	Range	<u>Yield</u>	Remarks
420 mm Mortar	15000-23000 m	5-30 KT	Range for nuclear warhead is estimated to be approximately 2/3 of conventional ranges shown.
310 mm Mortar	18000-23000 m	5-30 KT	
203 mm How	29250 m	2-8 KT	Yield is assumed. Little evidence that nuclear capability has been developed for this weapon.

Air Delivered Weapons

•	Combat Radius	<u>Yield</u>	Remarks	
BEAGLE	490 n.m.	10-90 KT; .5-3 MT	4,400 lb bomb load capacity.	
FIREBAR-A	395 n.m.	10-90 KT; .5-3 MT	3,300 1b bomb load capacity.	

* It is important to note that sightings of these missile systems with Soviet units have been rare, and it is estimated that the bulk of these delivery systems are located within the USSR which would necessitate a major movement prior to their employment. The most significant nuclear delivery capability against Allied Command Europe rests with the MR/IRBM and medium bomber forces whose bases are within the USSR.

4. Command, Control and Communications (C3)

Command and allocation lines of authority for the use of nuclear weapons run from the High Command to commanders of fronts and sometimes armies, and appear well designed to reserve initial nuclear release authority to national leadership. In general, however, Soviet procedures for control, custody, storage, movement and employment of nuclear weapons appear inflexible, dependent on pre-planning and fraught with complexities. These procedures, together with deficiencies in logistic support, would hamper the Soviets -- in terms of operational readiness and rapid response -- in their employment of tactical nuclear weapons.

5. Air Defense

Warsaw Pact theater air defense forces rely primarily on automatic AAA weapons (57 mm and smaller), air defense missile units and tactical aircraft. However, there are currently about 40 SA-2 sites (240 launchers)

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in East Germany and each Soviet <u>front</u> is estimated to contain one or two SA-2 regiments of four battalions of six launchers each and each army is expected to contain one SA-2 regiment.

6. Logistics

It is estimated that the overall Soviet ammunition and POL stockpile in East Germany represents about a 60 day level for the 20 Soviet divisions and supporting aircraft presently there. Soviet lines of communication could probably resupply about 130 divisional forces in average combat. However, the variance in the rail system within the Warsaw Pact requires the use of change of gauge stations and transloading points which may slow the movement of supplies and provides points of vulnerability to interdiction.

7. Resume

Analysis of the capabilities and deficiencies of Warsaw Pact forces indicates that this force is organized and equipped to fight primarily on the nuclear battlefield. Reliance on large scale, pre-planned nuclear strikes appears to be fundamental to the operational doctrine of the force. Warsaw Pact leadership undoubtedly recognizes the superiority of the United States and the West both in strategic power and in tactical nuclear weapons. Therefore, the Soviets probably do not regard deliberate initiation of general war or the use of tactical nuclear weapons in a limited war as a feasible course of action for themselves at this time. A more detailed analysis of Warsaw Pact capabilities and deficiencies is contained in Part II of Volume II.

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PART III

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EVALUATION OF UK, FRG, AND FRENCH VIEWS ON NATO STRATEGYPC/HOR by

- 1. <u>Descriptions</u>. Brief descriptions are written below and summarized on chart. More precise elaborations are contained in Vol II, Part III.
- a. <u>UK</u>. Since Soviet leaders are fully aware of the grave risk of escalation in limited hostilities with the West, the most likely possibility of war in Central Europe is by miscalculation; hence aggression would probably begin with a limited objective. Therefore, in event of nonnuclear aggression NATO must respond initially with conventional forces capable of resisting near the Iron Curtain, and of identifying the nature of aggression. A "trip-wire" posture for such conventional forces is not credible. If the scale of attack is larger than could be held by conventional forces, then discriminate use of small numbers of battlefield nuclear weapons should be initiated by timely political action to support ground forces. However, greater use of such weapons would almost certainly lead to global war. Thus the duration of conflict must be short; and, because of this, there is no requirement for reserve forces. Regarding tactical air, unless its role is severely restricted the risk of escalation will be high.
- b. <u>FRG.</u> A major aggression against NATO is improbable as long as Soviets must expect nuclear counterstrike. However, there exists possibility of swift and limited breakthrough that could push back NATO forces which operate without battlefield nuclear weapons. Thus FRG espouses a forward strategy with early if not immediate use of battlefield nuclear weapons, due to shallow depth of the Central Region, the high density of population, and the lack of NATO forces capable of defending conventionally. Escalation to general war is not inevitable; and if USSR responds with tactical nuclear weapons, more intense, but still limited tactical nuclear operations are possible. In any event, prolonged war is not feasible in Europe, hence a quick decision must be reached. Regarding tactical air, FRG believes that recce, close air support, short range interdiction (except no strikes of vital aggressor installations), and selective delivery of nuclear weapons can be accomplished without undue risk of escalation.
- c. France. A major or limited aggression against NATO is improbable as long as Soviets expect a nuclear counterstrike. The French reject the idea of a theater limited war, tactical or conventional. Accordingly, the role of conventional forces, which should be deployed to provide covering forces near the Iron Curtain, as well as forces echeloned in depth, must be only to "characterize" the type of aggression. (The countries of Western Europe cannot sacrifice space in a conventional, prolonged defensive action, yet for them to try to defend conventionally would place an impossible requirement on the economic capabilities of nations.) Thus the role of forward deployed forces would be to deal conventionally with minor conflicts; and to trigger NATO or national strategic strike forces for all conflicts larger than raids, hostile

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local actions and infiltrations. The publicized French view is that tactical nuclear weapons could not be employed without inevitable escalation. Regarding tactical air, since the French do not accept the concept of a limited war in Europe, the role of tactical air would be limited during minor conflicts to ground support, recce, and local interdiction.

- 2. <u>Common Basis</u>. While specific differences exist in the European views, they are not irreconcilable. In fact, several important similarities among these views suggest that a military consensus on strategy probably can be worked out on an evolutionary basis between the Europeans and the US. The more important similarities are discussed below.
- a. Europeans are more concerned with the theory of deterrence than with the realities of defense. Insistence on an early nuclear response appears to be central to their concept of deterrence. As Henry Kissinger points out, a Soviet penetration of even a hundred miles in the fluctuations of conventional combat is a vital matter in which the national existence of a state is at stake.* A prominent European puts it more bluntly:**

"To Western Europe, with its small and crowded land area, with the horrors of conventional war upon its own soil still fresh in men's minds, the attempt to stress the 'conventional option' seems to offer the Soviet Union the temptation to make some limited promenade militaire against an exposed part of Europe, to destroy its conventional defenses, and to open negotiation from well inside the present perimeter of free Europe before the United States could take the agonizing decision to risk a strategic nuclear exchange. This view does not imply any slight on American courage and determination, but is based on a considered judgment that to deter all war in Europe requires leaving the Soviet Union in constant doubt as to whether an aggressive act of any scale would invoke a nuclear response. This in turn means keeping tactical-nuclear weapons sited well forward and perhaps decentralizing the decision to use them." (Emphasis added.)

- b. With the exception of Germany, there persists in Europe belief that escalation would be inevitable if tactical nuclear weapons were used in more than a "demonstration of will" role. Even the Germans would be willing to admit the likelihood of escalation were a Soviet attack not blunted by use of battlefield nuclear weapons (up to 10 KT, 40 KM range).
- c. Europeans at present are not persuaded that forces above existing levels are essential for NATO's defense posture, hence governments remain unwilling to meet the quantitative and qualitative force goals of MC 26/4. In fact this unwillingness to meet force goals has generated a search for "economical short-cuts" to defense, such as barrier concepts and reliance on militia-type forces. The French "trip-wire" strategy is derived in part from

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^{*}Kissinger, Henry A., "NATO's Nuclear Dilemma," The Reporter, 28 Mar 63. **Buchan, Alastair, "Partners and Allies," Foreign Affairs, July 63.

her heavy resource commitment to the "force de frappe" and unwillingness to allocate more funds to a nonnuclear force buildup. Yet were the French to move in the direction of fulfilling their MC 26/4 force goals, NATO's nonnuclear defense posture would be considerably improved. However, the enormous share of defense resources* she plans to devote to the nuclear program suggests that France will not buy more nonnuclear forces.

(1) In theory, at least, the rising economy of Western Europe would enable the nations to devote substantially more resources to a nonnuclear defense option than they are presently doing in the figures below:

SELECTED NATO COUNTRY DEFENSE EXPENDITURES (Billions of Dollars)**

	CY 162			CY '63		
Country	GNP Factor Cost	Defense Expenditure	% GNP for Defense	GNP Factor Cost	Defense Expenditure	% GNP for Defense
France Germany U.K. U.S.	61.09 72.61 69.89 507.24	4.35 4.31 5.08 52.38	7.1 5.9 7.3 10.3	65.9 77.7 73.6 532.0	4.35 4.90 5.35 53.24	6.5 6.4 7.4 10.0

- (2) However, efforts to persuade the Europeans to devote more resources to fulfillment of MC 26/4 force goals have on the whole failed. Europeans in general are unconvinced that additional expenditures on non-nuclear forces are the best way to deter the Soviets. The political fact is that the United States has been too successful in the past in selling the concept of nuclear deterrence and defense with tactical nuclear weapons as the cheapest and best way to provide for the local defense of NATO Europe. The unpopularity of conscription, the specter of large standing armies, the additional resources that would be required, are all strong political impediments to shifting the basis of NATO strategy. There does not appear to be a significant trend in Europe for providing the kind of conventional defense option the United States desires.
 - d. A short war is contemplated. As a consequence governments are reluctant to meet the logistic requirements (90 SHAPE days) of MC 55/1, and in fact only the United States has approached the prescribed levels. Furthermore, reserve formations are generally regarded as of little value in the decisive phases of a conflict unless they can be rapidly brought to maximum readiness in advance during periods of tension. The British, in particular, see no requirement for reserve forces.

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^{*}French nuclear weapons program costs are estimated to be in 1963, \$.54 billion (12% of defense expenditures); and will average about \$.87 billion during the four year period 1963-66, rising to about \$1.3 billion in 1966.

Source: SNIE 22-2-63, 24 July 63, "French Nuclear Weapons Program."

**Sources: International Staff, USRO and AID estimates.

3. Evaluation of views.

- a. In general, the strategic views of our principal NATO allies appear as a rationalization of their politico-economic unwillingness to bolster the strength of active duty ground forces in the Central Region and to accept the concept of a prolonged, limited war confined to Europe. Accordingly, Europeans suggest that nuclear weapons be used early and in a limited way to stop deliberate Soviet aggression, but by this reliance on the nuclear remedy for nonnuclear weakness the European views may not provide sufficient flexibility for NATO to deal with aggressions which seek limited objectives or which arise accidentally or out of miscalculation. This lack of flexibility is particularly true with the French "trip-wire" concept and "automaticity" of nuclear retaliation against all conflict forms other than raids, hostile local actions, and infiltrations. Moreover, by its insistence on early if not immediate resort to battlefield nuclear weapons deployed in proximity to the Iron Curtain, the FRG view also appears to be relatively inflexible and accident-prone.
- b. While all views are in general accord on a requisite number of active duty Central Region divisions (at least 20-25), the French view, by its greater reliance on nuclear weapons, could, if adopted by NATO, lead ultimately to more force shortfalls than might occur with the other views. Moreover, the "short war" concept, explicit in all views, does not translate into large, active duty or reserve forces, or into stockage levels much above 30 days. The full impact of a "short war" concept, plus further force shortfalls could further degrade NATO's capability to cope politically with various Soviet threats, and to deal militarily with overt aggressions.
- c. The FRG concept on the use of tactical air has a high risk of escalation, particularly where air sorties, armed with nuclear weapons, are employed on short range interdiction missions. The British recognize the grave risks of escalation inherent in such air operations; and would, therefore, severely limit the use of tactical air, perhaps to the detriment of conducting effective ground operations against an attack.
- d. The British, French, and implicitly the Germans, agree that the risk of escalation is very high once tactical nuclear weapons are used in any large quantity in Europe. This high risk is crucial to their concept of deterrence. Yet, the Soviets, viewing NATO's relative nonnuclear weakness, may consider that the high risk of escalation works to NATO's disadvantage by confronting Europeans, in the event of "ambiguous" aggression, with the choice between surrender (accommodation), or vast destruction. The Soviets may believe that the latter course of action is unacceptable to Europeans, hence temptations might increase to initiate limited or ambiguous aggressions.
- e. The French and FRG views on the need for early if not immediate use of nuclear weapons are similar. Yet the implied "automaticity" of response (in terms of "place" or "time" rather than according to "situations") may call for a degree of political predelegation which is unlikely to be agreed upon in peacetime on a NATO-wide basis. Hence there is a ring of political unreality

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in these military views. The British, however, recognize the political issue and thus urge that in event of nonnuclear attack some conventional action must occur before any resort to tactical nuclear weapons. Moreover, the British recognize that once such weapons are used, vital interests clearly appear at stake, hence war could not go on for very long without escalation.

- f. Close examination of European views reveals some potential areas for agreement with prevailing US views. These are:
- (1) A broad consensus appears to be developing among Europeans, even implicitly with de Gaulle, on the need for a range of NATO options between the bare "trip-wire" plus strategic nuclear exchange option and the surrender option. Hence, there is agreement on the need for Central Region active ground forces at a minimum level of 20-25 Divisions.
- (2) The potential for increased use of local ready reserve ground forces to give greater depth to the conventional/tactical nuclear defense posture appears to be an economically acceptable alternative to creating more active duty ground forces.
- (3) Except perhaps for the publicized French position, all seem to agree that the localized employment of tactical nuclear weapons can be separated from the strategic nuclear exchange. The views, however, vary on how long this separation can be sustained.

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NUCLEAR SPECTRUM OF ALTERNATIVE CONCEPTS NONEUCLEAR DEFENSE DEFENSE MC 14/2 OPTION OPTION SACEUR's EDP* FRENCH 1. Brief conventional delaying 1. Forward defense of short 1. NATO respond immediately action then selective use of with adequate nonnuclear force duration using battlefield a few tactical nuclears. augmented if necessary by nuclear weapons.

- tactical nuclear weapons to defeat aggression.
- 2. NATO prepared for controlled use of tactical nuclear weapons.
- 3. Escalation not inevitable.

- 2. Prompt use of nuclear weapons prerequisite for success.
- 3. Escalation not inevitable.
- 4. Role of Aircraft: Recce, conventional interdiction, delivery of small nuclear weapons.
- 5. Forces necessary: 30 M-Day Divisions plus 10 Reserve.
- 6. 30 days of supply adequate.

- 2. Escalation inevitable unless attack is stopped.**
- 3. Role of aircraft severely limited: Too prone to escalation.
- 4. Forces necessary: 25-30 M-Day Divisions. No requirement for Reserves.
- 5. 30 days of supply in Europe.

- 1. No concept of tactical nuclear war.
- 2. Screening forces to verify aggression and thereby to trigger general nuclear war тевропве.
- 3. Escalation inevitable.
- 4. Forces necessary: 25-27 Divisions (not all M-Day) with 10 at or near front.
- 5. Accept 90 day level of supply but have not reached goal.

GENERAL WAR CONCEPTS OF ALL NATIONS ARE SIMILAR

*Based on SACEUR's interpretation of strategic guidance in NATO Folitical Directive, MC 14/2, MC 48/2, MC 26/4, and "Athens Guidelines." **Recent AORG studies support this conclusion.



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Part IV

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By HR-M/CSD MAR, Date 10/7/94

ANALYSIS OF SACEUR EMERGENCY DEFENSE PLANS AND RELATED POSTURES*

- 1. Assumption of Control. When authorized by the national authorities of NATO, the Supreme Allied Commander, Europe (SACEUR), assumes command over the national forces that have been committed to the treaty organization. At Order for Simple Alert certain elements come under command; at Order for Reinforced Alert, all forces come under his control. Also at these times his Emergency Defense Plans (EDP) come into force.
- 2. Emergency Defense Planning. In peacetime, and in response to the SHAPE EDP, and its related documents such as the Nuclear Strike Plan (NSP), the subordinate ACE multinational planning headquarters have prepared their own emergency plans. It is the sum of all these plans, the forces to whom they issue, and the postures these forces assume that are here analyzed in the context of their capability to provide a deliberate-selective controlled response to crisis management and to controlled conflict at various plateaus of intensity.
- 3. The Objective of the EDP. The EDP's goal is establishing all forces in operational readiness to meet a theater scale enemy attack, conventional or nuclear. Individual plans are prepared for contingencies less than general war, but the objective of the basic EDP is to attain the best possible posture for the worst contingency, a large scale war.

COMMAND, CONTROL, AND COMMUNICATIONS (C3)

4. Communications Capabilities. The C³ system as it exists in peacetime is barely adequate for peacetime requirements. The system, until disrupted by enemy strikes or by movement and dispersal activity, is geared to monitor all activities, issue alerts, initiate orders for EDP execution, and order a general war response, R-Hour. During a time-phased buildup to a confrontation or crisis situation less than large scale theater war, the C³ system could continue to

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^{*} A summary of Part IV, Volume II of 18 May Interim Report, with more detailed discussions incorporated, covering certain inadequacies in Volume II.

provide for the centralized control required. It does not react well to major loading, as during a surprise attack. The following deficiencies would adversely affect its continued effectiveness should a single crisis situation increase in intensity, or expand.

- a. There are no current systems that provide warning of ballistic missile attack. This is an inadequacy in any situation, but the relative importance of this deficiency increases when SACEUR is involved in a "flexible response," and fears enemy escalation.
- b. There is no quick reaction system to provide data on the location, yield, or other characteristics of enemy nuclear strikes.* Although the utility and value of such a system may be questioned in general war, the lack of comprehensive NUDET data in situations involving a "flexible response" is critical.
- c. The C^3 system is susceptible to overload and saturation in circumstances requiring rigid centralized control. Communications circuits are overloaded in peacetime exercises, and the movement of major headquarters to field locations, plus the dispersal of units, will aggravate this deficiency. The C^3 system can operate effectively for one or a limited number of crisis points, but a great number of multiple crisis points requiring continuing centralized control would inundate the system.
- d. Until greater redundancy is built in, the C^3 system is extremely vulnerable to destruction or neutralization by enemy nuclear missile attack. Many major centers of the C^3 system are soft fixed targets which can be readily located even in alternate field positions. Although less vulnerable to conventional attack, the elements and the relay stations may be neutralized by air attack, sabotage, and guerrilla operations; leased commercial facilities are used to a great extent.
- 5. R-Hour Procedures Are Not Applicable to a Controlled "Flexible Response" Situation. R-Hour procedures have been established for a rapid initiation of general war nuclear strikes. The R-Hour (Release Hour) message is a general war message; it directs immediate execution of SACEUR's Scheduled Program (SSP) and authorizes immediate execution of approved Regional Priority Programs (RPPs) (Fig. 1).

^{*} ASTREC (Atomic Strike Reporting System) is being installed by USAFE in Nov 64 to spot friendly strikes in enemy territory. The three AN/GSQ-44s are poorly sited to cover Central Region. However, this system may be adaptable to provide some NUDET data.

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