agreement on a statement to the effect that observers may be invited on a bilateral and voluntary basis to attend military manoeuvres. The inviting state would define the number of observers and the procedures and conditions for their attendance. Potentially such a practice could provide a mechanism for the transmission of reassuring evidence in a tense situation.

27. The negotiations about the military aspects of security in Europe have not been the most dramatic at CSCE. However, their results could well turn out to be rather important. Much will depend on the way in which the participating states would implement the commitments. CBM's could by a rather restrictive practice become the source of increased anxiety and reduced confidence. This would be true particularly in a climate of stagnation in the general process of detente. However, the negotiation about CBM's has highlighted some of the complexities of the security problems in Europe and the potential constellations of security interests cutting across the traditional lines of alignment in the context of further evolution beyond the simple bipolar confrontation.

28. In many ways the detente priorities in the post Ostpolitik-phase of bilateral negotiations have rested rather clearly with the adversary partnership of the two superpowers. SALT constitute both the symbol and substance of this state of affairs. It would take us far

beyond the limited scope of this paper to discuss SALT in its many far-reaching ramifications. The present discussion is limited to certain observations about the Vladivostok guidelines for the negotiation of a SALT-II agreement.

29. As far as they go the guidelines are quite simple. Each side will be permitted to have an equal number (2.400) of ICBM's, SLBM's and heavy bombers. They will be allowed also to have an equal number (1320)of MIRV'ed missiles . But the residual ambiguities are nevertheless substantial and promise to make difficult the conversion of the guidelines into a successor agreement to the SALT-I Interim Agreement (IA) for a ten year period. It has been suggested that the essential provisions of the IA would be carried over into the SALT-II agreement. If this includes the sub-ceilings on ICBM's and SLBM's the ostensible freedom to mix formula from Vladivostok is largely meaningless. Furthermore, the disparities which many observers saw in the IA may not have been removed so as to satisfy the requirement of essential equivalence by permitting the US to keep more heavy bombers than the Soviet Union, particularly when medium bombers capable of reaching the US on one (and a half) way missions from the USSR, or on two way missions with in-flight refuelling are not included.

30. The guidelines fail to constrain the throwweight of the missiles thus in principle permitting the USSR to translate its substantial throwweight superiority into a numerical superiority in MIRV's. That option may be largely off-set by an American lead in accuracy. But it will be hard to determine which advantage is more transient and subject to cancellation within a time frame of ten years. The two sides did not manage to agree on a common definition of a "heavy" missile for purposes of the IA. The US inserted into the record the understanding that any ICBM with a volume significantly greater than the largest light ICBM then operational, i.e. the SS-11, would be considered "heavy". The problem may become acute with the potential phase in of the SS-19 as a replacement for the SS-11 as the former has a throwweight 3 to 4 times that of the SS-11 and is much larger in volume. Furthermore, the IA stipulates that conversion of existing silos to modernization and replacement should not increase the dimensions of land based ICBM silo launchers more than 10 to 15

per cent. It is unclear what is meant by dimensions here, and the constraint is in any event a weak one in view of the development of boost technigues which reduce the volume requirements to the silos.

31. In SALT-I the US tried to get an agreement to prohibit the deployment of land-mobile ICBM's but Moscow refused. The American delegation then submitted a unilateral statement to the effect that it "would consider the deployment of operational land-mobile ICBM launchers during the period of the Interim Agreement as inconsistent with the objectives of that Agreement". There are reports and "circumstantial evidence" that the SS-X-16 is being developed as a land mobile system. The Vladivostok guidelines have not resolved the issues involved here. There are other unresolved problems connected with long range cruise missiles and air-launched stand-off weapons.

32. The Europe oriented strategic systems of the Soviet Union are not included in the basket of systems covered by the Vladivostok guidelines. Due to the size of the Soviet M/IRBM force any marginal or even substantial reduction in the number of missiles would not in any significant way reduce Soviet options vis-a-vis Western Europe. However, in the context of non-curcumvention provisions Western European interests would be served by constraints on the modernization and upgrading of the force. Such constraints have gained importance with the deployment of variable range SS-11's in the M/IRBM base complexes. Similar considerations could be applied to the Soviet fleet of medium bombers and the prospective introduction of the "Backfire" bomber.

33. FBS has been the most celebrated Europe oriented issue in SALT, in spite of the fact that the Soviet demands were not very specific. The acronym is a western invention and the debate on the issues involved primarily a western family quarrel brought about by Soviet suggestions that US non-central systems capable of reaching the Soviet Union should be included in a general stragetic arms limitation agreement. It was the very ambiguity of what was subsumed under the FBS category which caused the quarrels. If we apply a two-way mission criterion, and the alternative would catch the whole Soviet medium bomber fleet in the "strategic net", very few aircraft in Europe would be included in a ceiling agreement (the FB-111's in the United Kingdom, some F-4's in

Turkey and maritime based strike aircraft in the Eastern Mediterranean).

34. At Vladivostok the Russians dropped the FBS demands. This may be in important symbolic concession. But it is certainly possible that FBS was always more valuable as an item for negotiation, than as an element in an agreement. Since we should expect the issue to reemerge in the context of negotiating non-circumvention provisions in connection with SALT-II, it has not been taken off the agenda. SALT is about an extremely complicated, technically complex and conceptually esoteric set of problems. But particularly in relation to the impact on Europe it is obvious, nevertheless, that SALT is intimately related to the central processes of political change in the current phase of East-West relations.

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New Weapons Technology and Europe

A Summary

In an era when strategic parity has re-emphasized the importance of the East-West conventional military balance and when a combination of economic factors appear to rule the possibility that NATO can increase, let alone maintain, existing levels of defence expenditure, it is only natural that a variety of avenues towards enhancing the conventional military balance in Europe are under active discussion at the present time. Of the numerous approaches now under study, possibly the most tantalizing is the suggestion that, with existing spending constraints, the West could significantly bolster its conventional defensive capability by exploiting a wide range of new techniques of guidance, target acquisition and command and control. Pointing to the performance of new weapon technologies in the closing days of the American involvement in the Vietnam conflict and during the 1973 Middle East war, some observers have argued that these systems offer possible solutions to (1) long-standing European defence problems, specifically, the provision of a credible anti-armour capability on the Central Front and (2) more recently perceived threats of limited conflicts stemming from greater political fluidity in Europe.

To aid in assessing the military and political implications of the new technologies for Europe, this summary outline will 1) highlight the important areas of enhanced weapons performance, 2) briefly discuss how the new weaponry might change the nature of land combat in Europe, 3) list the technical, organizational and economic factors that are likely to influence the speed and scale in which the new weapons will be acquired during the coming decade and 4) mention the possible political problems and prospects stemming from their deployment.

I. The New Technologies

The scope of technological innovation in conventional weaponry is impressively diverse, with "order of magnitude" improvements occurring in practically every sector of operation. In the United States, work is now proceeding on over thirty new conventional weapons systems. In one area of weaponry alone--anti-tank guided weapons (ATGW)--NATO members are likely to deploy over sixteen different systems by the end of the decade. These developments not only promise to give general purpose forces enhanced firepower, mobility and protection, traditional goals of weapon design, but they also promise to introduce an unparalleled controllability and flexibility into combat operations, by guaranteeing target destruction at increasing ranges while minimizing collateral damage to civilian structures and

population. This apparent qualitative change in the nature of conventional warfare stems from significant developments in the following areas:

A) Precision Guidance: The most striking attribute of the new weaponry is the increased accuracy obtainable by the application of such technologies as radar, electro-optical and infrared homing and correlation and laser designation. Precision guided munitions (PGM) is now used as an umbrella term to describe a growing class of bombs, missiles and artillery projectiles that possess dramatically increased single-shot kill probabilities. In the air defence role, PGM have been in existence since the 1950s; In Vietnam, the capability of these systems against interdiction targets was demonstrated and in the October war, the performance potential of ATGW was vividly revealed. Possessing accuracies that are in some cases over a hundred times superior to unguided munitions (expressed in terms of circular error probable--CEP-- of 10 metres or less), PGM now vary widely in role and sophistication. The guidance techniques used in these systems can, however, be lumped into three general categories:

1) Homing guidance--These are systems that literally "zero in" on their intended targets, either fixed or moving. Terminally-guided, homing PGM range from air-launched glide bombs with steerable fins, that home on energy reflected from a target illuminated by a laser or directed by an operator who uses a TV hookup to "fly" the system towards the target, to anti-tank, wire-guided missiles. The latter come in several versions, including the crude Soviet Sagger, which must be tracked en route to target, and the more sophisticated American TOW and French-German HOT, which possess semi-automatic tracking features. More exotic homing PGM now under development, include terminally-guided artillery shells and terminally-guided submunition packages delivered by missiles launched well behind the battle area.

2) Precision positioning--This class of developments utilizes signals from precisely synchronized transmitters to correct the accumulated errors of inertial guidance systems aboard delivery vehicles. At present, existing positioning schemes, such as the Long Range Navigation (LORAN) system, possess accuracies that only permit mid-course guidance. Using ground transmitters, Distance Measuring Equipment (DME), allow better accuracies, and with deployment of the American Global Positioning System, accuracies of 10 metres or less are predicted.

3) Correlation guidance--These guidance systems are essentially "map matching" devices that are particularly useful against targets that can neither be easily designated or do not possess an adequate signature. Using visual infrared or microwave sensors, correlation systems compare sensed pictures of a target area with stored reference pictures to generate appropriate weapons trajectories. The American TERCOM system, which is to be fitted to a long-range cruise missile, will utilize an unfrared sensor for the matching function. Although correlation

techniques will not be available for operational deployment until the early or mid-1980s, they hold great promise for terminal-guidance capabilities over inter-continental ranges.

B) Standoff Guidance and Control: Although remotely piloted vehicles (air or ground-launched, recoverable or dispensable) do not utilize fundamentally different technologies than PGM, they merit separate mention owing to their potential in numerous different roles. Already in use for reconnaissance, RPV appear to hold the greatest promise in target designation, strike and electronic warfare missions. Recoverable RPV can be used as support jammers and chaff dispensers to degrade an adversary's surface radar network, while strike RPV, when coupled with PGM, could be used against a variety of fixed (and further into the future, mobile) targets. Regardless of design or mission, the major advantage of RPV is cost; by eliminating the pilot, major savings should be realized. One of the most attractive RPV options now under study is the "mini-RPV", a prop-driven, battlefield reconnaissance and laser target designator, which is capable of remaining aloft for hours, acquiring targets for ground and air-launched battlefield weapons.

C) Conventional Munitions: While overshadowed by increased accuracy, improvements in conventional warhead design offer increased target damage capabilities while at the same time reductions of unwanted blast effects. One important development has been to give conventional munitions greater reliability by guaranteeing production techniques for munition payloads and fuzing systems--the so-called "standard certified round." Increased delivery accuracy, the profusion of munition types for point and area targets and higher reliability have brought about a more important development--"Weapons tailoring"--which enables specific targets to be matched with the most efficient munitions. For point targets such as hardened underground bunkers, penetrators, semi-armour piercing munitions and shaped charges can be selected for different desired weapons effects. For targets that require area coverage, fuel-air explosives can spread blast energy more uniformly over a large area than conventional TNT. Conventional explosives can also, however, be optimized to maximize blast or fragmentation damage, or to provide different mixes of the two, depending on the target. To achieve more efficient coverage of area targets, all these munitions can be packaged as clusters and dispersed in smaller packages. The possible use of terminally-guided submunitions is an area of increasing promise, while another cluster technology offers improvements in mine warfare.

D) Target Identification and Acquisition: Detection, location and targeting are essential to the performance of the new systems, and as described above, many of the target acquisition functions are inherent with the systems themselves. Anti-radiation missiles seek out emitting targets, while infrared guidance

systems home on hot metal or the plume of an aircraft's exhaust. For targets beyond enemy lines, RPV could provide a useful acquisition function. Long-range and long-endurance RPV, like the American experimental Compass Cope, which can remain aloft for 24 hours, could be used to detect incoming missiles, as laser designators for missiles or to provide mid-course guidance instructions for missiles. On the battlefield, "infyonics"--the application of sensor and communications technologies to land forces--is an area of relatively little exploitation in the postwar era. Here, some impressive advances are promised: Electronic detection barriers, radar-assisted rifles, night vision scopes and thermal imagers will improve the capability of land forces to find and identify targets in poor weather and at night.

E) Command and Control and Communications: Several improvements in information collection and transmittal, promise to give commanders a more comprehensive view of the theatre operating environment, while techniques in microcircuitry now enable small units to keep in close touch with command authorities. On the theatre level, the trend is towards enabling commanders to make time-sensitive strike decisions. This has been facilitated by computer software developments that allow the rapid integration of reconnaissance information on "situational displays". On the battlefield, the use of advanced systems, such as digital burst transmission, can enhance secure communications among units, while individual soldiers can be equipped with microcircuit radio sets.

II. The Military Impact

Taken together, these developments (and others) in weapons design and support do seem to presage a new era in conventional land warfare that an increasing number of observers argue will favour the defender over the attacker. This prediction is based essentially on the view that while making large and costly systems like tanks and strike aircraft more vulnerable to battlefield weapons like ATGW and longer-range PGM, the new technologies enable defensive forces, operating in more decentralized formations, to take greater advantage of natural benefits accruing to the defence, such as hiding. The enhanced vulnerability of large systems, either operating on the battlefield or in tank parks or airfields far beyond the battle area, is thought to necessitate tactics of dispersal which will inherently reduce the "shock power" of invading forces and makes the concentration of forces for the classic land-battle "breakthrough" a risky enterprise. The greatly increased firepower of small units, places a premium on concealment which again appears to favour the defence, operating in a familiar environment and able to make good use of natural and constructed strong points.

While the apparent liabilities attached to the concentration of forces on enemy territory is the single most important element that suggests that NATO could be far more capable of stopping a Warsaw Pact tank thrust into Cental

Europe, there are other tactical aspects of the new weaponry that seem particularly relevant to the European context. For one, the increased fire power and kill probability of the new systems, especially SAMs, seem well-suited for the defence of air bases and other potential targets in lightly-defended flank regions like northern Norway. For another, the high accuracies of the new systems promise to substantially reduce the amount of collateral damage to civilian structures and population that would occur during an intense conventional conflict, which would have the dual effect of changing attitudes of those in the central region for preparing for such a conflict and might make it possible to adopt more flexible defensive strategies that enabled a more flexible, "defence in depth" approach. Furthermore, the availability of accurate weaponry easy to operate and maintain, would seem to make feasible the long-discussed idea of handing over a greater defensive function to militia-type reserves, reducing the demand for trained manpower and freeing professional forces for more complex tasks. Finally, the comparative low costs of many of the systems ($3000 for a TOW, for example) suggests that in an era when NATO defence expenditure is unlikely to increase and is more likely to decline, abundant numbers of the new systems will still be able to be procured.

Looking at these arguments, it does seem possible that if the potentials of the new technologies are realized, the task of defending the Central Front against a sustained armour attack will be made easier over the next decade. If this change does come about, numerous political implications become apparent. The most important seems to be in the area of Alliance nuclear weapons doctrine: If NATO is better able to mount a credible conventional defence, it makes it possible to rely less on the threat or the actual use of nuclear weapons to deter and defend against an attack. This possibility seems to be enhanced by the new targeting possibilities offered by increased accuracy and enhanced munition effects as well as the lower collateral damage associated with the new systems; not only could conventional defences become more effective, but attitudes towards their use in war-time could change--providing Europeans with greater confidence in defending their territory without the risks attached to nuclear escalation. At the same time, the possibility of a lessened reliance on nuclear weapons, both tactical and strategic, can be seen to have important implications for American strategic doctrine, particularly the inherent tension between maintaining an extended deterrent in an era of overall strategic parity, and also for arms control, perhaps, allowing the Alliance to adopt more flexible proposals at SALT and MBFR.[7]

III. Tactical and Organizational Considerations

Before the intriguing strategic and political questions stemming from the deployment of these new systems can be addressed, it is necessary to explore the more mundane, but equally important problem of assessing the likelihood that the

weaponry will have the impact described above. No definitive answer will be offered here, but instead, several questions will be raised:

A) Performance: Will the weaponry perform as advertised? Although the new systems now entering NATO inventories possess vastly improved kill probabilities, the ability to use PGM effectively depends on the proper execution of a wide spectrum of capabilities, ranging from the identification of potential targets to their eventual destruction. And within this chain of capabilities there do appear to be some "weak links". "To kill a target, you must first find it" is a military cliche, but with the advent of PGM it has taken on a new urgency. Despite advances in target acquisition, the difficulty of locating and designating targets, particularly on a dispersed and fluid battlefield, may make it impossible to exploit the target-killing potential of PGM. Command and control may be another "weak link." The direction of command and control developments is towards greater centralization, to allow commanders to make more immediate decisions. However, centralized command systems will be increasingly vulnerable to PGM deployed by adversary forces.

It is also important to note the operating deficiencies of PGM themselves. Despite their performance in both test and battlefield environments, PGM are subject to a variety of operating constraints. Developments are proceeding on advanced PGM with forward-looking infrared and anti-radiation sensors that can operate at night and in poor weather, but for the next several years at least, the majority of PGM will require clear weather to operate properly--a rare commodity in central Europe. And even in clear daylight, PGM will not perform as required in built-up areas like urban and industrial concentrations, where extraneous energy sources and obstructions could inhibit their use.

A possibly more important consideration is the possible impact of countermeasures on the performance of the new systems. One of the most vulnerable components of some PGM and RPV are the data links which enable weapons operators to locate and guide weapons to targets. These links can be jammed, although this could entail great expense. Simpler countermeasures, such as the extensive use of smoke and camourflage, may provide cheap and easy ways to defeat PGM

2) Impact on Tactics: Will the new weaponry favour the defence? Because the sensory and guidance technologies appear to have been most effectively exploited in ATGW and SAM systems, and because the new systems themselves are comparatively inexpensive and should therefore be available in great numbers, it does appear that concentrated armour and strike aircraft forces will become more vulnerable. But in determining whether NATO stands to gain from this development, it is first necessary to distinguish between the political definition of "defence" and the tactical meaning--Israel, for instance, can be understood to be politically on the defensive but to have adopted an offensive military strategy.

Disregarding, for the moment, the issue of whether NATO's political strategy is defensive or offensive (there seem to be elements of both), most would agree that the Alliance has adopted an overall defensive orientation in military strategy, one that is primarily configured to repel a determined Warsaw Pact tank thrust on the Central Front. Thus, in the most general sense, the enhanced capabilities promised by the new systems appear to work to NATO's favour.

On a less superficial level, however, this judgement must be qualified. While NATO's may possess a defensive strategy, in the event of war, existing plans call for forces to carry out a variety of offensive operations, including deep penetration tactical air raids, armour probes of weakly defended areas, and, if necessary, armoured counter-attacks. Correspondingly, while small portions of the Central Front would be chosen by Warsaw Pact forces to initiate and follow-up an offensive armour breakthrough, Pact forces will be required to defend a much larger portion of the front from NATO counter-penetration plunges. In this situation, it becomes extremely difficult to judge which side will benefit most from the exploitation of the new weaponry other than perhaps concluding that while ground will become more difficult to seize, once seized, it will become equally difficult to gain back.

These circumstances suggest that surprise, in the form of pre-emptive attacks, may become a more compelling factor for NATO forces to consider. With continuous, "blitzkreig", advances might be ruled out by the new weaponry, "racing towards the channel" tactics might be abandoned by Pact forces, in favour ofaa more cautious, and possibly more successful strategy of pre-emptive land grabs, where limited portions of territory were seized in surprise strikes and ATGW and SAM were used to defend the area from counter-attack. In such a manner, the Pact, like Egyptian forces in the opening days of the 1973 war, could utilize the defensive orientation of the new weaponry for an offensive end. While it can be questioned whether existing or future Warsaw Pact armies possess the doctrinal flexibility in order to respond to the new technologies to undertake this form of warfare in Europe--an issue that is linked to what the Soviet Union's ultimate objectives vis a vis Europe ultimately are--it is possible to envision Pact offensive operations resembling American "island hopping" in the Pacific during World War II, where small areas would be cleaned of resistance and then adjacent sectors stromed.

C) Warsaw Pact Acquisition: These considerations naturally lead to another question: "What will be the impact of Pact deployment of equal or greater numbers of the new systems? The crude model that stresses NATO's defensive mission suggests that unless huge imbalances appeared in PGM inventories and the like, the effect would be minimal because the crucial variable driving weapons inventories are "offensive" weapons like tanks and strike aircraft. This analysis is appealing, because it borrows from the distinction between offensive

and defensive systems used in the sphere of strategic weapons. But the interaction of forces in conventional combat is far more complex; as the preceding paragraph argued, an ATGW can be employed in an offensive strategy and, more to the point, deployed aboard a tank becomes an offensive weapon itself. Thus, the impact of Pact acquisition of new weaponry could have far greater impact than is generally assumed, particularly when some NATO missions, like the use of tactical air power deep within Pact territory, appear less viable in the light of developing technologies. In general, it might be profitable to drop the offence-defence distinction and return to the traditional rule of thumb, that operating on familiar ground and taking advantage of terrain features, the defender can succeed when the ratio of forces (including all categories of relevant equipment) does not rise above 1:3. But even this, cannot bring too much comfort to NATO planners because Pact forces, equipped with standardized equipment, do not face the complex organizational and economic problems that will influence the spread of new weaponry in the West.

D) Collateral Damage: It was suggested above that the disadvantages attached to concentrating forces could, in some instances, work to the advantages of the Pact armies. There are also some cases where it appears that the Pact, in attempting to adjust to the deployment of new systems, could bring about situations that the very deployment of these systems sought to avoid. The issue of minimizing collateral damage seems a good illustration of this point. While PGM promise to lower collateral damage and thereby change attitudes towards conventional war-fighting in the Central Front region, like the Israelis in 1973, the Pact forces depend on the use of barrage artillery and rocket and mortar fire to suppress ATGW and SAM fire. Likewise, further into the future, small units operating as forward observers and designators for PGM fire would also be vulnerable to sustained barrage fire. While heavy terrain fire may not be effective against highly dispersed units, it is likely to increase the incidence of collateral damage on and beyond the battle area. The same argument can be used in the case of cities. Traditionally, urban areas have been thought of as sanctuaries, useful in channelling invading forces. However, because PGM cannot be expected to perform well in built-up areas, cities may become more attractive targets for attack, ironically becoming sanctuaries for invading forces. The result of NATO's acquisition of the new weaponry, then, could have the paradoxical effect of better equipping forces to defend against a conventional armour attack on the north German plains, but increasing NATO's vulnerability to unconventional thrusts undertaken at night or in difficult weather conditions with limited objectives in mind.

E) Tactical Nuclear Weapons: Will the new technologies raise the nuclear threshold in Europe? According to some observers, one of the most appealing implications of the new weaponry is that operations that were previously considered to require nuclear munitions will be able to be conducted with conventional munitions, widening the gap between conventional and nuclear operations and reducing the possibility of nuclear escalation to the all-out strategic exchanges. The political problems attached to this argument will be mentioned in Part III of this paper, but it is important here to note that 1) many of the new delivery systems are dual-capable and may be fitted with nuclear warheads and 2) that important technologies are available for improving the weapons effects of low-yield (10 kiloton and lower) nuclear munitions. Thus, while new conventional munitions offer numerous effective weapons-tailoring possibilities, the design of low-yield nuclear warheads also promise new targeting options. Minimum residual radiation ("clean") explosives can reduce collateral damage when this is viewed as an important objective, while enhanced radiation (ER) weapons offer efficient uses as anti-personnel munitions. When coupled with earth penetrator technologies, low-yield nuclear weapons appear attractive in a number of roles, including "digging out" hardened underground bunkers and implanting atomic demolition mines. (In this latter function, ADM could be utilized without confronting the politically controversial prechambering problem.) It is necessary, then, in making judgements over the conventional-nuclear trade-off to compare the weapons effects of the two categories of munitions--a comparison that is severely complicated by the different scale of explosive power of nuclear and conventional weapons per weight of ordinance.

F) Missions, Organization and Procurement: The purpose of the foregoing was not to argue that the new weaponry holds little potential for NATO deployment, only that the tactical issues as generally presented by enthusiasts appear to ignore some important and complicated technical questions. If these questions are resolved, on balance, in favour of the new technologies, the even more complicated problem of how these systems, given prevailing NATO force structure and organization, might be optimally deployed, must be addressed. This is primarily a question of force structures and mission priorities, but it is ultimately related to costs. The funds that NATO members will be able to devote to new technologies will be severely constrained by efforts to maintain existing capabilities, regardless of whether these capabilities are essential in the light of the tactical implications of the new weaponry. A major component of the argument of those who maintain that the new systems will enhance NATO's defensive posture is that they must be available in abundant numbers. Thus, it is necessary to ask whether NATO can make the economic and organizational adjustments necessary to exploit the new technologies. As was underlined in a previous section, despite NATO's defensive orientation, many NATO units continue

to place emphasis on offensive-style operations and weapons systems, like deep penetration aircraft, that are useful in these roles. NATO forces, by and large, are not configured for the defensive-minded dispersed and decentralized style of combat that appears best suited for the new weaponry. American infantry and armoured divisions, with their large size, huge logistics tails and centralized command structures, are a good example of this. Perhaps a better one is American tactical air forces, which rely on expensive, sophisticated aircraft to strike at interdiction targets and air bases deep within enemy territory. Whether this capability is necessary is a complicated issue, revolving around questions of the likely duraation of a war in Europe and whether NATO can maintain air superiority over the battlefield without these counterair raids. However, the important point here is that much of the money and effort devoted to precision guidance and advanced target acquisition techniques is devoted to maintaining the continued effectiveness of deep penetration aircraft. However, new developments suggest, first, that the enhanced performance of battlefield systems may make the deep penetration capability less important and, second, that other means of carrying out the same mission--standoff cruise missiles, surface-to-surface missiles and RPV, may be available at a far cheaper price.

In order that funds for the exploitation of the new technologies are not gobbled up by efforts to perform less relevant missions more effectively (or simply to maintain effectiveness in response to an adversary's acquisition of new equipment), a reappraisal of existing NATO missions seems necessary. If manned aircraft are increasingly vulnerable to SAM, the answer would not appear to lie in designing more sophisticated defence suppression equipment for $14 million-a-copy aircraft like the F-15 or designing aircraft, like the EF-111, with the defence suppression role primarily in mind. Instead, it would appear more sensible to rely on battlefield weapons, including SAM, to establish battlefield air superiority and longer-range missiles for interdiction missions.

Another issue related to cost is defence procurement and the need to standardize. It was earlier stated that NATO will deploy as many as 16 different types of ATGW by the end of the decade. While these systems reflect different doctrinal orientations and are designed for use under different conditions and on different platforms, it is clear that this proliferation of ATGW represents unnecessary waste and duplication. This will ultimately, of course, effect the numbers of new systems that NATO will be able to deploy over the coming decade. Moreover, it has been stressed that the ability of PGM to perform their potential role will depend on the efficient performance of target identification, acquisition and command and control functions. Particularly in a more fluid and decentralized battlefield environment, the need for compatible communications and targeting systems becomes paramount.

It should be noted, then, that efficient introduction of new systems into the NATO arsenal presupposes changes in the pattern of defence organization and procurement that others have supported on their own merits. In arguing for the "restructuring" of NATO forces into smaller, more mobile units with greater "teeth to tail" ratios, some analysts have criticized proponents of the new technology for ignoring important organizational deficiencies in NATO. However, questions of "restructuring" and the new weaponry should not be viewed in terms of an "either or" choice facing NATO, for acquiring the new weaponry will likely necessitate (or should necessitate) the organizational changes championed by the restructuring advocates. And for restructuring to provide NATO with a more credible defensive capability, the potential offered by the new weaponry will have to be exploited. The same is true in the area of standardization. Recently, several proposals have been made to establish European or Alliance-wide research and procurement agreements where duplication in defence R&D and production would be eliminated and economies of scale could be utilized to yield a more efficient use of defence expenditure. Again, this idea seems to presuppose agreement among NATO members on technological and force structure issues. It is the promise of the new weaponry (and the corollary need to possess them in great numbers) that makes joint procurement attractive; without increased standardization, on the other hand, it may be impossible to achieve the overall increase in NATO capabilities that the new systems offer. For the time being, at least, the conjunction of technological, organizational and economic factors appear to offer the Alliance an opportunity to redress the perceived military imbalance in Europe, a situation that has led some to complain that the only commodity that is presently lacking is "political will". This assessment, however, ignores a series on crucial political and strategic questions.

IV. Political and Strategic Considerations

It is probably impossible, from the European standpoint, to survey the wide range of new weapons under development and the arguments supporting their deployment without suspecting that the United States is only attempting to substitute technology for manpower in Europe, asking Europeans to function as foot soldiers while Americans, in possibly fewer numbers, operate the new generation of glamorous systems. This view is undoubtedly reinforced by arguments that couple possible manpower savings with either the deployment of new systems or the restructuring of forces. It is true that the most advanced systems are being developed in the United States and are being deployed most rapidly by American forces, but this should not obscure the fact that Europeans have been innovative in a wide range of areas, including ATGW, air defence missiles and RPV. But unless means are sought to standardize the production and acquisition of these systems, or alternatively, to convince the United States to purchase European products, it will be difficult not to draw the conclusion

that economically, the United States stands to gain most, from the procurement of the new weaponry and, militarily, that the United States is seeking to widen existing gaps in Alliance capabilities. Two interpretations might be placed on this latter possibility. First, the introduction of exotic American equipment into the European theatre might be perceived as an effort to reduce forces and, over a longer period of time, an effort to subtly withdraw from the American commitment altogether, through a process akin to Vietnamization--trading equipment for direct support. Second, the American monopolization of the new technologies might be seen as an attempt to create increased European dependence upon the United States, creating, in effect, the magnitude of influence that American arms supplies provide over Israel. Fears of this sort exist, but they should not be over exaggerated. The United States is sensitive to these concerns, and in undertaking to procure a European designed low level air defence missile, the Roland, has demonstrated a willingness not to monopolize the new weapons market. More important, the continued effort by European NATO members to collaborate on new weapons designs will rule out this possibility. Manpower savings that might arise from the deployment of new systems, meanwhile, could become a more controversial issue. Here, Defence Secretary James Schlesinger's decision last year, to bolster the strength of combat units after withdrawing excess headquarters personnel, seems a useful precedent.

A more fundamental problem stems from the tendency to view the deployment of new conventional weapons as a means of placing less emphasis on nuclear weapons for the defence of Europe. The combined possibilities of enhancing the firepower of conventional forces (in both standing and reserve units) while reducing the collateral damage in time of war, have led some to argue, not only that a conventional defence-in-depth in the central region is feasible, but, for the first time, is politically acceptable to Europeans in that area. There are several problems with this claim. On the level of operations, it has been suggested, that the new weaponry will not only speed up the pace of combat but encourage strikes against known, fixed targets well beyond the battle area--a so-called "sublimation effect". If this occurs, the collateral damage stemming from European conflict could exceed the optimistic estimates of some analysts. More important, the most effective counter to the new systems may be the heavy terrain fire and the use of area weapons like fuel-air explosives which would nullify any advantages that highly accurate weapons might be seen to possess for limiting destruction to civilian population and structures

Any argument that stresses the need to bolster NATO's conventional war-fighting capability must address European doubts over a strategy that magnifies the possibility of a prolonged and destructive conventional conflict in the centre region. The "decoupling" aspect of such a strategy will be discussed below, but it first is necessary to mention possible war termination options implicit with

the deployment of the new weaponry. There seem to be two, largely contradictory, views of the impact of the new technologies on the course of potential large-scale conflicts in Europe. One school, noting that pace of combat is likely to accelerate with the new weaponry dispersed among decentralized forces in the field, argues that invading forces could be quickly halted, forcing the aggressor to than decide whether or not to employ nuclear weapons. The second school, however, emphasizing that the new weaponry calls for the use of defence-in-depth tactics to slow a penetrating attacker, contends that a conventional war in Europe would soon become a war of attrition. Under these conditions, great portions of European territory might be ravaged before any decision to use nuclear weapons were taken, if after a prolonged conventional conflict, the decision to go nuclear were taken at all. It is impossible to state with any real assurance whether the "short" or "long" war scenario is correct, because the outcome of any future war will depend, in large part, on the strategy of the Warsaw Pact and the configuration of forces selected to carry out that strategy. But it is clear that if the new weapons brought with them a significant probability of a war of attrition, they would be rejected immediately by many Europeans.

The question of enhancing NATO's conventional capabilities, then, forms a central part of the enduring European-American debate over what constitutes deterrence and who should bear the brunt of costs, should deterrence fail. This formulation becomes even clearer when claims about the new weaponry are linked to raising the nuclear threshold. Emphasizing NATO's conventional defences while simultaneously relying less on nuclear weapons to deter or defend against an attack can only be perceived by European governments as a continuation of the Kennedy Administration's effort to reduce the risk of nuclear war to the United States by facilitating a "long pause" before the nuclear threshold, an effort that might be thought to possess a new urgency after Vladivostok, with strategic parity guaranteed for at least the next decade.

The solution to this problem, according to some analysts, is to dispense with the preoccupation with "thresholds" and to exploit the new guidance and command technology for both nuclear and non-nuclear munitions, to increase both the range of options open to decision-makers and the uncertainty of response attending any Warsaw Pact initiative. While, from one perspective, raising the nuclear threshold seems an obvious virtue of the new technologies, the capabilities of the new systems suggest a variety of other doctrinal options, including the equipping of PGM with small nuclear warheads for battlefield, shallow and deep-interdiction missions. In fact, if any overall tendency appears discernable with new weapons development, it is the "blurring" of traditional distinctions among conventional, tactical nuclear and strategic nuclear weapons. While low-yield nuclear weapons are capable of carrying out tasks now assigned to conventional munitions, inter-continental missiles, armed with conventional warheads, could, by the mid-1980s,

be used against strategic targets. This development may be difficult to resist and to those who emphasize the need to couple European defence to the United States in a "seamless web" of deterrence, a good thing. In a situation where NATO maintains the option to respond to military threats with a range of non-nuclear and nuclear responses, including the use of weapons on the Soviet Union, it is argued that a strategy of "selectivity and flexibility" increases the ambiguity facing Soviet planners while at the same time reassures Europeans of the credibility of the American commitment. At the same time, the application of the new technologies for nuclear and non-nuclear weapons alike carries with it the implicit risk of escalation--a fact that proponents of "flexibility" must recognize.

V. Arms Control

The use of conventional HE against strategic targets in the Soviet Union is an excellent example of the definitional problems that the new technologies pose for arms control in the European context. On a general level, the blurring of conventional and nuclear weapons capabilities, both in terms of damage effects and their role within the spectrum of deterrence, raises problems for SALT and MBFR which reflect US-Soviet strategic preoccupations on the one hand, and NATO-Warsaw Pact general purpose force considerations on the other. With the development and potential deployment of strategic-capable conventional weapons and battlefield nuclear weapons, the distinction between SALT and MBFR begins to break down. Are conventional munitions capable of striking strategic targets in the Soviet homeland to be considered in the context of SALT, or will they become sources of contention like nuclear-capable forward-based systems? More vexing is the possible deployment of strategic-capable conventional systems by European members of NATO. Will their deployment disturb US-Soviet understandings reached at SALT? Problems of a similar nature would be posed by the deployment of a new family of battlefield nuclear weapons. It has been suggested that by enhancing NATO's conventional capabilities, the Alliance might be more willing to include tactical nuclear weapons in a package of reductions at the Vienna talks. However, an agreement that enabled the replacement, however limited, of older and more vulnerable systems with new hardware, would hardly seem acceptable to the Soviet Union.

In general terms, the introduction of new weapons technologies is likely to create a sense of uncertainty that almost by definition makes the calculus of arms control more difficult. At MBFR, negotiators are grappling to construct "apples and oranges" agreement packages, which are meant to reflect existing NATO and Warsaw Pact force structure asymmetries. Expressing the value of a fighter-bomber in terms of a battle tank is a difficult enough enterprise at a time of little technological change. In a period when tanks are increasingly vulnerable, the

calculation of trade-offs at MBFR becomes an almost insoluble problem. Difficulties of arriving at common agreement frameworks are exacerbated by uncertainties within each block over the future role of certain systems. It was argued, for instance, that tactical air power, particularly in the performance of deep penetration raids, is becoming a costly and risky means of delivering munitions. But unless bureaucratic resistance to the deployment of possible replacement systems is overcome, manned aircraft will remain as the primary instrument for interdiction. Thus, until basic decisions over future force structures and mission priorities are made, attempts to construct manpower and weapons packages will be further complicated.

Under these circumstances, arms control efforts in Europe would perhaps be better directed towards operational issues rather than placing ceilings on manpower or particular classes of weaponry. In view of the possibility that the new technologies might increase pre-emptive instability in Europe, confidence building measures might be most appropriate at the present time. Prior notification of the deployment of new systems, of the redeployment and reorganization of troops and the clarification of policies would be of great value in a period when uncertainty over the military impact of new technologies will encourage a natural hesitancy to enter into new agreements. In the longer run, however, new instruments of arms control may be necessary. In many respects, the dichotomy represented by SALT and MBFR and the approach of both in attempting to secure comprehensive agreements of long duration, reflects the technical and political realities of the mid-1960s rather than the more fluid contemporary situation. Both the Eastern and Western blocks had obvious interests in institutionalizing these two arms control fora, but just as the movement in new weaponry is towards greater flexibility, there is a corresponding need to endow the diplomatic efforts to control these developments with a similar attribute. What might be necessary, then, is a new European arms control institution, which could seek a diversity of shorter-term agreements on more narrowly-defined technical problems in such a manner that they could be continually monitored and up-dated.

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