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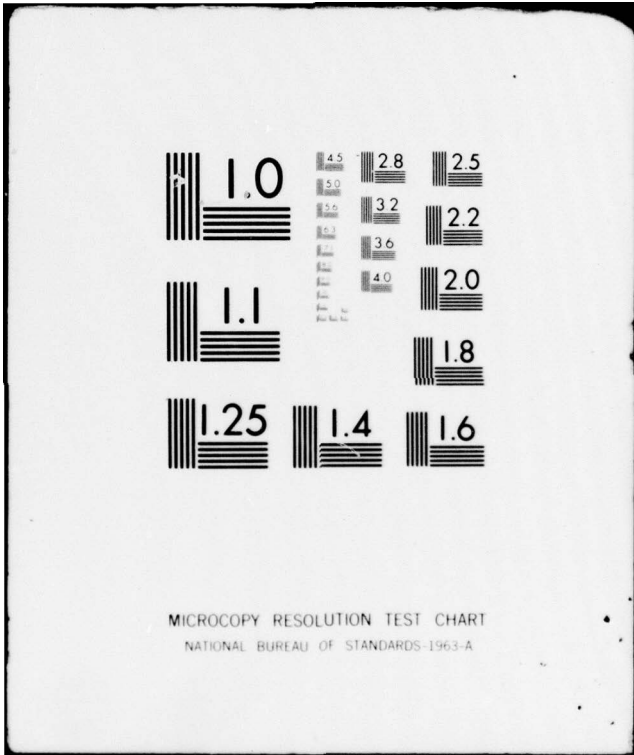
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THE NEUTRON WEAPON AND NATO STRATEGY

by

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John F. Scott

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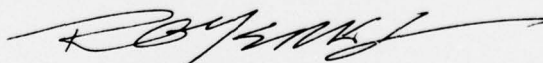
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FOREWORD

This memorandum considers the current debate on neutron weapons. The author views NATO strategy as the central issue of the debate. Conventional attacks that can be managed by conventional defenses will be; nuclear weapons may enter the war when the conventional defense is not enough, according to the author. He asserts that this "flexible response" means that, in reacting to large conventional attacks, NATO might choose to use nuclear weapons any time after enemy forces violate the defended border. The author cites this as an example of the less clear features of NATO strategy and as precisely where the neutron weapon would find its principal role in current strategy.

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ROBERT G. YERKS
Major General, USA
Commandant

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MR. JOHN F. SCOTT is an economist with the Strategic Studies Institute and has been a member of the Institute since 1963. He holds a bachelor's degree in commerce and finance from Wilkes College and a master's degree in social science from Shippensburg State College. He is also a graduate of the Industrial College of the Armed Forces. Mr. Scott has written a number of articles published in such professional journals as *Air University Review*, *Military Review*, and *Army*.

THE NEUTRON WEAPON AND NATO STRATEGY

Innovations in weapons technology which catch our fancy have the virtue of making us more aware of the role of the weapons themselves, that is, the strategy for their use. The tactical neutron¹ warhead is an example. The July 12, 1977 edition of *The New York Times* carried in its editorial pages authoritative but conflicting views. Edward Teller, who was involved in the hydrogen bomb's development and is a senior fellow at the Hoover Institution at Stanford University, said we should have the weapon. Herbert Scoville, Jr., who formerly served as technical director of the Defense Department's Armed Forces Special Weapons Project and as Deputy Director of the Central Intelligence Agency, said we should not.² Neither of these authors nor the *Times* is to be faulted for what was a too brief and unbalanced setting out of the issues. The articles were, after all, only the first salvos in what is sure to become a protracted conflict of opinions held by "schools" of strategists, two of which are ably represented by Teller and Scoville. The issues raised about the new weapon's humaneness, military efficiency, accuracy, attractiveness to political authorities, and effects on civilians in a battle area are legitimate issues for debate. But what the debate is really about—and what a close reading of Teller and Scoville shows it is about—is strategy. By strategy I mean the actions we intend to take in

Europe with nuclear weapons contingent on the actions of the Soviet Union and its allies.

THE NUCLEAR ROLE IN DETERRENCE

The NATO nuclear strategy has been rather clear for some possible contingencies and less clear—deliberately so—for others. Against nuclear attacks, the allied forces would respond with nuclear weapons. Those nuclear assaults within the abilities of the Warsaw Pact include the smallest “softening” battlefield strikes to clear paths of little resistance for their ground forces, and much more extensive strikes against military forces, bases, airfields, and even cities in Western Europe.

To deter these large nuclear attacks the Alliance needs many nuclear weapons with long-range, high yields, and dirty effects (for their destructive power) to strike military targets in Eastern Europe. Without this talionic capacity, the nuclear deterrent would have to reside in the Alliance’s strategic forces or in the relatively mild consequences posed by very short range nuclear weapons, clean or dirty, which could not reach far across the defended border.

In response to such large nuclear attacks, the Alliance could not confine itself to using clean and neat neutron weapons against enemy forces on Western territory. That would be a poor deterrent, and that is not where the neutron weapon would play its principal role. But we could concede that the neutron weapon, even in this kind of war, could be valuable in sparing civilian lives that might otherwise be lost from the effects of our own weapons. The Soviets see no point in the effort to make their nuclear weapons smaller and cleaner, but that is no reason NATO should not make the effort. The killing of West Europeans by the Soviets would not confer on NATO the right to do so too.

Lesser nuclear attacks must be deterred as well. Against these, NATO need not “guarantee” nuclear escalation by responding without limits on what and where it strikes, but could return the nuclear blow on enemy forces attempting to penetrate its defense. Were NATO’s abilities to take such actions sufficient to cause the potential foe to conclude that his forces could not control West European territory, he would have to choose a more dramatic way to attack or not attack at all. The usefulness of neutron weapons for this deterrence task is rather clear, but still not to the principal point.

Against nuclear attack, the likelihood of a NATO nuclear response is

very high. Either that or degrees of provocation mean nothing. Against assaults into Western Europe by Warsaw Pact forces not using nuclear weapons—a conventional attack—a NATO nuclear response is not as likely, both on the basis of this rule of provocation and according to the NATO strategy itself. What the strategy says is that conventional attacks that can be managed by conventional defenses will be, and conventional attacks beyond the ability of the conventional defense to stop and repel won't be. In the latter case, nuclear weapons will come into the war. This "flexible" response means that in reacting to large conventional attacks, NATO might choose to use nuclear weapons any time after enemy forces violate the defended border. That is an example of the less clear features of NATO strategy and it is also precisely where the neutron warhead would find its principal role in current strategy.

NATO has tried to build its nuclear deterrent on the proposition that the higher the likelihood the Soviets assign to NATO's use of nuclear weapons against large conventional attack, the less likely the Soviets would choose to attack.³ The word "choose" is important in that context. Some—perhaps the only—conceivable big wars in Europe could be the result of the expansion of much smaller and less important incidents of violence which have precedents in Berlin, Czechoslovakia, and Hungary. Facing this possibility that big war could be unplanned by either side, both alliances have made quiet but clear concessions in strategy to avoid the irony of unintended war. Spokesmen on either side have let it be known that a conventional war "buffer" would be tolerated at least for a short time, as a way to protect interests while political and military authorities try to divine what the other side is up to. Not only are these concessions to be found in doctrinal writings where hints must be subtle to sustain philosophical purity, but they are recognizable also in formal agreements on the prevention of nuclear war and most notably in an agreement to notify one another of impending military exercises which might otherwise look like preparations for war.⁴

But, reasons for the buffer aside, the neutron warhead enters the logic of NATO deterrent strategy by removing, to a large degree, one critical feature bearing on the likelihood of NATO's use of nuclear weapons against conventional attack. This feature is death and injury to civilians by NATO's own hand. Neutron weapons will not remove this "collateral damage" burden from the shoulders of Europeans, but the weapons can make such a dramatic difference in lowering the amount

of it that any Soviet skepticism *on that account* will have no foundation.

“On that account” is stressed because tactical neutron weapons do not necessarily solve other strategic problems. The weapons will not, in my opinion, make a Soviet nuclear response to NATO nuclear actions less likely. They will not, as weapons, make escalation of the war less likely. Response and escalation once the nuclear “threshold” is crossed are more dependent on how the weapons are used than on their size or technical characteristics. If the neutron weapons do a good job of destroying the attacker’s battlefield forces, as they are supposed to do, then the opponent has on that account good reason to retaliate, or even to expand the scope of the nuclear war. But, he would also have good reason to quit the war if he expects negative consequences from his retaliation or expansion.

In those last sentences we can see that neutron weapons cannot by themselves constitute a good NATO deterrent. Deterrence of war and deterrence of expansion of war are the tasks of a total theater force, nuclear and conventional, and cannot be achieved in Europe without these varied resources—varied throughout the force and varied within the class of weapons which are nuclear. NATO as the deterrer needs to be able to tell its potential opponent that a tactical neutron defense is not NATO’s only choice. It will not be compelled to use nuclear weapons when less provocative kinds of force can do the job, and it will not use *only* a tactical neutron defense if the opponent retaliates or escalates with nuclear weapons. No strategy which includes a limited, battlefield use of nuclear weapons to stun and stop advancing forces can be successful in terminating a war if it lacks the capacity to do even greater damage to the attacker. In trying to terminate limited wars, the harm already done may be less important than the harm that can yet be done. And, quite logically, this capacity for “follow on” actions must be a threat believable to the opponent, something less than immediate strategic strikes in this time of strategic equality.

TELLER AND SCOVILLE REVISITED

On points of strategy such as these, the gulf between Teller and Scoville is extremely wide. Scoville concluded his piece by saying:

Our security depends on strengthening, not breaking, the barrier between nuclear and conventional conflicts. The neutron bomb should be put back on the shelf and we should instead concentrate on developing ways of deterring aggression by conventional means.⁵

Surely, he does not mean that all possible aggressions, even nuclear ones, should be deterred by conventional means. He means conventional aggressions and, I suggest, he means to continue the emphasis NATO has placed, if reluctantly, on its conventional forces. More pointedly, he means that NATO should retain its current strategy and continue to strengthen the conventional forces component of that strategy.

Why this strategic reservation by Scoville and possibly by other strategists of like mind who have yet to be heard? After all, why should the neutron warhead be incompatible with continuing to strengthen the conventional force? It is explained, I believe, by looking at Teller's concluding remarks:

The policy I propose would stipulate that use of nuclear weapons of any kind by the aggressor on invaded territory should indeed remove all restrictions on our part on the application of military methods. . . . A firm and public determination that the use of Russian nuclear explosives in Western Europe would be answered with nuclear retaliation against Russia is in all probability the only basic condition on which the ultimate coherence of the Western Alliance can be grounded.⁶

For the few who have not heard of it, or who have forgotten, Teller seems to be advocating the old tripwire strategy for the defense of Europe. "We should be prepared for the immediate use of the appropriate measures to repel massive enemy forces. . . ." he says, adding, "The optimal weapon to implement this purpose will be an advanced version of the neutron bomb."⁷ To his credit, he makes a persuasive case for the ability of neutron weapons to *be* the tripwire while not only reducing the damage to Western Europe below that which would be caused by today's dirtier weapons, but even below that which would result from intense uses of conventional weapons. In other words, the neutron weapon makes the tripwire itself quite "credible" because it will occur only on Western territory and will not do much harm to civilians. Unfortunately, the question remains open about how to make what is "tripped" credible. It is at least ironic that a weapon of the seventies to replace weapons of the fifties is used as the premise to return NATO to a strategy of the fifties.

Were I forced to choose between the two views of strategy, it is obvious that I would prefer Scoville's, not for the reasons he advanced, but for the reasons I advanced earlier. These reasons have as their core the connectedness of the varied elements of NATO's conventional and nuclear forces. They connote that the nuclear deterrent works because

of the assumed existence and potential use of military force *other than* the one which catches our fancy of the moment—neutron weapons. These other forces are the longer range, dirtier, bigger theater nuclear weapons; French, British, and American strategic nuclear forces; and conventional forces. Clearly we can admit to the knowledge that a limited, careful, restrained initial NATO nuclear use is not enough, of itself, to frighten off the Soviets. What also deters is the terrible, sloppy, extensive, less restrained nuclear actions that could follow the initial nuclear actions and reactions. The willingness to use all nuclear weapons in one's possession at the outset is irrelevant to deterrence if you are quite willing to use one class of them—the smallest and cleanest. Once past that hurdle, the opponent's own provocative acts tend to assure him that you can, and will, use the other classes if you must.

Success with this strategy—a strategy which is really NATO's present one—means the ability to withhold as well as to apply nuclear force, both to deter war and deter escalation within war. If NATO can deter actions within a war that could not be prevented, then NATO has the ability to bring the fighting to a stop before enormous damage is done by the conventional and nuclear weapons—big and little—of both sides. If we conclude that the availability of neutron warheads for use as tactical nuclear weapons improves our ability to act when we must, to withhold further nuclear action when we can, and to face an opponent with a choice equally as attractive for quitting as for continuing war, then neutron warheads will have earned their place in NATO strategy. My own view is that they clearly can be made to improve these abilities, with the caution that we must remember that they are to contribute to the deterrent strategy, not change it.

This caution is important because it strikes at one of the great myths promoted by some American strategists. This myth is that the only thing standing in the way of a resolute will on the part of European members of NATO to use nuclear weapons is a fear of collateral damage. If a way could be shown our European friends that nuclear weapons could be used with little collateral damage—perhaps even less than with conventional weapons—then perhaps they would not only welcome them but also adopt them as the core of the deterrent strategy. After all, it is also said that our European allies have never truly embraced flexible response with its conventional emphasis anyway, so that clean nuclear weapons are “doubly blessed.”

But it is quite one thing—and a good thing at that—to show the allies

how with each neutron weapon the collateral damage could be so much less than with each dirty nuclear weapon; it is quite another thing to show them that the total collateral damage from war would be so much less than before neutron weapons. We should make no mistake about it: tactical neutron weapons derive their deterrent value from the imputed expectation by the opponent that the weapons will be used in a war he starts. But the new weapons would not give Europeans any guarantee that a war won't still be very dirty and very expensive in civilian lives as the consequence of both sides using all classes of their weapons.

Teller was logically correct in suggesting a tripwire as the strategy to be deduced from the promises of the neutron weapon's credibility and cleanness. He is correct because the only way the Europeans can avoid collateral damage is to have no war at all—to place all their bets on the chance that deterrence will never fail. Our European friends know very well that if a neutron tripwire ever really had to be used, the damage from war would not be confined to the Soviet Union and the United States. Now, this does not mean that this is not an appealing strategy to Europeans—how better to deter than to “guarantee” that the superpowers cannot escape the destruction of nuclear war? What it does mean is that the saving of civilian lives during the “use” of tactical neutron weapons is a fiction. That is not what the neutron weapon is for at all in a tripwire strategy. Its purpose is rather to bolster the belief that deterrence can never fail. The assumption that it might fail and that the neutron weapons would be used is gratuitous. The mythologists have never seemed to understand this, or, if they have, they have not been honest with us.

Our European friends should see as well as we should see that deterrence in Europe is still tied to the connectedness of innovations and current capabilities and strategy. Otherwise, the innovations have little meaning. Using neutron weapons as the premise for a complete change in strategy would be instead to use them as a premise for an antistrategy. An antistrategy is allowing an object to control you—to control the ends of social effort—rather than to have that object serve your ends. Neither Europeans nor Americans want some device incapable of thought or emotion to rule their destinies. They do not want a weapon and a strategy which promise that should *any* military aggression threaten NATO Europe, nuclear war is only a day away. There is simply no way to relieve Europeans of the problem of civilian casualties in war except to improve the overall deterrent, not only the deterrent to massive conventional attack. It is on this basis that we

should present to our allies, and our allies should evaluate, the tactical neutron weapon.

ENDNOTES

1. Any distinction between the designations "enhanced radiation" and "neutron" is presumably understood only by nuclear weapons scientists. I will use the terminology of public debate—neutron—to describe these "clean" nuclear weapons, which destroy primarily through neutron emission while producing less damage from heat and blast effects than more "conventional" and "dirty" weapons.

2. Herbert Scoville, Jr., and Edward Teller, "A New Weapon to Think (and Worry) About," *The New York Times*, July 12, 1977, p. 29.

3. The United States has not been as enthusiastic about the importance of this point of strategy as has its European allies, not because it is wrong as such, but because we have wanted greater emphasis placed on conventional defenses, which are even more "credible" to an enemy than any kind of nuclear weapon.

4. The nations participating in the Conference on Security and Cooperation in Europe "accepted nonbinding provisions for the announcement and observation of large military maneuvers. Under these provisions, the participants agreed to give notification at least 21 days in advance of any military maneuvers involving more than 25,000 troops which took place in Europe or within 250 kilometers of the Soviet Union's land and sea frontiers with Europe. In addition, they agreed to invite observers to one another's military maneuvers, promote exchanges among military personnel, and voluntarily give notice of major military movements within Europe." US Arms Control and Disarmament Agency, *Arms Control Report*, July 1976, p. 39.

5. Scoville and Teller, p. 29.

6. *Ibid.*

7. *Ibid.*

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20. ABSTRACT (Continue on reverse side if necessary and identify by block number) The neutron or enhanced radiation weapon can be seen as an improvement to NATO capabilities to carry out its strategy or a technological premise for changing that strategy. Proponents of change have ignored the connectedness of all elements of theater nuclear and conventional forces for deterrence, intra-war deterrence, and defense. The neutron weapon can be valuable for improving some components of strategy but cannot solve all of NATO's strategic problems.		

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